



An empowering blend of global financial research and analysis, insights and macro-commentary on a breadth of today's most compelling economic and investing developments, from an international team of WisdomTree thought leaders.

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In our November 2022 edition of The Global Edge, "Volatility Remains a Market Constant," we anticipated that one of the key hallmarks for global financial markets in 2023 would be increased volatility. With investors confronted by challenges such as the future path for central bank policies, ongoing economic and inflation concerns as well as geopolitical developments, an elevated volatility quotient should not be a surprising development. However, new wrinkles have been added to the equation with the recent bout of bank turmoil.

In March, what began as regional banking fear in the U.S. quickly spread to Europe. Two months later, the markets are still dealing with the fallout from bank runs and "walks," whereby deposits flow out in search of better yields, not because of fear. The natural question becomes: how long can investors expect to see the potential ill effects from these developments as we move into the second half of the year?

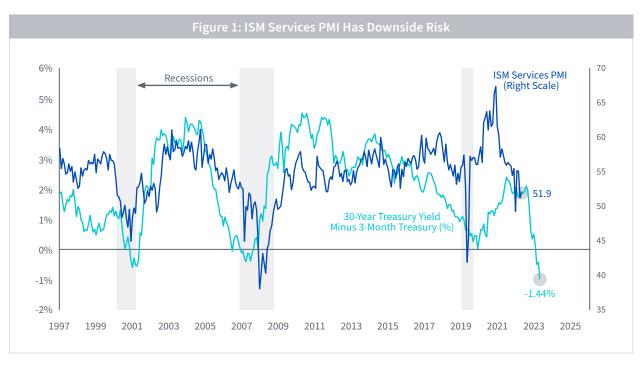
Unfortunately, there is not necessarily an easy answer, as the potential impacts are not confined to just one area but rather can be felt in multiple ways, from the money and bond markets to the equity and commodities arenas and, of course, in the broader economic outlook.



WATCHING THE U.S.

When banking-related issues hit the tape, one of the first locations investors should turn to see if there are any negative effects is the funding markets. Indeed, throughout modern financial history, it is here where dislocations can snowball, turning a potentially isolated occurrence into a systemic event. Certainly, the 2007–2008 Global Financial Crisis underscored that point, but we've also witnessed other episodes where pressures were evident, such as the COVID-19 lockdown.

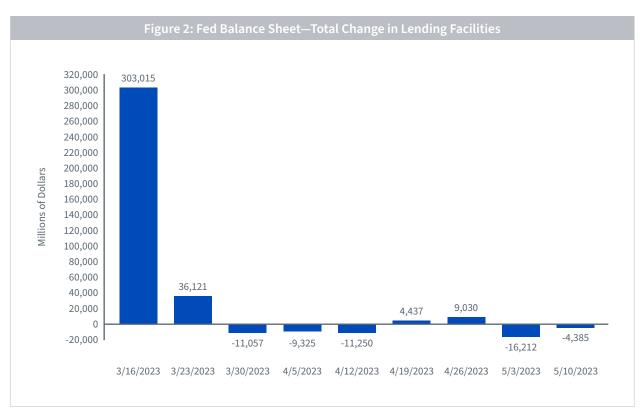
While the long bond has remained relatively tamed, near-term t-bill yields have risen so much that the gap between 30-Year and 3-Month Treasuries amounts to 144 basis points (bps), a condition that is pointing to a Services sector contraction.



Sources: Refinitiv, ISM. PMI as of April 2023; yields as of 5/9/23. **Historical performance is not an indication of future performance, and any investments may go down in value.**



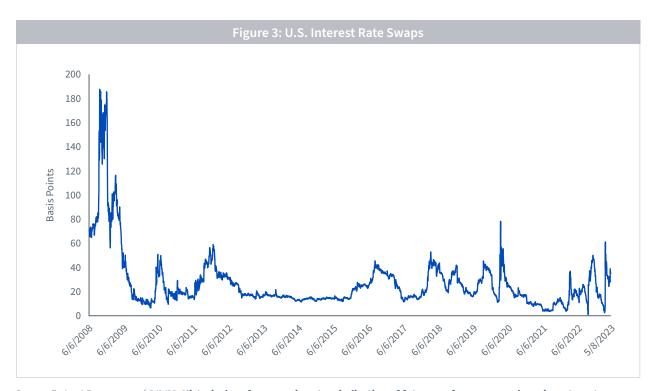
The Federal Reserve (Fed) is well aware that its move to the current 5.0%–5.25% policy rate range is perpetuating both bank walks and deeper yield curve inversion. In fact, unlike in the Global Financial Crisis, it acted rather swiftly this time around, implementing the Bank Term Funding Program (BTFP) in response to the first wave of adverse news that came out from Silicon Valley Bank (SVB) and Signature Bank in early March. BTFP was created specifically to offer "funding available to eligible depository institutions to help assure banks have the ability to meet the needs of all their depositors." This program offers loans for up to one year, pledging collateral such as Treasuries and U.S. agency and U.S. agency mortgage-backed securities. What can be considered one of the key aspects of this program is "these assets will be valued at par," not only making much-needed funding available if needed but also "eliminating an institution's need to quickly sell those securities in times of stress," which was one of the major catalysts behind the regional banking turmoil in the U.S.



Source: Federal Reserve, as of 5/15/23. Historical performance is not an indication of future performance, and any investments may go down in value.

When looking at the Fed's key available lending facilities, there are three components: primary credit at the discount window, BTFP and other credit extensions (FDIC-related loans). Banks utilized these facilities in a visible way in the immediate wake of the turmoil, but since mid-March, total usage has dropped off considerably. To provide some perspective, after hitting a peak increase of \$303.0 billion on March 16, the total amount has declined in five out of the last seven weeks. The bottom-line message is that the Fed's facilities acted as they were intended and arguably prevented any further calamity up to this point.



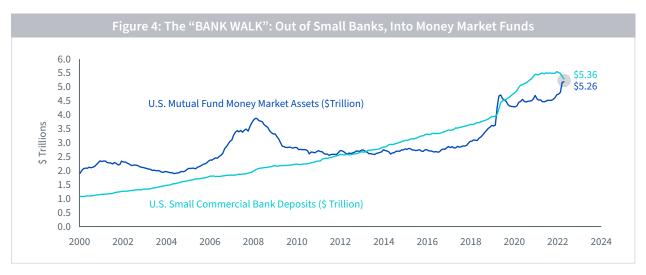


Source: Federal Reserve, as of 5/8/23. Historical performance is not an indication of future performance, and any investments may go down in value.

This point has been buttressed by what has also transpired in the aforementioned funding market. The U.S. interest rate swap market (an agreement between counterparties to exchange fixed versus floating cash flows) provides a clear look at developments in this arena. For the record, the wider the spread, the more theoretical pressure on institutions to find funding. There was a spike in funding pressures around mid-March, but conditions have steadily improved since then. While the spread has not returned to its pre-SVB reading, it has remained relatively stable (+34 bps) and is well within recent trading ranges. It is also considerably below the high watermarks witnessed during the financial crisis (+188 bps) and the COVID-19 lockdown (+78 bps).

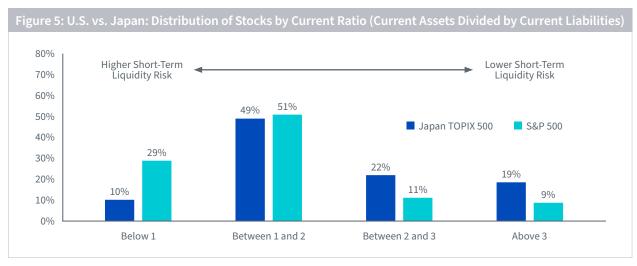


Though the market has focused on bank runs at SVB, Signature, Credit Suisse and others, a portent that can function as an inhibitor for the corporate lending impulse is the day-by-day trickle out of lenders' deposit base from the Bank Walk. With a smattering of t-bills offering yields north of 5%—while many checking and savings accounts still offer only 0.01%—there is little catalyst for the walk phenomenon to go away anytime soon. It appears a matter of time before total U.S. money market fund assets surpass the entire deposit base of the 4,000+ small banks.



Sources: Refinitiv, Federal Reserve, Investment Company Institute. Bank deposits as of 4/19/23, money market assets as of 4/27/23. **Historical performance is not an indication of future performance, and any investments may go down in value.**

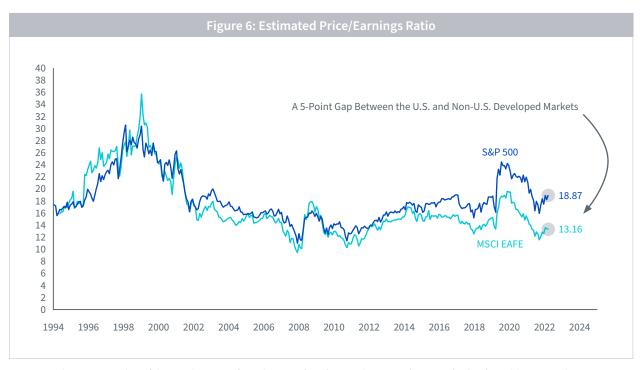
With the Fed's Senior Loan Officer survey showing another net tightening in lending standards in Q2 2023, continuing a trend that commenced in late 2021, an equity market that may be positioned to withstand a shrinking in credit availability may be Japan. The proverbial Japanese cashed-up balance sheet—yielding zero—was an endless headache during the 2009–2021 bull market in global equities. In a credit pinch, it looks like the opposite.



Source: Refinitiv, as of 5/1/23. Data available for 418 and 462 components of the S&P 500 and the TOPIX 500, respectively. **Historical performance** is not an indication of future performance, and any investments may go down in value.



With a hat tip to the "smashing together" of UBS and Credit Suisse, we believe it is fair to say that the question mark on the banks has been largely a U.S.-based situation thus far. As the Global Financial Crisis reminds us, that condition can change. However, as we look at situations such as the Japanese balance sheet cash hoard, it draws out a bit the appeal of the MSCI EAFE Index's five-point P/E discount to domestic equities.



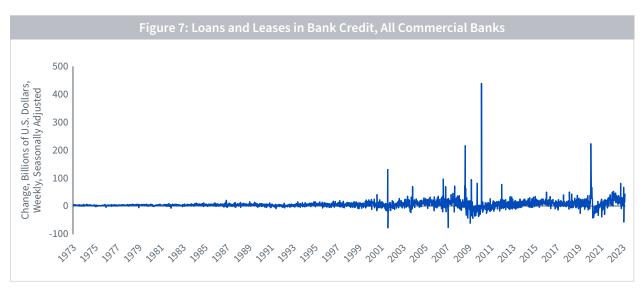
Source: WisdomTree Digital Portfolio Developer, as of March 2023. **Historical performance is not an indication of future performance, and any investments may go down in value.**

FED WATCH

With the Fed's quarter-point rate hike at its May Federal Open Market Committee (FOMC) meeting, the 5.00%–5.25% target range is the highest level since 2007. Now comes the hard part: waiting for what comes next from Fed Chairman Jay Powell. With an astonishing 500 bps in rate hikes now in the books, the U.S. money and bond markets are currently operating under the assumption that Fed policy will now pause and go into a holding pattern. However, it is also important to note that the Fed gave itself some flexibility on this front. In other words, Powell & Co. don't want to get pigeonholed into any type of decision while also providing themselves with some options going forward.

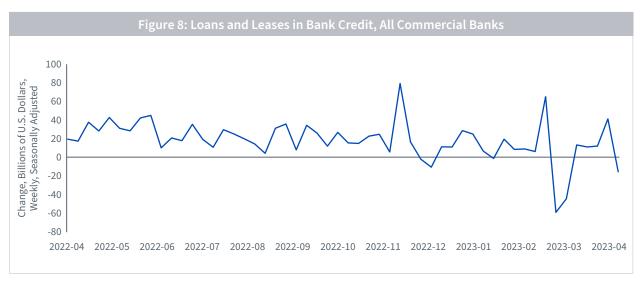
Fed officials will probably still emphasize their priority of continuing to bring inflation down, but that doesn't necessarily mean more rate hikes unless the data forces the voting members in that direction. Rather, the monetary policy debate in the markets going forward is more than likely going to be centered on the timing for rate cuts. Presently, that's where the disconnect lies between the FOMC and the Treasury (UST) market. At this juncture, the Fed does not appear to have rate cuts on its radar, let alone the multiple-cut scenario found in the implied probability for Fed Funds Futures. For either a further rate hike or the first rate cut, the bar appears to have been set rather high.





Source: St. Louis Federal Reserve, as of 5/8/23. **Historical performance is not an indication of future performance, and any investments may go down in value.**

On the rate hike front, Powell seems to be counting on the tightening in credit conditions from the banking turmoil to do the work for him. Indeed, after SVB folded on March 10, total loans and leases at all commercial banks plummeted by a historically large \$105 billion during that month's final two weeks.



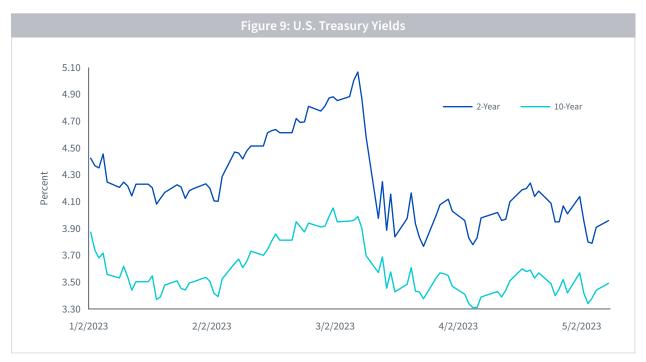
Source: St. Louis Federal Reserve, as of 5/11/23. Historical performance is not an indication of future performance, and any investments may go down in value.

With the Fed apparently now in "pause mode," investors are going to have to wait to see just how long this part of the policy process lasts. Certainly, the policy makers do not want to get into a position where they have to begin raising rates again, so an extended holding pattern with no rate cuts seems to be the more likely future scenario. Fed communications from here on out are going to be rather tricky because the potential for the markets to misinterpret Powell's intentions is going to be elevated.



U.S. TREASURY OUTLOOK

Yield movements within the UST market have been arguably unprecedented thus far in 2023, especially following the banking headlines. While volatility in the 10-Year sector is not overly surprising, the back and forth in the 2-Year note has been truly remarkable and typically not what one would expect to encounter from a shorter-duration instrument such as this.



 $Source: Bloomberg, as of 5/8/23. \label{eq:bloomberg} \textbf{As of 5/8/23}. \label{eq:bloomberg} \textbf{As of 5/8/23}. \label{eq:bloomberg} \textbf{As of 5/8/23}. \\ \textbf{Alistorical performance is not an indication of future performance, and any investments may go down in value.}$

After hitting a peak of 5.07% on March 8 (pre-SVB), the UST 2-Year yield had dropped down to roughly 3.75% and, at one point, to as low as 3.55% on an intraday trading basis in a post-SVB world. Daily/weekly yield movements for the 2-Year of 20, 30 or even 40 bps have been witnessed over this period.

As investors wait for the widely expected but rather elusive U.S. recession to rear its ugly head, volatility will more than likely remain a staple in the UST market. Against this backdrop and the continued inverted yield curve, dollar-based investors may want to consider Treasury floating rate strategies.

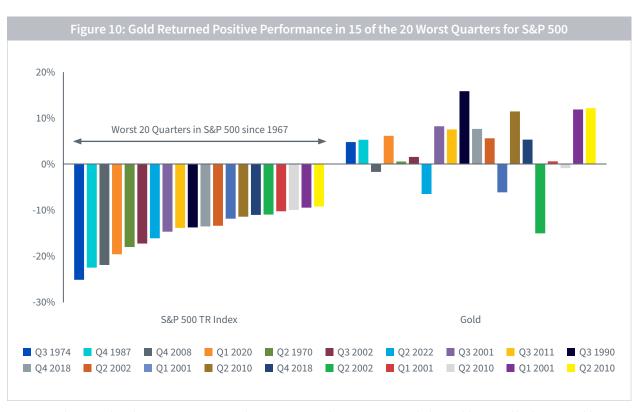


GOLD BACK IN VOGUE AMONG INVESTORS AND CENTRAL BANKERS ALIKE

In this period of banking sector turmoil, investors and central bankers are increasingly turning to gold as a hedge against worst-case outcomes.

Gold as a Financial Market Hedge

Gold has a long legacy of being a hedge in times of financial market turbulence. The chart below shows the performance of the S&P 500 in its worst 20 quarters (left panel) and the corresponding gold price performance in those quarters (right panel). In most of the quarters, gold performed positively when the S&P 500 was falling. In the minority of quarters when gold also fell, it fell by a lot less than equities.



Sources: WisdomTree, Bloomberg. In USD. From December 1967 to 31 March 2023 using quarterly data. Gold is proxied by the LBMA Gold Price PM Index, and S&P 500 is proxied by the S&P 500 Gross Total Return Index. **Historical performance is not an indication of future performance, and any investments may go down in value.**



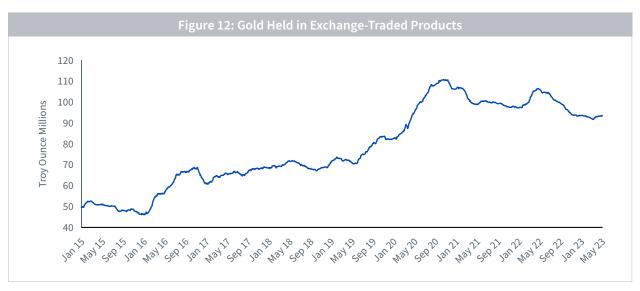
Investors Hedging with Gold

Firstly, looking at investors, net speculative positioning in gold futures has risen sharply in 2023, especially after the collapse of SVB. Prior to the banking concerns, positioning in gold futures—a measure of investor sentiment towards gold—was looking quite weak.



Sources: WisdomTree, Bloomberg, April 2015–April 2023. **Historical performance is not an indication of future performance, and any investments may go down in value.**

Somewhat belatedly, flows into gold exchange-traded products have risen, but not to the same extent we have observed in the futures market.



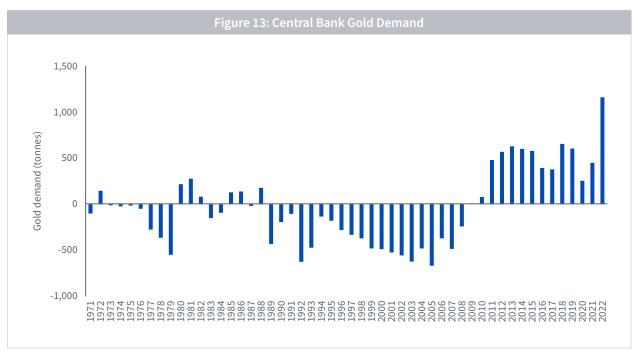
Sources: WisdomTree, Bloomberg. January 2015–May 2023. **Historical performance is not an indication of future performance, and any investments may go down in value.**



Gold as a Foreign Exchange Diversifier for Central Banks

In 2022, central banks purchased record volumes of gold. That was clearly before the onset of the banking sector woes and, therefore, unlikely to be connected. Mainly developing country central banks have been the major gold purchasers in the past decade. They generally have a desire to diversify away from the U.S. dollar. The motivation is to avoid 'importing' U.S. monetary policy. Moving to any other fiat currency (such as the euro or yen) entails the same problems as holding the U.S. dollar but with potentially less liquidity. Gold, as a pseudo-currency that has had a role, formally and informally, as the monetary instrument for several millennia, has become back in vogue with many central banks. One of the reasons for such strong central bank gold buying last year was that the sanctions placed on Russia have spooked central banks across the world. Russia's invasion of Ukraine in February 2022 triggered a wave of U.S.-led financial sanctions against Moscow. The two most powerful among them have been the decision by Western governments to freeze nearly half (\$300bn) of Russia's foreign currency reserves and the removal of major Russian banks from SWIFT, an interbank messaging service that facilitates international payments. Moving to gold—the pseudo-currency that no central bank controls—has been seen as the most appropriate alternative.

Russia has recently submitted previously unreported information dating back to February 2022, with purchases amounting to 28 tonnes in the year.



Sources: WisdomTree, World Gold Council, Metal Focus, GFMS, 1971–2022. **Historical performance is not an indication of future performance, and any investments may go down in value.**

Central bank buying of gold continues unabated in 2023. Global gold reserves rose by 114 tonnes in Q1 2023. That marks the strongest start to the year in terms of central banks buying gold since 2010. Maintaining such momentum after 2022 is an accomplishment. China has reported gold purchases for five consecutive months now.



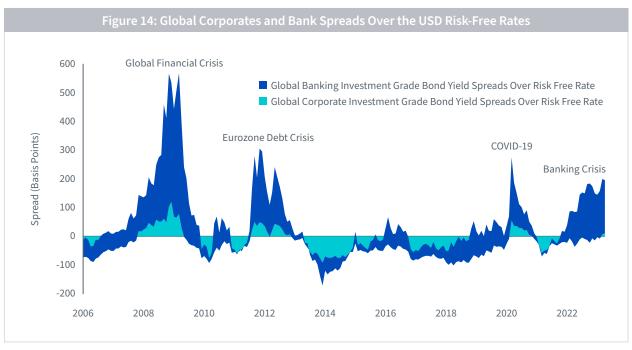
Gold Reaching Corners Previously Untouched

Surprisingly, the Monetary Authority of Singapore added almost 69 tonnes of gold to its reserves in Q1 2023, marking its first purchases since 2021 and raising its gold holdings by 45% relative to year-end 2022. On a net basis, Singapore has been the largest gold purchaser this year so far, so the story isn't limited to developing nation central banks. While Singapore has not offered any commentary around its purchases, it could be driven by elevated concerns about global financial conditions. Singapore, being a small, externally focused nation, could be more exposed than other nations to global dislocations and hence acting with such precautions.

Europe - Squeezed, Not Crunched Yet

Over the past two decades, spreads on global bank debt have largely been in sync with overall credit risk premia. The four major exceptions when spreads on bank debt have diverged from the average spread of all corporate securities with similar credit quality were the Global Financial Crisis (2008), Eurozone Debt Crisis (2011), COVID-19 pandemic (2019) and the Banking Crisis (2023).

The similarity between the recent challenges of U.S. regional banks and the eurozone debt crisis is that, in both cases, the impacted institutions held large portions of long-dated government debt that were marked down as a consequence of rising interest rates. Over H2 2011, spreads on bank debt peaked close to 4%. Fast forward to 2023, and spreads on bank debt are inching towards 2%, marking its widest spread since the COVID-19 pandemic and 2011 eurozone crisis. If credit conditions were to deteriorate to the levels observed during the eurozone debt crisis, it would pose a threat to Europe's recovery.



Sources: Bloomberg, WisdomTree, as of 30 April 2023. Historical performance is not an indication of future performance, and any investments may go down in value.



While the eurozone economy continued to expand faster than expected in Q1 2023, the dominant factor challenging the expansion is the demand destruction in response to the deterioration of credit conditions. That being said, the resilience of the consumer, the demise of the energy crisis feeding into lower inflation and a faster China reopening could help buffer the demand destruction to a certain extent.



Sources: Bloomberg, WisdomTree, as of 30 April 2023. Historical performance is not an indication of future performance, and any investments may go down in value.

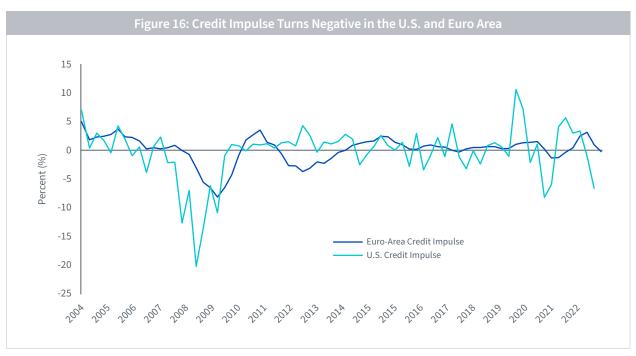
Credit Is Hard to Get in the Aftermath of the Banking Crisis

The renewed volatility among U.S. regional banks and the latest euro area bank lending survey (BLS) for 2023 confirmed that monetary tightening has had a deep impact. The monetary tightening over the past year not only triggered an increase in real rates via the combination of weaker growth prospects and higher nominal rates, but it also impacted borrowers' credit metrics.

Owing to which, banks have tightened their lending standards in response. Eurozone banks further tightened credit standards on all types of loans. The net percentage of banks that tightened credit standards for loans to companies stabilised at 27, which was higher than banks had anticipated in the prior quarter. This marks the highest level since the eurozone crisis and suggests there is still more tightening ahead.



The credit impulse, i.e., the annual change in the growth of credit relative to gross domestic product (GDP), turned deeply negative in Q4 in the U.S., while in the euro area, it reached its lowest point since 2010.



Sources: Bloomberg, WisdomTree, as of 30 April 2023. Historical performance is not an indication of future performance, and any investments may go down in value.

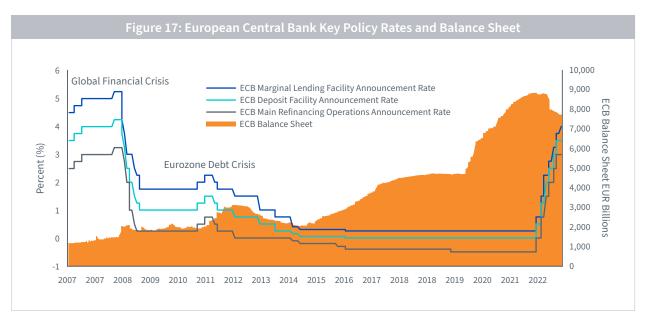
More Ground to Cover for European Central Bank (ECB)

The ECB's main objective was to avoid runaway inflation and a recession. So far, it has managed to balance the dynamics fairly successfully, as the growth momentum in Europe has held up well, and headline inflation has begun easing.

At its most recent meeting, the ECB raised its key policy rate by 25 bps, leaving the deposit rate at 3.25%. This marked a slowdown in the pace of rate hikes. Yet the ECB's main consideration continues to be elevated levels of inflation. It acknowledged that past rate increases are being transmitted forcefully to the euro area financing and monetary conditions, yet these developments have not been large enough to dampen inflation. Our base case is for two further rate increases of 25 bps in each of the June and July meetings. Yet the sharp tightening of bank lending conditions and swift decline in loan demand suggests we could see an earlier end to the rate tightening cycle.



¹ Eurostat, as of 4 May 2023.



Sources: Bloomberg, WisdomTree, as of 3 May 2023. Historical performance is not an indication of future performance, and any investments may go down in value.

The governing council also signalled that it expected to discontinue the reinvestments under the Asset Purchase Programme portfolio by about €25bn per month, which, given its size, represents a slow rundown.

Europe Earnings Hold Fort despite the Banking Turmoil

The EuroStoxx 600 has rallied 9.3% since the start of 2023.² The rally has been driven by strong earnings results, compression of the equity risk premium and the reopening of China's economy. At halfway through the Q2 earnings season, first-quarter earnings for the EuroStoxx 600 Index are expected to increase by 2% over the prior quarter.³

All regions (including the U.S., Japan and Asia Pacific ex-Japan) have earnings per share (EPS) revision ratios in negative territory except the eurozone.⁴ The China reopening has served as an important catalyst for European stocks, as European companies generate the second-highest revenue exposure—8% from China after Asia Pacific ex-Japan.⁵ This theme has been reflected in the Consumer Discretionary sector, given its higher exposure to China.

Europe has clearly gotten off to a strong start. Yet, in the face of a deterioration of credit and money supply dynamics and still-strong core inflation, it will be harder for Europe to maintain the current growth momentum. Higher rates and lower credit availability have traditionally weighed on earnings with a substantial time lag. The latest economic data reinforce our view.

Last year the weaker EUR was an important driver of Europe's relative earnings; however, the current strength of the euro (even if held at current spot levels at 1.10 versus the U.S. dollar) will be an important headwind in 2023.



² Bloomberg, from 30 December 2022 to 5 May 2023.

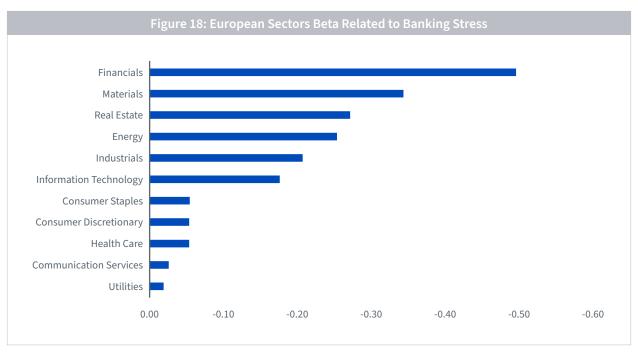
³ Refinitiv, IBES, as of 2 May 2023.

⁴ IBES, as of 28 April 2023.

⁵ IBES, as of 31 January 2023.

Screening for Sectors That Offer More Resilience amidst Banking Stress

Within Europe, we analysed the sectors that were most exposed to the banking stress. By observing the beta of the sectors in the EuroStoxx 600 Index relative to regional banking spreads, we found that Financials, Materials, Real Estate and Energy were most exposed on the downside to the high banking stress, while Utilities, Communication Services and Health Care showed more resilience.



Sources: FactSet, Bloomberg, WisdomTree, as of 5 May 2023. Please note: the regional banking spread is the difference between the yields on U.S. regional banks and the 10-Year U.S. Treasury. **Historical performance is not an indication of future performance, and any investments may go down in value.**



Appendix

Glossary

Balance sheet: Refers to the cash and cash equivalents part of the current assets on a firm's balance sheet and cash available for purchasing new positions. Bank lending survey (BLS): A questionnaire circulated by a country's central banking authority to help clarify its understanding of the overall lending environment. Bank Term Funding Program (BTFP): Created to support American businesses and households by making additional funding available to eligible depository institutions to help assure banks have the ability to meet the needs of all their depositors. Basis point: 1/100th of 1 percent. Beta: A measure of the volatility of a security or a portfolio in comparison to a benchmark. In general, a beta less than 1 indicates that the investment is less volatile than the benchmark, while a beta more than 1 indicates that the investment is more volatile than the benchmark. Central bank: An institution that manages the currency and monetary policy of a state or formal monetary union and oversees its commercial banking system. Commodity: A raw material or primary agricultural product that can be bought and sold. Downside risk: The financial risk associated with losses. That is, it is the risk of the actual return being below the expected return or the uncertainty about the magnitude of that difference. <u>Duration:</u> A measure of a bond's sensitivity to changes in interest rates. The weighted average accounts for the various durations of the bonds purchased as well as the proportion of the total government bond portfolio that they make up. Earnings per share (EPS): Total earnings divided by the number of shares outstanding. Measured as a percentage change as of the annual index screening date compared to the prior 12 months. Higher values indicate greater growth orientation. <u>Citigroup Economic Surprise Index</u>: An indicator of how actual economic data compares to analyst expectations. A downward trend means actual data has been trending below expectations, and an upward trend means actual data has been trending above expectations. Citi tracks a measure known as the "economic surprise index" for various locales, which shows how economic data are progressing relative to the consensus forecasts of market economists. EuroStoxx 600: A stock Index of European stocks designed by STOXX Ltd. Fed Funds Futures: Financial contracts that represent the market opinion of where the daily official Federal Funds Rate will be at the time of the contract expiry. The futures contracts are traded on the Chicago Mercantile Exchange (CME) and are cash settled on the last business day of every month. Fed Fund Futures can be traded every month for as far out as 36 months. Federal Open Market Committee (FOMC): The branch of the Federal Reserve Board that determines the direction of monetary policy. Federal Reserve (Fed): The Federal Reserve System is the central banking system of the United States. Floating rate security: A debt instrument with a variable interest rate usually tied to a benchmark rate such as the U.S. Treasury Bill Rate or the London Interbank Offered Rate. Futures market: An auction market in which participants buy and sell commodity and futures contracts for delivery on a specified future date. <u>Gold futures:</u> Standardized, exchange-traded contracts in which the contract buyer agrees to take delivery, from the seller, of a specific quantity of gold at a predetermined price on a future delivery date. Gross domestic product (GDP): The sum total of all goods and services produced across an economy. Interest rate swaps: An agreement between counterparties to exchange fixed versus floating cash flows. Inverted yield curve: An interest rate environment in which long-term debt instruments have a lower yield than shortterm debt instruments of the same credit quality. ISM Services PMI: The ISM services survey is part of the ISM Report On Business—Manufacturing (PMI) and Services (PMI). Japan TOPIX 500 Index: A capitalization-weighted Index designed to measure the performance of the 500 most liquid stocks with the largest market capitalization that are members of TOPIX, TOPIX is a free float-adjusted market capitalization-weighted Index that is calculated based on all the domestic common stocks listed on the Tokyo Stock Exchange First Section. Lending facilities: A source of funds that can support financial institutions in asking for additional capital. Liquidity risk: A financial risk that, for a certain period, a given financial asset, security or commodity cannot be traded quickly enough in the market without impacting the market price. Monetary policy: Actions of a central bank or other regulatory committee that determine the size and rate of growth of the money supply, which in turn affects interest rates. Money market fund: A fund that invests in high-quality, liquid short-term debt securities and monetary instruments, such as U.S. Treasury bills and commercial paper. MSCI EAFE Index: A market cap-weighted Index composed of companies representative of the developed market structure of developed countries in Europe, Australasia and Japan. Price-to-earnings (P/E) ratio: Share price divided by earnings per share. Lower numbers indicate an ability to access greater amounts of earnings per unit of money invested. S&P 500 Index: Market capitalization-weighted benchmark of 500 stocks selected by the Standard and Poor's Index Committee, designed to represent the performance of the leading industries in the United States economy. Speculative positioning: The act of conducting a financial transaction that has a substantial risk of losing value but also holds the expectation of a significant gain or other major value. <u>Treasury (UST):</u> Debt obligation issued by the U.S. government with payments of principal and interest backed by the full faith and credit of the U.S. government. <u>U.S. agency mortgage-backed securities</u>: Pools of securitized residential mortgage loans that are issued and guaranteed by U.S. government agencies. <u>U.S. mortgage-backed securities (MBS)</u>: A type of asset-backed security that is secured by a mortgage or collection of mortgages. Volatility quotient: The risk measurement of a security. Yield curve: Graphical depiction of interest rates on government bonds, with the current yield on the vertical axis and the years to maturity on the horizontal axis. Yield: The income return on an investment. Refers to the interest or dividends received from a security that is typically expressed annually as a percentage of the market or face value.



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