



Points of View: What's the Fed to do?

March 2023

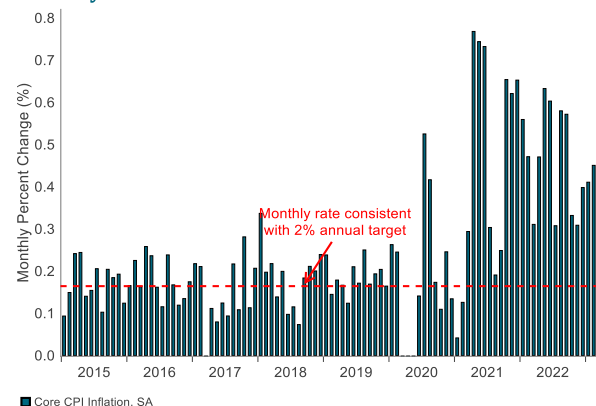
Key Points

- Recent stresses in the global financial systems, albeit generally confined to its weakest links, carry an increased probability of a credit pullback later this year. This would result in lower real activity as well.
- We believe the Federal Reserve (Fed) will have to walk a tight rope in the next two months, possibly with more caution than suggested by market pricing before the recent banking system stresses.
- If credit creation shrinks notably, it would likely solve the central banks' inflation problem, likely at the price of a recession. If net credit creation does not moderate, there is a reasonable probability that core inflation will remain above the Fed's 2% objective.
- Stresses across the banking system in the light of much higher policy and market rates and ongoing quantitative tightening (QT) ought to be expected and will continue to present policymakers with challenges related to financial stability.

There are many ways to skin the cat, especially whilst writing its post-mortem. In the case of the current banking system pressures, one obvious approach would be to point out that, in retrospect, some bank models may not work well in a rapidly rising rate and inverted yield curve environments. This is especially true for banks whose funding sources shift quickly in a rising rate environment and at the first signs of pressure (e.g., banks that fund themselves with deposits held for non-operating purposes, or wholesale funding- funding in private markets outside of the deposit base) and whose asset portfolios are subject to significant duration or quality risks that can call capital adequacy into question.

This leaves the Fed with a very uncomfortable dilemma. On the one hand, the outlook for the US economy deteriorated considerably in the last two weeks based on the banking system dynamics. Small and regional banks are important providers of funding to small and medium sized enterprises, who in turn are responsible for providing many US households with jobs. On the other hand, hard data, including employment but most notably, inflation, remain resilient (for now). The February Consumer Price Index (CPI) print, released on March 14, was stronger-than -expected. Shelter price momentum has remained firmer than hoped, and prices of core

Monthly Core CPI Inflation Rate



■ Core CPI Inflation, SA

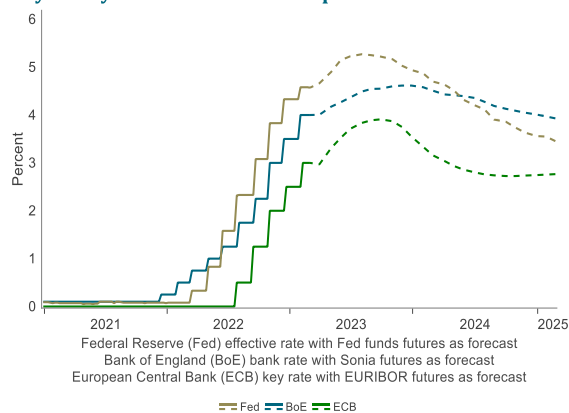
Source: Macrobond, BNY Mellon Investment Management
U.S. Bureau of Labor Statistics (BLS), Federal Reserve Bank of Atlanta, U.S. Bureau of Economic Analysis (BEA), NBER
(National Bureau of Economic Research)
Data as of Wednesday, March 15, 2023



services ex- shelter and medical were also robust ¹. Moreover, the February employment situation report, evidenced an uptick in unemployment on higher participation rate, but unlikely to enough offset inflation’s stubborn upward march. Indeed, a relevant comparison may be 1998, when the Federal Reserve stepped in to resolve the leverage and mortgage crisis associated with Long-Term Capital Management Fund by cutting the policy rate by 75 bps, staving off a recession, but arguably fueling two greater asset bubbles whose burst ultimately proved to be far more onerous. Recall also that inflation in 1998 was much closer to the Fed’s 2% objective than it is today: core PCE was hovering near 2% y/y vs. 4.7% today. ²

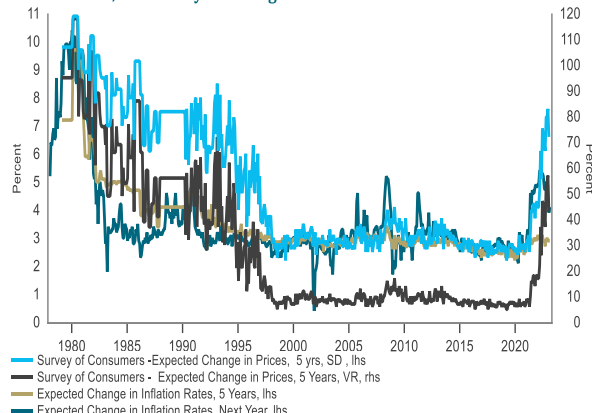
In fact, a recent paper by the Cleveland Fed, written before the latest banking system debacle, already called the ability of the Fed to engineer a soft landing and bring core inflation to 2% into question. Instead, the authors modelled outcomes embedded in the Fed’s Summary of Economic Projections (SEP) from December and concluded that “a deep recession would be necessary to achieve the SEP’s projected path” ³. We are curious to see potential updates to the SEP projections due at the March meeting, and we suspect that those are currently being revised from more hawkish than December to similar or possibly less hawkish. We expect that the Fed would raise the policy rate by another 25 bps at the March meeting, but further increases may be destabilizing to the regional banks if deposit flight continues.

Key Policy Rates and Market Expectations



Source: Macrobond, BNY Mellon Investment Management
 Eurex Exchange, ECB (European Central Bank), Intercontinental Exchange (ICE), Bank of England, CME Group, Federal Reserve Bank of New York
 Data as of Thursday, March 16, 2023

United States, University of Michigan Consumer Sentiment



Source: Macrobond, BNY Mellon Investment Management
 University of Michigan
 Data as of Thursday, March 16, 2023

¹ Note medical services being dragged down temporarily by CPI-specific insurance premium calculations that will not be similarly reflected in the Fed’s preferred Personal Consumption Expenditure (PCE) inflation measure out later this month.

² <https://www.federalreserve.gov/newsevents/speech/yellen20101011a.htm>

³ <https://www.clevelandfed.org/publications/working-paper/2023/wp-2306-post-covid-inflation-dynamics-higher-for-longer>

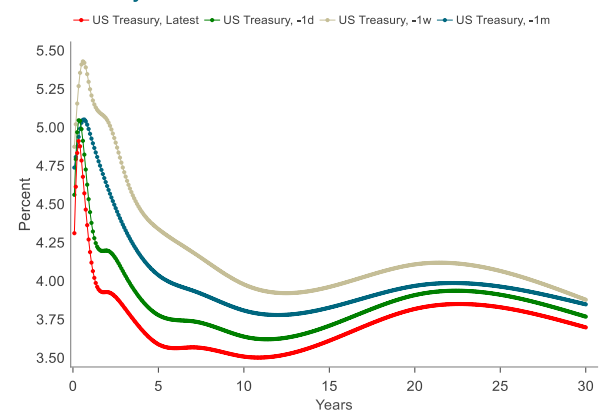
Indeed, the one variable that would be likely to stem off inflation’s persistence and re-anchor inflation expectations closer to 2% would be a recession. This is the most likely scenario in our [Vantage Point](#) outlook, the probability of which has increased, in our view, to 80% from 60% at the start of 2023.⁴ A mild recession resulting from a gradual, moderate pullback in lending would be a relatively benign solution for the Fed’s current predicament, all else equal, but we believe a deeper recession associated with a credit crunch is more likely. Another possibility is a successful ringfencing of financial stability risks by the Fed and a soft landing (roughly 20% probability, in our view). On the other hand, if financial stability risks are effectively contained, and banks continue to lend, the Fed’s BTFP facility would be loosening financial conditions and ultimately leading the Fed to tighten more later on.

Back to the US banking system, recall that for banks with a concentrated deposit base and interest-rate sensitive assets, a steeply inverted yield curve is not an advantage. Recall that in a traditional banking model (to which many regional banks still subscribe), banks borrow on the short-term basis through deposits or in wholesale funding markets, and lend longer-term via loans, or buy longer-term securities that bear duration risk. If the loans, like many commercial and industrial loans, are floating-rate, e.g. rates adjust with market rates, the banks may be protected on the duration side, but the risk profile of the borrowers may deteriorate quickly in a steeply rising rate environment.

Furthermore, if a bank is not able to raise deposit rates in tandem with short-term market rates, or if its main customer base experiences significant losses and needs to withdraw cash quickly, the bank may find itself deprived of necessary liquidity.

To be sure, SVB was unusual both because a significant part of its liability came from deposits held in non-operating accounts that a bank likely had to pay a higher rate to attract, and that are the first to shift at signs of trouble. Some private estimates put non-Global Systemically Important Banks (GSIBs) US bank uninsured deposits to total deposit ratios at just under 40%, while SVB’s ratio was over 80%. But the fact that it was under the regulatory threshold of \$50bn worth of weighted short-term wholesale funding, so was not subject to more stringent liquid asset requirements of the post-2008 regime, and yet it turned out to be too systemically important to fail and needed the Fed and the FDIC to step in and ensure all its depositors with a new Fed lending facility calls the efficacy of the current regulatory bank regime into question.

US Treasury Yield Curve



Source: Macrobond, BNY Mellon Investment Management
 U.S. Department of Treasury
 Data as of Thursday, March 16, 2023
 Chart is for illustrative purposes only. Past performance is not indicative of future returns.

⁴ <https://im.bnymellon.com/content/dam/im/documents/manual/market-insights/vantage-point-q1-2023.pdf>

So far, even though all SVB depositors were made whole, most regional banks continue experience deposit flight, their equity value is deteriorating, and their business models are therefore looking increasingly untenable against large, diversified banks most of which are G-SIBs. To finance themselves, these banks need to turn to the Fed's facilities, which in a high-rate environment can be more expensive than their original deposits, or the Federal Home Loan Bank System (FHLB) advances (a form of wholesale funding), which increases the risks taken on by the already highly levered FHLB system (more on that below). Moreover, a likely response from lawmakers to the SVB debacle is more stringent regulation of small to medium-sized banks, which, in turn, is likely to adversely affect the lending of those regional banks that do remain. Finally, keep in mind that held-to-maturity (HTM) portfolios are a sizeable portion of all US bank assets today, as banks tend to migrate interest-sensitive assets to the HTM portfolios in a rising rate environment to shield those assets from valuation downgrades on an accounting basis. Traditionally, HTM portfolios are not closely scrutinized by investors, but in today's context the approach may be different. Such scrutiny would call for more cautious behavior across the banking system.

This may be less applicable to large global institutions known as Global Systemically Important Banks (G-SIBs) like JPMorgan or Citigroup, that have both diversified sources of funding (e.g. short-term borrowing opportunities, including "sticky" deposits from a wide range of customers, ("sticky" deposits are those used by households and businesses for operational purposes, with customers often tied to the bank by a range of banking services, such as payroll services, clearing and custody fund management), and equally diversified asset portfolios. It is more applicable to small to medium -sized regional banks, which, on the one hand, can deploy capital more quickly within regional or sectoral markets where they possess close relationships, but on the other hand, carry concentrated risk precisely because of their reliance on such relationships, and don't offer a wide array of services to ensure deposit dependency of their customers. It is also more applicable to banks that don't have much access to traditional bank deposits and are reliant on other forms of short-term funding (called wholesale funding) to finance their operations. The banks may not only selectively fail, which would have adverse systemic implications via the confidence channel, but they may significantly curtail lending, which in aggregate would be likely to precipitate a recession.

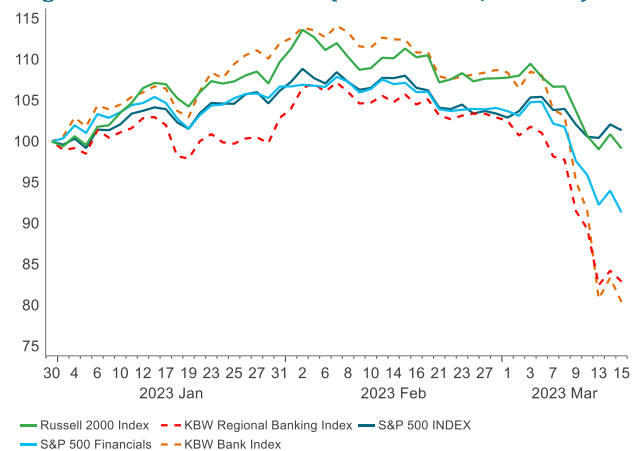
Since its inception in 1931, the FHLB (Federal Home Loan Banks) has expanded to provide wholesale funding to a wide range of institutions, though regional banks have been especially reliant on FHLB's for funding. FHLB advances have been rising since early 2022. By the end of 2022, FHLB advances stood at over \$500bn, close to levels reached in March 2020. This was before the Wall Street Journal (WSJ) ran a headline on January 23, 2023, that read, "Crypto Banks Borrow Billions from Home-Loan Banks to Plug Shortfalls" (the two banks cited by the WSJ were Signature Bank and Silvergate Capital, whose predicaments was similar to that of

SVB).⁵ Importantly, this is still ongoing. In fact, despite the March 12 rollout of the Fed’s new Bank Term Funding Program (BTFP) facility, on March 13, the FHLB system issued almost \$90 bn of short-term floating rate notes- the FHLB’s largest single day issue on record- to meet demands from small to medium sized banks.⁶ This was followed by another \$19bn on Tuesday, March 14, with the BTFP facility already standing.

Not only does this raise the question of whether BTFP may end up carrying a stigma like the discount window, from which many distressed banks refused to borrow amidst the global financial crisis in 2008-9, but it also brings the maturity transformation risk inherent to the FHLB model into focus. This risk was highlighted by a Fed paper in 2017, another recent period of rising rates.⁷ Post-2008 crisis changes in the financial regulatory regime increased bank demand for FHLB, thereby expanding the FHLB’s overall footprint in the US financial system. At the same time, FHLB’s have taken an increasingly active role in maturity transformation (borrowing in the short-term markets and lending at longer maturities, like a traditional bank), which makes the FHLB system particularly vulnerable to interest rate shocks, according to the Fed. It is worth noting that a) FHLB’s today are highly levered institutions and b) much of the FHLB short-term borrowing is provided by money market funds, which are key to the overall stability of the US financial system themselves.

If small to medium-sized regional banks continue to fail and the remaining ones curtail their lending, or if systemic risks from the FHLB system appear (among other possible financial stability risks), credit provision to the US economy may decrease significantly and precipitate a recession. The first channel through which this may happen is the confidence channel, which is hard to quantify but is widely acknowledged to have an economic impact. Another channel would be the lending channel itself. Even if the Fed manages to effectively backstop risks to small to medium-sized banks, the latter have already witnessed deposit flight, and are likely to face increased regulatory scrutiny. Both processes would be reasonably expected to tighten their lending standards and generally curtail lending to the US economy.

Regional Banks vs. S&P 500 (indexed to 2 Jan 2023)



Source: Macrobond, BNY Mellon Investment Management

Data as of Wednesday, March 15, 2023

Chart is for illustrative purposes only. Past performance is not indicative of future returns.

⁵ <https://www.wsj.com/articles/crypto-banks-borrow-billions-from-home-loan-banks-to-plug-shortfalls-11674263424>

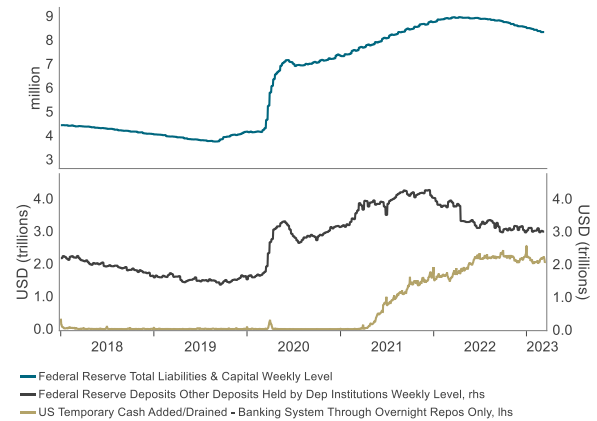
⁶ <https://www.federalreserve.gov/newsevents/pressreleases/monetary20230312a.htm>

⁷ <https://www.federalreserve.gov/econres/notes/feds-notes/the-increased-role-of-the-federal-home-loan-bank-system-in-funding-markets-part-1-background-20171018.html>

The Fed’s own weekly H.8 data shows that banks with balance sheets of just under \$200bn account for 30% of aggregate US bank system assets and almost 40% of the system’s loan book, so the impact could be significant, especially for small to medium-sized enterprises to whom regional banks are most likely to lend.⁸

To make matters worse, tightening lending standards would take place against the backdrop of quantitative tightening (QT), or the shrinking of the Fed’s balance sheet. Currently, the Fed is withdrawing liquidity from the market at the rate of \$60bn in Treasuries and \$35bn in mortgage-backed securities (MBS) per month that mature and that the Fed does not reinvest in. So far, QT has been running quietly in the background, barely making a dent in overall credit conditions (though it may have already adversely impacted Treasury and MBS market liquidity). However, if the Fed continues to withdraw liquidity just as banks curtail their own lending to businesses and households, overall credit conditions may suddenly tighten materially.

Bank Reserves



Source: Macrobond, BNY Mellon Investment Management
Data as of Wednesday, March 15, 2023

⁸ <https://www.federalreserve.gov/releases/h8/current/>

FOR INSTITUTIONAL, PROFESSIONAL, QUALIFIED INVESTORS AND QUALIFIED CLIENTS. FOR GENERAL PUBLIC DISTRIBUTION IN THE U.S. ONLY.

This material should not be considered as investment advice or a recommendation of any investment manager or account arrangement, and should not serve as a primary basis for investment decisions. Any statements and opinions expressed are those of the author as at the date of publication, are subject to change as economic and market conditions dictate, and do not necessarily represent the views of BNY Mellon or any of its affiliates. The information has been provided as a general market commentary only and does not constitute legal, tax, accounting, other professional counsel or investment advice, is not predictive of future performance, and should not be construed as an offer to sell or a solicitation to buy any security or make an offer where otherwise unlawful. The information has been provided without taking into account the investment objective, financial situation or needs of any particular person. BNY Mellon and its affiliates are not responsible for any subsequent investment advice given based on the information supplied. This is not investment research or a research recommendation for regulatory purposes as it does not constitute substantive research or analysis. This information may contain projections or other forward-looking statements regarding future events, targets or expectations, and is only current as of the date indicated. There is no assurance that such events or expectations will be achieved, and actual results may be significantly different from that shown here. The information is based on current market conditions, which will fluctuate and may be superseded by subsequent market events or for other reasons. References to specific securities, asset classes and financial markets are for illustrative purposes only and are not intended to be and should not be interpreted as recommendations. Past performance is no guarantee of future results. Information and opinions presented have been obtained or derived from sources which BNY Mellon believed to be reliable, but BNY Mellon makes no representation to its accuracy and completeness. BNY Mellon accepts no liability for loss arising from use of this material.

All investments involve risk including loss of principal.

Not for distribution to, or use by, any person or entity in any jurisdiction or country in which such distribution or use would be contrary to local law or regulation. This information may not be distributed or used for the purpose of offers or solicitations in any jurisdiction or in any circumstances in which such offers or solicitations are unlawful or not authorized, or where there would be, by virtue of such distribution, new or additional registration requirements. Persons into whose possession this information comes are required to inform themselves about and to observe any restrictions that apply to the distribution of this information in their jurisdiction.

Issuing entities

This material is only for distribution in those countries and to those recipients listed, subject to the noted conditions and limitations: For Institutional, Professional, Qualified Investors and Qualified Clients. For General Public Distribution in the U.S. Only. • United States: by BNY Mellon Securities Corporation (BNYMSC), 240 Greenwich Street, New York, NY 10286. BNYMSC, a registered broker-dealer and FINRA member, and subsidiary of BNY Mellon, has entered into agreements to offer securities in the U.S. on behalf of certain BNY Mellon Investment Management firms. • Europe (excluding Switzerland): BNY Mellon Fund Management (Luxembourg) S.A., 2-4 Rue EugèneRuppertL-2453 Luxembourg. • UK, Africa and Latin America (ex-Brazil): BNY Mellon Investment Management EMEA Limited, BNY Mellon Centre, 160 Queen Victoria Street, London EC4V 4LA. Registered in England No. 1118580. Authorised and regulated by the Financial Conduct Authority. • South Africa: BNY Mellon Investment Management EMEA Limited is an authorised financial services provider. • Switzerland: BNY Mellon Investments Switzerland GmbH, Bärengasse 29, CH-8001 Zürich, Switzerland. • Middle East: DIFC branch of The Bank of New York Mellon. Regulated by the Dubai Financial Services Authority. • Singapore: BNY Mellon Investment Management Singapore Pte. Limited Co. Reg. 201230427E. Regulated by the Monetary Authority of Singapore. • Hong Kong: BNY Mellon Investment Management Hong Kong Limited. Regulated by

the Hong Kong Securities and Futures Commission. • Japan: BNY Mellon Investment Management Japan Limited. BNY Mellon Investment Management Japan Limited is a Financial Instruments Business Operator with license no 406 (Kinsho) at the Commissioner of Kanto Local Finance Bureau and is a Member of the Investment Trusts Association, Japan and Japan Investment Advisers Association and Type II Financial Instruments Firms Association. • Brazil: ARX Investimentos Ltda., Av. Borges de Medeiros, 633, 4th floor, Rio de Janeiro, RJ, Brazil, CEP 22430-041. Authorized and regulated by the Brazilian Securities and Exchange Commission (CVM). • Canada: BNY Mellon Asset Management Canada Ltd. is registered in all provinces and territories of Canada as a Portfolio Manager and Exempt Market Dealer, and as a Commodity Trading Manager in Ontario.

BNY MELLON COMPANY INFORMATION

BNY Mellon Investment Management is one of the world's leading investment management organizations, encompassing BNY Mellon's affiliated investment management firms and global distribution companies. BNY Mellon is the corporate brand of The Bank of New York Mellon Corporation and may also be used as a generic term to reference the corporation as a whole or its various subsidiaries generally. • Mellon Investments Corporation (MIC) is a registered investment advisor and subsidiary of The Bank of New York Mellon Corporation. MIC is composed of two divisions: Mellon, which specializes in index management, and Dreyfus, which specializes in cash management and short duration strategies. Dreyfus is also a division of BNY Mellon Investment Adviser, Inc. (BNYMIA), a registered investment adviser. • Insight Investment - Investment advisory services in North America are provided through two different investment advisers registered with the Securities and Exchange Commission (SEC) using the brand Insight Investment: Insight North America LLC (INA) and Insight Investment International Limited (IIIL). The North American investment advisers are associated with other global investment managers that also (individually and collectively) use the corporate brand Insight. Insight is a subsidiary of BNY Mellon. • Newton Investment Management - "Newton" and/or the "Newton Investment Management" brand refers to the following group of affiliated companies: Newton Investment Management Limited (NIM) and Newton Investment Management North America LLC (NIMNA). NIM is incorporated in the United Kingdom (Registered in England no. 1371973) and is authorized and regulated by the Financial Conduct Authority in the conduct of investment business. Both Newton firms are registered with the Securities and Exchange Commission (SEC) in the United States of America as an investment adviser under the Investment Advisers Act of 1940. Newton is a subsidiary of The Bank of New York Mellon Corporation. • ARX is the brand used to describe the Brazilian investment capabilities of BNY Mellon ARX Investimentos Ltda. ARX is a subsidiary of BNY Mellon. • Walter Scott & Partners Limited (Walter Scott) is an investment management firm authorized and regulated by the Financial Conduct Authority, and a subsidiary of BNY Mellon. • Siguler Guff - BNY Mellon owns a 20% interest in Siguler Guff & Company, LP and certain related entities (including Siguler Guff Advisers LLC). • BNY Mellon Investor Solutions, LLC is an investment adviser registered as such with the U.S. Securities and Exchange Commission ("SEC") pursuant to the Investment Advisers Act of 1940, as amended. BNY Mellon Investor Solutions, LLC is a subsidiary of The Bank of New York Mellon Corporation.

No part of this material may be reproduced in any form, or referred to in any other publication, without express written permission. All information contained herein is proprietary and is protected under copyright law.

NOT FDIC INSURED | NO BANK GUARANTEE | MAY LOSE VALUE |

©2023 THE BANK OF NEW YORK MELLON CORPORATION

IS-361167-2023-03-16

GU-394-26 March 2024