Financial Stability Report

April 2025

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

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.

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Contents

Note: This report generally reflects information that was available as of April 11, 2025.

Purpose and Framework

This report presents the Federal Reserve Board's current assessment of the stability of the U.S. financial system. By publishing this report, the Board intends to promote public understanding by increasing transparency around, and creating accountability for, the Federal Reserve's views on this topic. Financial stability supports the objectives assigned to the Federal Reserve, including full employment and stable prices, a safe and sound banking system, and an efficient payments system.

A financial system is considered stable when banks, other lenders, and financial markets are able to provide households, communities, and businesses with the financing they need to invest, grow, and participate in a well-functioning economy—and can do so even when hit by adverse events, or "shocks."

Consistent with this view of financial stability, the Federal Reserve Board's monitoring framework distinguishes between shocks to, and vulnerabilities of, the financial system. Shocks are inherently difficult to predict, while vulnerabilities, which are the aspects of the financial system that would exacerbate stress, can be monitored as they build up or recede over time. As a result, the framework focuses primarily on assessing vulnerabilities, with an emphasis on four broad categories and how those categories might interact to amplify stress in the financial system.[1]

More on the Federal Reserve's Monitoring Efforts

See the Financial Stability section of the Federal Reserve Board's website for more information on how the Federal Reserve monitors the stability of the U.S. and world financial systems.

The website includes:

- a more detailed look at our monitoring framework for assessing risk in each category;
- more data and research on related topics;
- information on how we coordinate, cooperate, and otherwise take action on financial system issues; and
- public education resources describing the importance of our efforts.

1. **Valuation pressures** arise when asset prices are high relative to economic fundamentals or historical norms. These developments are often driven by an increased willingness of investors to take on risk. As such, elevated valuation pressures may increase the possibility of outsized drops in asset prices (see Section 1, Asset Valuations).

[1] For a review of the research literature in this area, see Tobias Adrian, Daniel Covitz, and Nellie Liang (2015), "Financial Stability Monitoring," *Annual Review of Financial Economics*, vol. 7 (December), pp. 357–95.

2. Excessive **borrowing by businesses and households** exposes the borrowers to distress if their incomes decline or the assets they own fall in value. In these cases, businesses and households with high debt burdens may need to cut back spending, affecting economic activity and causing losses for investors (see Section 2, Borrowing by Businesses and Households).

3. Excessive **leverage within the financial sector** increases the risk that financial institutions will not have the ability to absorb losses without disruptions to their normal business operations when hit by adverse shocks. In those situations, institutions will be forced to cut back lending, sell their assets, or even shut down. Such responses can impair credit access for households and businesses, further weakening economic activity (see Section 3, Leverage in the Financial Sector).

4. **Funding risks** expose the financial system to the possibility that investors will rapidly withdraw their funds from a particular institution or sector, creating strains across markets or institutions. Many financial institutions raise funds from the public with a commitment to return their investors' money on short notice, but those institutions then invest much of those funds in assets that are hard to sell quickly or have a long maturity. This liquidity and maturity transformation can create an incentive for investors to withdraw funds quickly in adverse situations. Facing such withdrawals, financial institutions may need to sell assets quickly at "fire sale" prices, thereby incurring losses and potentially becoming insolvent, as well as causing additional price declines that can create stress across markets and at other institutions (see Section 4, Funding Risks).

The Federal Reserve's monitoring framework also tracks domestic and international developments to identify near-term risks—that is, plausible adverse developments or shocks that could stress the U.S. financial system. The analysis of these risks focuses on assessing how such potential shocks may spread through the U.S. financial system, given our current assessment of vulnerabilities.

While this framework provides a systematic way to assess financial stability, some potential risks may be novel or difficult to quantify and therefore are not captured by the current approach. Given these complications, we rely on ongoing research by the Federal Reserve staff, academics, and other experts to improve our measurement of existing vulnerabilities and to keep pace with changes in the financial system that could create new forms of vulnerabilities or add to existing ones.

Federal Reserve actions to promote the resilience of the financial system

The assessment of financial vulnerabilities informs Federal Reserve actions to promote the resilience of the financial system. The Federal Reserve works with other domestic agencies directly and through the Financial Stability Oversight Council to monitor risks to financial stability and to undertake supervisory and regulatory efforts to mitigate the risks and consequences of financial instability.

Actions taken by the Federal Reserve to promote the resilience of the financial system include its supervision and regulation of financial institutions. In the aftermath of the 2007–09 financial crisis, these actions have included requirements for more and higher-quality capital, an innovative stress-testing regime, and new liquidity regulations applied to the largest banks in the United States. In addition, the Federal Reserve's assessment of financial vulnerabilities informs decisions regarding the countercyclical capital buffer (CCyB). The CCyB is designed to increase the resilience of large banking organizations when there is an elevated risk of above-normal losses and to promote a more sustainable supply of credit over the economic cycle.

Revisions

On September 19, 2025, the top-right label in figure 1.19 was corrected to show that the data are indexed to January 2010 = 100.

Overview

This report reviews vulnerabilities affecting the stability of the U.S. financial system related to valuation pressures, borrowing by businesses and households, financial-sector leverage, and funding risks. It also highlights several near-term risks that, if realized, could interact with these vulnerabilities. This report reflects market conditions and data as of April 11, 2025.

Overview of financial system vulnerabilities

Asset valuations

- Despite declines in asset prices amid significant market volatility, valuations remain high across a range of markets including equities and residential real estate.
- Liquidity in Treasury and equity markets was low and worsened further in April, though market functioning remained orderly.
- Transcription-based prices for commercial properties have been flat recently, but a sizable number of borrowers will need to refinance maturing loans in the next few years.

Borrowing by businesses and households

- Vulnerabilities from business and household debt remained moderate, as debt levels adjusted for inflation were stable.
- The ability of businesses to service their debt generally improved even as leverage remained elevated.
- Household debt was at modest levels relative to gross domestic product and mostly owed by borrowers with strong credit histories.
- Auto and credit card loan delinquencies remained above pre-pandemic levels.

Leverage in the financial sector

- The banking system remained sound and resilient, with regulatory capital ratios approaching or exceeding historical highs.
- Fair value losses on fixed-rate assets were still sizable for some banks and continued to be sensitive to fluctuations in interest rates.
- Broker-dealer leverage has been low, though in April heightened client demand has reportedly increased balance sheet pressures for some dealers.
- Hedge fund leverage was at or near its highest level since 2013, though it likely decreased as hedge funds unwound some positions in early April.

Funding risks

- Funding markets were resilient through early April's market volatility.
- Most domestic banks maintained high levels of liquid assets and stable funding, and their reliance on uninsured deposits remained well below the elevated levels seen in 2022 and early 2023.
- Vulnerabilities in prime money market funds have declined somewhat in the past year as reforms for these funds went fully into effect, but other cash-management vehicles with structural vulnerabilities continued to grow.
- Nontraditional liabilities at life insurers are at the upper end of their historical distribution.

A summary of the developments in the four broad categories of vulnerabilities since the November 2024 *Financial Stability Report* (FSR) is as follows:

1. **Asset valuations.** Asset valuations are notable. Prior to early April's market volatility, the ratio of equity prices to earnings had remained near the high end of its historical range and an estimate of the equity premium—the compensation for risk in equity markets—remained well below average. Even after recent declines in equity prices, prices remained high relative to analysts' earnings forecasts, which adjust more slowly than market prices. Treasury yields across maturities remained at the higher end of their levels since 2008. Spreads between yields on corporate bonds and those on comparable-maturity Treasury securities were at moderate levels compared to their history, despite recent increases. Liquidity across many financial markets remained low through the end of March and deteriorated further in April, but market functioning was generally orderly. In U.S. property markets, home prices remained elevated, and the ratio of house prices to rents continued to be near the highest levels on record. Transaction-based price indexes (adjusted for inflation) for commercial real estate (CRE) properties showed some signs of stabilization, though vulnerabilities due to upcoming refinancing needs remain (see Section 1, Asset Valuations).

2. **Borrowing by businesses and households.** Vulnerabilities from business and household debt remained moderate. Total debt of businesses and households as a fraction of gross domestic product (GDP) continued to trend down to its lowest level in the past two decades. Indicators of business leverage remained elevated relative to historical levels, and private credit arrangements continued to grow. Nonetheless, measures of the ability of businesses to service their debt have been stable and within typical ranges, though a sustained decline in earnings could put some vulnerable business borrowers at risk. Household debt relative to GDP is subdued relative to recent history. Most household debt is owed by borrowers with strong credit histories who are well positioned to meet their payment obligations given fixed-rate mortgage debt carrying low interest rates and debt service ratios slightly below pre-pandemic levels. That said, delinquencies on credit cards and auto loans are above pre-pandemic levels, particularly for borrowers with non-prime credit scores, a large share of whom have low to moderate incomes (see Section 2, Borrowing by Businesses and Households).

3. **Leverage in the financial sector.** Vulnerabilities associated with financial leverage remained notable. The banking sector remained sound and resilient overall, and most banks continued to report capital levels well above regulatory requirements. Fair value losses on fixed-rate assets were still sizable for some banks and continued to be sensitive to changes in interest rates. Further, some banks, insurers, and securitization vehicles continued to have concentrated exposures to CRE. Bank credit commitments to nonbank financial institutions (NBFIs) continued to increase. (Improvements to the methodology for measuring these commitments are discussed in the box "Changes in the Classification of Nonbank Financial Institutions.") Indicators suggested that hedge fund leverage was at or near the highest level in the past decade and concentrated in larger hedge funds. More recently, a number of leveraged

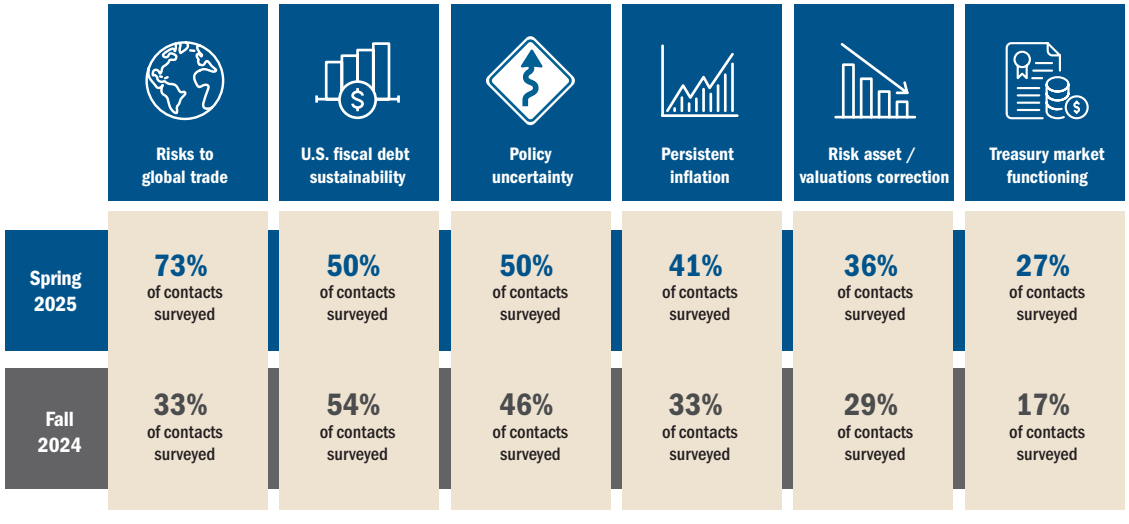
investors have unwound positions amid heightened volatility or in the course of meeting margin calls, including hedge funds that participate in relative value trades. Broker-dealer leverage has been near historical lows. Dealer intermediation in Treasury markets hit record highs in the first quarter of 2025, and heightened client demand in early April reportedly increased balance sheet pressures for some dealers (see Section 3, Leverage in the Financial Sector).

4. **Funding risks.** Funding risks have declined over the course of the past year to a moderate level—broadly in line with historical norms. Aggregate runnable money-like liabilities remained near their historical median and represent a persistent vulnerability (discussed in the box "Runnables: An Indicator of Aggregate Run-Related Vulnerabilities in the Economy"). Banks have significantly reduced their reliance on uninsured deposits from peaks in 2022 and early 2023. Vulnerabilities in prime money market funds (MMFs) have declined over the past year. However, other cash-management vehicles with similar vulnerabilities continued to grow. Additionally, bond and loan funds that hold assets that can become illiquid in times of stress and are therefore susceptible to large redemptions experienced somewhat elevated outflows in early April (see Section 4, Funding Risks).

This report also discusses potential near-term risks, based in part on the most frequently cited risks to U.S. financial stability as gathered from outreach to a wide range of researchers, academics, and market contacts conducted from February to early April (discussed in the box "Survey of Salient Risks to Financial Stability"). The most frequently cited topics in the responses, the vast majority of which were received before April 2, were risks to global trade, policy uncertainty, and U.S. fiscal debt sustainability. A number of respondents also cited persistent inflation and corrections in asset markets as salient risks.

Survey of salient risks to the financial system

Survey respondents cited several risks to the U.S. financial system and the broader global economy. For more information, see the box "Survey of Salient Risks to Financial Stability."



1 | Asset Valuations

Asset valuations were notable despite price declines in some markets in early April

In April, announcements about changes to U.S. trade policy sparked a wave of price declines and volatility across multiple markets as market participants reported heightened uncertainty about the breadth and duration of possible changes to global trade patterns, perceptions of an increased risk of a slowdown in economic activity, and concerns about higher inflation. Nonetheless, prices remained high relative to fundamentals across a range of markets.

Treasury market liquidity continued to be low by historical standards heading into April. In early April, yields on Treasury securities exhibited considerable volatility, which contributed to a deterioration in market liquidity. Nonetheless, amid this increase in volatility, trading remained orderly, and markets continued to function without serious disruption. Treasury yields have remained above their average levels since 2008.

Equity markets have been turbulent since the previous report. After significant gains in late 2024 and early 2025, equity market price indexes experienced notable swings beginning in early March, with the largest moves occurring after April 2. On net through April 11, equity prices fell more than 6 percent from the previous FSR. Despite this decline, equity prices remained high relative to forecasted earnings, which adjust more slowly than market prices. Corporate bond spreads have widened significantly but have stayed at or below their historical medians, while corporate bond issuance slowed considerably, consistent with periods of elevated volatility.

CRE markets showed some signs of stabilizing prices and fundamentals, although the potential for distressed commercial property sales remains if CRE borrowers who need to refinance their mortgages are unable to do so. In residential real estate markets, prices relative to fundamentals continued to be well above their historical averages.

Table 1.1 shows the sizes of the asset markets discussed in this section. The two largest asset markets are those for equities and residential real estate, which are substantially larger than the next two markets, Treasury securities and CRE. The table also shows recent and historical growth rates for each asset class, because assets experiencing strong growth can be a sign of high risk appetite in that sector.

Treasury yields remained high amid heightened volatility

Treasury yields across maturities continued to be well above their average levels over the past 15 years (figure 1.1). Since the November report, the Treasury yield curve has steepened as

Table 1.1. Size of selected asset markets

Item	Outstanding (billions of dollars)	Growth, 2023:Q4–2024:Q4 (percent)	Average annual growth, 1997–2024:Q4 (percent)
Equities	70,332	22.9	9.7
Residential real estate	59,656	5.7	6.2
Treasury securities	28,139	7.3	8.2
Commercial real estate	21,676	−2.4	6.0
Investment-grade corporate bonds	8,038	6.7	8.0
Farmland	3,524	5.5	5.7
High-yield and unrated corporate bonds	1,682	3.0	6.1
Leveraged loans[1]	1,418	1.5	12.8
Price growth (real)			
Commercial real estate[2]		−2.9	2.8
Residential real estate[3]		.4	2.6

Note: The data extend through 2024:Q4. Outstanding amounts are in nominal terms. Growth rates are nominal and are measured from Q4 of the year immediately preceding the period through Q4 of the final year of the period. Equities, real estate, and farmland are at nominal market value; bonds and loans are at nominal book value.

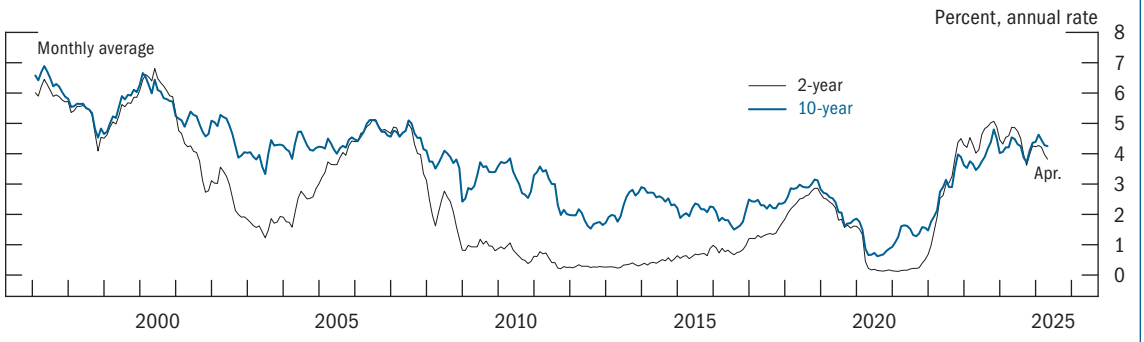
[1] The amount outstanding shows institutional leveraged loans and generally excludes loan commitments held by banks. For example, lines of credit are generally excluded from this measure. Average annual growth of leveraged loans is from 2000 to 2024:Q4, as this market was fairly small before then.

[2] One-year growth of commercial real estate prices is from December 2023 to December 2024, and average annual growth is from December 1999 to December 2024. Both growth rates are calculated from equal-weighted nominal prices deflated using the consumer price index (CPI).

[3] One-year growth of residential real estate prices is from December 2023 to December 2024, and average annual growth is from December 1998 to December 2024. Nominal prices are deflated using the CPI.

Source: For leveraged loans, PitchBook Data, Leveraged Commentary & Data; for corporate bonds, Mergent, Inc., Fixed Income Securities Database; for farmland, Department of Agriculture; for residential real estate price growth, CoreLogic, Inc.; for commercial real estate price growth, CoStar Group, Inc., CoStar Commercial Repeat Sale Indices; for all other items, Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States."

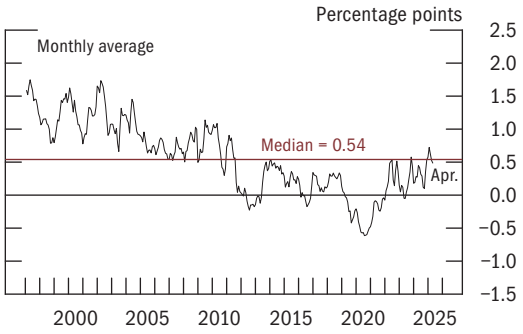
Figure 1.1. Nominal Treasury yields remained high



Source: Federal Reserve Board, Statistical Release H.15, "Selected Interest Rates."

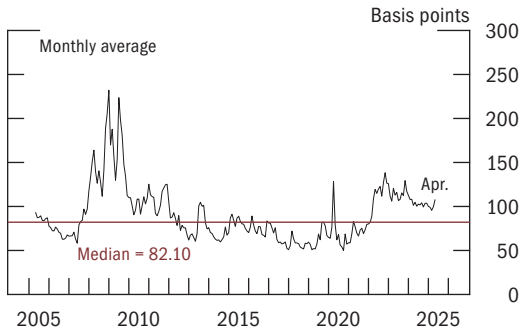
yields on shorter-maturity securities fell. A model-based estimate of the nominal Treasury term premium—a measure of the compensation that investors require to hold longer-term Treasury securities rather than shorter-term ones—fell a bit and remained near the top of its range since 2010, though also near its longer-term historical median (figure 1.2). Moves in Treasury yields were sizable in early April. Unlike previous flight-to-safety episodes, Treasury prices fell alongside steep declines in equity prices amid heightened uncertainty. Interest rate volatility implied by interest rate swaps was elevated by historical standards and increased further in early April (figure 1.3).

Figure 1.2. An estimate of the nominal Treasury term premium was near its historical median



Source: Department of the Treasury; Wolters Kluwer, Blue Chip Financial Forecasts; Federal Reserve Bank of New York; Federal Reserve Board staff estimates.

Figure 1.3. Interest rate volatility remained well above its median since 2005



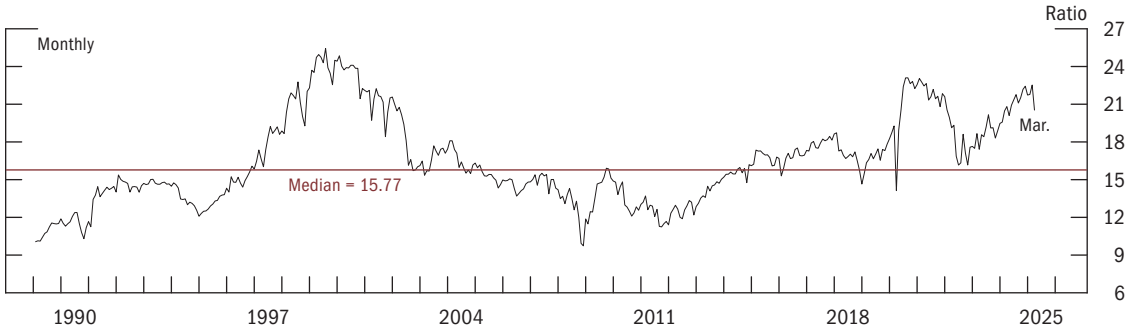
Source: For data through July 13, 2022, Barclays and S&P Global; for data from July 14, 2022, onward, ICAP, Swaptions and Interest Rate Caps and Floors Data.

Equity markets declined, on net, amid a large increase in volatility

Measures of equity valuations were stretched by historical standards through March. The P/E ratio, defined as the ratio of equity prices to expected 12-month earnings, remained well above its historical median (figure 1.4). The difference between the forward P/E ratio and the real 10-year Treasury yield—a measure of the additional return that investors require for holding stocks relative to risk-free bonds (the equity premium)—remained well below its historical median (figure 1.5).[2] Equity prices had experienced notable swings in March before declining substantially in early April, with various indexes concluding the week of April 7 somewhat below their values as of the November report. Option-implied equity market volatility rose dramatically and reached levels not seen since March 2020 (figure 1.6, black line). These developments suggest that investors demanded increased compensation for holding stocks. Despite the recent decline, prices remained high relative to analysts' earnings forecast, which update more slowly than market prices.

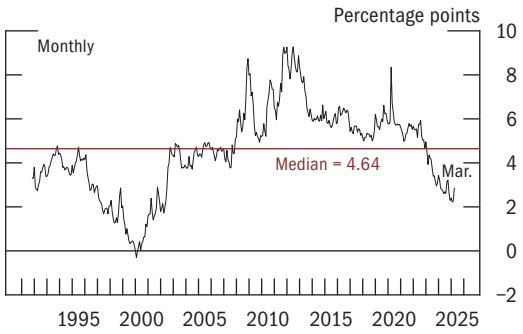
[2] This estimate is constructed based on expected corporate earnings for 12 months ahead.

Figure 1.4. Before the April volatility, the price-to-earnings ratio of S&P 500 firms was close to the upper end of its historical range



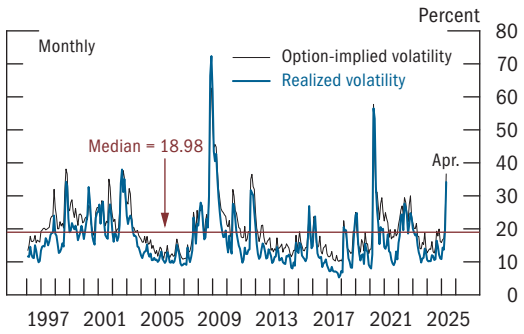
Source: LSEG, Institutional Brokers' Estimate System, North American Summary & Detail Estimates, Level 2, Current & History Data, Adjusted and Unadjusted, https://www.lseg.com/en/data-analytics/financial-data/company-data/ibes-estimates.

Figure 1.5. As of March, an estimate of the equity premium was near a 20-year low



Source: LSEG, Institutional Brokers' Estimate System, North American Summary & Detail Estimates, Level 2, Current & History Data, Adjusted and Unadjusted, https://www.lseg.com/en/data-analytics/financial-data/company-data/ibes-estimates.

Figure 1.6. Volatility in equity markets rose significantly in April

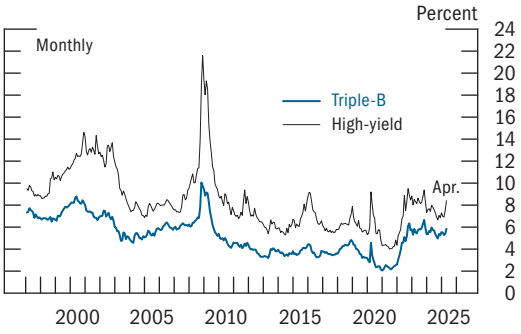


Source: Cboe Volatility Index® (VIX®) accessed via Bloomberg Finance L.P.; Federal Reserve Board staff estimates.

Spreads in corporate debt markets widened notably but remained at moderate levels

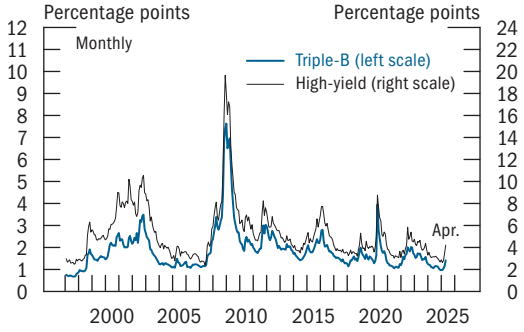
Yields on BBB-rated and high-yield corporate bonds were higher than the levels reported in the November report (figure 1.7). Spreads relative to comparable-maturity Treasury securities widened notably, from very compressed to moderate levels relative to their historical distributions (figure 1.8). The excess bond premium for all nonfinancial corporate bonds—a measure of the risk premium required by bond investors after controlling for bond characteristics and credit quality—continued to be near its long-run average (figure 1.9). Nonprice indicators pointed toward moderating risk appetite, particularly in April. Issuance in the corporate bond market slowed

Figure 1.7. Corporate bond yields rose but remained near their median for the past 30 years



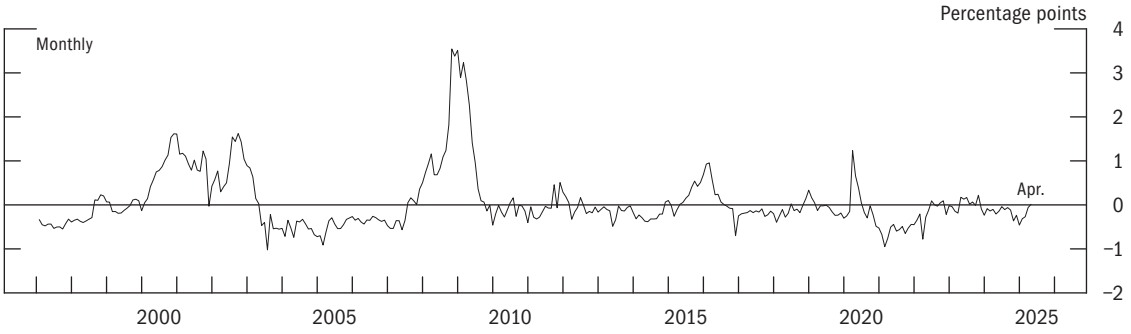
Source: ICE Data Indices, LLC, used with permission.

Figure 1.8. Corporate bond spreads increased to moderate levels



Source: ICE Data Indices, LLC, used with permission.

Figure 1.9. The excess bond premium was near its long-run average

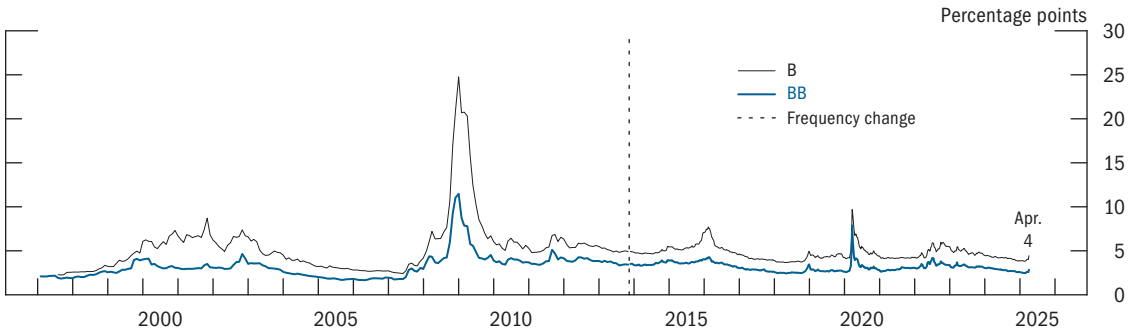


Source: Federal Reserve Board staff calculations based on Lehman Brothers Fixed Income Database (Warga); Intercontinental Exchange, Inc., ICE Data Services; Center for Research in Security Prices, CRSP/Compustat Merged Database, Wharton Research Data Services; S&P Global, Compustat.

significantly, consistent with previous episodes of elevated market volatility. In the second half of 2024, the share of deep junk corporate bond issuance—the fraction of total non-investment-grade issuance accounted for by bonds rated B- or lower—declined from already low levels. Market-based forecasts of one-year-ahead default probabilities of nonfinancial firms (a forward-looking indicator of credit quality) rose somewhat to elevated levels by historical standards.

Since the last report, the average spread on leveraged loans in the secondary market increased to around the 40th percentile of its historical distribution since 2009 (figure 1.10). Leveraged loan issuance also slowed substantially. Though other measures generally reflect moderate vulnerabilities, the year-ahead expected default rate for leveraged loan borrowers rose sharply to the 90th percentile of its historical distribution since 2009, consistent with increased market volatility.

Figure 1.10. Spreads on leveraged loans stayed moderately below their average over the past decade



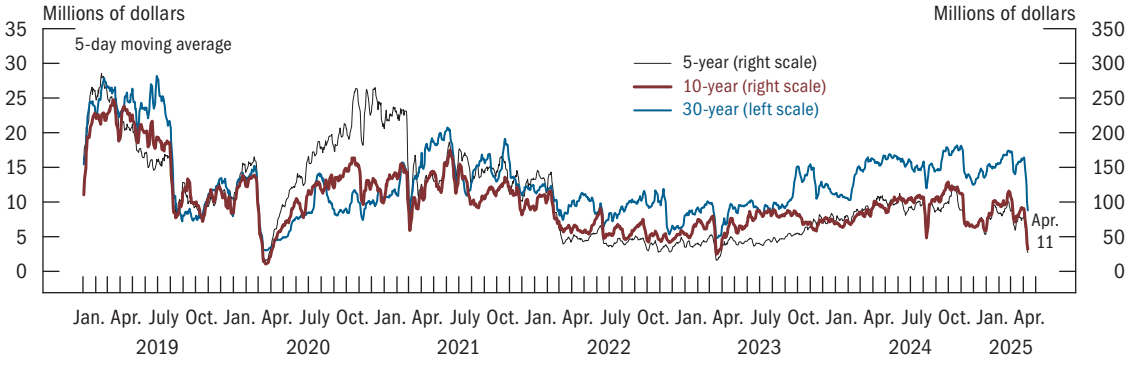
Source: PitchBook Data, Leveraged Commentary & Data.

Market liquidity has been low by historical standards and was further strained in April, although markets continued to function

Market liquidity refers to the ease of buying and selling an asset. Low liquidity can amplify the volatility of asset prices and result in larger price moves in response to shocks. Similarly, increased volatility can dampen liquidity because liquidity providers may become more cautious in providing quotes. In extreme cases, low liquidity can threaten continued market functioning, leading to a situation in which participants are unable to trade without incurring a significant cost.

Treasury market liquidity is particularly important because of the key role these securities play in the financial system. Before April, various measures of Treasury market liquidity, including two different measures of market depth in the most liquid on-the-run segment, indicated that liquidity remained low by historical standards (figures 1.11 and 1.12). In April, measures of market liquidity declined further amid a notable rise in trading volumes and volatility, but Treasury markets continued to function without signs of the severe strains that have emerged in some past stress episodes.

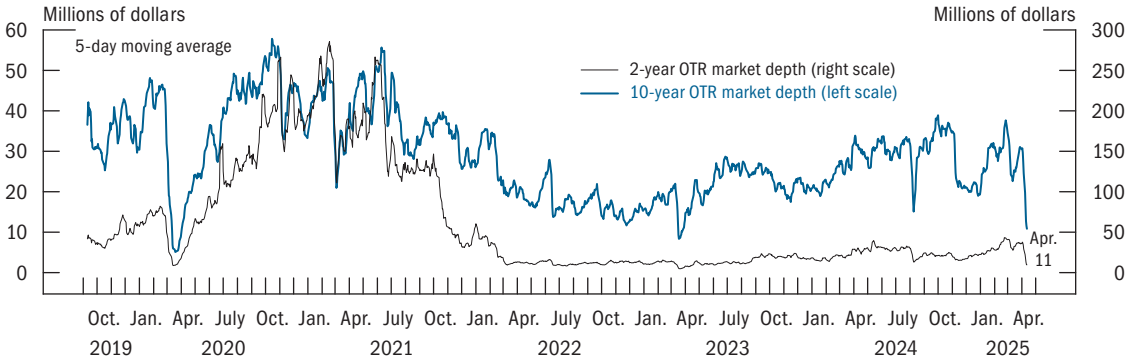
Figure 1.11. Treasury market depth fell significantly in April from already low levels



Source: Inter Dealer Broker Community.

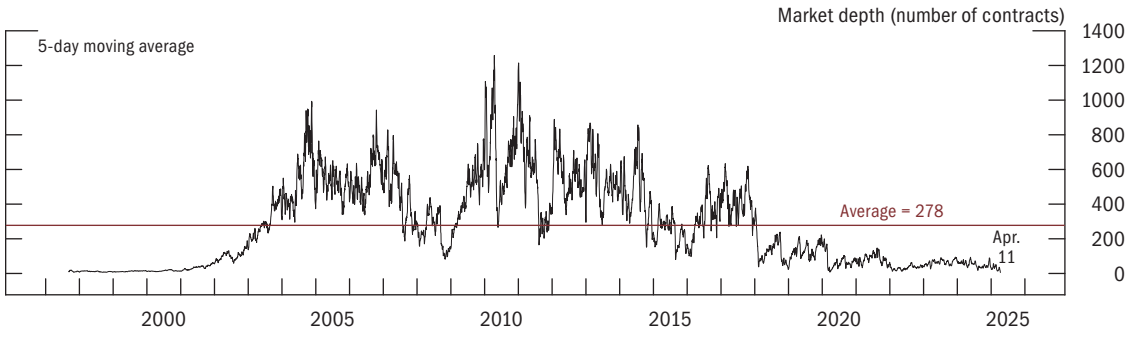
Liquidity in equity markets stayed well below average, and worsened somewhat amid a large increase in volatility (figure 1.13). Through March, liquidity in corporate bond markets was in line with the average level observed in recent years but deteriorated with the higher volatility in early April.

Figure 1.12. On-the-run Treasury market depth was close to its historical lows



Source: BrokerTec; Federal Reserve Board staff calculations.

Figure 1.13. A measure of liquidity in equity markets stayed well below average

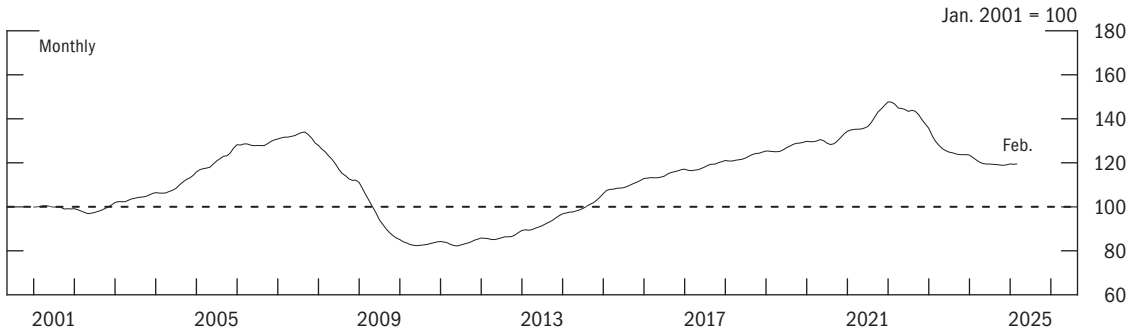


Source: LSEG, DataScope Tick History; Federal Reserve Board staff calculations.

Commercial real estate prices showed some signs of stabilizing

Aggregate CRE prices measured in inflation-adjusted terms were stable since the November report after falling significantly in 2022 and 2023 (figure 1.14). These transaction-based prices may not fully reflect conditions in the CRE market, as many owners wait for more favorable conditions to put properties on the market rather than realizing losses. However, transaction volumes also picked up notably in the fourth quarter of 2024, including in the office sector, which had experienced the largest price declines in 2022 and 2023. Moreover, vacancy rates and rent growth, fundamental determinants of prices, have also shown signs of stabilizing. Capitalization rates at the time of property purchase, which measure the annual income of commercial

Figure 1.14. Commercial real estate prices adjusted for inflation were little changed

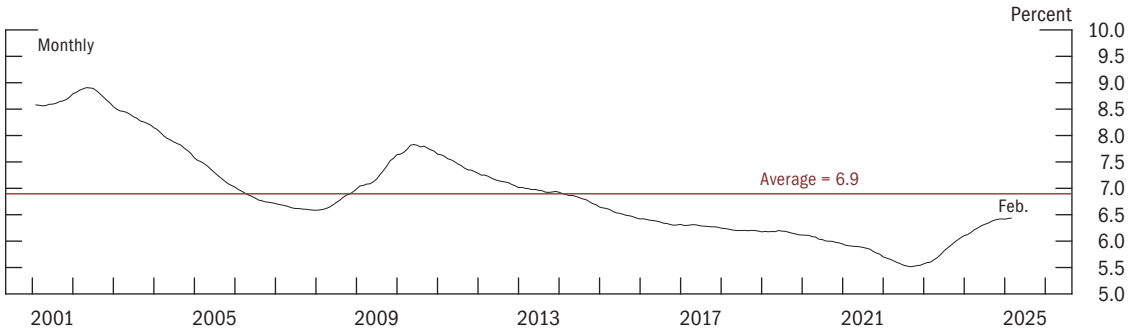


Source: MSCI—Real Capital Analytics; consumer price index, Bureau of Labor Statistics via Haver Analytics.

properties relative to their prices, rose—suggesting prices may be better supported by operating incomes—but remained near the low end of the historical distribution (figure 1.15). In the January 2025 Senior Loan Officer Opinion Survey on Bank Lending Practices (SLOOS), banks reported some further tightening of lending standards for all CRE loan categories in the fourth quarter of 2024 (figure 1.16).[3]

Refinancing risk remained a potential vulnerability for CRE prices. Industry estimates suggest that about 20 percent of all outstanding CRE loans, just shy of $1 trillion, will mature in 2025.[4]

Figure 1.15. Income of commercial properties relative to prices continued to increase but remained below the historical average

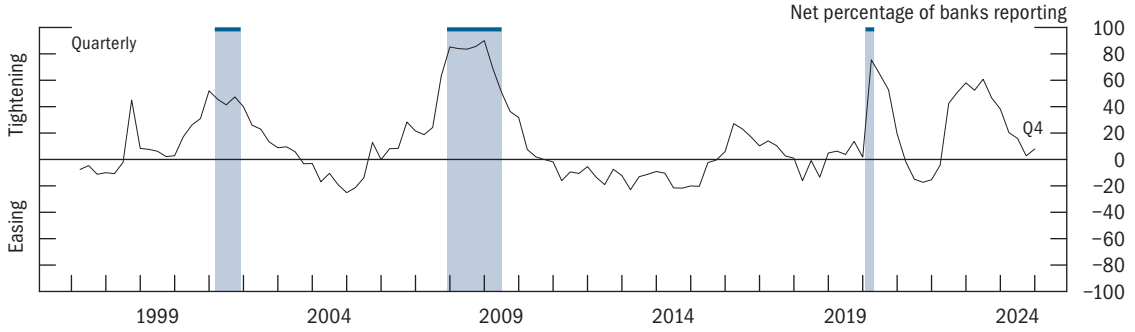


Source: MSCI—Real Capital Analytics; Andrew C. Florance, Norm G. Miller, Ruijue Peng, and Jay Spivey (2010), "Slicing, Dicing, and Scoping the Size of the U.S. Commercial Real Estate Market," *Journal of Real Estate Portfolio Management,* vol. 16 (May–August), pp. 101–18.

[3] The SLOOS results reported are based on banks' responses weighted by each bank's outstanding loans in the respective loan category and might therefore differ from the results reported in the published SLOOS, which are based on banks' unweighted responses.

[4] The Mortgage Bankers Association estimates $957 billion will mature in 2025, and S&P Global estimates $998 billion.

Figure 1.16. Banks reported tightening lending standards for commercial real estate loans in the fourth quarter of 2024



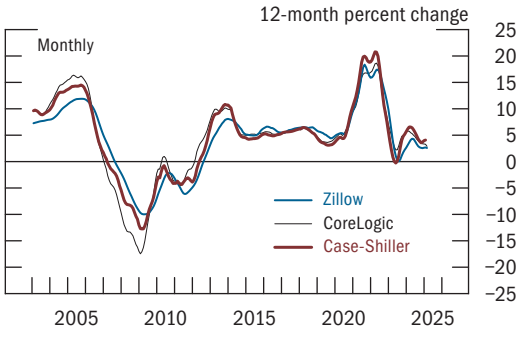
Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices; Federal Reserve Board staff calculations.

In addition, many borrowers have not yet secured refinancing to pay off their maturing debts amid tight lending standards, reduced property valuations, and interest rates above the levels that prevailed when much of the debt was originated. Forced sales in a thin market could cause significant price declines, including for properties that are not distressed. Servicers of loans that have been securitized in commercial mortgage-backed securities (CMBS) granted a large number of office loan modifications in January, and the rate at which office loans in CMBS became delinquent at maturity dropped markedly, though it remained elevated by historical standards.

Residential real estate prices remained high relative to fundamentals

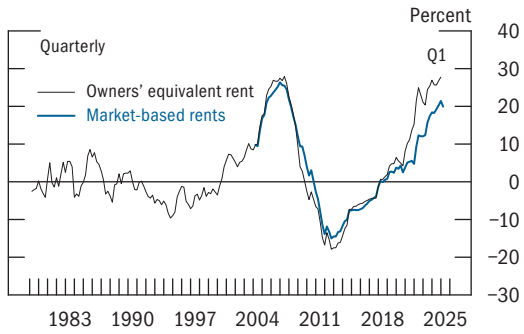
Valuations in the residential real estate sector remained elevated. House prices continued to increase through February of this year (figure 1.17). A model of house price valuation based on prices relative to market rents and the real 10-year Treasury yield suggested that valuations in housing markets were at levels seen in the early to mid-2000s. An alternative measure of valuation pressures (which uses owners' equivalent rent instead of market rents and has a longer history) remained similarly elevated (figure 1.18). The median price-to-rent ratio measured across a wide distribution of geographic areas was little changed since the November report, hovering near its previous peak in the mid-2000s

Figure 1.17. House prices continued to increase in recent months



Source: Zillow, Inc., Real Estate Data; CoreLogic, Inc., Real Estate Data; S&P Case-Shiller Home Price Indices.

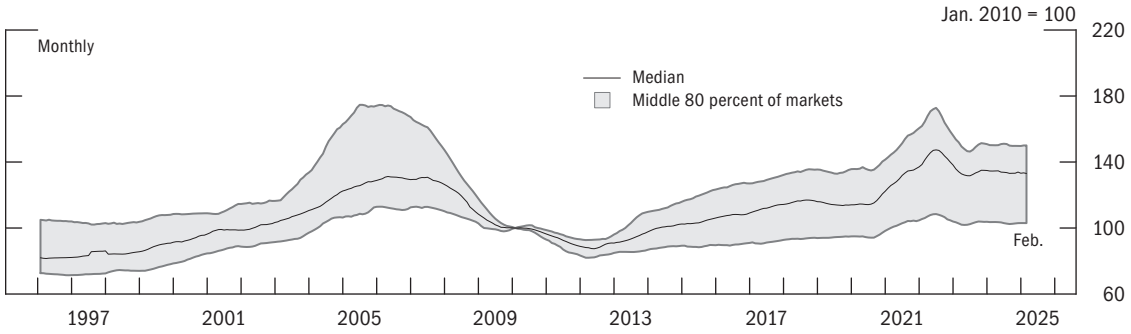
Figure 1.18. Model-based measures of house price valuations climbed to near historically high levels



Source: For house prices, Zillow, Inc., Real Estate Data; for rent data, Bureau of Labor Statistics.

(figure 1.19). However, outstanding mortgage balances relative to both market- and model-implied house values remained far below levels seen in the mid-2000s (see Section 2), suggesting that house price declines are less likely to leave borrowers in the types of low- or negative equity positions that are associated with a higher likelihood of default. Moreover, credit conditions for borrowers remained tighter relative to the early 2000s, suggesting that weak credit standards are not driving house price growth.

Figure 1.19. House price-to-rent ratios were broadly unchanged and remained elevated across geographic areas

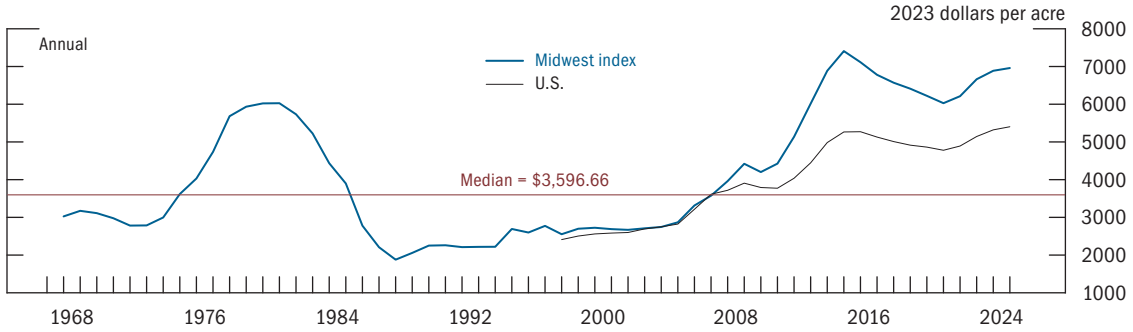


Source: For house prices, Zillow, Inc., Real Estate Data; for rent data, Bureau of Labor Statistics.

Farmland valuations remained high relative to farm income

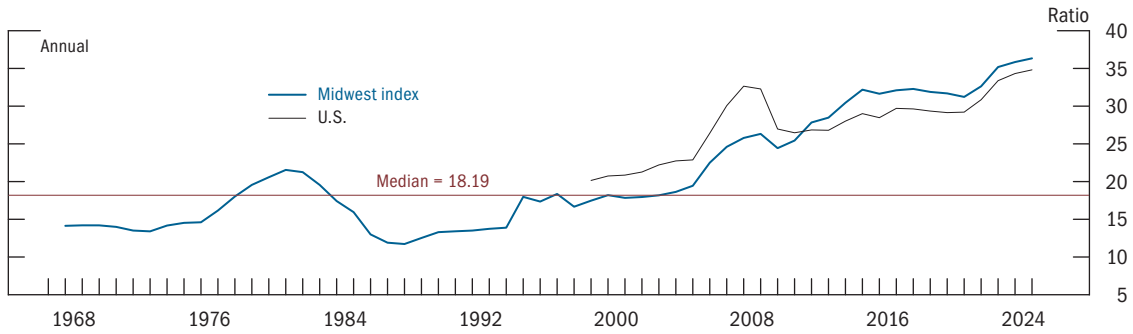
U.S. farmland prices continued to rise in 2024 from historically high levels (figure 1.20), as did price-to-rent ratios (figure 1.21). Prices continued to be sustained in the short run by limited farmland inventory, despite elevated interest rates and higher operating costs. These valuations have been, in part, supported by expected growth in farm income.

Figure 1.20. Inflation-adjusted farmland prices rose further in 2024 from already elevated levels



Source: Department of Agriculture; Federal Reserve Bank of Minneapolis staff calculations.

Figure 1.21. Farmland prices relative to rents increased to historical highs in 2024



Source: Department of Agriculture; Federal Reserve Bank of Minneapolis staff calculations.

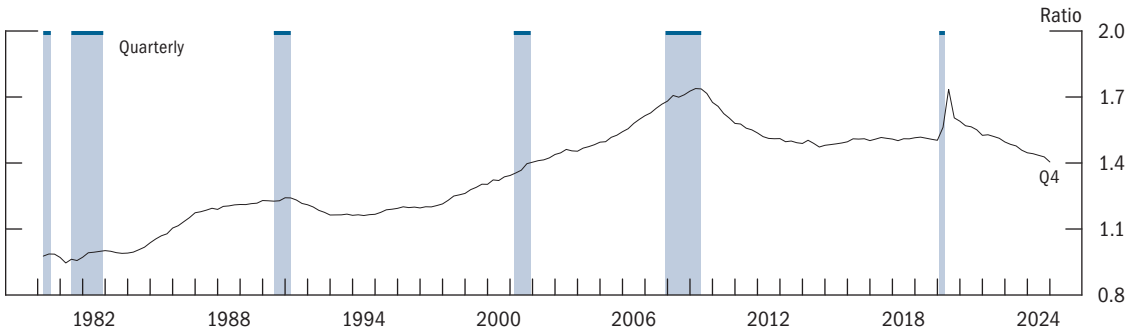
2 | Borrowing by Businesses and Households

Vulnerabilities from business and household debt remained moderate

The balance sheet conditions of businesses and households were stable in the aggregate since the last report. The level of total private nonfinancial-sector debt continued its moderate decline in real terms and relative to GDP, with the debt-to-GDP ratio reaching its lowest level in two decades (figure 2.1). Trends in both the household and business sectors contributed to the decline in the overall debt-to-GDP ratio.

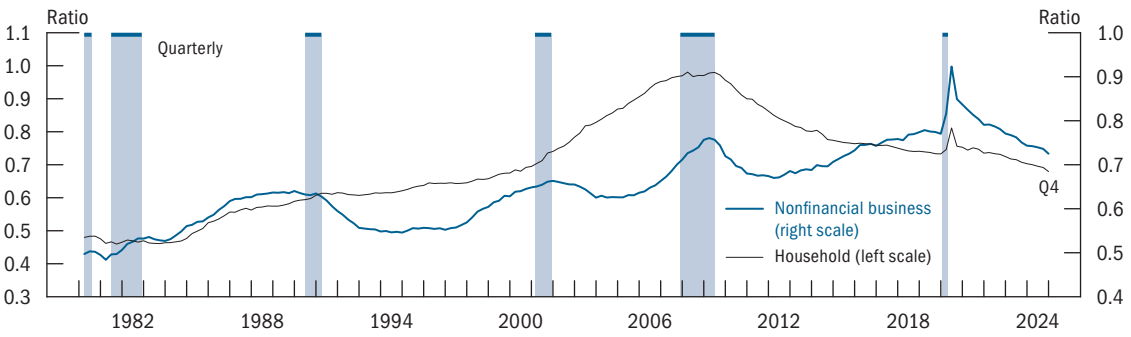
Business debt-to-GDP (figure 2.2, blue line) and gross leverage of publicly traded corporations edged down but remained near the upper part of their respective historical ranges. Interest

Figure 2.1. The total debt of businesses and households relative to GDP declined to its lowest level in 20 years



Source: Federal Reserve Board staff calculations based on Bureau of Economic Analysis, national income and product accounts, and Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States."

Figure 2.2. Both business and household debt-to-GDP ratios continued to fall



Source: Federal Reserve Board staff calculations based on Bureau of Economic Analysis, national income and product accounts, and Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States."

coverage ratios (ICRs)—defined as the ratio of earnings before interest and taxes to interest expense—improved slightly and remained at moderate levels, partly reflecting stable earnings. However, for private firms, some signs of weakness remained, including ICRs that were at the lower end of their historical ranges.

The household debt-to-GDP ratio continued to tick downward and remained near 20-year lows (figure 2.2, black line). Homeowners have solid equity cushions buoyed by high house prices. Many households also continued to benefit from lower interest rate payments associated with mortgages that were originated or refinanced several years ago, resulting in aggregate debt-service-to-income ratios that are below pre-pandemic levels. Delinquency rates for credit cards and auto loans were largely unchanged at levels somewhat above their historical medians, due largely to delinquencies of nonprime borrowers.

These vulnerabilities suggest that a sharp downturn in economic activity would depress business earnings and household incomes and reduce the debt-servicing capacity of smaller, riskier businesses with already low ICRs as well as households that are financially stretched.

For additional context, table 2.1 shows the amounts outstanding and recent historical growth rates of different forms of debt owed by nonfinancial businesses and households as of the fourth quarter of 2024.

Business debt vulnerabilities remained moderate

Nonfinancial business debt adjusted for inflation fell modestly in the second half of 2024 (figure 2.3). Traditional sources of debt, such as corporate bonds and bank-intermediated loans, have continued to grow at a modest pace. Net issuance of risky debt—defined as issuance of speculative-grade bonds, unrated bonds, and leveraged loans minus retirements and repayments—was positive in the fourth quarter of 2024, driven by institutional leveraged loans (figure 2.4). Private credit continued to grow quickly and now constitutes about 9 percent of total outstanding nonfinancial corporate debt.

Record bond issuance at low borrowing costs both before and in the aftermath of the pandemic has led to elevated levels of outstanding borrowings for large public companies, but robust earnings and ample cash buffers have limited debt-servicing vulnerabilities. Gross leverage—the ratio of debt to assets—of all publicly traded nonfinancial firms fell in the fourth quarter of 2024 (figure 2.5) but remained high relative to history, though significantly lower than record highs seen at the onset of the pandemic. Net leverage—the ratio of debt less cash to total assets—also edged downward and remained near the middle of its historical distribution. Nonetheless, the pass-through of higher interest rates into debt-servicing costs continued to be muted by the large share of long-term, fixed-rate liabilities. For public firms in aggregate, the ICR increased since

Table 2.1. Outstanding amounts of nonfinancial business and household credit

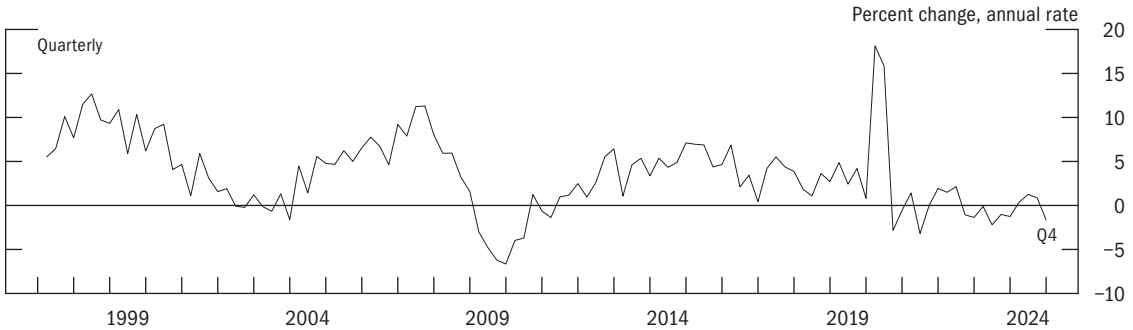
Item	Outstanding (billions of dollars)	Growth, 2023:Q4–2024:Q4 (percent)	Average annual growth, 1997–2024:Q4 (percent)
Total private nonfinancial credit	41,748	2.0	5.3
Total nonfinancial business credit	21,553	2.5	5.8
Corporate business credit	13,741	2.3	5.3
Bonds and commercial paper	8,502	3.2	5.6
Bank lending	1,918	−3.4	3.5
Leveraged loans[1]	1,375	1.2	12.9
Noncorporate business credit	7,812	2.7	6.8
Commercial real estate credit	3,364	2.1	6.1
Total household credit	20,195	1.5	5.0
Mortgages	13,343	2.6	5.0
Consumer credit	4,989	−.7	5.0
Student loans	1,777	2.8	7.1
Auto loans	1,569	.9	5.2
Credit cards	1,317	−.1	3.5
Nominal GDP	29,720	5.0	4.7

Note: The data extend through 2024:Q4. Outstanding amounts are in nominal terms. Growth rates are nominal and are measured from Q4 of the year immediately preceding the period through Q4 of the final year of the period. The table reports the main components of corporate business credit, total household credit, and consumer credit. Other, smaller components are not reported. The commercial real estate (CRE) row shows CRE debt owed by both nonfinancial corporate and noncorporate businesses as defined in Table L.220: Commercial Mortgages in the "Financial Accounts of the United States." Total household-sector credit includes debt owed by other entities, such as nonprofit organizations. GDP is gross domestic product.

[1] Leveraged loans included in this table are an estimate of the leveraged loans that are made to nonfinancial businesses only and do not include the small amount of leveraged loans outstanding for financial businesses. The amount outstanding shows institutional leveraged loans and generally excludes loan commitments held by banks. For example, lines of credit are generally excluded from this measure. Average annual growth of leveraged loans is from 2000 to 2024:Q4, as this market was fairly small before then.

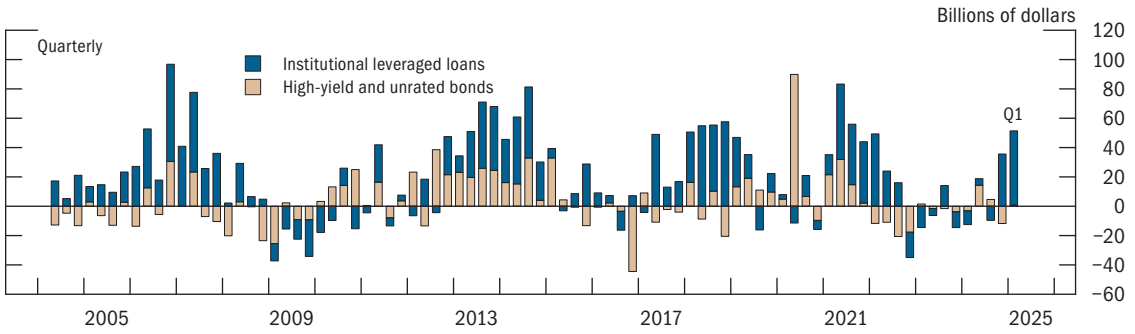
Source: For leveraged loans, PitchBook Data, Leveraged Commentary & Data; for GDP, Bureau of Economic Analysis, national income and product accounts; for all other items, Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States."

Figure 2.3. Business debt adjusted for inflation declined slightly



Source: Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States."

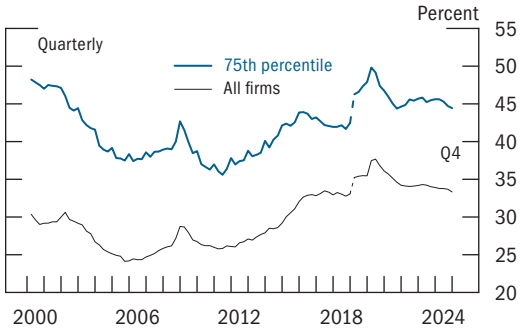
Figure 2.4. Net issuance of risky debt picked up moderately



Source: Mergent, Inc., Fixed Income Securities Database; Pitchbook Data, Leveraged Commentary & Data.

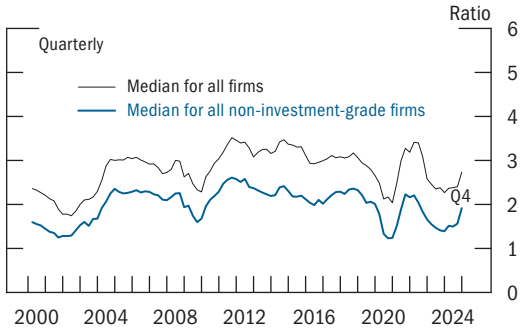
the November report and remained high compared to its historical distribution. The median ICR for non-investment-grade public firms rose above 2 in the fourth quarter of 2024, indicating that firms are generally able to service their debt with sufficient headroom (figure 2.6). However, while the fraction of debt maturing in the next year remained low, approximately 15 percent of investment-grade and 27 percent of high-yield bonds are expected to mature between one and three years from now, indicating that the pass-through of higher interest rates into debt-servicing costs may increase if borrowing costs stay elevated.[5] The 12-month trailing corporate bond default rate continued to be near the median of its historical distribution. Expectations of year-ahead defaults were elevated relative to their history.

Figure 2.5. Gross leverage of large businesses edged down but stayed high by historical standards



Source: Federal Reserve Board staff calculations based on S&P Global, Compustat.

Figure 2.6. Interest coverage ratios, which indicate firms' ability to service their debt, increased moderately

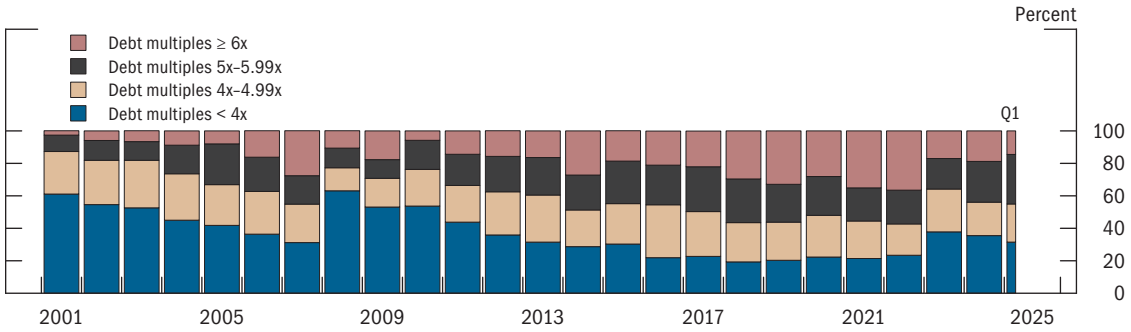


Source: Federal Reserve Board staff calculations based on S&P Global, Compustat.

[5] The fraction of outstanding debt maturing over the next year increased with respect to the previous year but remained low, with 8 percent of investment-grade and 14 percent of high-yield bonds maturing over the coming year.

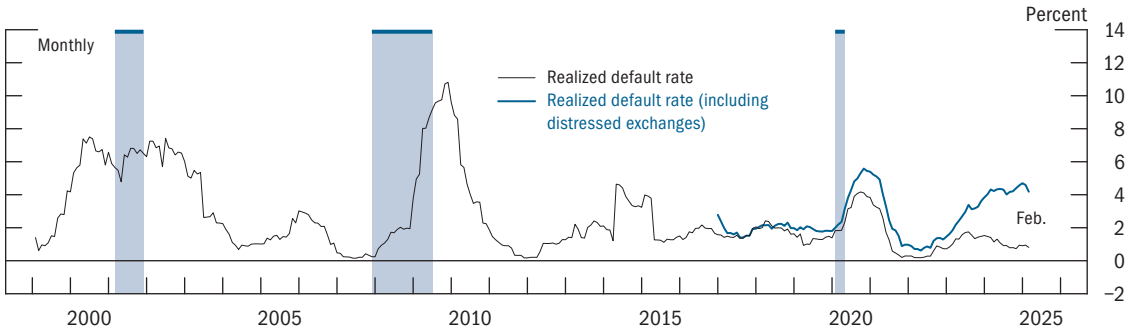
The vulnerabilities of leveraged loans remained above historical norms. For leveraged loan borrowers, gross and net leverage ratios declined modestly but remained above their historical medians since 2016. The share of newly issued loans to large corporations with debt multiples—defined as the ratio of debt to earnings before interest, taxes, depreciation, and amortization—greater than 4 rose slightly in 2024 compared to 2023 but remained near its lowest level in the past decade (figure 2.7). For leveraged loan borrowers, gross and net leverage ratios declined modestly but remained above their historical medians since 2016. The median ICR for leveraged loan borrowers increased slightly but stayed near its historical lows. ICRs of smaller and riskier firms, including leveraged loan borrowers, are sensitive to interest rate changes due to their high leverage, high use of floating-rate loans, and short-term debt maturity structure. The volume-weighted default rate on leveraged loans stayed well below its historical median (figure 2.8, black line). However, defaults including distressed exchanges, which reflect the number of defaults and distressed loans that have been renegotiated between the borrower and the lender, continue to be elevated relative to history (figure 2.8, blue line).

Figure 2.7. Newly issued leveraged loans with debt multiples greater than 4 increased slightly but remained near their lowest levels in a decade



Source: Mergent, Inc., Fixed Income Securities Database; PitchBook Data, Leveraged Commentary & Data.

Figure 2.8. The realized default rate on leveraged loans remained well below its previous peaks



Source: PitchBook Data, Leveraged Commentary & Data.

Privately held firms, which tend to be small or middle market, have less access to capital markets and primarily borrow from banks, private credit funds, and other sophisticated investors (such as insurance companies). While private firms account for roughly 60 percent of the total outstanding debt of U.S. nonfinancial firms, data for these firms are not as comprehensive as those for public firms. Some firms in this group may be less well positioned to weather a large shock. Based on available data, the ICR for the median firm in this category continued its downward trend over the previous few years and was slightly below its pre-pandemic level, as higher interest rates have contributed to reduced earnings and increased the cost of debt servicing. The average ICR at issuance for private credit borrowers, which comprise almost exclusively small and middle-market private firms, increased but remained low around a value of 2, indicating debt-servicing capacity in the range of below-investment-grade public firms. Aggregate gross and net leverage of private firms were similar to the previous report and remained near their historical medians.

Credit availability to small businesses tightened and delinquencies remained above pre-pandemic levels

Interest rates on small business loans have been largely stable in recent months and remained near the top of the range observed since 2008. Credit availability has continued to tighten for small firms in recent months. According to the February 2025 National Federation of Independent Business's Small Business Economic Trends Survey, the share of firms that borrow regularly has fallen to its lowest value since May 2022.[6] Data from the Small Business Lending Survey showed that banks continued to tighten credit standards.[7] That said, measures of small business loan originations edged up through January 2025. Credit quality has improved over the past few months, as both short-term (up to 90 days) and long-term (more than 90 days) delinquency rates ticked down from the increase observed in the second half of 2024, though they remained above their pre-pandemic levels.

Vulnerabilities from household debt remained moderate

Outstanding household debt adjusted for inflation has been little changed since the November report (figure 2.9). The ratio of total required household debt payments to total disposable income (the household debt service ratio) was virtually unchanged since the last report and remained slightly below pre-pandemic levels. Most household debt has fixed interest rates, and the higher interest rate environment of the past few years has only partially passed through to household interest expenses.

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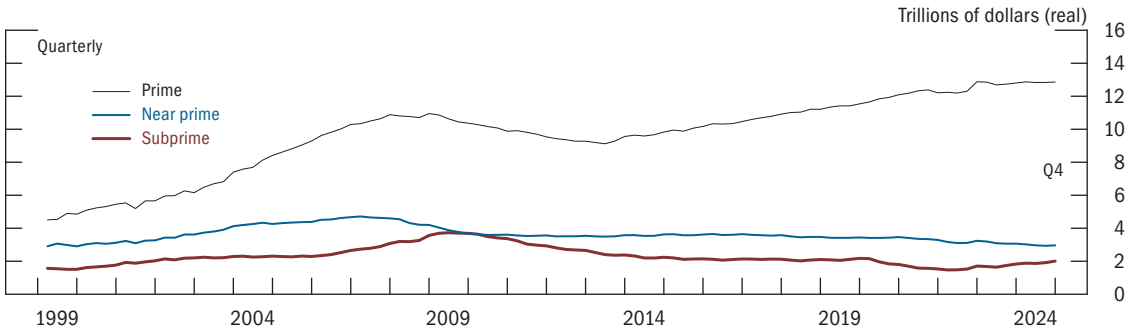
[6] This survey's data are available on the National Federation of Independent Business's website at https://www.nfib.com/surveys/small-business-economic-trends.

[7] This survey's data are available on the Federal Reserve Bank of Kansas City's website at https://www.kansascityfed.org/surveys/small-business-lending-survey/.

Figure 2.9. Inflation-adjusted household debt was largely unchanged

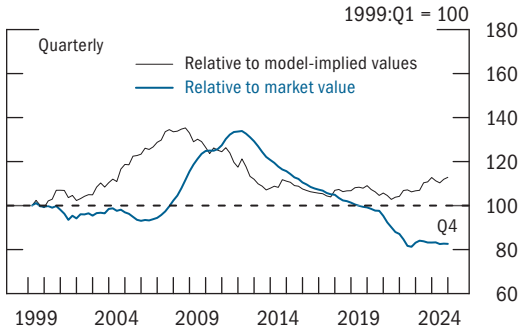


Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax; consumer price index, Bureau of Labor Statistics via Haver Analytics.

Mortgage credit risk remained low

Mortgage debt accounted for roughly three-fourths of total household debt. Housing leverage—measured as outstanding mortgage loan balances relative to home values—continued to sit well below previous peaks (figure 2.10). When measured relative to market prices for house values (figure 2.10, the blue line), outstanding mortgage balances have remained subdued. Outstanding mortgage loan balances relative to an estimate of home values from a model using rents and other market fundamentals were somewhat higher but remained far below earlier peaks (figure 2.10, the black line). The overall mortgage delinquency rate remained at the lower end of its historical distribution in the second half of 2024, while the share of mortgage balances in loss-mitigation programs increased, albeit from low levels (figure 2.11). Delinquency rates remained subdued due to large home equity cushions (figure 2.12) and strong underwriting standards.

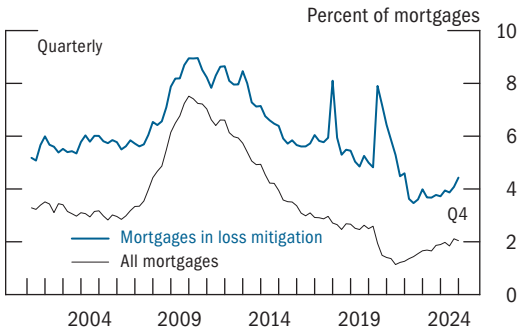
Figure 2.10. Measures of housing leverage stayed significantly below their peak levels



Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax; Zillow, Inc., Real Estate Data; Bureau of Labor Statistics via Haver Analytics.

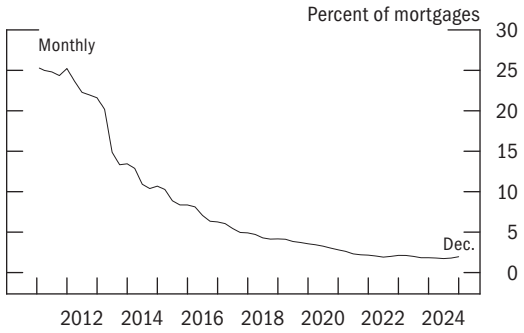
New mortgage extensions rose slightly for borrowers with a prime credit score (the group with the largest share) in the fourth quarter of 2024 but declined slightly for borrowers with near-prime or subprime credit scores (figure 2.13). In the second quarter of 2024, the early payment delinquency rate—the share of balances becoming delinquent within one year of mortgage origination—remained somewhat above the median of its historical distribution.

Figure 2.11. Mortgage delinquency rates edged up but remained close to the low end of their historical distribution



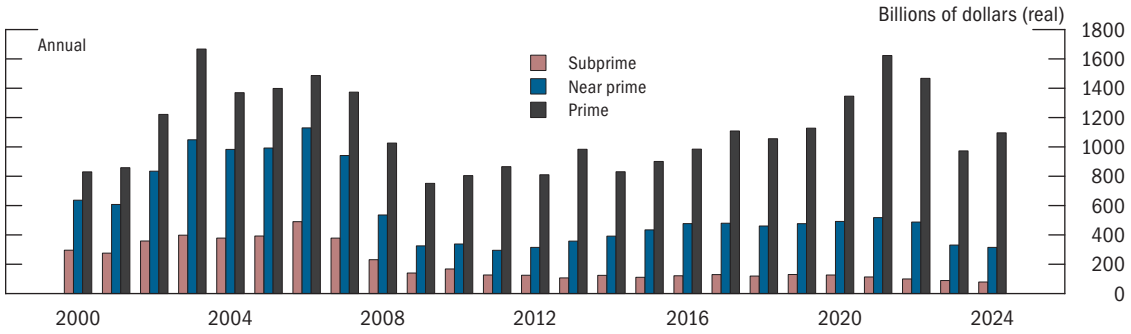
Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax.

Figure 2.12. Very few homeowners had negative equity in their homes



Source: Cotality Real Estate Data.

Figure 2.13. New mortgage extensions declined for near-prime and subprime borrowers



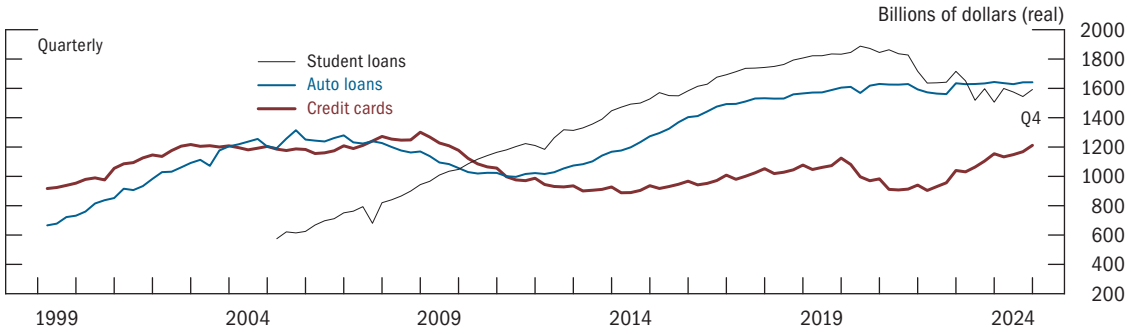
Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax; consumer price index, Bureau of Labor Statistics via Haver Analytics.

Consumer loan balances adjusted for inflation remained high by historical standards

Consumer debt accounted for the remaining one-fourth of household debt and consisted primarily of student, auto, and credit card loans. Auto and student loan balances were broadly unchanged in inflation-adjusted terms relative to the last report, though credit card balances had somewhat increased (figure 2.14).

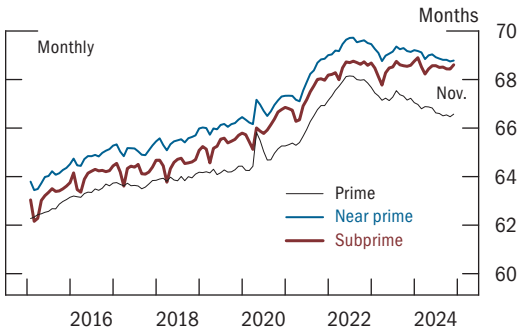
The average maturity of auto loans at origination for used cars was near historical highs for borrowers with a nonprime credit score (figure 2.15). On balance, longer-maturity loans tend to have higher default risks, partly because such loans have higher risk of falling deep into a negative equity position, which can drive consumer defaults. The share of auto loans in delinquent status

Figure 2.14. Credit card balances trended up last year; auto and student loan balances were about unchanged



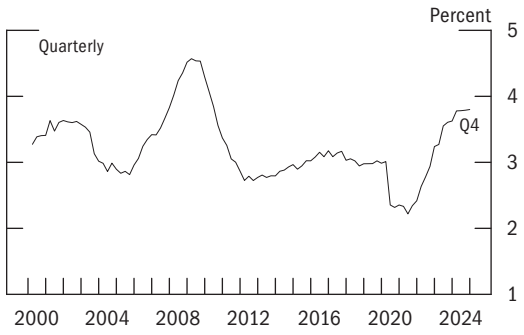
Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax; consumer price index, Bureau of Labor Statistics via Haver Analytics.

Figure 2.15. The average maturity of auto loans at origination for used cars was elevated for nonprime borrowers



Source: Experian Velocity.

Figure 2.16. Auto loan delinquencies have been above normal levels

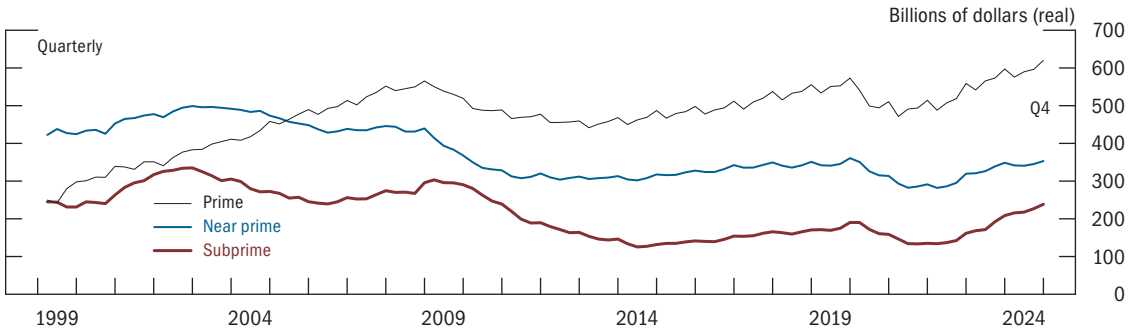


Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax.

was largely unchanged from the last report and stood at a level somewhat above its historical median (figure 2.16), due in part to a more significant rise in delinquencies in 2023 and early 2024 among borrowers with a subprime credit score. The increase in subprime auto loan delinquencies over the past couple of years may be due to higher car prices and higher interest rates, combined with loosened underwriting standards and elevated loan maturities.

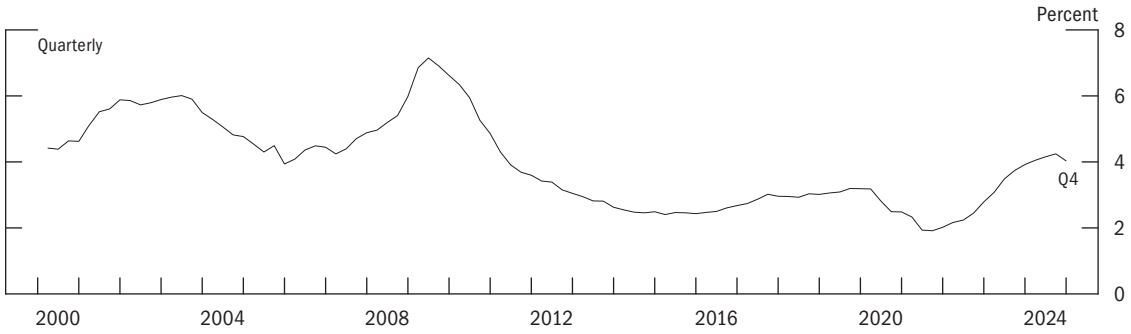
Aggregate inflation-adjusted credit card balances grew moderately for all borrower types over the second half of 2024 (figure 2.17). Credit card delinquency rates inched down in the fourth quarter of 2024 after reaching their highest level since 2010 in the previous quarter following looser underwriting standards during the pandemic era and large growth in real revolving credit (figure 2.18). The overall increase since early 2022 was attributable primarily to elevated delinquencies among borrowers with a nonprime credit score.

Figure 2.17. Inflation-adjusted credit card balances for all risk segments trended higher



Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax; consumer price index, Bureau of Labor Statistics via Haver Analytics.

Figure 2.18. Credit card delinquencies remained somewhat above their pre-pandemic levels



Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax.

The on-ramp period for student loan payments, which prevented loans from being reported as delinquent to credit bureaus, ended in September 2024, and student loan delinquencies reflected on borrower credit records can be expected to rise in the coming quarters. While student-loan borrowers have not yet shown much greater difficulty in meeting their non-student-loan debt payments relative to the overall population, some student loan borrowers may find it more difficult to keep up payments or to service other forms of debt.

3 | Leverage in the Financial Sector

Vulnerabilities associated with financial leverage remained notable

The banking system remained sound and resilient. Measures of regulatory capital for banks increased over the second half of 2024. However, fair value losses on fixed-rate assets remained sizable for certain banks, while some banks continued to have concentrated exposures to CRE loans.

Outside the banking sector, leverage at broker-dealers decreased in the fourth quarter of 2024 and stayed near historically low levels. However, the potential for strains on dealers' intermediation capacity during periods of market stress remained a vulnerability to Treasury markets. Life insurers' leverage remained at the upper end of its historical distribution, and life insurers continued to hold a significant share of illiquid and risky assets. While hedge funds' leverage rose to historical highs in the third quarter of 2024 and remained concentrated among the largest hedge funds, it likely decreased in early April as some hedge funds unwound leveraged positions amid heightened market volatility.

Table 3.1 shows the sizes and growth rates of assets of financial institutions discussed in this section.

Banks maintained historically high levels of regulatory capital, though fair value losses in fixed-rate assets remained sizable

The common equity Tier 1 (CET1) ratio, a regulatory risk-based measure of bank capital adequacy, continued to rise since the last report. This increase was primarily driven by strong retained earnings, bringing these ratios across all bank sizes to the upper end of their range from 2010 to 2024 (figure 3.1). As of the end of 2024, measures of bank profitability continued to improve and were around the median of their historical distributions. Banks' average interest rate on interest earning assets remained well above the average interest rate paid on liabilities, supporting net interest margins (figure 3.2). Earnings for the largest banks were reportedly robust in the first quarter of 2025, though early earnings calls highlighted elevated economic uncertainty and downside risk, with some banks increasing loan-loss reserves to buffer against a potential increase in defaults.

Higher interest rates continued to reduce the fair value of banks' fixed-rate assets. At the end of 2024, the fair values of banks' available-for-sale (AFS) and held-to-maturity (HTM) portfolios were below their book values by $182 billion and $297 billion, respectively (figure 3.3). The fair value of banks' securities holdings remained sensitive to changes in interest rates.

Table 3.1. Size of selected sectors of the financial system, by types of institutions and vehicles

Item	Total assets (billions of dollars)	Growth, 2023:Q4–2024:Q4 (percent)	Average annual growth, 1997–2024:Q4 (percent)
Banks and credit unions	27,812	.8	5.6
Mutual funds	21,685	10.6	9.1
Insurance companies	13,812	6.5	5.6
Life	10,249	5.5	5.6
Property and casualty	3,563	9.3	5.7
Hedge funds[1]	11,105	13.1	8.1
Broker-dealers[2]	5,963	7.1	5.2
	Outstanding (billions of dollars)		
Securitization	13,842	2.8	5.4
Agency	12,229	2.3	5.8
Non-agency[3]	1,613	7.0	3.7

Note: The data extend through 2024:Q4 unless otherwise noted. Outstanding amounts are in nominal terms. Growth rates are nominal and are measured from Q4 of the year immediately preceding the period through Q4 of the final year of the period. Life insurance companies' assets include both general and separate account assets.

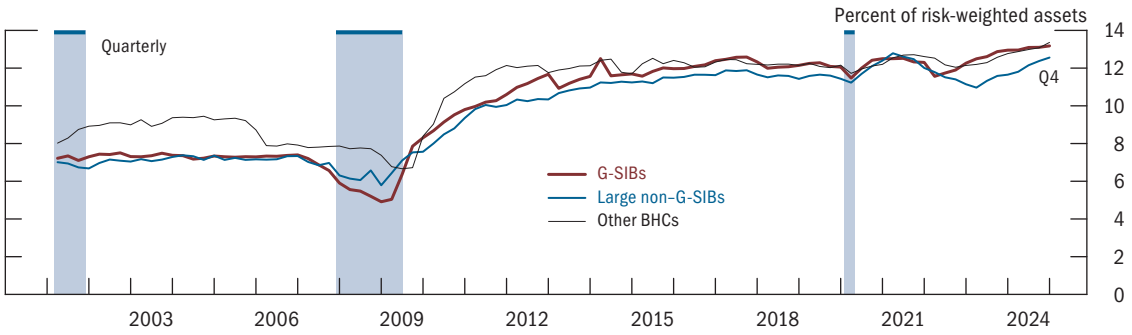
[1] Hedge fund data start in 2012:Q4 and are updated through 2024:Q2. Growth rates for the hedge fund data are measured from Q2 of the year immediately preceding the period through Q2 of the final year of the period.

[2] Broker-dealer assets are calculated as unnetted values.

[3] Non-agency securitization excludes securitized credit held on balance sheets of banks and finance companies.

Source: Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States"; Federal Reserve Board, "Enhanced Financial Accounts of the United States."

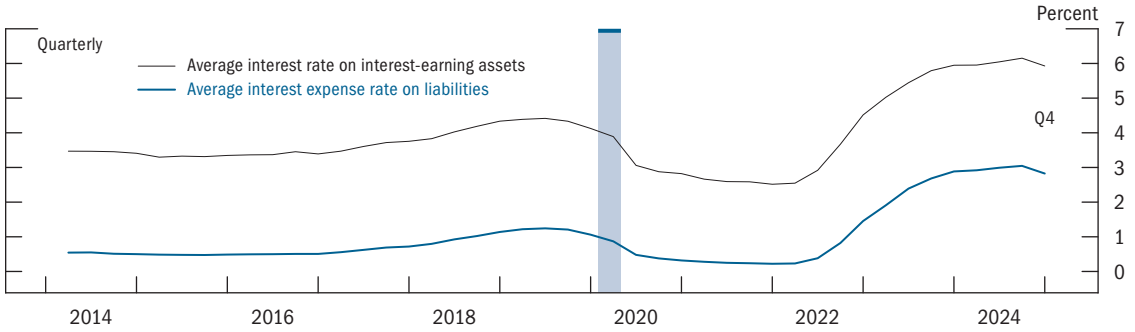
Figure 3.1. Banks' average risk-based capital ratios were near or above previous peaks



Source: Federal Reserve Board, Form FR Y-9C, Consolidated Financial Statements for Holding Companies.

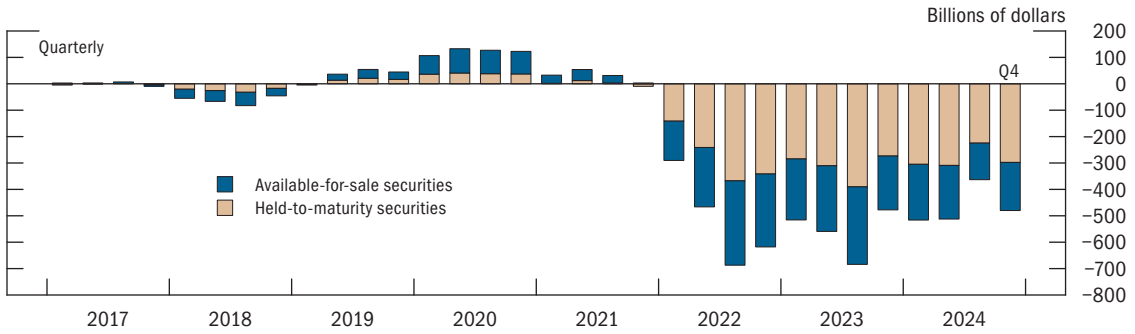
An alternative measure of bank capital is the ratio of tangible common equity to total tangible assets. While this ratio shares similarities with the CET1 ratio—as both exclude intangible items like goodwill from capital—there are important differences between the two. Unlike the CET1 ratio, the tangible common equity ratio does not factor in the riskiness of assets, but it does include fair value declines on AFS securities for all banks. While the tangible common equity ratio increased across all bank categories in the second half of 2024, it remained below its average level over the past decade (figure 3.4).

Figure 3.2. Banks kept healthy net interest margins



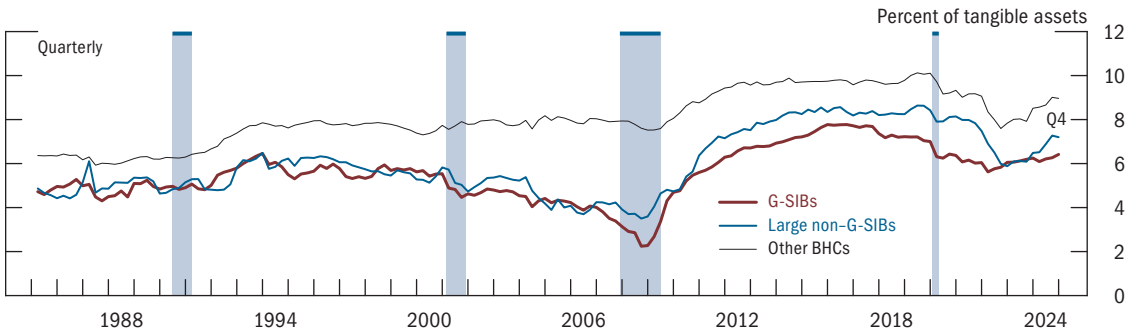
Source: Federal Reserve Board, Form FR Y-9C, Consolidated Financial Statements for Holding Companies.

Figure 3.3. The fair value losses of banks' securities portfolios remained sizable



Source: Federal Financial Institutions Examination Council, Call Report Form FFIEC 031, Consolidated Reports of Condition and Income (Call Report); Federal Reserve Board, Form FR Y-9C, Consolidated Financial Statements for Holding Companies.

Figure 3.4. The ratio of tangible common equity to tangible assets increased, on net, for banks of all categories in the second half of 2024

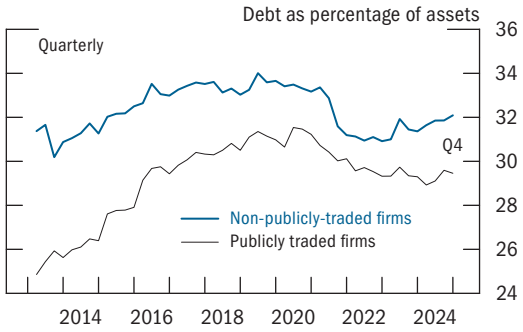


Source: For data through 1996, Federal Financial Institutions Examination Council, Call Report Form FFIEC 031, Consolidated Reports of Condition and Income (Call Report). For data from 1997 onward, Federal Reserve Board, Form FR Y-9C, Consolidated Financial Statements for Holding Companies; Federal Financial Institutions Examination Council, Call Report Form FFIEC 031, Consolidated Reports of Condition and Income (Call Report).

Credit quality at banks remained sound despite rising delinquencies in certain loan segments

Delinquency rates for commercial and industrial (C&I) and CRE loans increased slightly in the second half of 2024, while delinquency rates for credit card and auto loans were little changed and remained above their pre-COVID levels. Delinquencies of loans backed by office and multifamily properties remained elevated at global systemically important banks (G-SIBs) and large non–G-SIBs, while delinquencies at regional banks increased slightly, but from much lower levels. Larger banks, where the delinquencies are concentrated, tend to have more substantial loan loss allowances and appear to be positioned to manage potential portfolio losses.

Figure 3.5. The financial condition of firms with commercial and industrial bank loans has slightly deteriorated

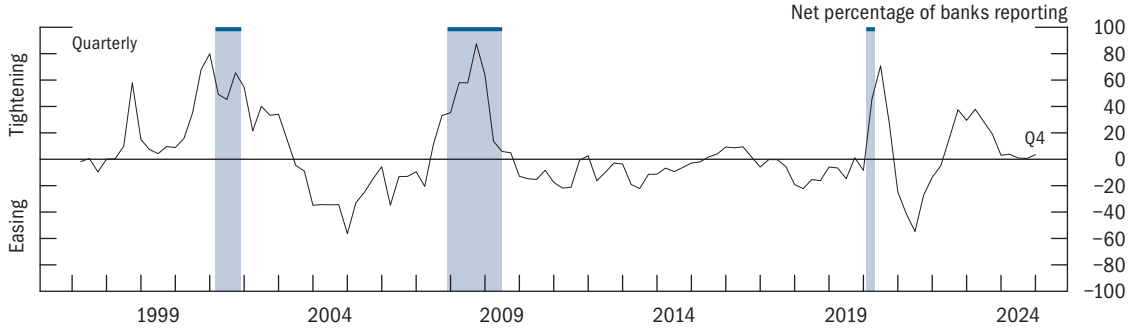


Source: Federal Reserve Board, Form FR Y-14Q (Schedule H.1), Capital Assessments and Stress Testing.

Banks' CRE portfolios have a sizable share of loans backed by office and multifamily properties where weaker fundamentals have begun to show some signs of improvement. Banks have actively managed their CRE exposures by modifying loan terms, which has reduced delinquency rates.

The leverage of borrowers with C&I loans increased slightly since November (figure 3.5). Recent responses from the SLOOS indicate that lending standards for C&I loans remained unchanged, on net, following previous tightening (figure 3.6).

Figure 3.6. Credit standards for commercial and industrial loans were little changed in the second half of 2024

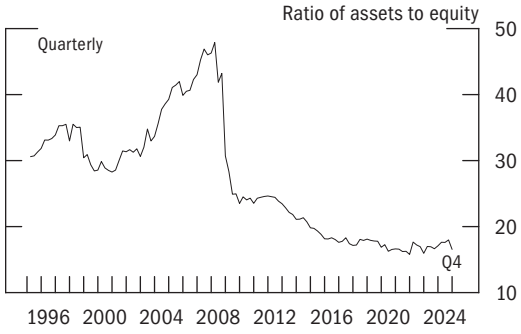


Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices; Federal Reserve Board staff calculations.

Broker-dealers' leverage remained low

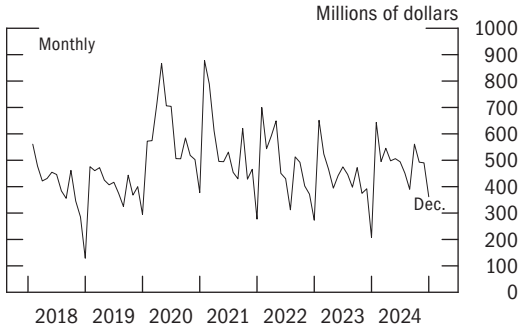
At the end of 2024, the ratio of broker-dealers' assets to equity was at the lower end of its historical distribution (figure 3.7). Smoothing through seasonal factors, profits were up year over year (figure 3.8). The breakdown of broker-dealer profits remained relatively balanced, with earnings evenly distributed across equity; fixed income, rates, and credit; and other business lines (figure 3.9).

Figure 3.7. Leverage at broker-dealers remained near historical lows



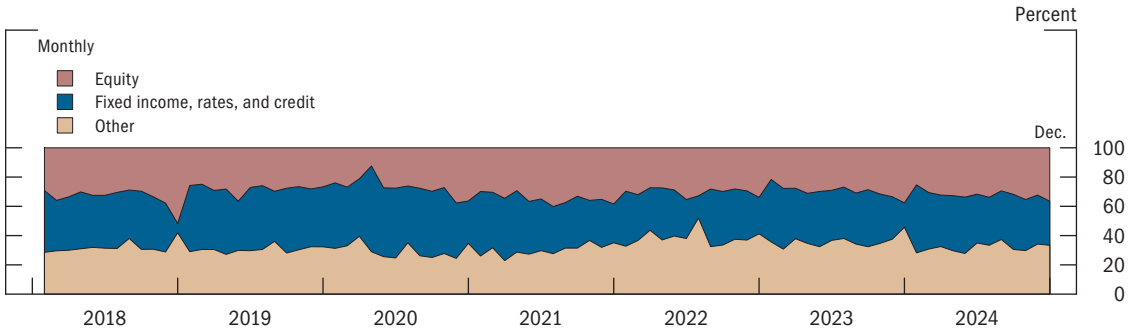
Source: Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States."

Figure 3.8. Trading profits in the second half of 2024 were within the range of the past 5 years



Source: Federal Reserve Board, Reporting, Recordkeeping, and Disclosure Requirements Associated with Regulation VV (Proprietary Trading and Certain Interests in and Relationships with Covered Funds, 12 C.F.R. pt. 248).

Figure 3.9. The distribution of the sources of broker-dealer trading profits was in line with recent averages



Source: Federal Reserve Board, Reporting, Recordkeeping, and Disclosure Requirements Associated with Regulation VV (Proprietary Trading and Certain Interests in and Relationships with Covered Funds, 12 C.F.R. pt. 248).

Dealer intermediation in Treasury markets rose in the first quarter of 2025, and Treasury positions increased. Such an increase was consistent with high Treasury issuance and reports from market participants highlighting reduced demand from other Treasury investors. While dealers' intermediation capacity remains adequate for market functioning in normal times, balance sheet pressures could constrain dealers' ability to intermediate in Treasury markets during periods of market stress. Heightened client demand in early April reportedly increased balance sheet pressures for some dealers.

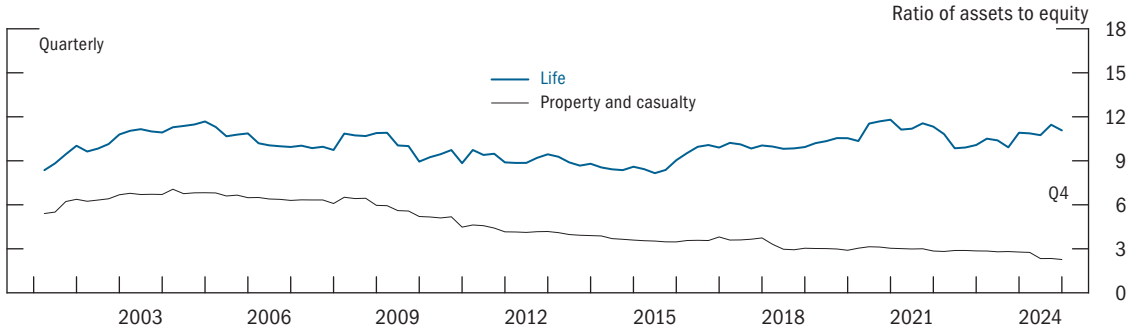
In the March 2025 Senior Credit Officer Opinion Survey on Dealer Financing Terms (SCOOS), dealers reported a slight easing in terms for securities financing transactions and over-the-counter derivatives since November.[8] Over the same period, their clients' use of financial leverage remained unchanged on net. Additionally, one-fifth of dealers noted a relaxation in collateral spreads for agency residential mortgage-backed securities (RMBS) and CMBS. The March SCOOS also included special questions focusing on dealers' and their clients' practices in Treasury repurchase agreement (repo) markets, specifically regarding cross-margining, which allows market participants to transfer margin from accounts with an excess of margin to accounts with insufficient margin. While most dealers indicated that their clients engage in both Treasury repo and Treasury futures or interest rate derivatives transactions, only a small fraction reported significant use of cross-margining agreements for these trades.

Insurers' leverage increased, and they continued to invest in risky and illiquid assets

While leverage at life insurers remained around the 85th percentile of its historical distribution over the second half of 2024, leverage at property and casualty insurers remained near the lower end of its historical distribution (figure 3.10). Life insurers continued to take additional credit and liquidity risk by allocating a growing share of their portfolios to riskier and less liquid assets, such as leveraged loans, collateralized loan obligations (CLOs), high-yield corporate bonds, privately placed corporate bonds, and alternative investments. Additionally, as major holders of CMBS, life insurers could face valuation pressures if commercial property values experience a significant decline.

[8] The SCOOS is available on the Federal Reserve Board's website at https://www.federalreserve.gov/data/scoos.htm.

Figure 3.10. Leverage at life insurers was around the 85th percentile of its historical distribution

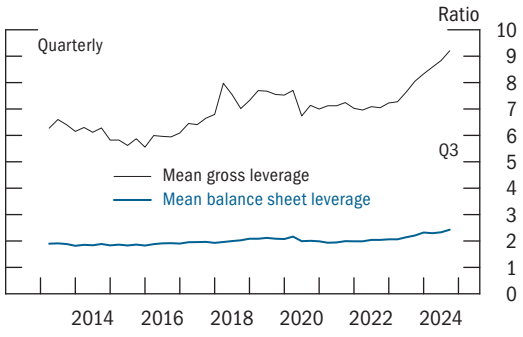


Source: Generally accepted accounting principles data from 10-Q and 10-K filings accessed via S&P Global, Capital IQ Pro.

Hedge funds' leverage has likely decreased from historically high levels due to repositioning and unwinding levered trades in April

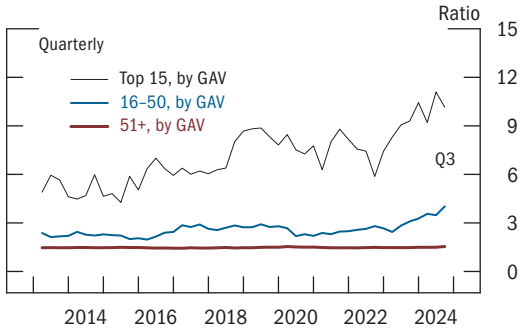
In the third quarter of 2024, the most recent quarter for which the Securities and Exchange Commission's form PF data are available, hedge funds' leverage reached historical highs and remained heavily concentrated among the largest funds (figure 3.11 and figure 3.12). According to data from the March SCOOS, hedge funds' leverage remained largely unchanged between mid-November 2024 and mid-February 2025 (figure 3.13). More recently, however, hedge fund leverage likely declined amid elevated market volatility. This reported decrease reflects a partial unwinding of leveraged positions by some hedge funds. Hedge fund repositioning and deleveraging may have contributed to the recent market volatility, both in equities and risky assets as well as in some longer-dated Treasury securities.

Figure 3.11. As of 2024:Q3, hedge funds' leverage was at its highest level since data became available



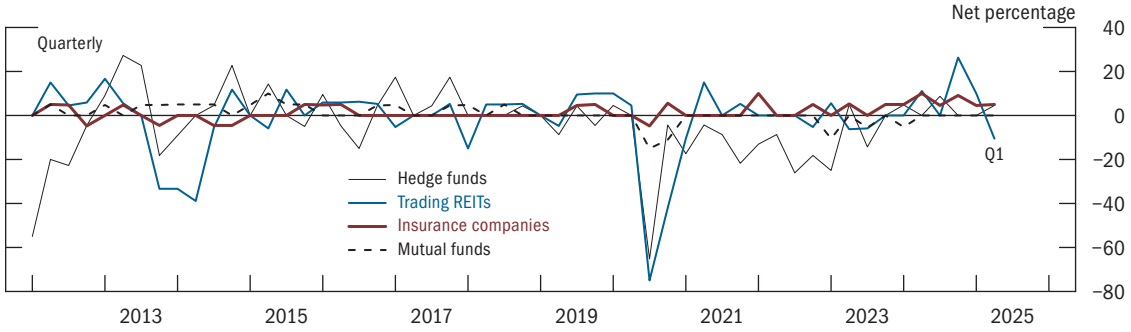
Source: Securities and Exchange Commission, Form PF, Reporting Form for Investment Advisers to Private Funds and Certain Commodity Pool Operators and Commodity Trading Advisors.

Figure 3.12. Balance sheet leverage at the 15 largest hedge funds stayed elevated



Source: Securities and Exchange Commission, Form PF, Reporting Form for Investment Advisers to Private Funds and Certain Commodity Pool Operators and Commodity Trading Advisors.

Figure 3.13. Dealers indicated that the use of leverage by hedge funds remained largely unchanged for most clients

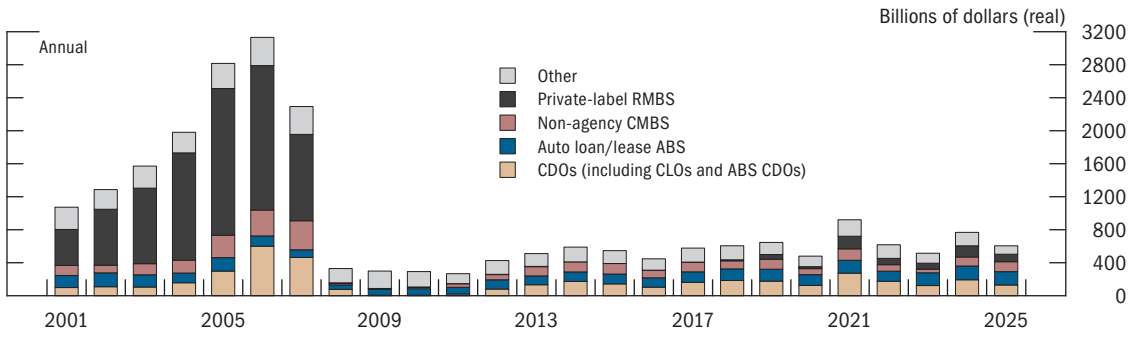


Source: Federal Reserve Board, Senior Credit Officer Opinion Survey on Dealer Financing Terms.

Issuance of non-agency securities remained strong through March

Issuance of non-agency securities—which increases the amount of leverage in the financial system—remained robust through March (figure 3.14).[9] Credit spreads on most major securitized products generally narrowed from November into early 2025 before widening in April. Credit performance across securitized products backed by riskier loan collateral showed continued signs of deterioration. This decline in credit performance was particularly pronounced in CRE-related securitizations, with prime auto and credit card asset-backed securities (ABS) also experiencing signs of deterioration.

Figure 3.14. The pace of issuance of securitized products remained robust through March



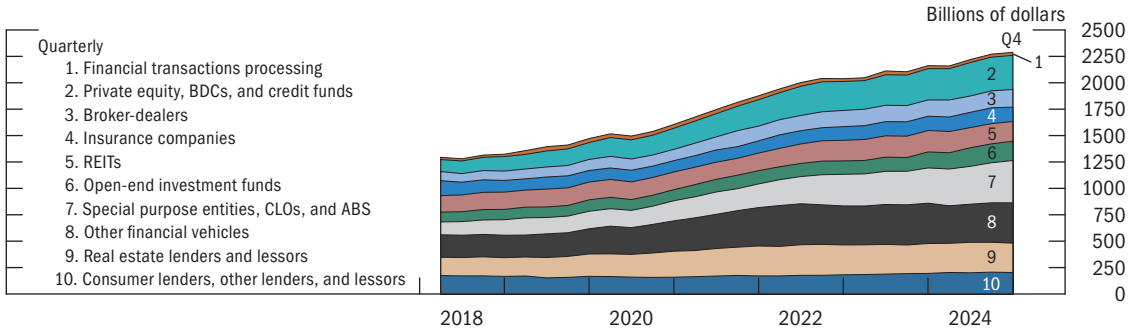
Source: Green Street, Commercial Mortgage Alert's CMBS Database and Asset-Backed Alert's ABS Database; consumer price index, Bureau of Labor Statistics via Haver Analytics.

[9] Securitization allows financial institutions to bundle loans or other financial assets and sell claims on the cash flows generated by these assets as tradable securities, much like bonds. By funding assets with debt issued by investment funds known as special purpose entities (SPEs), securitization can add leverage to the financial system, in part because SPEs are generally subject to regulatory regimes, such as risk retention rules, that are less stringent than banks' regulatory capital requirements. Examples of the resulting securities include CLOs (predominantly backed by leveraged loans), asset-backed securities (often backed by credit card and auto debt), CMBS, and RMBS.

Bank lending to nonbank financial institutions continued to grow

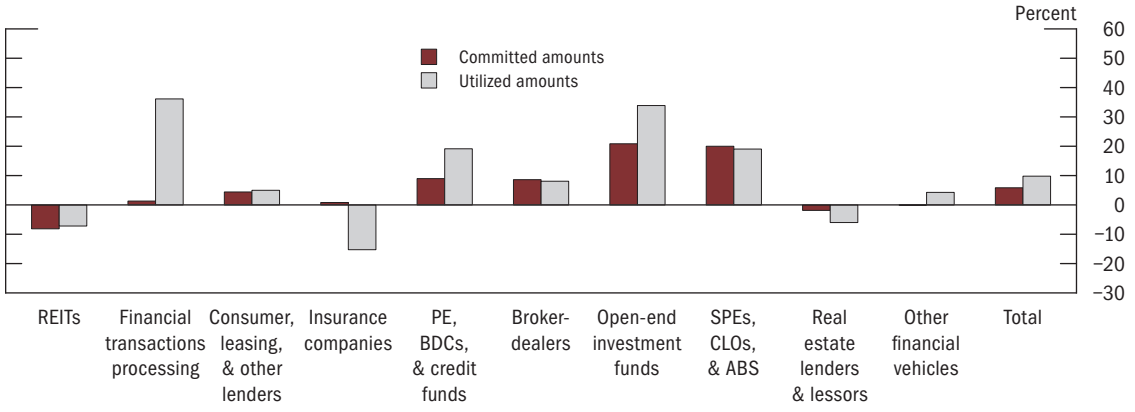
Bank credit commitments to NBFIs grew modestly in 2024 to $2.3 trillion (figure 3.15). Growth in some areas, such as commitments to open-end investment funds, special purpose entities, and securitization vehicles, was strong (figure 3.16). As outlined in the box "Changes in the Classification of Nonbank Financial Institutions," there have been a number of improvements to the methodology for the identification of different types of NBFI borrowers. One result of these improvements is that a substantial amount of loans to borrowers previously classified in categories such as "Other financial vehicles" have been identified as private equity (PE) firms, business development companies (BDCs), and private credit (PC) funds. Overall, bank lending to NBFIs is not significantly concentrated in any one sector, most commitments are rated investment grade, and these loans traditionally have had delinquency rates lower than loans to nonfinancial businesses.

Figure 3.15. Bank credit commitments to nonbank financial institutions increased



Source: Federal Reserve Board, Form FR Y-14Q (Schedule H.1), Capital Assessments and Stress Testing.

Figure 3.16. Growth of commitments to open-end investment funds, special purpose entities, collateralized loan obligations, and asset-backed securities grew between 2023:Q4 and 2024:Q4



Source: Federal Reserve Board, Form FR Y-14Q (Schedule H.1), Capital Assessments and Stress Testing.

Box 3.1. Changes in the Classification of Nonbank Financial Institutions

Since the November report, the methodology for identifying bank credit commitments to NBFIs has been updated. As part of the change, new data on company names from various data vendors now supplement bank-reported North American Industry Classification System codes. The estimates now incorporate data from additional bank-holding companies that recently started reporting FR Y-14Q information as part of the annual supervisory stress test. As a result of this change, total commitment amounts to NBFIs, shown in figure 3.15, are $124 billion higher, implying a total of $2.3 trillion for 2024:Q4.

Relative to the previous classification, loan commitment amounts identified in the combined PE, BDC, and PC sector and in the real estate investment trusts (REITs) sector are higher by $243 billion and $158 billion, respectively, in 2024:Q4. The higher level of commitments to PE/BDC/PC is mainly driven by improved name-matching and reclassifications from the "Other financial vehicles" category. The higher level of commitments to REITs is mostly driven by reclassifications from "Real estate lenders and lessors."

While the improvements to the methodology have resulted in a significant upward revision to the estimated level of loan commitments to PE/BDC/PC and REITs, estimated historical growth rates remained roughly unchanged relative to the growth rates reported using the previous methodology.

4 | Funding Risks

Over the past year, vulnerabilities from funding risks have declined to a level in line with historical norms

Funding risks for most banks remained near historical norms. Uninsured deposits as a share of bank funding have declined significantly from their 2022 peak, though some banks' reliance on potentially less-stable forms of funding remained high. On the asset side, large banks subject to the liquidity coverage ratio (LCR) maintained sound levels of high-quality liquid assets (HQLA).

MMFs and other cash-management vehicles continued to be vulnerable to runs, as they allow daily investor redemptions while investing in assets with a degree of credit risk and limited secondary-market trading, which can lead to strains in stress episodes. Vulnerabilities in prime and tax-exempt MMFs have diminished as reforms went into effect and assets under management (AUM) in institutional prime funds, the most run-prone segment, declined. However, other cash-management vehicles continued to grow.

Some open-end bond mutual funds remained susceptible to large outflows, as they allow daily redemptions while holding assets that might become illiquid in times of stress. Meanwhile, life insurers continued to face funding risk owing to their reliance on nontraditional liabilities in combination with an increasing share of investments in less-liquid assets.

Overall, estimated runnable money-like financial liabilities grew 8.2 percent over the past year, exceeding $23 trillion, driven by growth in MMFs and repos. As a share of GDP, runnable liabilities remained near their historical median of around 78 percent (table 4.1 and figure 4.1). The box "Runnables: An Indicator of Aggregate Run-Related Vulnerabilities in the Economy" provides an overview of their composition, historical trends, and recent developments.

Most banks maintained high levels of liquidity, and their funding sources have stabilized over the past year

Aggregate liquidity in the banking system remained sound, as HQLA relative to total assets remained above pre-pandemic levels (figure 4.2). Many U.S. G-SIBs held a significant portion of their HQLA in HTM securities, primarily long-duration agency mortgage-backed securities, whose market values continued to be well below their book values. Securities held in HTM accounts are accounted at book value when used in the calculation of regulatory capital and book equity, but they are valued at fair value for LCR purposes; therefore, fluctuations in the value of these securities can affect banks' LCR levels. HTM securities can be pledged at the Federal Reserve's discount window or in repos at their market value.

Table 4.1. Size of selected instruments and institutions

Item	Outstanding/total assets (billions of dollars)	Growth, 2023:Q4–2024:Q4 (percent)	Average annual growth, 1997–2024:Q4 (percent)
Total runnable money-like liabilities[1]	23,388	8.5	5.0
Uninsured deposits	7,067	5.0	10.7
Domestic money market funds[2]	6,852	15.8	6.4
Government	5,638	16.4	15.2
Prime	1,079	13.3	3.3
Tax exempt	136	9.9	–.8
Repurchase agreements	4,920	3.1	5.8
Commercial paper	1,323	8.0	2.7
Securities lending[3]	1,045	8.6	7.3
Bond mutual funds	4,867	7.6	8.0

Note: The data extend through 2024:Q4 unless otherwise noted. Outstanding amounts are in nominal terms. Growth rates are nominal and are measured from Q4 of the year immediately preceding the period through Q4 of the final year of the period. Total runnable money-like liabilities exceed the sum of listed components. Unlisted components of runnable money-like liabilities include variable-rate demand obligations, federal funds, funding-agreement-backed securities, private liquidity funds, offshore money market funds, short-term investment funds, local government investment pools, and stablecoins. Bond mutual funds are not part of the total runnable money-like liabilities.

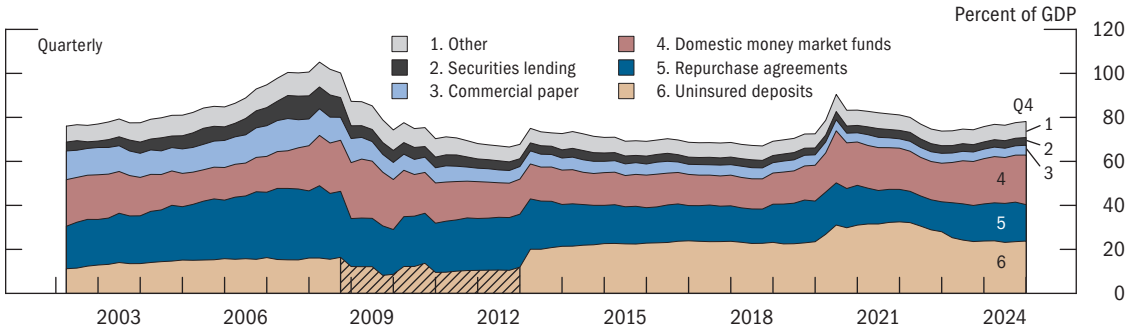
[1] Average annual growth is from 2003:Q1 to 2024:Q4.

[2] Average annual growth is from 2001:Q1 to 2024:Q3.

[3] Average annual growth is from 2000:Q1 to 2024:Q3. Securities lending includes only lending collateralized by cash.

Source: Securities and Exchange Commission, Private Funds Statistics; iMoneyNet, Inc., Offshore Money Fund Analyzer; Bloomberg Finance L.P.; Securities Industry and Financial Markets Association: U.S. Municipal Variable-Rate Demand Obligation Update; DTCC Solutions LLC, an affiliate of the Depository Trust & Clearing Corporation: commercial paper data; Federal Reserve Board staff calculations based on Risk Management Association, Securities Lending Report; S&P Securities Finance; Investment Company Institute; Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States"; Federal Financial Institutions Examination Council, Consolidated Reports of Condition and Income (Call Report); Morningstar, Inc., Morningstar Direct; Llama Corp, DeFiLlama.

Figure 4.1. The ratio of runnable money-like liabilities to GDP remained near its median



Source: Securities and Exchange Commission, Private Funds Statistics; iMoneyNet, Inc., Offshore Money Fund Analyzer; Bloomberg Finance L.P.; Securities Industry and Financial Markets Association: U.S. Municipal Variable-Rate Demand Obligation Update; DTCC Solutions LLC, an affiliate of the Depository Trust & Clearing Corporation: commercial paper data; Federal Reserve Board staff calculations based on Risk Management Association, Securities Lending Report; S&P Securities Finance; Investment Company Institute; Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States"; Federal Financial Institutions Examination Council, Consolidated Reports of Condition and Income (Call Report); gross domestic product, Bureau of Economic Analysis via Haver Analytics; Llama Corp, DeFiLlama.

Box 4.1. Runnables: An Indicator of Aggregate Run-Related Vulnerabilities in the Economy[1]

Runs can precipitate severe strains in short-term funding markets. As such, short-term uninsured liabilities that are susceptible to runs, or "runnables," serve as a key metric for assessing aggregate run-related vulnerabilities in the economy.[2] This box provides an overview of runnables, including their composition, historical trends, and recent developments.

Concept of runnables

Runnables play a vital role in the economy by offering investors cash-management options and providing short-term funding to businesses, governments, and financial institutions. Their total outstanding volume amounts to roughly 80 percent of U.S. GDP, highlighting their significant presence in the financial system.

However, these liabilities also pose significant systemic risk due to their susceptibility to runs, in which investors stop providing funding by redeeming shares, withdrawing deposits, or refusing to roll over short-term debts. Such runs have contributed to several episodes of financial stress over the past two decades. Hence, monitoring the aggregate size and composition of runnables is critical for assessing vulnerabilities stemming from funding risk.

Estimation approach for runnables

Short-term funding markets include both funding instruments—such as repos and commercial paper (CP)—and investment vehicles like MMFs that invest in those instruments. Instruments and vehicles may overlap in providing funding. For example, an investor purchasing $10,000 in MMF shares may indirectly provide that funding to a bank if the MMF uses the proceeds to purchase CP issued by the bank. Runs can occur in either segment of this funding chain: The MMF can suffer a run if investors rapidly redeem shares, and a CP issuer can experience a run if MMFs suddenly stop rolling over its maturing CP. Furthermore, such events are often linked, as redemptions from an MMF may compel it to curtail the financing provided to its borrowers, amplifying systemic stress.

Thus, to quantify the aggregate size of runnables, the sum of the outstanding amounts of all runnable components is used, rather than a net amount.[3] Conceptually, this aggregate measure is designed to capture all types of short-term liabilities that could be subject to runs. To account for inflation and economic growth over time, runnable liabilities are scaled by nominal U.S. GDP.

Components of runnables and their vulnerabilities

While runnables play a vital role in the financial system, in the past two decades most have experienced runs or run-like events—some of which stabilized only after government intervention.

Domestic MMF shares are used for cash management by both institutional and retail investors, while MMFs provide short-term funding to financial and nonfinancial firms as well as governments. Prime MMFs, which bear credit risk, suffered industry-wide runs in September 2008 and again in March 2020. CP is a key source of short-term funding for large corporations and financial institutions. However, during crises, issuers have struggled to roll over maturing CP, leading to sharp spikes

(continued)

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[1] This box provides explanations and analyses for figure 4.1, which shows runnable money-like liabilities as a share of GDP.

[2] The concept of "runnables" was introduced in Jack Bao, Josh David, and Song Han (2015), "The Runnables," FEDS Notes (Washington: Board of Governors of the Federal Reserve System, September 3), https://www.federalreserve.gov/econresdata/notes/feds-notes/2015/the-runnables-20150903.html.

[3] In the example above, this approach results in total runnables of $20,000, reflecting both the MMF shares and the CP funding.

Box 4.1—*continued*

infunding costs and market freezes. Repos are short-term, secured loans that serve as a key funding source for broker-dealers and leveraged investors, who often depend on continuous rollovers. Repo markets experienced major disruptions in 2008, with funding volumes contracting abruptly. Securities lending is economically similar to repo, with securities lenders typically reinvesting cash collateral in short-term instruments. Some of these reinvestments came under stress in 2008, which strained securities lenders' ability to return cash collateral on demand. Uninsured bank deposits—those exceeding the Federal Deposit Insurance Corporation insurance limit—are an important funding source for some banks but have been vulnerable to rapid withdrawals during multiple periods of stress.

The coverage of runnables has expanded notably since 2015, partly due to improved data availability.[4] The measure now also includes dollar-denominated offshore MMFs, bank-sponsored short-term investment funds, local government investment pools, private liquidity funds, and ultrashort bond funds—many of which invest in similar markets as domestic MMFs. Most of these runnable vehicles have grown steadily over the past decade, and many experienced notable stresses during crises. More recently, innovation in short-term funding markets has given rise to new forms of runnables, particularly stablecoins. As financial innovations continue, the list of runnables will likely expand further.

Evolution of runnables

The usefulness of runnables as an indicator of aggregate financial vulnerability was evident in the years leading up to 2007, when their share of GDP reached record highs—driven largely by the expansion of nonbank financial intermediaries and their heavy use of short-term funding markets. These elevated levels signaled heightened run risks.

That fragility materialized during the 2007–09 financial crisis, as several key components of runnables experienced damaging runs. The most prominent include the run on asset-backed commercial paper (ABCP), the run on prime MMFs, and the freeze in the triparty repo market. Following the crisis, total runnables declined sharply relative to GDP, as market participants pulled back from certain funding markets—such as repos, securities lending, and ABCP—while uninsured deposits temporarily shrank due to expanded deposit insurance coverage.

Uninsured deposits returned to elevated levels in 2013 after the expiration of temporary deposit insurance expansions and saw another boost in 2020 amid the pandemic. These increases not only markedly contributed to the growth of aggregate runnables but also were a factor in the 2023 regional bank crisis, during which runs on uninsured deposits led to the failure of several banks.

Although uninsured deposits have declined in the aftermath of the 2023 turmoil, the overall volume of runnables remains substantial. Runnables are a key asset for investors and funding source for borrowers, and the liquidity mismatch associated with runnables contributes to inherent vulnerabilities in the financial system.

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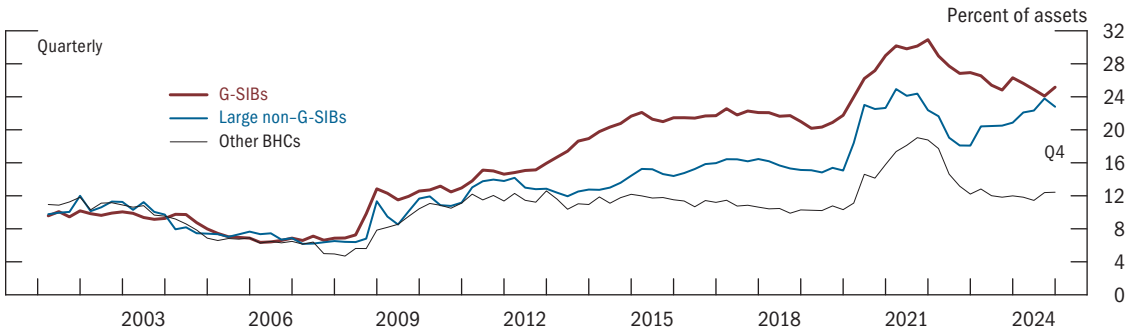
[4] The new data series discussed in this paragraph, including stablecoins, are incorporated in the "Other" category of figure 4.1. This "Other" category also includes federal funds, variable-rate demand obligations, and funding-agreement-backed securities. Due to data limitations, the size of some of these runnables may be underestimated.

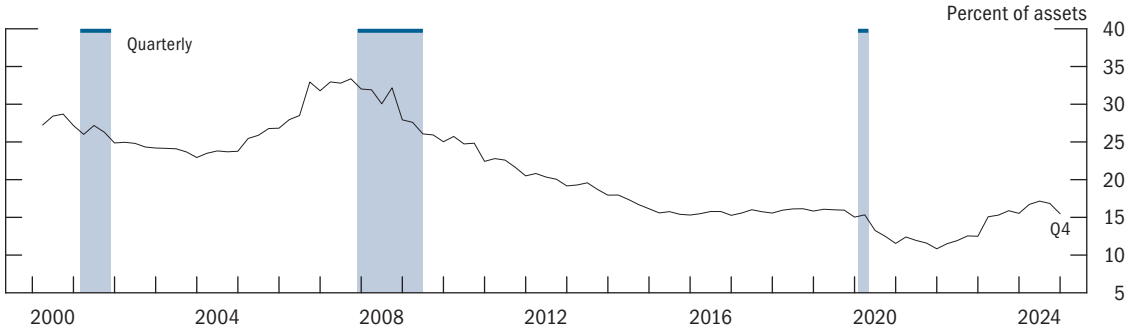
Figure 4.2. The share of high-quality liquid assets to total assets remained above pre-pandemic levels



Source: Federal Reserve Board, Form FR Y-9C, Consolidated Financial Statements for Holding Companies.

Banks' funding structure was little changed at the end of 2024 relative to the end of 2023. The share of uninsured deposits relative to total bank funding remained well below the elevated levels seen in 2022 and early 2023. Large banks adjusted to lower uninsured deposits by increasing their reliance on short-term non-deposit wholesale funding sources, such as repos, and regional and community banks generally became more reliant on brokered and reciprocal deposits (figure 4.3). While reciprocal deposits are fully insured, they are more expensive than traditional core insured deposits and may not be as stable during times of stress.

Figure 4.3. Banks' reliance on short-term wholesale funding has returned to pre-pandemic levels

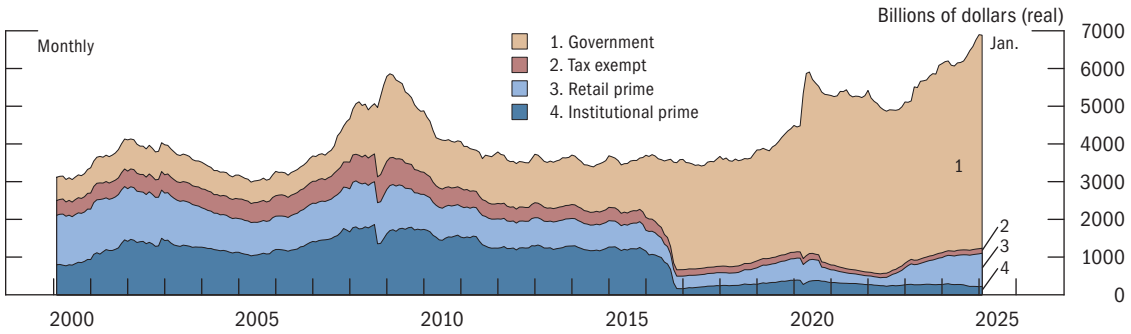


Source: Federal Reserve Board, Form FR Y-9C, Consolidated Financial Statements for Holding Companies.

Money market funds and other cash-management vehicles remained susceptible to runs

Vulnerabilities in prime MMFs have declined somewhat in the past year and AUM in institutional prime MMFs—historically, the most vulnerable segment—shrank substantially. Total prime assets declined only slightly over the past year, as retail prime MMFs attracted sizable inflows.

Figure 4.4. Assets under management at money market funds increased to an all-time high in January



Source: Federal Reserve Board staff calculations based on Investment Company Institute data; consumer price index, Bureau of Labor Statistics via Haver Analytics.

As of January 2025, total MMF assets had risen to $6.9 trillion from $6.0 trillion in January 2024, likely because MMFs continued to provide more attractive yields relative to most bank deposits (figure 4.4). More than 80 percent of MMF assets are in funds that hold only U.S. government securities and repo backed by them.

Other cash-management vehicles, such as dollar-denominated offshore MMFs and short-term investment funds, also invest in money market instruments and engage in liquidity transformation. Estimated aggregate AUM of these vehicles remained at $2.1 trillion, unchanged from the November report, with roughly $1 trillion to $2 trillion of that amount in vehicles with portfolios similar to those of prime MMFs.[10]

Many cash-management vehicles—including retail and government MMFs, offshore MMFs, and short-term investment funds—seek to maintain stable net asset values that are typically rounded to $1.00. If short-term interest rates rise sharply or portfolio assets lose value for other reasons, the market values of these funds may fall below their rounded share prices, potentially triggering large redemptions and destabilizing short-term funding markets.

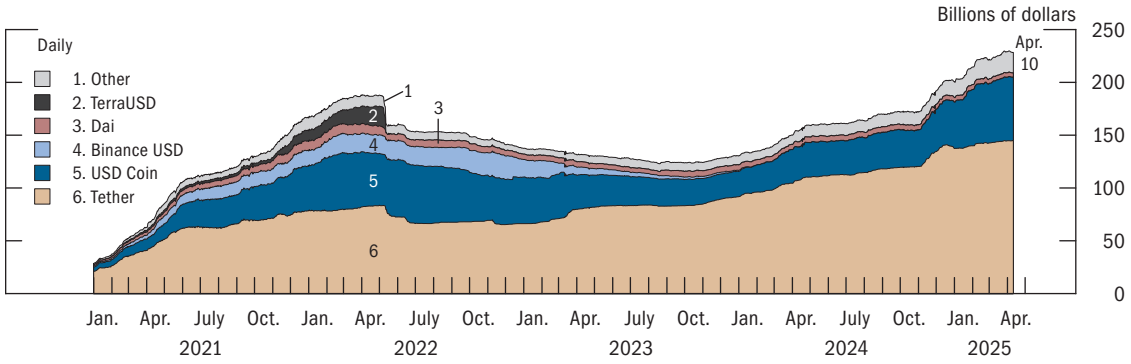
Stablecoins continued to grow and remained vulnerable to runs

Stablecoin assets—digital assets designed to maintain a stable value relative to a national currency or another reference asset—continued to grow.[11] By early April, the total market capitalization of stablecoins reached approximately $235 billion, above the previous high observed in April 2022 before Terra's collapse (figure 4.5).

[10] Cash-management vehicles included in this total are dollar-denominated offshore MMFs, short-term investment funds, private liquidity funds, ultrashort bond mutual funds, and local government investment pools.

[11] Stablecoins are typically backed by a pool of "reserve" assets that include Treasury bills and other short-term instruments, but some stablecoin reserve assets also include loans and other digital assets.

Figure 4.5. Market capitalization of major stablecoins has grown significantly

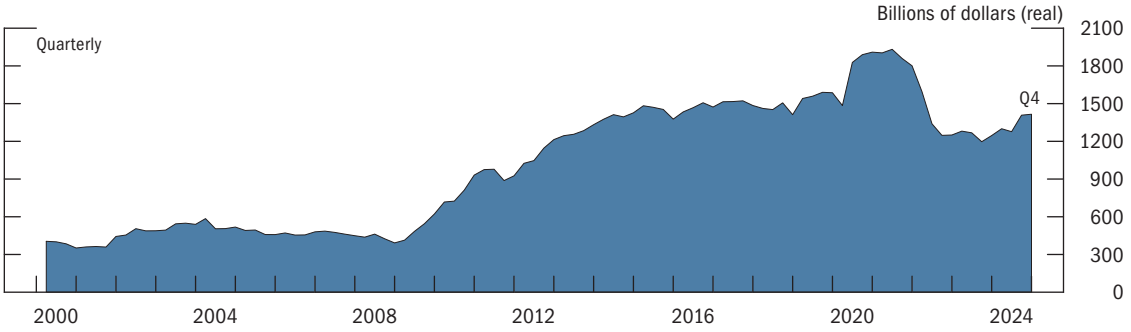


Source: Llama Corp, DeFiLlama.

Bond mutual funds remained exposed to liquidity risks

Mutual funds that invest substantially in corporate bonds, municipal bonds, and bank loans may be particularly exposed to liquidity transformation risks, given that these funds are required to offer daily redemptions and hold assets that can become illiquid in times of stress. As of the fourth quarter of 2024, mutual funds held approximately $1.4 trillion in corporate bonds—accounting for nearly 14 percent of corporate bonds outstanding (figure 4.6). In early 2025, total AUM of the subcategories of mutual funds holding high-yield bonds and bank loans—both of which tend to hold riskier and less liquid securities—increased modestly, while net inflows into these funds remained relatively subdued (figure 4.7 and figure 4.8).[12] In early April, amid heightened market volatility, outflows from bank loan and high-yield bond mutual funds were somewhat elevated.

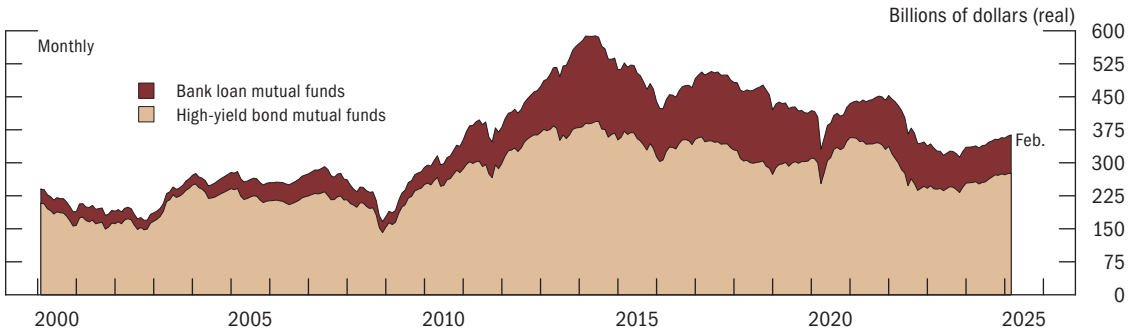
Figure 4.6. Corporate bonds held by bond mutual funds increased in the second half of 2024



Source: Federal Reserve Board staff estimates based on Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States"; consumer price index, Bureau of Labor Statistics via Haver Analytics.

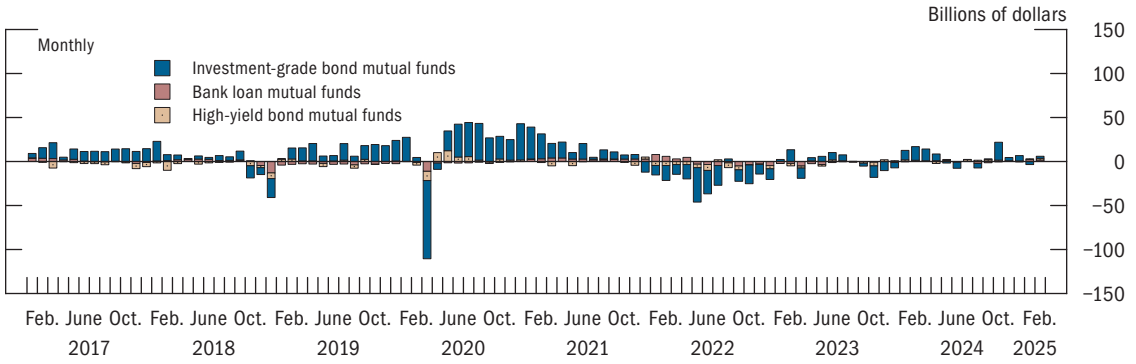
[12] As of the fourth quarter of 2024, mutual funds held approximately 10 percent and 18 percent of high-yield and bank loans outstanding, respectively.

Figure 4.7. Assets held by bank loan and high-yield mutual funds have been trending up since late 2023



Source: Investment Company Institute; consumer price index, Bureau of Labor Statistics via Haver Analytics.

Figure 4.8. Mutual fund flows remained subdued through February



Source: Investment Company Institute.

Central counterparties' initial margin levels and prefunded resources remained high

Central counterparties' (CCPs) initial margin levels remained high and stable during the second half of 2024. CCPs also maintained high levels of prefunded mutualized resources.[13] Elevated initial margins and ample overall prefunded resources lower the risk faced by CCPs to the potential default by a clearing member or market participant. This, in turn, reduces the possibility of large liquidity demands from a CCP to its credit providers (usually banks). More recently, CCPs operated normally as transaction volumes across cleared products grew in early April. However, the concentration of clients' collateral at the largest clearing members remains a vulnerability, as such

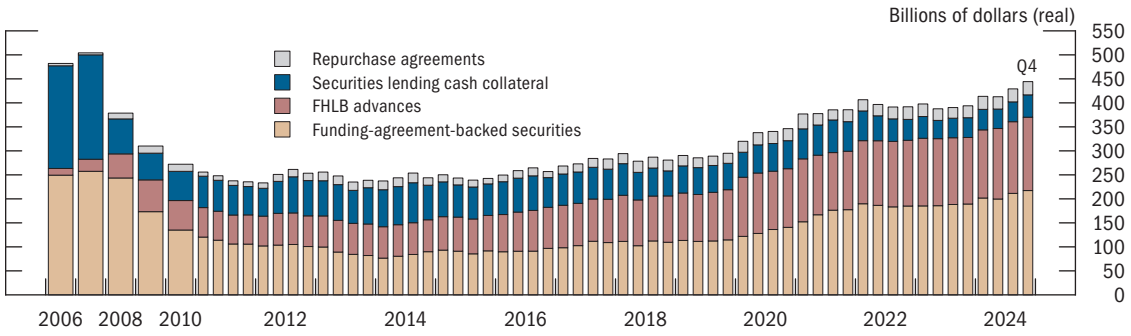
[13] Prefunded resources represent financial assets, including cash and securities, transferred by the clearing members to the CCP to cover that CCP's potential credit exposure in case of default by one or more clearing members. These prefunded resources are held as initial margin and prefunded mutualized resources, which builds the resilience of CCPs to the possible default of a clearing member or market participant.

concentration could make transferring client positions to other clearing members challenging if it were ever necessary.[14]

Life insurers' reliance on nontraditional liabilities for funding continued to increase

Life insurers continued to increase their reliance on nontraditional liabilities for funding, including funding-agreement-backed securities, Federal Home Loan Bank advances, and cash received through repos and securities lending transactions (figure 4.9). These liabilities can create liquidity risk through the inability to roll over funding if the proceeds from such funding are not invested in assets with similar maturity profiles (figure 4.10). The combination of a growing reliance on nontraditional liabilities and a steady decline in the liquidity of life insurers' assets could make it challenging for life insurers to meet a sudden rise in withdrawals or other claims.

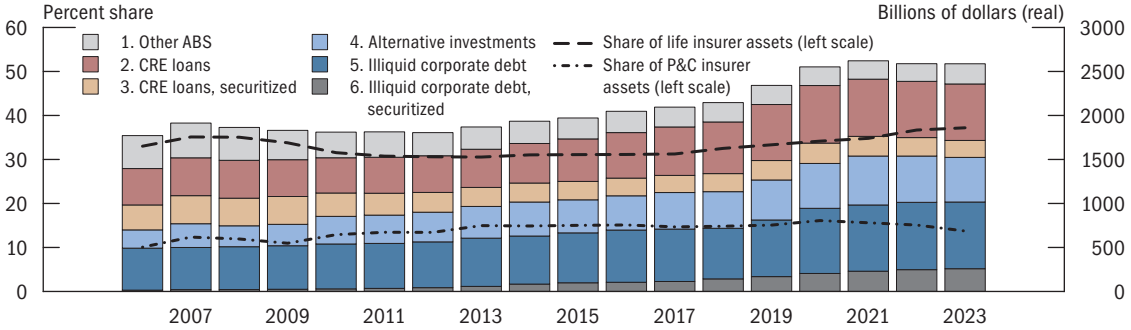
Figure 4.9. Life insurers' reliance on nontraditional liabilities for funding increased further in the second half of 2024



Source: Consumer price index, Bureau of Labor Statistics via Haver Analytics; Moody's Analytics, Inc., CreditView, Asset-Backed Commercial Paper Program Index; Securities and Exchange Commission, Forms 10-Q and 10-K; National Association of Insurance Commissioners, quarterly and annual statutory filings accessed via S&P Global, Capital IQ Pro; Bloomberg Finance L.P.

[14] If a clearing member were to default, its client positions would need to be transferred. However, transferring these positions could be difficult if they are large. Given that a significant portion of client positions is currently concentrated with a few clearing members, such a transfer would likely be challenging if one of these members were to default.

Figure 4.10. Life insurers continued to hold a significant share of risky and illiquid assets on their balance sheets



Source: Consumer price index, Bureau of Labor Statistics via Haver Analytics; Federal Reserve Board staff estimates based on data from Bloomberg Finance L.P. and National Association of Insurance Commissioners Annual Statutory Filings.

5 | Near-Term Risks to the Financial System

The Federal Reserve routinely engages in discussions with domestic and international policymakers, academics, community groups, and others to gauge the set of risks of greatest concern to these groups. As captured in the box "Survey of Salient Risks to Financial Stability," significantly fewer respondents in recent outreach noted risks associated with the continued geopolitical conflict in the Middle East and Russia's war against Ukraine than had done so in the fall survey. Instead, the most cited risks were focused on global trade, policy uncertainty, and U.S. debt sustainability.

The following discussion considers possible interactions of existing domestic vulnerabilities with three potential near-term risks.

A U.S. slowdown, particularly if accompanied by higher interest rates, could pose risks for the wider economy as well as financial institutions

A slowdown in economic activity in the United States could have wide-ranging financial and economic effects and prompt further declines in asset prices. Adverse dynamics could be amplified if interest rates rose at the same time. In the near term, higher interest rates could raise consumer borrowing costs and strain household budgets, increasing the potential for delinquencies. Debt-servicing costs for governments and corporations would similarly increase, which could amplify existing vulnerabilities linked to high leverage and upcoming refinancing needs. Collectively, these factors could lead to fair value losses on fixed-rate securities among financial intermediaries, which, in turn, could reduce the supply of credit to the economy, further weighing on economic activity.

A marked slowdown in global economic growth could expose existing financial vulnerabilities

A pronounced economic slowdown in major advanced and emerging economies could weigh on investor, business, and consumer sentiment and prompt a broader pullback from riskier assets or those with elevated valuations, increasing volatility in financial markets and raising the potential for market dislocations. Weaker-than-expected economic activity could also erode the fundamentals of some businesses and households by broadly reducing the outlook for revenue and income growth, impairing their ability to service debt and raising the potential for defaults and delinquencies. These increased credit risks could strain the balance sheets of financial intermediaries,

which may restrict the supply of credit as a result. In addition, concerns about elevated public debt levels and fiscal deterioration in many advanced economies may limit governments' ability to respond to weaker growth.

Cyberattacks and other cyber events could disrupt market functioning and the provision of financial services

Over recent years, cyber events, and the risks they pose to the financial system, have been a recurring concern for participants in the Federal Reserve's market outreach surveys. In addition to malicious cyberattacks and costly heists, non-malicious cyber events, such as software malfunctions, have caused disruptions to the provision of financial services. Shocks caused by cyber events may propagate through complex interdependencies among financial institutions and market infrastructures as well as service providers, and can be further amplified by existing financial vulnerabilities. For example, a cyber event at a financial market utility may disrupt core infrastructure that supports clearing and settlement, degrading market liquidity. An attack on a large financial institution could impair its ability to access or verify data, complete transactions, or meet obligations, posing risks for funding and depositor runs as well as fire sales. Attacks on critical third-party providers could affect multiple institutions, with the effects of such disruptions likely to be further amplified when there is limited substitutability for the affected services. Through continued interagency coordination and information sharing, U.S. government agencies and financial regulators are advancing efforts to further protect the financial system and financial infrastructure from cyber risks.

Box 5.1. Survey of Salient Risks to Financial Stability

As part of its market intelligence gathering, staff from the Federal Reserve Bank of New York solicited views from a wide range of contacts on risks to U.S. financial stability. From February to early April, the staff surveyed 22 contacts, including professionals at broker-dealers, investment funds, and research and advisory firms, as well as academics (figure A). This section is a summary of the views provided by survey respondents and should not be interpreted as representing the views of the Federal Reserve Board or the Federal Reserve Bank of New York.

Risks emanating from changes to global trade policy were the most cited risk. U.S. fiscal debt sustainability, which was the top-cited risk last fall, was slightly less noted this round. Broader policy uncertainty, which was often cited in the survey last fall, remained frequently cited this cycle (figure B). A correction in risk assets as well as persistent inflation were also frequently cited in this round. Respondents also expressed concern that Treasury market functioning could become impaired due to a confluence of factors.

Risks to global trade

Concern over changes to trade policy was the top-cited risk this cycle. While many respondents viewed tariffs as the key risk, some noted that the domestic economy could weather incremental tariffs on imported goods with only modest disruption. Respondents considered that the potential for an escalatory trade war could have more severe consequences.

Policy uncertainty

Respondents also highlighted policy uncertainty outside of trade, including changes in government spending priorities and the extent of U.S. international engagement. As in the fall, the need to raise the debt limit was also cited.

U.S. fiscal debt sustainability

Contacts noted concerns that elevated Treasury supply could crowd out private investment, raise term premia, and further challenge Treasury market liquidity.

Risk asset/valuation correction

Contacts cited a correction in the price of risk assets, with elevated valuations as a notable risk.

Persistent inflation

Respondents continued to note the risk of persistent inflation, though not as frequently as in surveys over the past several years. Participants highlighted that inflation could rise from tariffs and disruptions to global supply chains. Several contacts specifically mentioned the risk that longer-term inflation expectations could become unanchored.

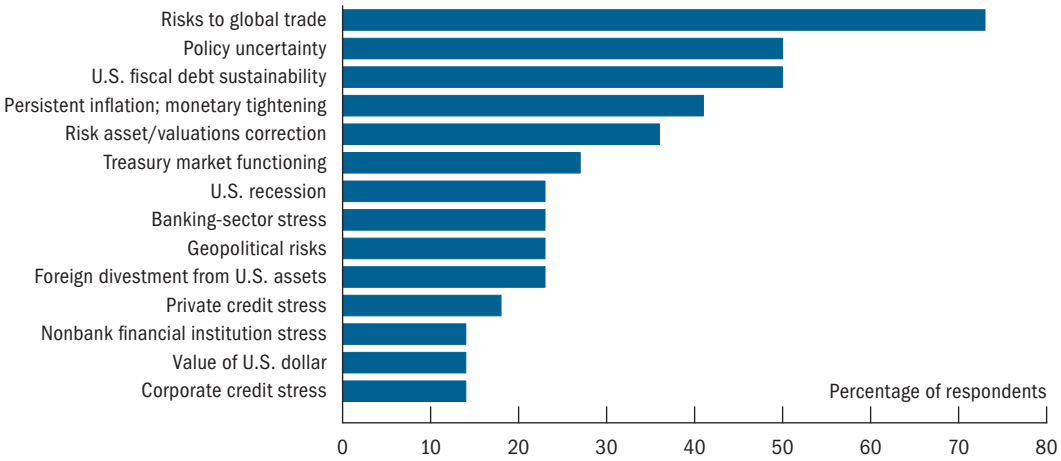
Treasury market functioning

Respondents noted that the intermediation capacity in the Treasury market could become challenged. In addition, some expressed concerns about the demand for Treasury securities from foreign investors and how shifts in investor behavior could impact the Treasury market.

(continued)

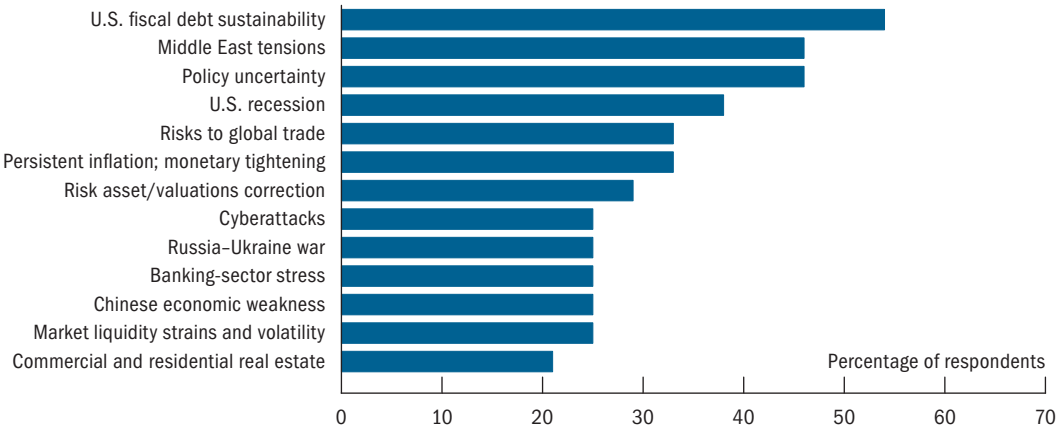
Box 5.1—*continued*

Figure A. Spring 2025: Most cited potential shocks over the next 12 to 18 months



Source: Federal Reserve Bank of New York survey of 22 market contacts from February through early April.

Figure B. Fall 2024: Most cited potential shocks over the next 12 to 18 months



Source: Federal Reserve Bank of New York survey of 24 market contacts from August to October.

Appendix | Figure Notes

Figure 1.1. Nominal Treasury yields remained high

Treasury rates are the 2-year and 10-year constant-maturity yields based on the most actively traded securities. Values are averaged within a calendar month, except for the value of the last month of the series, which is averaged through the data close date.

Figure 1.2. An estimate of the nominal Treasury term premium was near its historical median

Term premiums are estimated from a 3-factor term structure model using Treasury yields and Blue Chip interest rate forecasts. Values are averaged within a calendar month, except for the value of the last month of the series, which is averaged through the data close date.

Figure 1.3. Interest rate volatility remained well above its median since 2005

The data begin in April 2005. Implied volatility on the 10-year swap rate, 1 month ahead, is derived from swaptions. Values are averaged within a calendar month, except for the value of the last month of the series, which is averaged through the data close date.

Figure 1.4. Before the April volatility, the price-to-earnings ratio of S&P 500 firms was close to the upper end of its historical range

The figure shows the aggregate forward price-to-earnings ratio of Standard & Poor's (S&P) 500 firms, based on expected earnings for 12 months ahead. Values are reported as of month-end.

Figure 1.5. As of March, an estimate of the equity premium was near a 20-year low

The data begin in October 1991. The figure shows the difference between the aggregate forward earnings-to-price ratio of Standard & Poor's 500 firms and the expected real Treasury yields, based on expected earnings for 12 months ahead. Expected real Treasury yields are calculated from the 10-year consumer price index inflation forecast, and the smoothed nominal yield curve is estimated from off-the-run securities. Values are reported as of month-end.

Figure 1.6. Volatility in equity markets rose significantly in April

Realized volatility is computed from an exponentially weighted moving average of 5-minute daily realized variances with 75 percent of the weight distributed over the past 20 business days. Median refers to the median option-implied volatility. Values are averaged within a calendar month, except for the value of the last month of the series, which is averaged through the data close date.

Figure 1.7. Corporate bond yields rose but remained near their median for the past 30 years

The triple-B series reflects the effective yield of the ICE Bank of America Merrill Lynch (BofAML) triple-B U.S. Corporate Index (C0A4), and the high-yield series reflects the effective yield of the ICE BofAML U.S. High Yield Index (H0A0). Values are reported as of month-end, except for the value of the last month of the series, which is reported as of the data close date.

Figure 1.8. Corporate bond spreads increased to moderate levels

The triple-B series reflects the option-adjusted spread of the ICE Bank of America Merrill Lynch (BofAML) triple-B U.S. Corporate Index (C0A4), and the high-yield series reflects the option-adjusted spread of the ICE BofAML U.S. High Yield Index (H0A0). Values are reported as of month-end, except for the value of the last month of the series, which is reported as of the data close date.

Figure 1.9. The excess bond premium was near its long-run average

The excess bond premium (EBP) is a measure of bond market investors' risk sentiment. It is derived as the residual of a regression that models corporate bond spreads after controlling for expected default losses. By construction, its historical mean is 0. Positive (negative) EBP values indicate that investors' risk appetite is below (above) its historical mean.

Figure 1.10. Spreads on leveraged loans stayed moderately below their average over the past decade

The data show secondary-market discounted spreads to maturity. Spreads are the constant spread used to equate discounted loan cash flows to the current market price. B-rated spreads begin in July 1997. The black dashed line represents the data transitioning from monthly to weekly in November 2013.

Figure 1.11. Treasury market depth fell significantly in April from already low levels

Market depth is defined as the average top 3 bid and ask quote sizes for on-the-run Treasury securities.

Figure 1.12. On-the-run Treasury market depth was close to its historical lows

The data show the time-weighted average market depth at the best quoted prices to buy and sell, for 2-year and 10-year Treasury notes. OTR is on-the-run.

Figure 1.13. A measure of liquidity in equity markets stayed well below average

The data show the depth at the best quoted prices to buy and sell, defined as the ask size plus the bid size divided by 2, for E-mini Standard & Poor's 500 futures.

Figure 1.14. Commercial real estate prices adjusted for inflation were little changed

The data are deflated using the consumer price index. The dashed line at 100 indicates the index to January 2001 values.

Figure 1.15. Income of commercial properties relative to prices continued to increase but remained below the historical average

The data are a 12-month moving average of weighted capitalization rates in the industrial, retail, office, and multifamily sectors, based on national square footage in 2009.

Figure 1.16. Banks reported tightening lending standards for commercial real estate loans in the fourth quarter of 2024

Banks' responses are weighted by their commercial real estate loan market shares. Survey respondents to the Senior Loan Officer Opinion Survey on Bank Lending Practices are asked

about the changes over the quarter. The shaded bars with top caps indicate periods of business recession as defined by the National Bureau of Economic Research: March 2001–November 2001, December 2007–June 2009, and February 2020–April 2020.

Figure 1.17. House prices continued to increase in recent months

The data extend through February 2025 for Zillow and January 2025 for CoreLogic and Case-Shiller.

Figure 1.18. Model-based measures of house price valuations climbed to near historically high levels

The owners' equivalent rent value for 2025:Q1 is based on monthly data through February 2025. The data for the market-based rents model begin in 2004:Q1 and extend through 2025:Q1.

Figure 1.19. House price-to-rent ratios were broadly unchanged and remained elevated across geographic areas

The data are seasonally adjusted. Percentiles are based on 19 large metropolitan statistical areas.

Figure 1.20. Inflation-adjusted farmland prices rose further in 2024 from already elevated levels

The data for the U.S. begin in 1997. Midwest index is a weighted average of Corn Belt and Great Plains states derived from staff calculations. Values are given in real terms.

Figure 1.21. Farmland prices relative to rents increased to historical highs in 2024

The data for the U.S. begin in 1998. Midwest index is a weighted average of Corn Belt and Great Plains states derived from staff calculations.

Figure 2.1. The total debt of businesses and households relative to GDP declined to its lowest level in 20 years

The shaded bars with top caps indicate periods of business recession as defined by the National Bureau of Economic Research: January 1980–July 1980, July 1981–November 1982, July 1990–March 1991, March 2001–November 2001, December 2007–June 2009, and February 2020–April 2020. GDP is gross domestic product.

Figure 2.2. Both business and household debt-to-GDP ratios continued to fall

The shaded bars with top caps indicate periods of business recession as defined by the National Bureau of Economic Research: January 1980–July 1980, July 1981–November 1982, July 1990–March 1991, March 2001–November 2001, December 2007–June 2009, and February 2020–April 2020. GDP is gross domestic product

Figure 2.3. Business debt adjusted for inflation declined slightly

Nominal debt growth is seasonally adjusted and is translated into real terms after subtracting the growth rate of the price deflator for the core personal consumption expenditures price index.

Figure 2.4. Net issuance of risky debt picked up moderately

The data begin in 2004:Q2. Institutional leveraged loans generally exclude loan commitments held by banks. The key identifies bars in order from top to bottom (except for some bars with at least one negative value). For 2025:Q1, the value corresponds to preliminary data.

Figure 2.5. Gross leverage of large businesses edged down but stayed high by historical standards

Gross leverage is an asset-weighted average of the ratio of firms' book value of total debt to book value of total assets. The 75th percentile is calculated from a sample of the 2,500 largest firms by assets. The dashed sections of the lines in 2019:Q1 reflect the structural break in the series due to the 2019 compliance deadline for Financial Accounting Standards Board rule Accounting Standards Update 2016-02. The accounting standard requires operating leases, previously considered off-balance-sheet activities, to be included in measures of debt and assets.

Figure 2.6. Interest coverage ratios, which indicate firms' ability to service their debt, increased moderately

The interest coverage ratio is earnings before interest and taxes divided by interest payments. Firms with leverage less than 5 percent and interest payments less than $500,000 are excluded.

Figure 2.7. Newly issued leveraged loans with debt multiples greater than 4 increased slightly but remained near their lowest levels in a decade

Volumes are for large corporations with earnings before interest, taxes, depreciation, and amortization greater than $50 million and exclude existing tranches of add-ons and amendments as well as restatements with no new money. The key identifies bars in order from top to bottom.

Figure 2.8. The realized default rate on leveraged loans remained well below its previous peaks

The data begin in December 1998; the data including distressed exchanges begin in December 2016. The default rate is calculated as the amount in default over the past 12 months divided by the total outstanding volume of loans that are not in default at the beginning of the 12-month period. The default rate including distressed exchanges is calculated as the number of issuers in default or distressed exchange over the past 12 months divided by the total number of issuers that are not in default at the beginning of the 12-month period. The shaded bars with top caps indicate periods of business recession as defined by the National Bureau of Economic Research: March 2001–November 2001, December 2007–June 2009, and February 2020–April 2020.

Figure 2.9. Inflation-adjusted household debt was largely unchanged

Subprime are borrowers with an Equifax Risk Score less than 620; near prime are from 620 to 719; prime are greater than 719. Scores are measured contemporaneously. Student loan balances before 2004 are estimated using average growth from 2004 to 2007, by risk score. The data are converted to constant 2024 dollars using the consumer price index.

Figure 2.10. Measures of housing leverage stayed significantly below their peak levels

Housing leverage is estimated as the ratio of the average outstanding mortgage loan balance for owner-occupied homes with a mortgage to (1) current home values using the Zillow national house price index and (2) model-implied house prices estimated by a staff model based on rents, interest rates, and a time trend.

Figure 2.11. Mortgage delinquency rates edged up but remained close to the low end of their historical distribution

Loss mitigation includes tradelines that have a narrative code of forbearance, natural disaster, payment deferral (including partial), loan modification (including federal government plans), or loans with no scheduled payment and a nonzero balance. Delinquent includes loans reported to the credit bureau as at least 30 days past due.

Figure 2.13. New mortgage extensions declined for near-prime and subprime borrowers

The figure plots the year-over-year change in balances for the second quarter of each year among those households whose balance increased over this window. Subprime are those with an Equifax Risk Score less than 620; near prime are from 620 to 719; prime are greater than 719. Scores were measured 1 year ago. The data are converted to constant 2024 dollars using the consumer price index. The key identifies bars in order from left to right.

Figure 2.14. Credit card balances trended up last year; auto and student loan balances were about unchanged

The data are converted to constant 2024 dollars using the consumer price index. Student loan data begin in 2005:Q1.

Figure 2.15. The average maturity of auto loans at origination for used cars was elevated for nonprime borrowers

The data are seasonally adjusted. Loans are for used auto vehicles only. Subprime are those with a VantageScore less than 601; near prime are from 601 to 660; prime are greater than 660.

Figure 2.16. Auto loan delinquencies have been above normal levels

Delinquent includes loans reported to the credit bureau as at least 30 days past due. The data for auto loans are reported semiannually by the Risk Assessment, Data Analysis, and Research Data Warehouse until 2017, after which they are reported quarterly. The data are seasonally adjusted.

Figure 2.17. Inflation-adjusted credit card balances for all risk segments trended higher

Subprime are borrowers with an Equifax Risk Score less than 620; near prime are from 620 to 719; prime are greater than 719. Scores are measured contemporaneously. The data are converted to constant 2024 dollars using the consumer price index.

Figure 2.18. Credit card delinquencies remained somewhat above their pre-pandemic levels

Delinquency measures the fraction of balances that are at least 30 days past due, excluding severe derogatory loans, which are delinquent and have been charged off, foreclosed, or repossessed by the lender. The data are seasonally adjusted.

Figure 3.1. Banks' average risk-based capital ratios were near or above previous peaks

The sample consists of domestic BHCs and intermediate holding companies (IHCs) with a substantial U.S. commercial banking presence. G-SIBs are global systemically important banks. Large non–G-SIBs are BHCs and IHCs with greater than $100 billion in total assets that are not G-SIBs. Before 2014:Q1 (advanced-approaches BHCs) or before 2015:Q1 (non-advanced-approaches BHCs), the numerator of the common equity Tier 1 ratio is Tier 1 common capital. Afterward, the numerator is common equity Tier 1 capital. The denominator is risk-weighted assets. The shaded bars with top caps indicate periods of business recession as defined by the National Bureau of Economic Research: March 2001–November 2001, December 2007–June 2009, and February 2020–April 2020. The data are seasonally adjusted by Federal Reserve Board staff.

Figure 3.2. Banks kept healthy net interest margins

Average interest rate on interest-earning assets is total interest income divided by total interest-earning assets. Average interest expense rate on liabilities is total interest expense divided by total liabilities. The shaded bar with a top cap indicates a period of business recession as defined by the National Bureau of Economic Research: February 2020–April 2020.

Figure 3.3. The fair value losses of banks' securities portfolios remained sizable

The figure plots the difference between the fair and amortized cost values of the securities. The sample consists of all bank holding companies and commercial banks.

Figure 3.4. The ratio of tangible common equity to tangible assets increased, on net, for banks of all categories in the second half of 2024

The sample consists of domestic BHCs, intermediate holding companies (IHCs) with a substantial U.S. commercial banking presence, and commercial banks. G-SIBs are global systemically important banks. Large non–G-SIBs are BHCs and IHCs with greater than $100 billion in total assets that are not G-SIBs. Bank equity is total equity capital net of preferred equity and intangible assets. Bank assets are total assets net of intangible assets. The shaded bars with top caps indicate periods of business recession as defined by the National Bureau of Economic Research: July 1990–March 1991, March 2001–November 2001, December 2007–June 2009, and February 2020–April 2020. The data are seasonally adjusted by Federal Reserve Board staff.

Figure 3.5. The financial condition of firms with commercial and industrial bank loans has slightly deteriorated

The figure shows the weighted median leverage of nonfinancial firms that borrow using commercial and industrial loans from the 23 banks that have filed in every quarter since 2013:Q1. Leverage is measured as the ratio of the book value of total debt to the book value of total

assets of the borrower, as reported by the lender, and the median is weighted by committed amounts.

Figure 3.6. Credit standards for commercial and industrial loans were little changed in the second half of 2024

Banks' responses are weighted by their commercial and industrial loan market shares. Survey respondents to the Senior Loan Officer Opinion Survey on Bank Lending Practices are asked about the changes over the quarter. Results are shown for loans to large and medium-sized firms. The shaded bars with top caps indicate periods of business recession as defined by the National Bureau of Economic Research: March 2001–November 2001, December 2007–June 2009, and February 2020–April 2020.

Figure 3.7. Leverage at broker-dealers remained near historical lows

Leverage is calculated by dividing total assets by equity.

Figure 3.8. Trading profits in the second half of 2024 were within the range of the past 5 years

The sample includes all trading desks of bank holding companies subject to the Volcker rule reporting requirement.

Figure 3.9. The distribution of the sources of broker-dealer trading profits was in line with recent averages

The sample includes all trading desks of bank holding companies subject to the Volcker rule reporting requirement. The "other" category comprises desks trading in municipal securities, foreign exchange, and commodities, as well as any unclassified desks. The key identifies series in order from top to bottom.

Figure 3.10. Leverage at life insurers was around the 85th percentile of its historical distribution

Ratio is calculated as (total assets – separate account assets)/(total capital – accumulated other comprehensive income) using generally accepted accounting principles. The largest 10 publicly traded life and property and casualty insurers are represented.

Figure 3.11. As of 2024:Q3, hedge funds' leverage was at its highest level since data became available

Means are weighted by net asset value (NAV). On-balance-sheet leverage is the ratio of gross asset value to NAV. Gross leverage is the ratio of gross notional exposure to NAV. Gross notional exposure includes both on-balance-sheet exposures and off-balance-sheet derivative notional exposures. Options are delta adjusted, and interest rate derivatives are reported at 10-year bond equivalent values. The data are reported on a 2-quarter lag beginning in 2013:Q1.

Figure 3.12. Balance sheet leverage at the 15 largest hedge funds stayed elevated

Leverage is measured by gross asset value (GAV) divided by net asset value (NAV). Funds are sorted into cohorts based on GAV. Average leverage is computed as the NAV-weighted mean. The data are reported on a 2-quarter lag beginning in 2013:Q1.

Figure 3.13. Dealers indicated that the use of leverage by hedge funds remained largely unchanged for most clients

Net percentage equals the percentage of institutions that reported increased use of financial leverage over the past 3 months minus the percentage of institutions that reported decreased use of financial leverage over the past 3 months. REIT is real estate investment trust.

Figure 3.14. The pace of issuance of securitized products remained robust through March

The data from the first quarter of 2025 are annualized to create the 2025 bar. RMBS is residential mortgage-backed securities; CMBS is commercial mortgage-backed securities; CDO is collateralized debt obligation; CLO is collateralized loan obligation. The "other" category consists of other asset-backed securities (ABS) backed by credit card debt, student loans, equipment, floor plans, and miscellaneous receivables; resecuritized real estate mortgage investment conduit (Re-REMIC) RMBS; and Re-REMIC CMBS. The data are converted to constant 2025 dollars using the consumer price index. The key identifies bars in order from top to bottom.

Figure 3.15. Bank credit commitments to nonbank financial institutions increased

Committed amounts on credit lines and term loans extended to nonbank financial institutions. Nonbank financial institutions are identified based on reported North American Industry Classification System (NAICS) codes. In addition to NAICS codes, a name-matching algorithm is applied to identify specific entities such as real estate investment trusts (REITs), special purpose entities, collateralized loan obligations (CLOs), asset-backed securities (ABS), private equity, business development companies (BDCs), and private credit. REITs incorporate both mortgage (trading) REITs and equity REITs. Broker-dealers also include commodity contracts dealers and brokerages and other securities and commodity exchanges. Other financial vehicles include closed-end investment and mutual funds.

Figure 3.16. Growth of commitments to open-end investment funds, special purpose entities, collateralized loan obligations, and asset-backed securities grew between 2023:Q4 and 2024:Q4

The figure shows 2024:Q4-over-2023:Q4 growth rates as of the end of the fourth quarter of 2024. REIT is real estate investment trust; PE is private equity; BDC is business development company; SPE is special purpose entity; CLO is collateralized loan obligation; ABS is asset-backed securities. The key identifies bars in order from left to right.

Figure 4.1. The ratio of runnable money-like liabilities to GDP remained near its median

The black striped area denotes the period from 2008:Q4 to 2012:Q4, when insured deposits increased because of the Transaction Account Guarantee program. The "other" category consists of variable-rate demand obligations (VRDOs), federal funds, funding-agreement-backed securities, private liquidity funds, offshore money market funds, short-term investment funds, local government investment pools, and stablecoins. Securities lending includes only lending collateralized by cash. GDP is gross domestic product. Values for VRDOs come from Bloomberg beginning in 2019:Q1. See Jack Bao, Josh David, and Song Han (2015), "The Runnables," FEDS Notes

(Washington: Board of Governors of the Federal Reserve System, September 3), https://www.federalreserve.gov/econresdata/notes/feds-notes/2015/the-runnables-20150903.html.

Figure 4.2. The share of high-quality liquid assets to total assets remained above pre-pandemic levels

The sample consists of domestic BHCs, intermediate holding companies (IHCs) with a substantial U.S. commercial banking presence, and commercial banks. G-SIBs are global systemically important banks. Large non–G-SIBs are BHCs and IHCs with greater than $100 billion in total assets that are not G-SIBs. Liquid assets are cash plus estimates of securities that qualify as high-quality liquid assets as defined by the Liquidity Coverage Ratio requirement. Accordingly, Level 1 assets as well as discounts and restrictions on Level 2 assets are incorporated into the estimate.

Figure 4.3. Banks' reliance on short-term wholesale funding has returned to pre-pandemic levels

Short-term wholesale funding is defined as the sum of large time deposits with maturity less than 1 year, federal funds purchased and securities sold under agreements to repurchase, deposits in foreign offices with maturity less than 1 year, trading liabilities (excluding revaluation losses on derivatives), and other borrowed money with maturity less than 1 year. The shaded bars with top caps indicate periods of business recession as defined by the National Bureau of Economic Research: March 2001–November 2001, December 2007–June 2009, and February 2020–April 2020.

Figure 4.4. Assets under management at money market funds increased to an all-time high in January

The data are converted to constant 2025 dollars using the consumer price index.

Figure 4.5. Market capitalization of major stablecoins has grown significantly

The key identifies series in order from top to bottom.

Figure 4.6. Corporate bonds held by bond mutual funds increased in the second half of 2024

The data show holdings of all U.S. corporate bonds by all U.S.-domiciled mutual funds (holdings of foreign bonds are excluded). The data are converted to constant 2024 dollars using the consumer price index.

Figure 4.7. Assets held by bank loan and high-yield mutual funds have been trending up since late 2023

The data are converted to constant 2025 dollars using the consumer price index. The key identifies series in order from top to bottom.

Figure 4.8. Mutual fund flows remained subdued through February

Mutual fund assets under management as of February 2025 included $2,428 billion in investment-grade bond mutual funds, $276 billion in high-yield bond mutual funds, and $86 billion in bank loan mutual funds. Bank loan mutual funds, also known as floating-rate bond funds, are excluded from high-yield bond mutual funds.

Figure 4.9. Life insurers' reliance on nontraditional liabilities for funding increased further in the second half of 2024

The data are converted to constant 2024 dollars using the consumer price index. FHLB is Federal Home Loan Bank. The data are annual from 2006 to 2010 and quarterly thereafter. The key identifies bars in order from top to bottom.

Figure 4.10. Life insurers continued to hold a significant share of risky and illiquid assets on their balance sheets

The data are converted to constant 2023 dollars using the consumer price index. Securitized products include collateralized loan obligations for corporate debt, private-label commercial mortgage-backed securities for commercial real estate (CRE), and private-label residential mortgage-backed securities and asset-backed securities (ABS) backed by autos, credit cards, consumer loans, and student loans for other ABS. Illiquid corporate debt includes private placements, bank and syndicated loans, and high-yield bonds. Alternative investments include assets filed under Schedule BA. P&C is property and casualty. The key identifies bars in order from top to bottom.

Box 5.1. Survey of Salient Risks to Financial Stability

Figure A. Spring 2025: Most cited potential shocks over the next 12 to 18 months

Responses are to the following question: "Over the next 12–18 months, which shocks, if realized, do you think would have the greatest negative impact on the functioning of the U.S. financial system?"

Figure B. Fall 2024: Most cited potential shocks over the next 12 to 18 months

Responses are to the following question: "Over the next 12–18 months, which shocks, if realized, do you think would have the greatest negative impact on the functioning of the U.S. financial system?"

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