MONTHLY
MARKET REVIEW

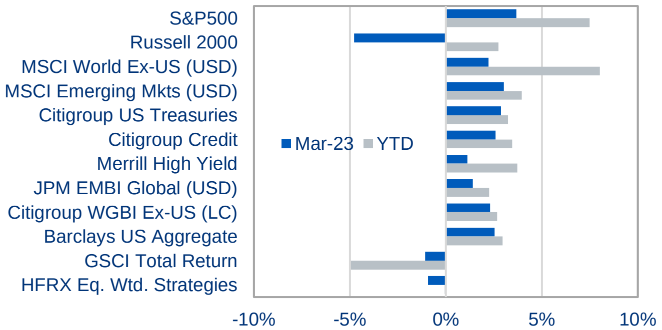
03 2023

Global Market Review

Notwithstanding the failure of three regional banks in the U.S. and of a global systemically important bank based in Switzerland, U.S. and non-U.S. equity markets rose in March and ended the quarter with healthy gains. The equity market rally was fueled in part by speculation that March's mini-banking crisis would push the Fed and other major central banks to slow the pace of policy tightening (see Appendix). Reflecting this expectation, U.S. tech stocks enjoyed particularly strong gains, although concerns over the profitability and soundness of the banking sector drove U.S. bank stocks sharply lower. In expectation of easier monetary policies ahead, global bond markets joined in the equity rally. Shorter term yields most sensitive to the policy tightening cycle fell especially sharply. The decline in U.S. yields contributed to the depreciation of the U.S. dollar against most major currencies. Commodity prices also declined, largely reflecting the price of crude.

Performance of Major Market Indices

Sources: S&P, MSCI, FTSE Russell, Barclays, Citigroup, Bank of America Merrill Lynch, J.P. Morgan, HFR, Bloomberg.



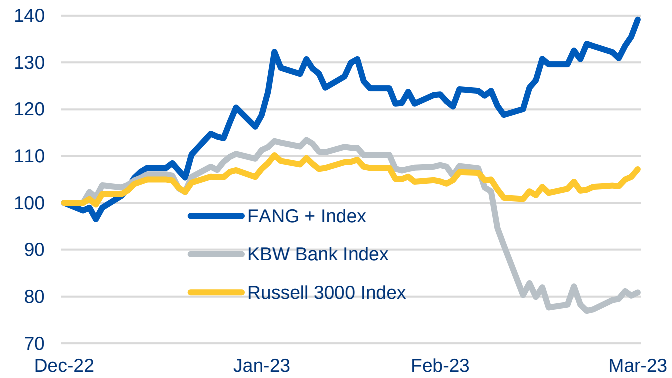
Banks fail. Markets shrug.

U.S. Equities Unfazed by March Banking Madness

The failure of Silicon Valley Bank (SVB) followed in quick succession by the shuttering of two other smaller banks undermined confidence in the soundness of U.S. regional banks, sending their shares sharply lower. The broader U.S. equity market shrugged off the banking sector turmoil, however. After an initial dip in the wake of SVB's failure, U.S. equities rebounded to end the month higher. The rally was led by a sharp increase in the shares of large-cap growth stocks in the tech sector included in the FANG index (Exhibit 1). The rally in the broad market and tech stocks in particular was driven in part by a sharp adjustment in expectations for the future path of U.S. monetary policy. As discussed in more detail in the Appendix to this month's market review, sentiment shifted to the expectation that the Fed would slow the pace of policy tightening to reduce the risk of precipitating a full-blown banking crisis.

Exhibit 1. Banks Down, Tech Up, Broad Market Gains

Source: Bloomberg. Index, January 1, 2023 = 100.



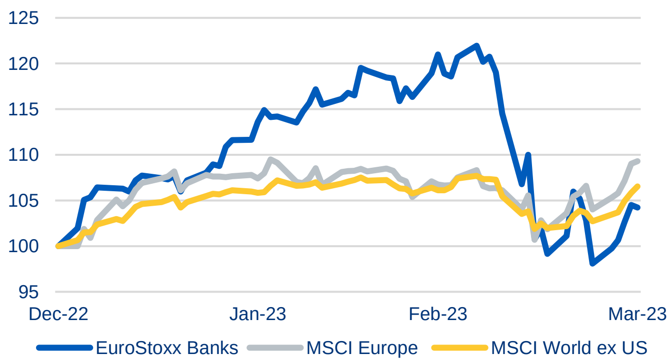
The prospect of an earlier end to the tightening cycle sent U.S. equities and especially tech stocks higher in March. The S&P 500 rose 3.7%, bringing its first quarter gain to 7.5%. The March rebound was heavily concentrated on growth stocks (up 6.25%) and large cap stocks (up 3.2%). So far this year, growth stocks are up 13.9%, while large cap stocks have gained 7.5%. Value stocks, in contrast, lost 0.9% in March, in part reflecting the heavy share of banks and financials in the value index. So far this year, value stocks have generated a small gain (up 0.9%), while small cap stocks are up 2.7%. Stocks in the tech and telecom sectors led all others, with both sectors rising 10.2% in March to bring their gains so far in 2023 to 21.1% and 20%, respectively. Not surprisingly, financials lagged all other sectors in March, falling 9.8% to end the quarter down 5.3%.

Non-U.S. Equity Markets Rally Despite Bank Mayhem

The Swiss Central Bank presided over a shotgun wedding of UBS and Credit Suisse (CS) to prevent a disorderly failure of Credit Suisse, whose collapse would have had a major impact on the global banking system. Despite the threat posed by the loss of confidence in CS and a sharp decline in European bank stocks, European equity markets rose, gaining 2.4% in March and 10.6% in the first quarter (Exhibit 2). The MSCI World ex-U.S. index also rose in March, gaining 2.2%, resulting in a 8.0% return in the first quarter. Hopes for a moderating pace of inflation, largely reflecting a fall in energy prices, contributed to the European equity market rally as did coincident indicators of economic activity suggesting that business confidence and activity were picking up.

Exhibit 2. EU Equities Rally Despite Bank Turmoil

Source: Bloomberg. January 1, 2022 = 100.



Emerging equity markets rose 3% in March to bring their gain for the first quarter to 4%. Chinese markets performed particularly well, gaining 4.5% in March and 5.3% for the quarter. The main catalyst for the Chinese market's gains appeared to be a continued economic rebound driven by pent-up demand released following the end of the zero-COVID policy, and a corresponding increase in manufacturing output. Across regional emerging markets, Asian stocks gained 4.6% in the first quarter, while Latin American bourses rose 3.1%. Emerging markets in Europe, the Middle East and Africa lost ground, however, falling 2.2% in the first three months of the year.

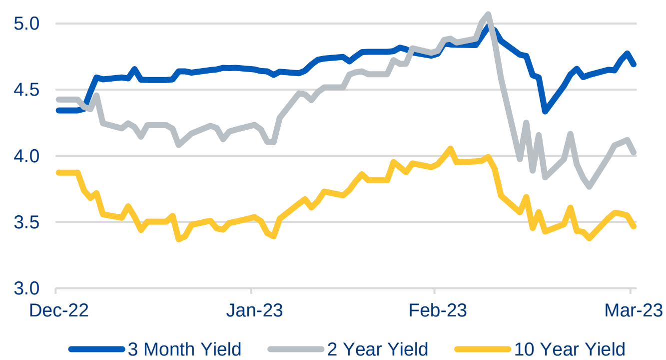
Balancing Price and Financial Stability

Major central banks raised rates in March, continuing the fight against inflation despite banking sector turmoil. However, the Fed did moderate the pace of its rate hike to 25 basis points, in part reflecting concerns over the impact of higher rates on banking sector stability. Nevertheless, the current U.S. tightening cycle remains the steepest since 1982. The ECB, for its part, did not slow its pace of tightening in response to the loss of confidence in CS. It raised its policy rate by 50 basis points in March, its sixth consecutive increase of that magnitude. Following the increase, ECB President Lagarde said that the ECB saw "no tradeoff" between price and financial stability, arguing that the European banking system was sound and that the ECB had the tools to achieve both objectives.

Despite these policy rate increases and reiterated central bank commitments to fight inflation, yields fell across advanced economy bond markets. The fall in the yield on the 2-year U.S. Treasury note, which is especially sensitive to changes in the direction of monetary policy, fell sharply (Exhibit 3). While the entire U.S. Treasury yield curve shifted lower, it remained steeply inverted between 3-month and 10-year maturities and continued to signal a risk of recession. The decline in the 10-year U.S. Treasury yield in the first quarter was driven almost entirely by a fall in real yields, leaving implied average expected inflation over the next 10 years constant at about 2¼%.

Exhibit 3. 2-Year U.S. Treasury Yield Plummets

Source: Bloomberg. Yields in percent.



Reflecting these yield movements, U.S. Treasuries gained 2.9% in March to bring their return for the quarter to 3.2%. In the credit markets, investment grade (up 3.1%) and high yield bonds (up 3.6%) generated gains for the quarter as yield spreads tightened marginally.

Outside of the U.S., the WGBI ex-U.S. index of advanced sovereign bonds rose 4.5% in March, bringing its return for the first quarter to 3.7%. The EMBI index of emerging market sovereign bonds returned 1.4% in March and 2.2% for the quarter.

Performance of Major Market Indices through 3-31-2023

Sources: MSCI, FTSE, Barclays, Citigroup, Bank of America Merrill Lynch, J.P. Morgan, S&P GSCI, HFR, Bloomberg.

	1-Month	QTD	YTD	1-Year	3-Year	5-Year
S&P500	3.7%	7.5%	7.5%	-7.7%	18.6%	11.2%
Russell 2000	-4.8%	2.7%	2.7%	-11.6%	17.5%	4.7%
MSCI World Ex-US (USD)	2.2%	8.0%	8.0%	-2.7%	13.5%	3.8%
MSCI Emerging Mkts (USD)	3.0%	4.0%	4.0%	-10.7%	7.8%	-0.9%
Citigroup US Treasuries	2.9%	3.2%	3.2%	-4.6%	-4.1%	0.7%
Citigroup Credit	2.6%	3.5%	3.5%	-5.5%	-0.6%	1.6%
Merrill High Yield	1.1%	3.7%	3.7%	-3.6%	6.1%	3.1%
JPM EMBI Global (USD)	1.4%	2.2%	2.2%	-5.9%	0.3%	-0.2%
Citigroup WGBI Ex-US (LC)	2.3%	2.7%	2.7%	-8.2%	-4.3%	-1.4%
Barclays US Aggregate	2.5%	3.0%	3.0%	-4.8%	-2.8%	0.9%
GSCI Total Return	-1.1%	-4.9%	-4.9%	-10.0%	30.5%	4.9%
HFRX Eq. Wtd. Strategies	-0.9%	-0.1%	-0.1%	-2.8%	4.0%	1.1%

Appendix – March Banking Madness

Largest U.S. Bank Failure Since the Great Financial Crisis

The possibility for multiple equilibria and the inherent fragility of confidence are the main forces propelling the self-fulfilling dynamic of banking and financial crises. The classic case of this self-fulfilling dynamic is an old school bank run in which each depositor rushes to withdraw funds on deposit before other depositors empty the bank's coffers. The run drains the bank of liquidity and can push an otherwise sound bank into insolvency, often culminating in fire sales of liquid securities that contribute to a downward spiral of confidence, liquidity, and asset prices. The failures in March of Silicon Valley Bank (SVB) and Signature Bank (SBNY), and the decision by Silvergate (SI) to wind down its operations voluntarily are the latest manifestations of this dynamic in action.

On March 10, 2023, SVB (with $209 billion in assets) became the second largest bank failure in U.S. history. Prior to its demise, SVB was the bank of venture capital, and its deposits were heavily concentrated on venture capital firms. Prior to 2022, SVB enjoyed a rapid influx of deposits from venture capital firms that were themselves flooded with capital from investors. Reflecting these inflows, SVB's total assets more than tripled, jumping from $60 billion at end-2019 to $209 billion at end-2022. The flows into venture capital that drove SVB's deposit growth were spurred by a long period of easy money that pushed investors out the risk spectrum in search of higher returns. With short-term yields near zero, SVB, in turn, invested its rapidly growing deposit base in long-dated U.S. Treasuries and mortgage-backed securities in an effort to "reach for yield." The rapid growth of SVB's deposits and the way in which SVB deployed these deposited funds was thus largely driven by the long period of low yields, rendering both sides of the balance sheet exposed to the risk of an increase in yields.

While the proximate cause of SVB's demise was a classic hemorrhage of deposits, two features of SVB's balance sheet made it especially vulnerable.

- On the liability side, a large proportion of its deposits – over 90% – were uninsured, and therefore particularly susceptible to flight. Worse still, the heavy concentration of SVB's deposit base on a tightly knit group of venture capital firms made it especially susceptible to herd behavior (Exhibit 1).
- On the asset side, U.S. Treasury and mortgage-backed securities represented 55% of total assets, an unusually high percentage (see Exhibit 1). These holdings were vulnerable to heavy losses in a rising interest rate environment.

Although SVB's balance sheet structure constituted a stable equilibrium in a period of sustained low interest rates, rising rates posed two major risks. First, on the asset side, its large holdings of long-duration bonds fell in price as interest rates rose. It is estimated that rising yields generated unrealized losses of $15.1 billion on SVB's bond holdings, compared to its capital of $16 billion.

Second, on the liability side, SVB's deposit base was also highly sensitive to interest rate movements. The rapid growth of SVB's deposits prior to 2022 largely reflected deposits from venture capital firms flush with cash from a massive inflow of investor funds. As yields rose, flows into venture capital dried up, and venture firms began to tap deposits for working capital needs. Outflows intensified when depositors grasped the full extent of SVB's unrealized losses on its securities holdings. SVB's assets and liabilities were thus both highly sensitive to interest rate movements.

Exhibit 1. SVB's Unstable Balance Sheet Structure

Sources: FDIC and company financial statements. Data as of 12/31/22.

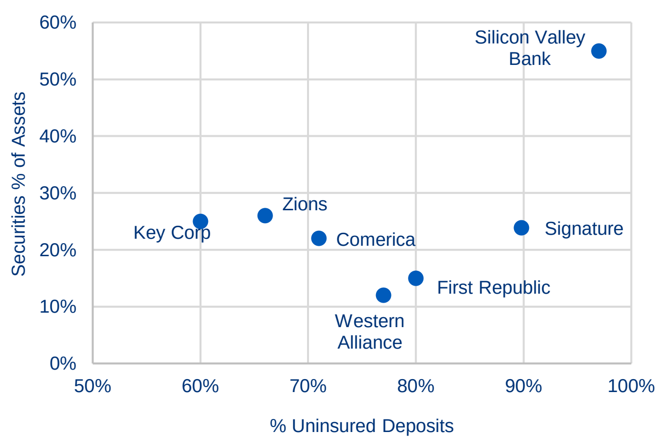
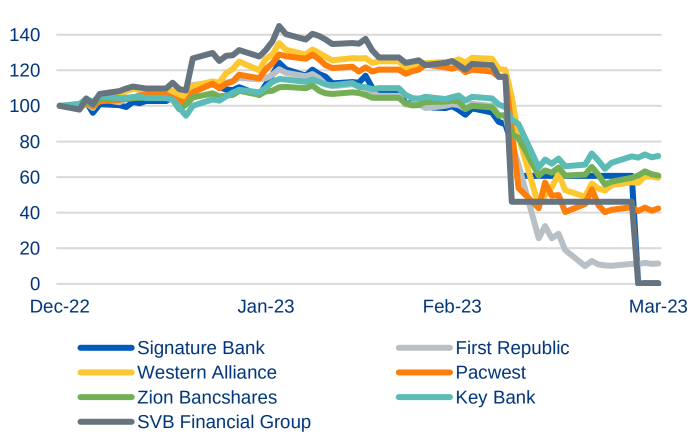


Exhibit 2. U.S. Regional Bank Stocks Plummet

Source: Bloomberg. Data through March 2023.



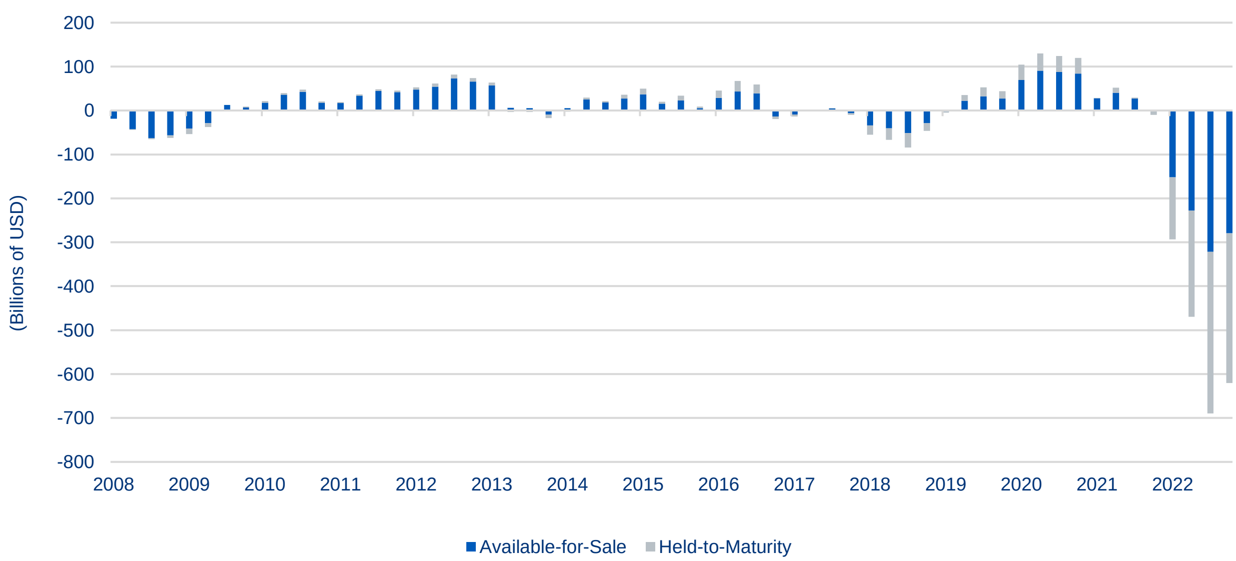
Two other U.S. banks closed in March. These banks, SBNY ($110 billion in assets) and SI ($11.3 billion in assets), shared some of the same vulnerabilities driving SVB's demise: a lack of diversification, rapid deposit growth, a poorly managed asset/liability maturity mismatch, excessive liquidity risk, and a vulnerability to rising interest rates on both the asset and liability sides of the balance sheet. Like SVB, SBNY and SI had benefited from a rapid increase in deposits triggered in part by low interest rates. Uninsured deposits accounted for a high share of the total. Nearly 90% of SBNY's deposits were uninsured (see Exhibit 1). Moreover, the depositors in SBNY and SI were concentrated in a single industry – cryptocurrencies – and were thus, like SVB, susceptible to herd behavior.

The catalyst for the failures of SBNY and SI was a rapid withdrawal of cryptocurrency-related deposits following the collapse of FTX in November 2022 and the subsequent turmoil in the cryptocurrency market. SI lost 68% of its deposits in the fourth quarter of 2022. SBNY lost a relatively modest 19% of its deposits in the course of 2022, but this pace accelerated rapidly in early March as confidence in the bank collapsed. On March 10, SBNY lost a further 20% of its deposits in a few hours, rendering the bank illiquid, and triggering intervention by the Fed.

The collapse in quick succession of these three banks raised a serious risk of contagion across the banking sector, with the shares of regional banks especially hard hit (Exhibit 2). To forestall a broader crisis of confidence, the Fed, the FDIC, and other regulatory authorities decided to guarantee that all depositors, including the uninsured, would have access to their funds. Other elements of the regulatory intervention followed the standard playbook. The equity of SVB and SBNY was wiped out, senior management replaced, and new buyers were eventually found to take on their banking operations. SI is liquidating its operations voluntarily.

SVB, SBNY, and SI are not the only U.S. banks to have accumulated long-dated U.S. Treasury and mortgage-backed securities on their balance sheets. Securities holdings rose by 44% over the years of the pandemic, a time of rapid deposit growth and low yields. At end-2022, the U.S. banking system held $5.5 trillion of such securities. By end-2022, unrealized losses on these securities were estimated by the FDIC to total $620 billion (Exhibit 3). Other more recent estimates of unrealized losses across all banking sector assets, suggest that such losses could be as much as $1.5 – 2.0 trillion, about equal to the entire capital of U.S. banks. This asset structure and large quantum of unrealized loss increase the risk that a bank run could trigger a fire sale to meet liquidity needs, leading to a downward spiral of further price declines and accelerating deposit withdrawals.

Exhibit 3. Unrealized Losses on Securities Held by U.S. Banks Explode with Rising Rates
Source: FDIC.



Following the collapse of SVB, SBNY, and SI, depositors have moved assets away from smaller banks to larger banks and money market mutual funds. The flow to larger banks appears motivated by prudential considerations, while the flow into money market funds reflects the higher returns being offered. As we consider further below, these flows as well as other repercussions of the bank failures in March are further complicating the Fed's fight against inflation.

Shotgun Marriage of UBS and Credit Suisse

European bank stocks also fell sharply as the shock waves of SVB's failure reverberated around the globe (Exhibit 4). While the initial fall was sharp and widespread, European bank stocks ultimately rebounded and ended the quarter with a gain. Credit Suisse (CS), the second largest bank in Switzerland and a bank considered by international regulators to be a Global Systemically Important Bank, was the sole European victim of the contagion from the U.S. regional bank turmoil. Although the failure of CS followed close on the heels of the March banking mayhem in the U.S., the seeds for its demise were planted much earlier in the form of a series of high-profile losses, fines for money laundering and other regulatory compliance failures, data breaches, and weaknesses in financial reporting and controls. These longstanding difficulties had resulted in a significant, but manageable withdrawal of assets by its high-net worth clientele who represented the bulk of CS' wealth management business. CS lost 40% of its deposits and 15% of the funds in its wealth management business in 2021 – 2022. These outflows turned into a flood in the aftermath of SVB's failure. Fearing a disorderly collapse of its second largest bank, the Swiss Central Bank forced a shotgun wedding of UBS and CS over the weekend of 18-19 March, with the admonishment to CS that, "You will merge with UBS and announce Sunday evening before Asia opens. This is not optional." Needless to say, the terms of the merger heavily favored UBS, as suggested by the increase in its share price after the nuptials (Exhibit 5).

Exhibit 4. European Bank Stocks Recover from Steep Fall

Source: Bloomberg. Index, 12/31/2022 = 100.

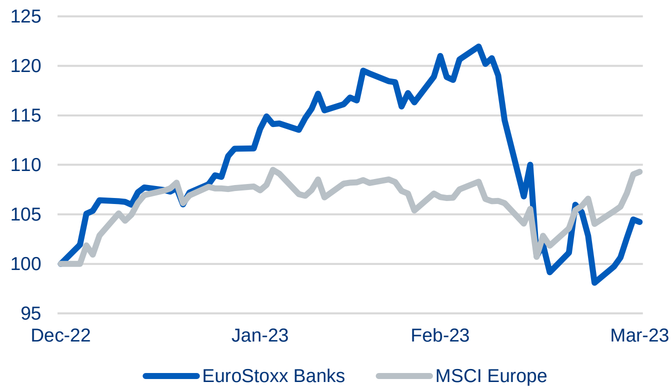
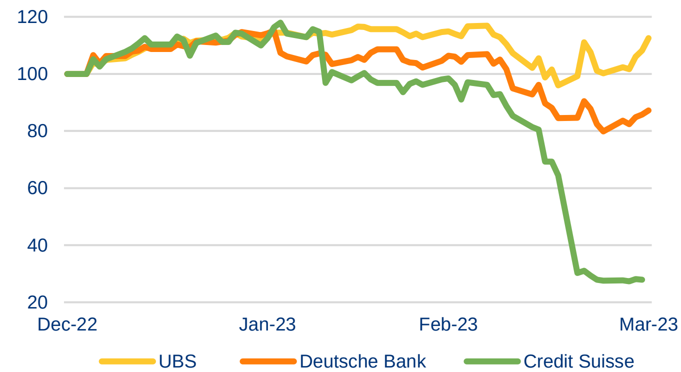


Exhibit 5. Credit Suisse's Loss is UBS' Gain

Source: Bloomberg. Index, 12/31/2022 = 100.



Banking Turmoil Compounds Uncertainty over the Future Path of Monetary Policy

March's mini-banking crisis was an unintended consequence of the abrupt shift by the Fed and other major central banks from a long period of an extraordinarily easy monetary policy to a rapid tightening focused on fighting inflation. The period of easy money encouraged investors to move out the risk spectrum and to increase leverage, thus compressing risk premiums and contributing to froth in highly speculative rolls of the dice from crypto, to SPACs, meme stocks, and beyond.

We now face the risk that hidden pockets of leverage previously papered over by ample liquidity could be suddenly revealed. As monetary and financial conditions tighten, asset prices and leveraged positions predicated on the persistence of easy money become vulnerable. At extremes, leveraged positions can become subject to margin spirals. In these vicious cycles, falling asset prices trigger margin calls, leading to the forced sales of assets that further pressure prices and result in additional margin calls. Where these vulnerabilities lie and how they will manifest themselves as central banks scrape away the protective veneer of abundant liquidity is unpredictable. One example is last September's U.K. LDI crisis that roiled the gilt market until the forceful intervention of the Bank of England to prevent a margin spiral from spinning out of control. The March mayhem across U.S. regional banks is another example of how potentially explosive positions that appear safe when yields are low can quickly become highly unstable and trigger a broader contagion.

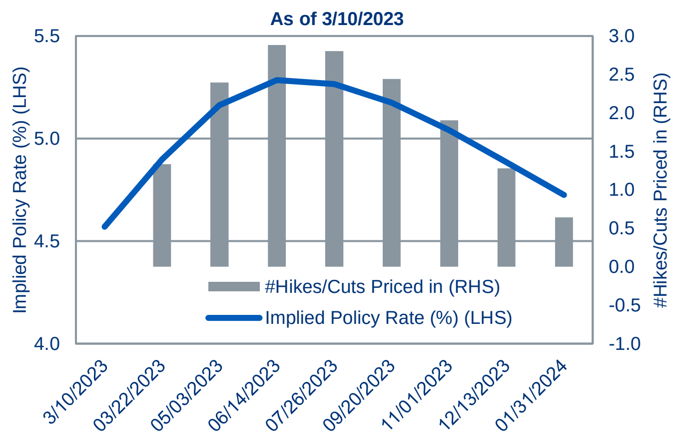
Both of these examples highlight the difficult task facing major central banks. Fighting inflation and maintaining financial stability can be conflicting. To fight inflation, central banks tighten liquidity. To keep a margin spiral from spinning out of control, central banks inject liquidity. The bond market reaction to the U.S. regional banking crisis was in part driven by an appreciation of the delicate balancing act facing central banks, and the potential conflict they face in seeking to maintain both price and market stability.

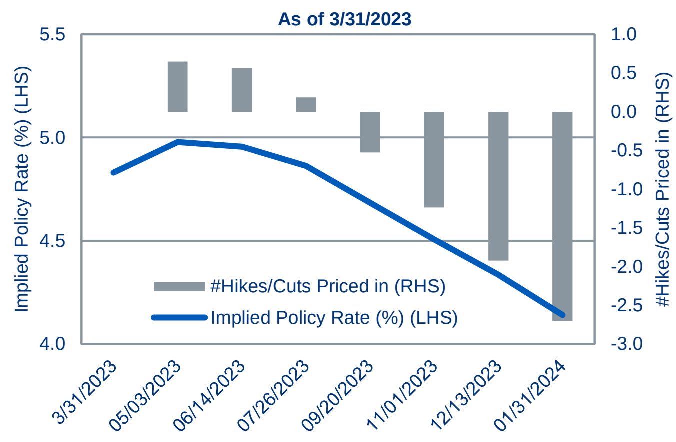
In the immediate aftermath of SVB's failure and the broader contagion across global banks, the yield on the 2-year U.S. Treasury note plunged from about 5.1% to a low of 3.8% as markets reversed their expectations for the future path of U.S. monetary policy. On March 10, immediately before SVB's failure, markets expected the Fed to continue to raise the Fed Funds rate to 5.25 – 5.50% at its peak and to maintain rates above 4.75% until early next year (Exhibit 6, left panel). By the end of the month, expectations had shifted to a more rapid softening of monetary policy, with the Fed Funds rate expected to range between 4.0 – 4.25% by early next year (Exhibit 6, right panel).

The moves in the 2-year Treasury note and the expected path of the Fed funds rate appear to reflect two key judgments by the market. First, in striking the balance between price and market stability, the Fed will lean toward preserving market stability. Second, and relatedly, the turmoil in the banking sector has itself contributed to a tightening of monetary conditions that will help reduce inflationary pressures and thus support the Fed's first objective of restoring price stability.

Exhibit 6. Following Banking Turmoil, Fed Funds Futures Point to a Return to Easier Policies

Source: Bloomberg. Expected path of the Fed Funds rate as predicted by the futures market on March 10 and 31, 2023.





This market view has been reinforced by the actions of the Fed, which reduced the pace of rate hikes to 25 basis points in the March 22 FOMC meeting. Moreover, the Fed and the FDIC engaged in targeted injections of liquidity into the banking sector that together approached the levels reached in 2008 during the Great Financial Crisis.

The market was also right to suppose that the banking crisis would tighten financial conditions and thus help ease price pressures. Two developments contributed to this tightening. First, the banking crisis accelerated a reduction of commercial bank deposits and the money supply that had been ongoing (Exhibit 7). In addition, banks reacted to the turmoil by tightening standards for commercial and industrial loans to large and small businesses (Exhibit 8).

Exhibit 7. Bank Deposits and Money Supply Decline

Source: FRED. YoY change. Data through March 2023.

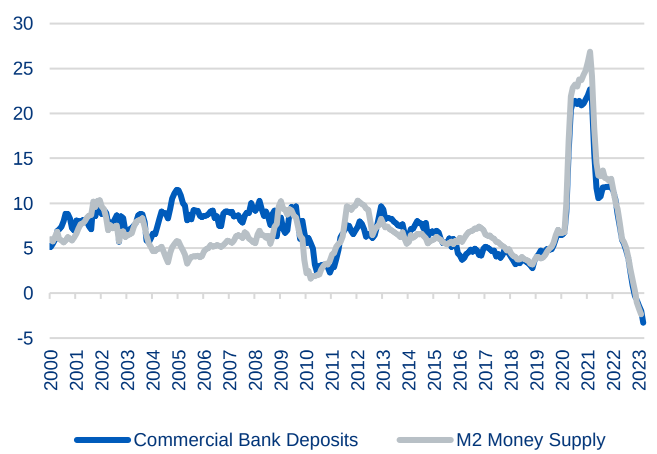
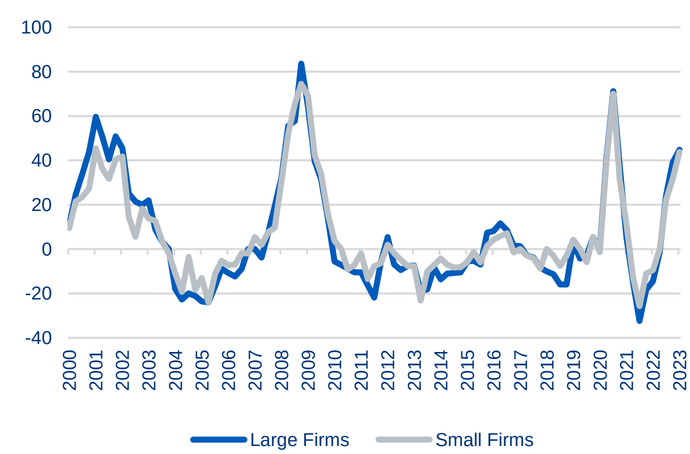


Exhibit 8. Banks Tighten Lending Standards

Source: FRED. % of banks tightening standards. Data through March 2023.



For the present, the March mayhem across U.S. regional banks appears to have been contained with contagion limited to a few banks. The lasting impact of this event is a reminder of the turbulent nature of the transition from easy to tight policies and of the delicate balancing act central banks face in restoring price stability while avoiding a potentially a highly destructive financial crisis.