

CHIEF INVESTMENT OFFICE

# Capital Market Outlook

November 14, 2022

All data, projections and opinions are as of the date of this report and subject to change.

## IN THIS ISSUE

**Macro Strategy—Credit Cycle Turning Fast:** Incoming data suggest financial stress is spreading from markets primarily affected by interest rate volatility to areas impacted by deteriorating credit quality.

As a result, the Federal Reserve’s (Fed) latest survey of Senior Loan Officers (SLOS) shows a sharp decline in banks’ willingness to lend. Typically, this is a precursor to rising consumer loan delinquencies and increased corporate bond defaults, as revenue growth weakness tends to follow tightening lending conditions with a lag.

**Market View—Ten Key Facts about Finances of the U.S. Government:** There are a great deal of moving parts to the finances of the U.S. In general, Uncle Sam’s finances remain manageable relative to the size and dynamism of the U.S. economy.

Various financial metrics have begun to improve in the past, although as one of the world’s largest debtor nations, the financial anatomy of the U.S. bears close watching and monitoring by investors. We discuss and highlight these key metrics.

**Thought of the Week—Brazil’s New (Former) Leader:** On October 30, Luiz Inácio Lula da Silva (Lula) was elected to his third presidential term. Facing his administration is considered an unsustainable longer-run trend in the nation’s fiscal accounts.

On watch for investors is his choice for Finance Minister as well as detail to his campaign proposal to amend an inflation-adjusted spending cap, passed by the Temer (Michel Temer—former president of Brazil) administration in 2016.

## MACRO STRATEGY ►

**Chief Investment Office  
Macro Strategy Team**

## MARKET VIEW ►

**Joseph P. Quinlan**  
Managing Director and Head of CIO Market Strategy

**Hayley Licata**  
Wealth Management Analyst

## THOUGHT OF THE WEEK ►

**Rodrigo C. Serrano, CFA®**  
Director and Senior Investment Strategy Analyst

## MARKETS IN REVIEW ►

**Data as of 11/14/2022,  
and subject to change**

### Portfolio Considerations

We remain neutral Equities, with a preference for U.S. Equities relative to International, and a slight overweight to high-quality Fixed Income. We continue to emphasize broad portfolio diversification, including Alternatives\*, as we continue to monitor trends in inflation, the Fed, corporate earnings, rates, and the dollar.

\*Many products that pursue Alternative Investment strategies are available only to qualified investors.

Chartered Financial Analyst® and CFA® are registered trademarks owned by CFA Institute.

Merrill Lynch, Pierce, Fenner & Smith Incorporated (also referred to as “MLPF&S” or “Merrill”) makes available certain investment products sponsored, managed, distributed or provided by companies that are affiliates of Bank of America Corporation (“BofA Corp.”). MLPF&S is a registered broker-dealer, registered investment adviser, Member SIPC and a wholly owned subsidiary of BofA Corp. Investment products:

Are Not FDIC Insured	Are Not Bank Guaranteed	May Lose Value
----------------------	-------------------------	----------------

Please see last page for important disclosure information.

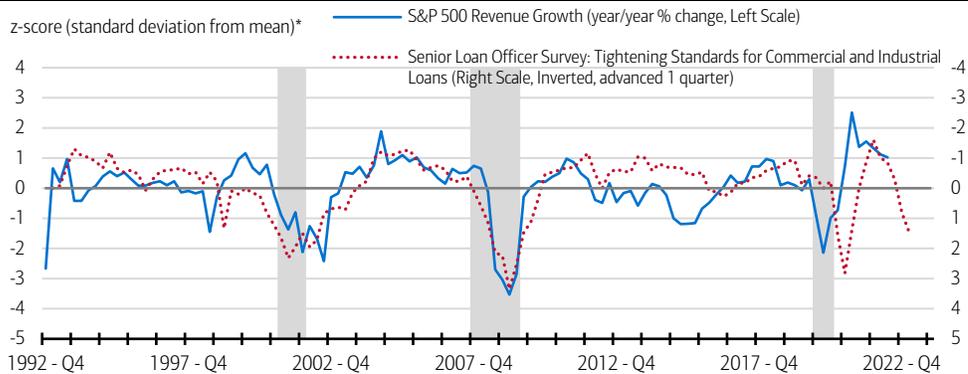
5112727 11/2022

## Credit Cycle Turning Fast

### Chief Investment Office Macro Strategy Team

The latest reports from the Fed on financial stability (Financial Stability Report) and bank lending practices (SLOS) show that credit conditions are tightening rapidly and credit problems are likely to expand faster than markets currently anticipate for 2023. For example, the relationship between corporate revenue growth and tightening credit conditions (Exhibit 1) suggests that the outlook for corporate profits will continue to deteriorate at an accelerating pace, as already evident in Q3 corporate earnings reports and the declining ratio of analysts' upward-to-downward estimates for future profits.

#### Exhibit 1: S&P Revenue Growth Follows Tightening Lending Standards.



\*z-score is the number of standard deviations from the mean value of the reference population. Standard deviation from mean is a quantity calculated to indicate the extent of deviation for a group as a whole. Sources: Fed Board, Standard and Poor's/Haver Analytics. Data through Q3 2022. Cited as of November 10, 2022.

The rapid deterioration in banks' willingness to lend revealed in the latest SLOS suggests that defaults on speculative-grade bonds will rise much more than credit-rating agencies currently expect. For example, both S&P and Fitch estimate the current default rate at about 1.5% and project a rise to about 3.5% in 2023. The historical relationship between the percentage of banks tightening lending standards in the SLOS and the S&P speculative-grade default rate suggests the default rate could rise to 8% next year, about double the current rating agencies' estimate, according to Absolute Strategy Research.

The sharp decline in corporate revenues projected in Exhibit 1 is consistent with the trajectory of nominal gross domestic product (GDP) growth, which has declined by about half from 2021 to 2022, as real growth has stalled while inflation has remained in the mid-single digits. We expect inflation to come down in 2023 and real growth to remain flat, or to decline, implying nominal GDP growth will fall by about half again to less than 4%. When nominal growth was in the double digits during the 2021 pandemic stimulus boom, corporate revenues surged and corporate profit margins were high, as cash-flush consumers were able to pay the high prices that companies passed through to them.

Q3 earnings reports reveal that is no longer the case. Profit margins are being squeezed as consumers with declining real incomes can no longer afford inflationary price increases, forcing firms to absorb more of the cost inflation, squeezing their profit margins. As a result, profits are down year-over-year in every S&P 500 sector except Energy. As workers try to catch up with inflation, wage costs will add to the margin pressure and profits recession that is already under way outside the Energy sector.

Profits are the lifeblood of economic expansion, and their decline is already forcing layoffs in the most affected sectors today, such as Technology, which are likely to spread through to other sectors in response to the likely revenue growth decline in coming months. Leading indicators already point to an incipient turn down in employment growth. For example, initial claims for employment compensation are still low, but they are up about 20% from their cycle low point as layoff announcements increased.

Also, the U.S. Bureau of Labor Statistics Household Employment Survey has been much weaker than the Payroll Survey, as is often the case at cyclical turning points. Even payrolls

#### Investment Implications

Tightening credit conditions favor more defensive Equities that are less susceptible to an economic slowdown, as well as high-quality Fixed Income that benefits from an eventual drop in interest rates as inflation declines with slowing money-supply growth and slower personal income/corporate revenue growth.

show a decelerating job growth pace, with the 3-month average gain below the 6-month increase, which is below the 12-month average rise. Consumer surveys show the percentage of respondents saying jobs are hard to find has risen sharply compared to those saying jobs are easy to find. In this context, we believe the rise in the October unemployment rate to 3.7% from 3.5% in September may mark a turn that is just beginning and will carry the unemployment rate up substantially in 2023.

As a result, the consumer credit situation is also likely to deteriorate next year. Indeed, delinquency rates across most categories of consumer credit have started to rise off their cycle lows. The biggest jump, not surprisingly, is in the non-prime auto loan category, where the 30+ day delinquency rate has jumped over 4 percentage points to about 13.8% according to Piper Sandler Research. More muted delinquency rate upturns are evident in prime auto loans and mortgage loans.

The latest National Federation of Independent Business (NFIB) Survey of small businesses paints a similar picture of a slowing economy with a dimming hiring outlook. The good news is a declining share of businesses are planning to raise selling prices. Small businesses have also seen margin pressures squeeze profits, with a rising preponderance of firms reporting lower earnings. The NFIB survey also finds “smaller companies are facing increasing funding issues,” consistent with the general tightening of lending standards discussed above.

These findings are not surprising as the U.S. economy transitions from the easiest financial conditions since World War II to a more normal environment as the Fed raised rates and ended quantitative easing (QE). Unfortunately, the momentum in various indicators suggests the return to more normal financial conditions is just a transitory stage on the way to much tighter liquidity in 2023. This is illustrated by the spread between the 10-year Treasury note yield and the fed funds rate, which has flattened sharply over the past year but has only just begun to invert with the latest Fed rate hike. Given the waning effect of the pandemic stimulus and the aggressive monetary tightening of the past six months, along with Fed’s indication of more rate hikes ahead, the 10-year Treasury yield to fed funds rate spread is likely to turn deeply negative over the next 6 months, as it usually does when financial conditions tighten ahead of recessions.

All of this suggests the trend of declining 2023 earnings expectations is likely to pick up steam, as is already evident in the declining earnings revisions ratio reported by BofA Global Research in recent months. This research anticipates S&P 500 earnings per share of \$200 in 2023, down about 10% from the recent run rate. While this is well below the consensus, it is much better than the typical earnings decline of roughly 30% in recessions. A more severe recession would, of course, cause a more severe than average earnings decline.

The Fed’s latest Financial Stability Report notes some incipient signs of stress emerging since the Fed started raising rates in March. Not surprisingly, declining market liquidity, especially in the Treasury market, received some focus. One of the four areas of vulnerability that the Fed also examines is “valuation pressures,” with the report noting that “elevated valuation pressures may increase the possibility of outsized drops in asset prices.” Zero interest rates caused excessive valuations in various asset classes, including crypto currencies and long-duration Technology stocks, which have declined roughly 80% from their peaks, similar to the 1999-2000 Tech stocks bubble pop. Fallout from these outsized drops combined with deteriorating credit quality raises the risks of a more severe recession, as negative wealth effects on consumer demand will likely turn out to be greater than markets currently anticipate.

## Ten Key Facts About Finances of the U.S. Government

*Joseph P. Quinlan, Managing Director and Head of CIO Market Strategy*

*Hayley Licata, Wealth Management Analyst*

A frequent question from investors is the following: given all the public sector spending of the past few years, juxtaposed against rapidly rising interest rates, what is the status of America's finances? Answer: more manageable than precarious but worth watching and monitoring as the U.S. and world shift towards a higher inflation/interest rate regime. Here are some key facts to consider:

**One, the federal budget deficit remains large but has declined sharply as a percentage of GDP.** America's federal budget deficit totaled \$1.4 trillion in fiscal year 2022, a level greater than most nations' total output. However, the full year (FY) 2022 deficit was down markedly from the record levels of FY 21 (\$2.8 trillion) and FY 2020 (\$3.1 trillion), when pandemic-related spending soared to multi-decade highs. What's more, the deficit was equal to 5.5% of GDP, down sharply from 12.3% the prior year and a peak of nearly 15% in FY 2020. Thanks to waning federal spending and rising revenues, the U.S.' federal budget deficit, in both an absolute and relative terms, has improved significantly since the start of the decade.

**Two, unusual times called for unusual government spending levels.** U.S. fiscal outlays (spending) typically average 21% of GDP—that's the 50-year average over 1973 to 2022. But because nothing has been "typical" this decade, fiscal outlays have been running at historic levels since 2020. In FY 2022, the U.S. federal government spent a staggering \$6.3 trillion, or 25% of GDP; this followed massive outlays in FY 2021 (\$6.8 trillion) and FY 2020 (\$6.6 trillion). Outlays in FY 2021 were 30.1% of GDP, the highest level in decades. Looking forward, the expectation is for revenues to trend back to its historic average of GDP. Pandemic-related spending is fading, with outlays for refundable tax credits, unemployment compensation, small business loans, and coronavirus relief spending for states all set to decline in the coming years.

**Three, mandatory outlays continue to run ahead of discretionary outlays.** A great deal of what Uncle Sam spends every year is locked in—or is mandatory. Just in FY 2022, Social Security benefits (\$1.2 trillion), Medicare (\$751 billion) and Medicaid (\$592 billion) combined to eat up roughly 40% of total outlays. Given the aging and demographic profile of the U.S., those costs are only expected to trend higher in the out years. Indeed, with Social Security benefits tied to rising inflation, outlays will be noticeably higher in the current fiscal year. Among discretionary outlays, the biggest spend is on defense, with defense outlays totaling \$727 billion. The U.S. spends more on defense than the next nine countries (China, India, Russia, UK, Saudi Arabia, Germany, France, Japan and South Korea) combined, according to Peterson Foundation. Given the geopolitical risks of today, spending isn't expected to decline anytime soon.

**Four, individuals remain the top contributor to government revenues.** So who is footing the bill for Washington's penchant for spending? You and me—or individuals taxed according to their taxable income levels. Federal revenues totaled a record \$4.9 trillion in FY 2022, up 21% from the prior year. Revenues from individual income taxes totaled \$2.6 trillion in FY 2022, a 29% jump from the prior year and one fueled by rising wages, a strong job market, government transfers and strong capital markets. The second largest revenue source—payroll taxes—also posted strong gains in FY 2022 (totaling \$1.5 trillion), as did receipts from corporate income taxes (\$425 billion). Looking ahead, a U.S. recession in 2023 could dampen receipts across the board.

**Five, net interest payments have ballooned lately but remain manageable as a percentage of GDP.** The bad news: Net interest payments on U.S. government debt hit a record high of \$534 billion in FY 2022, propelled upward by rising debt levels and higher interest rates. That's hardly an insignificant sum; indeed, it's not that far from the cost of Medicaid (\$593 billion). The better news: As a percentage of GDP, 2.16% in FY 2022, America's debt-servicing onus remains manageable and well below the levels of 1980s.

### Investment Implications

Investors have sharpened their focus on sovereign finances in lieu of rising global inflation rates and elevated interest rates, the U.S. included. In general, America's deficits and debt, in addition to other financial metrics, remain amenable to sustainable U.S. economic growth and the dollar maintaining its world reserve currency status.

That said, future debt levels and the cost of capital are two variables we are watching very carefully.

**Six, the cost of capital to service America's debt has gone up lately but remains well below historic levels.** In the early 1980s, the average interest rate on U.S. debt was close to 12%; however, thanks to falling levels of inflation and aggregate price stability, the cost of capital has been a tailwind for public sector finances for decades, allowing America to borrow on the cheap. The cost of capital is still cheap, but the average interest rate on U.S. debt bumped up to 2.2% in October 2022. That is up from the uber low levels at the start of the year (1.6%) and is the highest rate since March 2020. In the end, even with the backup in interest rates this year, borrowing remains cheap for Uncle Sam.

**Seven, federal debt held by the public as a percentage of GDP remains slightly below 100% of GDP.** Early in 2022, the federal government's gross debt exceeded \$30 trillion for the first time, stirring a media storm and market angst. However, when intragovernment debt—what the government owes itself—is stripped from the total, public sector debt totaled \$22.3 trillion in FY 2022, or 97% of GDP. The latter is down from 98.4% in FY 2021 and 100% in FY 2020.

**Eight, foreign ownership of U.S. public sector debt and securities has grown significantly over this century.** A deficit-spending nation like the U.S. needs access to foreign capital, and luckily, foreigners have obliged Uncle Sam for decades. According to the Committee for a Responsible Federal Budget, foreign entities own about 34% of U.S. public debt; meanwhile, based on data from the Fed, foreigners own 28.5% of outstanding U.S. Treasuries in Q2 2022, 33% of outstanding Corporate Bonds, 20% of U.S. Equities, and 11% of Agency Bonds. Per Fed data, foreign ownership of U.S. securities rose from \$3.7 trillion to \$23 trillion between 2000 and Q2 2022, helping to maintain attractive borrowing costs for U.S. businesses and consumers. That said, future foreign demand for U.S. securities is hardly a given. One foreign buyer increasingly absent the U.S. capital market is China.

**Nine, China remains a major holder of U.S. Treasuries but its presence in the U.S. credit markets is shrinking.** At one point in 2011, Chinese holdings of U.S. Treasuries were in excess of \$1.3 trillion, with the mainland owning nearly 30% of total outstanding Treasuries. That share today, however, has been cut in half, to around 13% as China scales back its holdings. In August, for instance, the nation's holdings of U.S. debt dropped to a 12-year low, a downshift that reflects China's emphasis on diversifying its reserves and sliding U.S. bond prices. Rising geopolitical tensions are thought to have dampened the appetite of China for U.S. assets as well. Given the competitive and dynamic nature of the U.S. private sector, we believe foreign demand for U.S. securities will remain healthy into the future.

**Ten, the world still believes in the creditworthiness of Uncle Sam and the greenback.** That the U.S. dollar has emerged as one of the strongest currencies in the world this year is testimony to the fact that the greenback's days are far from over. It's not just a crisis-prone world that supports the dollar's preeminence. Structural supports include the fact that America's capital markets are among the deepest and most innovative in the world. The fact that a significant amount of the world's trade in goods and commodities is invoiced in dollars is another key support of the dollar's reign. So are the following: America's military might, a stable rule of law, democratic institutions and the economy's record of flexibility and resiliency. According to the International Monetary Fund (IMF), of the total allocated global reserve holdings of central banks, nearly 60% were held in U.S. dollars in Q2 2022, well in excess of reserves held in the euro (20% of allocated reserves), yen (5.2%), British pound 4.5% to 4.9%, and Chinese renminbi (2.8%). The upshot: It's a dollar-denominated world, which is beneficial and supportive of Uncle Sam's finances.

## Brazil's New (Former) Leader

Rodrigo C. Serrano, CFA®, Director and Senior Investment Strategy Analyst

On October 30 Luiz Inácio Lula da Silva (Lula) was elected to his third presidential term. Set to begin on January 1, 2023, his triumph caps a remarkable political comeback to an office he also held from 2003 to 2010. Governors of all the country's 26 states and its Federal District, all members of the Chamber of Deputies (513), and one-third of the Federal Senate (27 of 81) were also chosen.

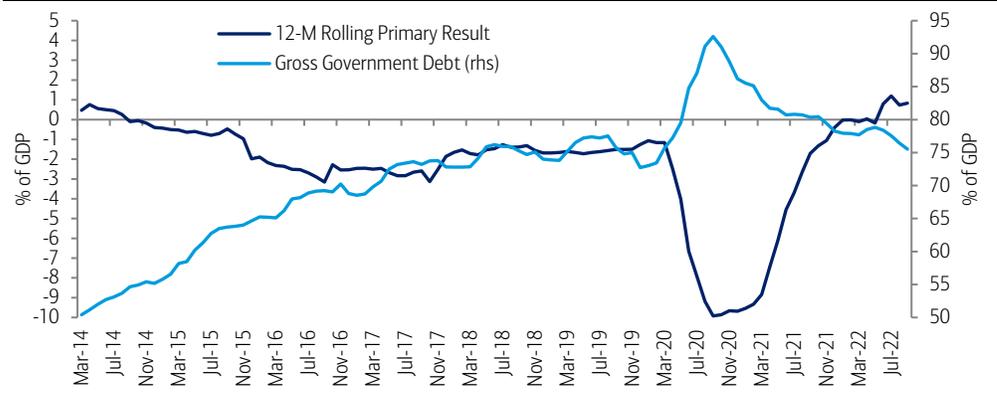
For investors, we believe the interplay between Brazil's inflation, its economic performance and its policy will be important over the coming months. Encouragingly, the central bank's early and aggressive fight against price pressures has helped to cool them down, yielding it greater flexibility and an increasingly appealing real yield for Fixed Income investors. Public fiscal policy has also aided to subdue inflation while supporting upside surprises in economic activity. These elements, as well as the fading effects of the coronavirus pandemic, have helped produce a primary surplus and a modest downtrend in the government debt-to-GDP ratio (Exhibit 2).

However, higher interest rates have begun to weigh on economic growth, while an expected increase in mandatory spending, making up over 80% of total expenditure, portends longer-run fiscal sustainability. Nearer-term, at risk is another violation, damaging the fragile credibility of an inflation-adjusted spending cap passed by the Temer administration in 2016.

Lula's choice for finance minister and detail over his campaign proposal to replace this fiscal anchor will be important, in our view. BofA Global Research expects some form of it to remain in place and stresses the importance of a credible fiscal framework, including a pathway towards a sustainable decline in the country's debt-to-GDP ratio. Public tax and administrative reforms are considered important factors in this regard. Will robust conservative representation in Congress set important guardrails for Lula, limiting the risk for unconventional policies, or will it stymie passage of necessary reforms? We think his choice of Geraldo Alckmin as vice president signals a more tangible shift to the center, improving governability prospects.

Other challenges include how Lula navigates a vastly different geopolitical backdrop. In the early 2000s, China, which factored in Brazil's exemplary growth at that time, was seen by the U.S. as an economic partner, not the strategic risk it is today. To diversify his geopolitical and economic relationships, could Lula pursue greater integration efforts within Latin America, as well as work constructively within the Mercosur trade bloc with the European Union to ratify a pending comprehensive trade agreement?<sup>1</sup> Lula's vowed environmental policies may reenergize negotiations on this front, while raising the country's profile to ESG<sup>2</sup> investing.

**Exhibit 2: Lula Inherits A Better Starting, Though Tenuous, Fiscal, Position.**



Sources: Banco do Brasil, Chief Investment Office. Data as of September 2022.

<sup>1</sup> Mercosur consists of Brazil, Argentina, Paraguay and Uruguay.

<sup>2</sup> ESG is a protocol, which stands for Environmental, Social and Governance.

### Investment Implications

Our general neutral preference for the Emerging Market Equity asset class considers the heterogeneity of nations within this cohort, which argues for an active management\* approach. Differences in their macroeconomic frameworks, from trade and fiscal balances to the political outlook, are important elements to consider. For Brazil, we seek greater clarity on Lula's approach to tackle the country's challenges. Longer-term, strides in fostering the digital economy and the prospect of greater demand for commodities may benefit the country.

\*Active management seeks to outperform benchmarks through active investment decisions such as asset allocation and investment selection.

Equities

	Total Return in USD (%)			
	Current	WTD	MTD	YTD
DJIA	33,747.86	4.2	3.2	-5.5
NASDAQ	11,323.33	8.1	3.1	-27.1
S&P 500	3,992.93	5.9	3.2	-15.1
S&P 400 Mid Cap	2,532.12	5.3	4.1	-9.7
Russell 2000	1,882.74	4.6	2.0	-15.2
MSCI World	2,674.08	6.7	5.0	-16.1
MSCI EAFE	1,918.41	8.4	9.7	-15.7
MSCI Emerging Markets	935.73	5.7	10.4	-22.1

Fixed Income<sup>†</sup>

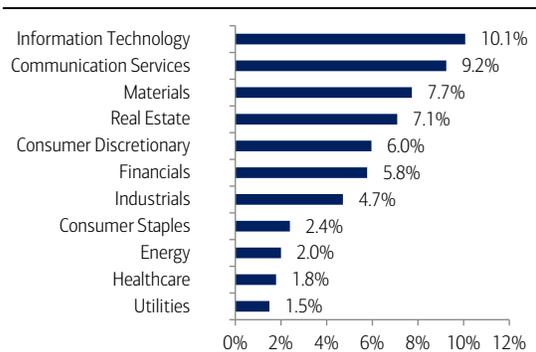
	Total Return in USD (%)			
	Current	WTD	MTD	YTD
Corporate & Government	4.70	2.18	1.69	-14.74
Agencies	4.51	1.27	0.89	-8.40
Municipals	3.99	1.40	1.73	-11.35
U.S. Investment Grade Credit	4.73	2.29	1.91	-14.10
International	5.60	2.62	2.31	-17.70
High Yield	8.91	1.20	0.38	-12.20
90 Day Yield	4.16	4.10	4.06	0.03
2 Year Yield	4.33	4.66	4.48	0.73
10 Year Yield	3.81	4.16	4.05	1.51
30 Year Yield	4.02	4.25	4.16	1.90

Commodities & Currencies

	Total Return in USD (%)			
	Current	WTD	MTD	YTD
Commodities				
Bloomberg Commodity	253.29	-0.4	3.2	19.6
WTI Crude \$/Barrel <sup>††</sup>	88.96	-3.9	2.8	18.3
Gold Spot \$/Ounce <sup>††</sup>	1771.24	5.3	8.4	-3.2

	Total Return in USD (%)			
	Current	Prior Week End	Prior Month End	2020 Year End
Currencies				
EUR/USD	1.03	1.00	0.99	1.14
USD/JPY	138.81	146.62	148.71	115.08
USD/CNH	7.09	7.19	7.34	6.36

S&P Sector Returns



Sources: Bloomberg; Factset. Total Returns from the period of 11/7/2022 to 11/11/2022. <sup>†</sup>Bloomberg Barclays Indices. <sup>††</sup>Spot price returns. All data as of the 11/11/2022 close. Data would differ if a different time period was displayed. Short-term performance shown to illustrate more recent trend. **Past performance is no guarantee of future results.**

Economic Forecasts (as of 11/11/2022)

	2021A	Q1 2022A	Q2 2022A	Q3 2022A	Q4 2022E	2022E	2023E
Real global GDP (% y/y annualized)	6.2	-	-	-	-	3.5	2.4
Real U.S. GDP (% q/q annualized)	5.9	-1.6	-0.6	2.6	0.5	1.8	-0.4
CPI inflation (% y/y)	4.7	8.0	8.6	8.3	7.5	8.1	4.4
Core CPI inflation (% y/y)	3.6	6.3	6.0	6.3	6.1	6.3	4.4
Unemployment rate (%)	5.4	3.8	3.6	3.5	3.6	3.6	4.8
Fed funds rate, end period (%)	0.07	0.33	1.58	3.08	4.38	4.38	4.88

The forecasts in the table above are the base line view from BofA Global Research. The Global Wealth & Investment Management (GWIM) Investment Strategy Committee (ISC) may make adjustments to this view over the course of the year and can express upside/downside to these forecasts. Historical data is sourced from Bloomberg, FactSet, and Haver Analytics. **There can be no assurance that the forecasts will be achieved. Economic or financial forecasts are inherently limited and should not be relied on as indicators of future investment performance.**

A = Actual. E/\* = Estimate.

Sources: BofA Global Research; GWIM ISC as of November 11, 2022.

Asset Class Weightings (as of 11/7/2022) CIO Equity Sector Views

Asset Class	CIO View			Sector	CIO View		
	Underweight	Neutral	Overweight		Underweight	Neutral	Overweight
Global Equities	●	●	●	Energy	●	●	●
U.S. Large Cap Growth	●	●	●	Utilities	●	●	●
U.S. Large Cap Value	●	●	●	Healthcare	●	●	●
U.S. Small Cap Growth	●	●	●	Financials	●	●	●
U.S. Small Cap Value	●	●	●	Real Estate	●	●	●
International Developed	●	●	●	Information Technology	●	●	●
Emerging Markets	●	●	●	Consumer Staples	●	●	●
Global Fixed Income	●	●	●	Industrials	●	●	●
U.S. Governments	●	●	●	Materials	●	●	●
U.S. Mortgages	●	●	●	Consumer Discretionary	●	●	●
U.S. Corporates	●	●	●	Communication Services	●	●	●
High Yield	●	●	●				
U.S. Investment Grade Tax Exempt	●	●	●				
U.S. High Yield Tax Exempt	●	●	●				
International Fixed Income	●	●	●				
Alternative Investments*							
Hedge Funds							
Private Equity							
Real Assets							
Cash							

\*Many products that pursue Alternative Investment strategies, specifically Private Equity and Hedge Funds, are available only to qualified investors. CIO asset class views are relative to the CIO Strategic Asset Allocation (SAA) of a multi-asset portfolio. Source: Chief Investment Office as of November 7, 2022. All sector and asset allocation recommendations must be considered in the context of an individual investor's goals, time horizon, liquidity needs and risk tolerance. Not all recommendations will be in the best interest of all investors.

## Index Definitions

**Securities indexes assume reinvestment of all distributions and interest payments. Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Indexes are all based in U.S. dollars.**

**S&P 500 Index** includes a representative sample of 500 leading companies in leading industries of the U.S. economy. Although the index focuses on the large-cap segment of the market, with approximately 75% coverage of U.S. equities, it is also an ideal proxy for the total market.

## Important Disclosures

**Investing involves risk, including the possible loss of principal. Past performance is no guarantee of future results.**

This material does not take into account a client's particular investment objectives, financial situations, or needs and is not intended as a recommendation, offer, or solicitation for the purchase or sale of any security or investment strategy. Merrill offers a broad range of brokerage, investment advisory (including financial planning) and other services. There are important differences between brokerage and investment advisory services, including the type of advice and assistance provided, the fees charged, and the rights and obligations of the parties. It is important to understand the differences, particularly when determining which service or services to select. For more information about these services and their differences, speak with your Merrill financial advisor.

Bank of America, Merrill, their affiliates and advisors do not provide legal, tax or accounting advice. Clients should consult their legal and/or tax advisors before making any financial decisions.

The Chief Investment Office ("CIO") provides thought leadership on wealth management, investment strategy and global markets; portfolio management solutions; due diligence; and solutions oversight and data analytics. CIO viewpoints are developed for Bank of America Private Bank, a division of Bank of America, N.A., ("Bank of America") and Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S" or "Merrill"), a registered broker-dealer, registered investment adviser and a wholly owned subsidiary of Bank of America Corporation ("BofA Corp."). This information should not be construed as investment advice and is subject to change. It is provided for informational purposes only and is not intended to be either a specific offer by Bank of America, Merrill or any affiliate to sell or provide, or a specific invitation for a consumer to apply for, any particular retail financial product or service that may be available.

The Global Wealth & Investment Management Investment Strategy Committee ("GWIM ISC") is responsible for developing and coordinating recommendations for short-term and long-term investment strategy and market views encompassing markets, economic indicators, asset classes and other market-related projections affecting GWIM.

All recommendations must be considered in the context of an individual investor's goals, time horizon, liquidity needs and risk tolerance. Not all recommendations will be in the best interest of all investors.

Asset allocation, diversification, dollar cost averaging and rebalancing do not ensure a profit or protect against loss in declining markets.

Investments have varying degrees of risk. Some of the risks involved with equity securities include the possibility that the value of the stocks may fluctuate in response to events specific to the companies or markets, as well as economic, political or social events in the U.S. or abroad. Investing in fixed-income securities may involve certain risks, including the credit quality of individual issuers, possible prepayments, market or economic developments and yields and share price fluctuations due to changes in interest rates. When interest rates go up, bond prices typically drop, and vice versa. Bonds are subject to interest rate, inflation and credit risks. Investments in foreign securities involve special risks, including foreign currency risk and the possibility of substantial volatility due to adverse political, economic or other developments. These risks are magnified for investments made in emerging markets. Investments in a certain industry or sector may pose additional risk due to lack of diversification and sector concentration. Investments in real estate securities can be subject to fluctuations in the value of the underlying properties, the effect of economic conditions on real estate values, changes in interest rates, and risk related to renting properties, such as rental defaults. There are special risks associated with an investment in commodities, including market price fluctuations, regulatory changes, interest rate changes, credit risk, economic changes and the impact of adverse political or financial factors.

**Alternative Investments are speculative and involve a high degree of risk.**

Alternative investments are intended for qualified investors only. Alternative Investments such as derivatives, hedge funds, private equity funds, and funds of funds can result in higher return potential but also higher loss potential. Changes in economic conditions or other circumstances may adversely affect your investments. Before you invest in alternative investments, you should consider your overall financial situation, how much money you have to invest, your need for liquidity and your tolerance for risk.

Nonfinancial assets, such as closely-held businesses, real estate, fine art, oil, gas and mineral properties, and timber, farm and ranch land, are complex in nature and involve risks including total loss of value. Special risk considerations include natural events (for example, earthquakes or fires), complex tax considerations, and lack of liquidity. Nonfinancial assets are not in the best interest of all investors. Always consult with your independent attorney, tax advisor, investment manager, and insurance agent for final recommendations and before changing or implementing any financial, tax, or estate planning strategy.

Sustainable and Impact Investing and/or Environmental, Social and Governance (ESG) managers may take into consideration factors beyond traditional financial information to select securities, which could result in relative investment performance deviating from other strategies or broad market benchmarks, depending on whether such sectors or investments are in or out of favor in the market. Further, ESG strategies may rely on certain values based criteria to eliminate exposures found in similar strategies or broad market benchmarks, which could also result in relative investment performance deviating. Impact investing and/or ESG investing has certain risks based on the fact that ESG criteria excludes securities of certain issuers for nonfinancial reasons and therefore, investors may forgo some market opportunities and the universe of investments available will be smaller.

© 2022 Bank of America Corporation. All rights reserved.