

CHIEF INVESTMENT OFFICE

# Capital Market Outlook

August 29, 2022

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

## IN THIS ISSUE

**Macro Strategy—*QT Kicks into Second Gear*:** Financial conditions are likely to remain under pressure as the Federal Reserve’s (Fed) quantitative tightening (QT) program kicks into a higher gear in September. A doubling of the run-off cap on the Fed’s balance sheet plus persistent hawkish rhetoric from Fed officials will likely keep downward pressure on economic growth and inflation expectations.

In stark contrast to the previous period of QT from October 2017 to mid-2019, broader measures of money supply are also contracting this time around. The combination of contracting broad money growth and weaker nominal growth expectations related to QT is likely a formidable headwind for risk-assets. Lastly, a Fed pivot will be difficult with inflation still running hot.

**Market View—*Another Billion: The Geography of Demography*:** Come this November, the world population is likely to reach 8 billion, according to the latest figures from the United Nations.

This milestone, however, belies the fact that the world’s population is expanding at its slowest pace since 1950, falling under 1% for the first time in 2020 and declining even more in 2021.

**Thought of the Week—*The Investment Case for Gender Equality*:** On the heels of National Women’s Equality Day, we reiterate our long-held view that the advancement of women represents one of the most powerful forces shaping financial markets, economic growth and corporate earnings.

Continued progress toward gender equality is likely to help funnel money into the economy and present opportunities for investors along the way.

## MARKET VOLATILITY

It’s no longer whether we are aiming for a soft landing; it is now more about how to avert something much harder. The statement coming out of the Fed’s Jackson Hole summit was convincing. Chair Powell stated the vigilance by the Fed in combating and breaking inflation and did not provide much ammunition for the bulls as it relates to dovish commentary. This should have been expected in our view. For now, we expect a consolidation in equity markets and see-saw trading as more data is released. There are plenty of unknowns and our view remains on guard. In terms of asset allocation, we are neutral Equities and see better opportunities to add risk later in the year but not now. Long-term investors should have more attractive opportunities in Equities further in the Fed hiking cycle when earnings expectations are more reasonable.

## MACRO STRATEGY ►

### Jonathan Kozy

Managing Director and Senior Macro Strategy Analyst

## MARKET VIEW ►

### Lauren J. Sanfilippo

Director and Senior Market Strategy Analyst

## THOUGHT OF THE WEEK ►

### Emily Avioli

Assistant Vice President and Investment Strategist

## MARKETS IN REVIEW ►

Data as of 8/29/2022, and subject to change

## Portfolio Considerations

We maintain a neutral view on Equities as risks to economic growth and corporate profits remain. As growth moderates, profit estimates are likely to follow as the Fed pursues a more aggressive tightening bias. We still expect high-quality Fixed Income to be a diversifier—in the long run, coupon income is a larger determinant of total returns than price changes due to rate moves—and this diversification effect has historically proven true when rate volatility decreases. An allocation to Hedge Funds, for qualified investors, has the potential to lower the effect of the volatility and possibly take advantage of the dislocation and sector rotation.

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## QT Kicks into Second Gear

*Jonathan Kozy, Managing Director and Senior Macro Strategy Analyst*

As part of its effort to bring inflation closer to the 2% target, the Fed is set to ramp up QT by doubling the run-off cap on its balance sheet starting September 1. It is also expected to continue to raise its target policy rate over the next few meetings. The most likely outcome is a continuation of upward pressure on aggregate financial conditions and downward pressure on growth and inflation expectations. Both are headwinds for risk assets. We would also add that QT of this scale (\$95 billion per month) is unprecedented, leaving investors with an added layer of uncertainty that adds to the potential for volatility. Below we respond to questions on the current state and direction of monetary policy and its effect on markets.

### What is happening with QT starting September 1?

Since June 1, the Fed has been allowing maturing Treasuries and Mortgage-Backed Securities (MBS) to roll off its balance sheet without reinvesting the proceeds. The cap on the pace of that run-off is about to increase to \$95 billion per month. Under the current plan, the Fed expects to shrink its balance sheet by over \$1.5 trillion by the end of 2023, with the ultimate goal of returning it to pre-pandemic levels over the next few years.

At this stage QT is not the reverse of quantitative easing (QE), or the purchasing of assets, because the Fed is not yet selling assets outright, simply letting them roll off. But that is an option that would kick QT into a higher gear.

### What will this do to the real economy?

It is likely that a more acute stage of the macroeconomic adjustment is about to begin because of the lagged effect of past monetary tightening and the upgrade to QT-runoff. The Fed has little choice but to continue to tighten financial conditions. Aggregate demand is weakening, but core personal consumption expenditure (PCE) inflation still registered a 4.6% year-over-year gain in July, well above its target. The labor market remains strong, and wage growth is robust, reinforcing underlying inflation. Bottom line: The Fed has more work to do in seeking to return to a low, stable inflation regime.

### What does history suggest will happen to asset prices as the Fed ramps up QT?

QT has only happened once before and never at this pace—not exactly a robust data set to work off of. Counterintuitively, during the period of QT from October 2017 to mid-2019 the 10-year Treasury yield actually fell. In theory, selling Treasuries into the market should put upward pressure on rates, engaging the portfolio balance theory (higher rates make risk assets like Equities less attractive) and raising private sector borrowing rates. This wasn't the case from 2017 to 2019.

We think this happened to yields in part because macro expectations can at times play an outsized role in the behavior of asset prices. The expectation of tighter monetary policy through QT has a significant effect on growth and inflation expectations. While QT pushes bond supply up and puts upward pressure on rates in theory, lower growth and inflation expectations work on yields in the opposite direction. The more aggressive the Fed is or is expected to be with QT, the lower growth and inflation expectations might be.

On the Equity side of the last QT cycle, the S&P 500 stalled in 2018 as QT was underway and dropped 20% at the end of the year. The Fed then signaled a pivot for 2019 and Equities rallied. This could be viewed as an example of how Fed signaling can change the course of risk assets before QT is paused, but with inflation well above the Fed's target it will likely be more difficult to change course this time around.

To expand the historical data set, BofA Global Research looked at the historical relationship between the S&P 500 price-to-earnings multiple and the Fed's balance sheet (including QE). In their analysis, planned QT implies about a mid-single digit percentage point headwind for the S&P 500.

### How is this time different?

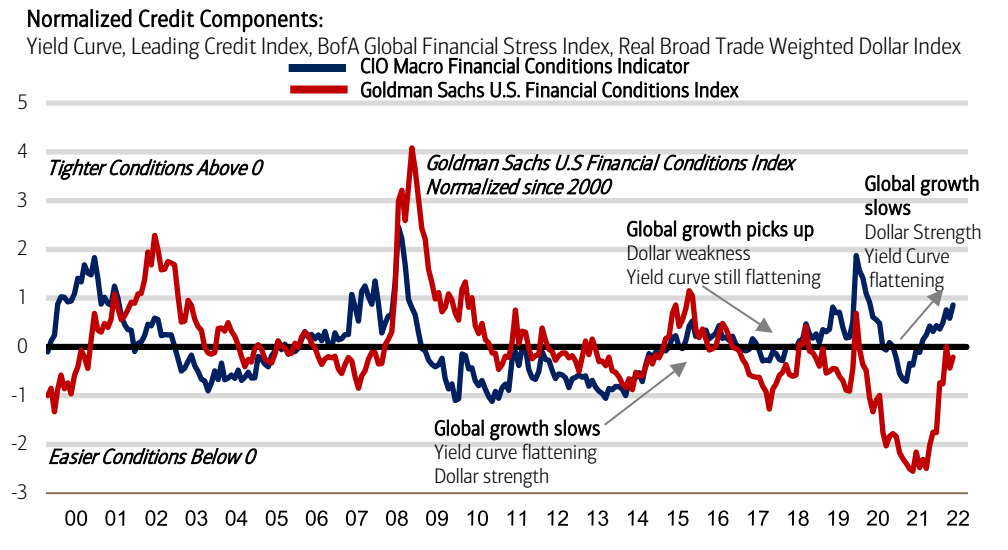
This time is different from the last period of QT in a few important ways. For one, broader measures of money supply continued to grow during the 2017-2019 QT period, but broader

### Investment Implications

We expect volatility to continue as the Fed ramps up QT and financial conditions tighten. Removing dollar liquidity from the system that is already hungry for dollars should also act as a tailwind for the dollar, pressuring Emerging Markets that purchase already expensive goods in dollars. Earnings multiples for domestic Equities will likely remain under pressure from QT. Within Fixed Income, we favor quality within credit and are underweight MBS as the pace of QT picks up. For qualified investors, Hedge Funds have the potential to lower the effect of volatility and take advantage of market dislocations.

money supply like M2 money has already started shrinking, albeit slowly. The combination of declining broad money growth and lower inflation and growth expectations will likely keep financial conditions tight (Exhibit 1).

**Exhibit 1: Tighter Macro Financial Conditions a Headwind for Risk Assets.**



Sources: Bloomberg; Chief Investment Office. Data as of August 23, 2022.

Second, inflation was relatively tame during the first QT period. We are in a very different macro environment with a tight labor market, high inflation and deteriorating global cyclical momentum.

The level of QT the Fed is undertaking is also unprecedented. All of this adds to uncertainty for investors. In general, this is a challenging backdrop for risk assets like Equities.

**What about the impact of QT on the U.S. dollar and international asset classes?**

Removing dollar liquidity from a global financial system that is craving dollar liquidity likely keeps upward pressure on the dollar, in our view. But there are many factors at work. The geopolitical backdrop is driving relatively stronger growth expectations in the U.S. than in much of the developed world like Europe, for example. This also favors the dollar.

Emerging Markets face the double whammy of higher commodity prices, including food and energy, and a stronger dollar that makes those goods even more expensive. All of this favors our preference for U.S. Equities over the rest of the world.

**If growth and inflation expectations continue to deteriorate or financial conditions get too tight, will the Fed consider pausing or reversing course all together? Could this be a catalyst for a more sustainable rally in risk assets?**

An important lesson from past periods of very high inflation is that it would be a mistake for the Fed to reverse course and start cutting rates before inflation is under control. The most desirable outcome for long-term investors and business owners is a return to low and stable inflation and more predictable macro variables, and the Fed needs to stay the course to achieve that outcome.

A pause is also unlikely until the Fed has seen multiple months of core PCE or alternative measures of core inflation running at an annualized rate that is at least below 3% for multiple months, in our view. It is also likely the Fed will want to see measures of wage inflation like the Employment Cost Index (ECI) come off the boil before pausing, signaling underlying inflationary pressures are easing.

**Are there any key sources of resilience for Equities?**

Yes. Consumer, business and bank balance sheets are all in strong positions to manage liquidity strains, for now. Banks’ ability to extend credit will play an important role in the evolution of broad money growth and liquidity. So far, tighter monetary policy has not been a constraint on bank lending activity. In fact, the growth of U.S. commercial bank loans and leases (bank credit) has been accelerating. We would keep our eye on banks’ willingness to lend as QT ramps up. A tightening of standards could lead to credit stresses and additional pressure on risk assets.

## Another Billion: The Geography of Demography

Lauren J. Sanfilippo, Director and Senior Market Strategy Analyst

Come this November the world population is likely to reach 8 billion according to the latest figures from the United Nations (UN). That’s an inflection point worth noting considering UN forecasts also suggest we’re relatively close to “peak people” with the major drivers of global population change heading in the wrong direction.

The eighth billion has been centuries in the making, with the world roughly adding a billion people every 30 years. 1804 was the first year the earth hosted one billion people. While it took 123 years before the world population reached two billion (1927), it only took 33 years to reach three billion by 1960. Then things really accelerated: Only 14 years passed to get to the four billion mark (1974); just 13 years to reach five billion (1987); and 12 more years to get to 6 billion (1999); and by 2011 we were at 7 billion.

Hold the fanfare about this milestone since globally, the demographic profiles of most regions are mixed at best, with strong trends of fertility rates falling below replacement rates, aging populations and slowing population growth around the world (Exhibit 2). It’s not all bad news. In some cases, positive dynamics like improving life expectancy and falling teen birth rates are also evident.

### Portfolio Implications

Demographic profiles of countries and regions have long-term economic consequences such as slower structural growth, already apparent in most corners of the world. From an asset allocation perspective, we consider U.S. Equities best in class, so continue to prefer U.S. Equities over non-U.S. in order to maintain our higher-quality tilt.

Exhibit 2: The Geography of Demography.

	+	—
<b>Globally</b>	<ul style="list-style-type: none"> <li>Life expectancy reached 71 years globally in 2021, an increase of 7 years since 1990.<sup>1</sup></li> <li>The number of births in advanced economies has largely rebounded to levels before the pandemic.<sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>Two-thirds of the global population lives in a country where fertility is below the replacement rate.<sup>1</sup></li> <li>By 2030 there will be over 1 billion people over 65 and more than 200 million over 80, with the number of elderly doubling over 20 years.<sup>3</sup></li> </ul>
<b>Asia</b>	<ul style="list-style-type: none"> <li>Of the next 1,000 babies born globally, roughly 172 of them will be born in India. Another 103 will be born in China.<sup>4</sup></li> <li>In 2021, Hong Kong and Japan had the highest life expectancy at birth (85 years).<sup>1</sup></li> </ul>	<ul style="list-style-type: none"> <li>Japan’s population is shrinking by about one person every minute.<sup>5</sup></li> <li>Births in China fell from 12.02 million in 2020 to 10.62 million in 2021, with births barely outnumbering the 10.14 million deaths.<sup>6</sup></li> </ul>
<b>North America</b>	<ul style="list-style-type: none"> <li>The teen birth rate in the U.S. (women aged 15 to 19) is at a record low according to the National Center for Health Statistics.</li> <li>By the second half of 2021, the U.S. recorded the same number of births as the same period in 2019.<sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>Population growth in the U.S. has been falling for nearly two decades, growing only 0.3% in 2021.<sup>1</sup></li> <li>Life expectancy in the U.S. dropped a year and a half in 2020 according to the Centers for Disease Control and Prevention.</li> </ul>
<b>Europe</b>	<ul style="list-style-type: none"> <li>Life expectancy at birth exceeds 80 years in two-thirds of EU countries.<sup>7</sup></li> <li>Over the last decade, the infant mortality rate halved across the EU according to Eurostat.</li> </ul>	<ul style="list-style-type: none"> <li>Europe’s population shrank by 1.4 million last year — the largest fall of any continent since records began in 1950.<sup>8</sup></li> <li>Italy had fewer births in 2021 than at any time since records began in 1861.<sup>2</sup></li> </ul>
<b>Africa</b>	<ul style="list-style-type: none"> <li>Sub-Saharan Africa is expected to contribute more than half of the global population increase through 2050 according to the UN.</li> <li>As the rest of the world ages, almost 60% of Africa’s population is younger than 25 years old.<sup>5</sup></li> </ul>	<ul style="list-style-type: none"> <li>There is a staggering 32-year gap in average life expectancy between Japan (one of the highest) and Sierra Leone.<sup>3</sup></li> <li>In 2021, about 13.3 million babies were born to mothers under the age of 20, half of them in sub-Saharan Africa.<sup>1</sup></li> </ul>
<b>Latin America</b>	<ul style="list-style-type: none"> <li>Latin America has one of the highest working-age populations, accounting for 51% of their population in 2022.<sup>1</sup></li> <li>Encouragingly, fertility in Latin America hovers near replacement rate, around 1.9 children per woman.<sup>1</sup></li> </ul>	<ul style="list-style-type: none"> <li>In addition to a low fertility rate, immigrants account for just 0.1% of Cuba’s total population according to the International Organization for Migration.</li> <li>By 2050 Brazil is estimated to have the world’s fourth largest elderly population behind India, China and the U.S.<sup>1</sup></li> </ul>

Footnotes: <sup>1</sup> United Nations, Data as of 2021. <sup>2</sup> *Financial Times*, “Baby bust: economic stimulus helps births rebound,” April 18, 2022. <sup>3</sup> *Financial Times*, “Demography is not destiny,” August 8, 2022. <sup>4</sup> Visual Capitalist, “Where will the next 1,000 babies come from,” August 19, 2022. <sup>5</sup> Youthquake: Why African Demography should matter to the world, by Edward Paice. <sup>6</sup> National Statistics Bureau of China, Data as of 2021. <sup>7</sup> OECD, Data as of 2021. <sup>8</sup> *Financial Times*, “Global population growth hits lowest rate since 1950,” July 11, 2022.

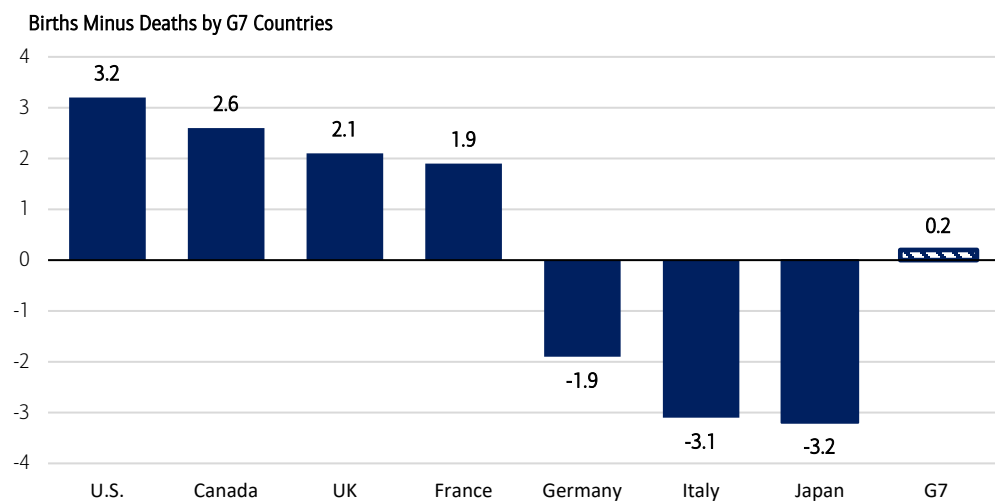
To summarize the dynamics above, yes, the world’s population continues to expand—we’ll reach 8 billion people by Thanksgiving. This milestone, however, belies the fact that the world’s population is expanding at its slowest pace since 1950, falling under 1% for the first time in 2020 and declining even more in 2021. At the individual country level, many nations around the world are poised for a population bust in the decade ahead. According to UN estimates, the populations of more than half of nations are already under 1% population growth owing to falling fertility rates and, in some cases, emigration. Some nations are even facing negative population growth, including South Korea, Italy, Russia,

Japan and Germany, to name a few. Adding to the starkness, low and/or falling fertility levels are also pressuring population growth, as the share of the countries that are at or below the replacement rate of 2.1 children per woman stands at 60%; that share is up from 40% in 2019.

### Investment Implications: Demographics point to one more reason to stay home

By no means experiencing a “demographic dividend” or economic phase benefiting from large working-age populations (think India, which will add another 183 million people to the working-age cohort of 15-64 years between 2020-2050), comparative to other G7 countries, the U.S. has not completely lost its demographic advantage. Exhibit 3 shows the U.S.’ “natural increase” as more births occur than deaths. Conversely, and in a births dearth, are Germany, Italy and Japan, the standouts attending more funerals than first birthday parties.

### Exhibit 3: Paying No Demographic Dividend, But the U.S. Ranks Favorably Among Other G7 Countries.



G7 indicates an average of G7 countries shown. Sources: Credit Suisse, United Nations. Data as of August 2022.

Not helping matters, the demographic story is playing out in tandem with the slowing down of almost everything else. Think slower structural growth in many key regions of the world that are already facing deteriorating outlooks, mismatched labor markets and stretched entitlement bases.

Demographics not only dictate the labor market inputs but also the taxpayer base to support a growing retiree population. The weight of the retiree population increasing falls on the working-age population. Reduced immigration and population growth implies a smaller tax base and worsening ratio of workers to retirees. In the U.S. for every 100 working-age adults, there are 26 individuals over 65. A rising old-age dependency ratio means that those of working age increasingly carry the economic burden of care for the nonworking elderly. Given the demographics over the next 20 years, the UN estimates the ratio will reach 35 for every 100 by 2040, a narrowing prospect for the taxpayers and Social Security and entitlements base.

From an investment perspective, global ageing suggests earnings upside for the global healthcare industry, notably drugs and medical equipment/devices. We also remain constructive on life science companies and tech-related healthcare opportunities. Moreover, in a world rapidly ageing and increasingly short of workers (job openings totaled 10.7 million last month), consider aligning portfolios towards healthcare and technology/innovation leaders in robotics, automation and artificial intelligence.

## The Investment Case for Gender Equality

*Emily Avioli, Assistant Vice President and Investment Strategist*

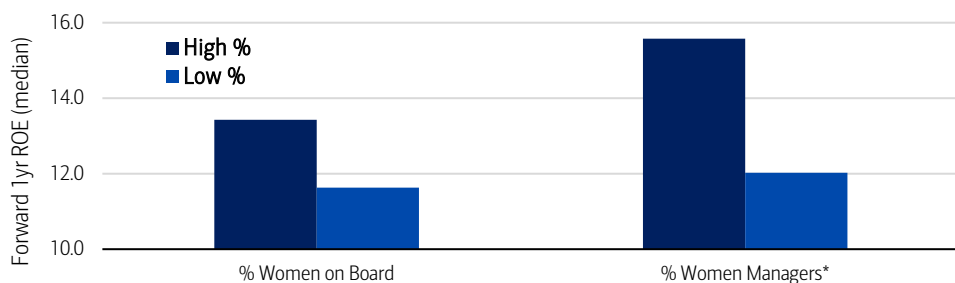
On the heels of National Women’s Equality Day, we reiterate our long-held view that the advancement of women represents one of the most powerful forces shaping financial markets, economic growth, and corporate earnings. While gender inequality remains a key challenge for the global economy, the continued progress toward parity is likely to present immense opportunity.

Women are becoming increasingly powerful economic participants as they accumulate more wealth and income. We estimate that global female income topped \$21.5 trillion in 2020,<sup>1</sup> roughly on par with the total size of the pre-pandemic U.S. economy. Women accumulated wealth at a compound annual growth rate (CAGR) of 6.1% from 2016–19, a rate that is estimated to grow to 7.2% through 2023.<sup>2</sup> Further, they are expected to inherit a sizeable amount of the projected \$30 trillion Great Wealth Transfer in the next 40 years.

While performance results have varied over time, companies with higher board diversity and management diversity tend to see higher future return on equities (ROEs) than counterparts with lower board diversity and management diversity (Exhibit 4). A recent McKinsey analysis found that companies in the top quartile for gender diversity on executive teams were 25% more likely to have above average profitability than companies in the bottom quartile.<sup>3</sup> To us, this data suggests that gender diversity could improve profitability and reduce risk.

### Exhibit 4: Gender Diversity Correlates with Higher Future ROE.

Median forward 1yr ROE based on % women on board and % women managers (2005 - 2020)



\*Data from 2010 on for % Women Managers. Note: High (Low) % of Women on Board defined as above (below) the universe median; High (Low) % of Women Managers defined as above (below) 30%. The universe of companies is taken from the S&P 500. The % of women on board data is for years 2005-2020 and % of women managers data is for years 2010-2020. Source: Refinitiv, FactSet, BofA US Equity & Quant Strategy.

But for all of women’s achievements over the past few decades, very real challenges remain. For one, women at the top of the workforce are still very rare—just 8% of Fortune 500 companies have a female CEO, and only 86 women are promoted to manager for every 100 men promoted.<sup>4</sup> Meanwhile, women still earn 83 cents for every dollar earned by men in the U.S.,<sup>5</sup> and the disparity is even higher for women of color. The challenge extends to women in investments—a recent study found that less than 2% of total U.S. based assets under management were managed by diverse-owned funds in 2021.<sup>6</sup>

Continued progress toward gender equality is likely to help funnel money into the economy, with some estimates suggesting that closing the global gender gap could deliver up to \$28 trillion of additional gross domestic product by 2025. In our view, the advancement of women will fuel global growth and present key opportunities for investors along the way.

### Portfolio Implications

In our view, the advancement of women will continue to shape financial markets, economic growth, and corporate earnings for years to come. Investors may want to consider incorporating this theme through gender-lens investing strategies or women led investing strategies as part of a well balanced portfolio, when appropriate.

<sup>1</sup> Chief Investment Office, “Reality Check: The Promise and Plight of Women,” March 2022. Sources: World Bank, International Monetary Fund (IMF), Oxfam America. Data as of 2020. Latest available data.

<sup>2</sup> Boston Consulting Group. April 9, 2020.

<sup>3</sup> McKinsey and Company, “Diversity Wins: How Inclusion Matters,” May 19, 2020.

<sup>4</sup> McKinsey and Company, “Women in the Workplace,” September 27, 2021.

<sup>5</sup> U.S. Census Bureau. March 1, 2022.

<sup>6</sup> The Knight Foundation, “Knight Diversity of Asset Managers Research Series,” 2021.



Equities

	Total Return in USD (%)			
	Current	WTD	MTD	YTD
DJIA	32,283.40	-4.2	-1.5	-10.0
NASDAQ	12,141.71	-4.4	-1.9	-22.0
S&P 500	4,057.66	-4.0	-1.6	-14.0
S&P 400 Mid Cap	2,500.25	-3.0	-0.4	-11.2
Russell 2000	1,899.83	-2.9	0.9	-14.7
MSCI World	2,694.62	-3.3	-1.8	-15.7
MSCI EAFE	1,882.33	-1.9	-2.6	-17.8
MSCI Emerging Markets	1,006.50	0.5	1.7	-16.5

Fixed Income<sup>†</sup>

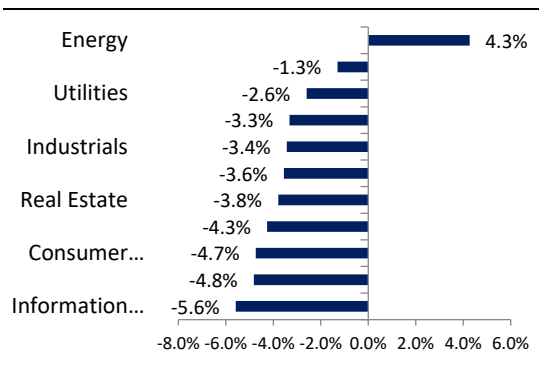
	Total Return in USD (%)			
	Current	WTD	MTD	YTD
Corporate & Government	3.83	-0.21	-1.80	-10.76
Agencies	3.57	-0.24	-1.32	-6.22
Municipals	3.23	-0.47	-1.87	-8.32
U.S. Investment Grade Credit	3.83	-0.36	-2.03	-10.02
International	4.66	-0.23	-1.75	-13.16
High Yield	8.01	-1.05	-0.68	-9.74
90 Day Yield	2.82	2.65	2.32	0.03
2 Year Yield	3.40	3.23	2.88	0.73
10 Year Yield	3.04	2.97	2.65	1.51
30 Year Yield	3.19	3.21	3.01	1.90

Commodities & Currencies

	Total Return in USD (%)			
	Current	WTD	MTD	YTD
Commodities				
Bloomberg Commodity	268.03	1.9	2.5	26.5
WTI Crude \$/Barrel <sup>††</sup>	93.06	2.5	-5.6	23.7
Gold Spot \$/Ounce <sup>††</sup>	1738.14	-0.5	-1.6	-5.0

	Total Return in USD (%)			
	Current	Prior Week End	Prior Month End	2020 Year End
Currencies				
EUR/USD	1.00	1.00	1.02	1.14
USD/JPY	137.64	136.97	133.27	115.08
USD/CNH	6.89	6.84	6.75	6.36

S&P Sector Returns



Sources: Bloomberg; Factset. Total Returns from the period of 8/22/2022 to 8/26/2022. <sup>†</sup>Bloomberg Barclays Indices. <sup>††</sup>Spot price returns. All data as of the 8/26/2022 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 8/26/2022)

	2021A	Q1 2022A	Q2 2022A	Q3 2022E	Q4 2022E	2022E
Real global GDP (% y/y annualized)	6.1	-	-	-	-	3.0
Real U.S. GDP (% q/q annualized)	5.7	-1.6	-0.6	-0.5	-2.0	1.3
CPI inflation (% y/y)	4.7	8.0	8.6	8.2	6.7	7.9
Core CPI inflation (% y/y)	3.6	6.3	6.0	6.0	5.5	6.0
Unemployment rate (%)	5.4	3.8	3.6	3.5	3.8	3.7
Fed funds rate, end period (%)	0.07	0.33	1.58	2.88	3.63	-

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 August 26, 2022.

Asset Class Weightings (as of 8/2/2022)

Asset Class	CIO View		
	Underweight	Neutral	Overweight
Global Equities	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
U.S. Large Cap Growth	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
U.S. Large Cap Value	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
U.S. Small Cap Growth	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
U.S. Small Cap Value	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
International Developed	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
Emerging Markets	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
Global Fixed Income	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
U.S. Governments	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
U.S. Mortgages	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
U.S. Corporates	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
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			

CIO Equity Sector Views

Sector	CIO View		
	Underweight	Neutral	Overweight
Energy	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
Utilities	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
Healthcare	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
Financials	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
Real Estate	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
Information Technology	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
Consumer Staples	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
Industrials	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
Materials	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
Consumer Discretionary	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
Communication Services	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●

\*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 August 2, 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.

**Employment Cost Index (ECI)** is a quarterly economic series detailing the changes in the costs of labor for businesses in the United States economy.

**Leading Credit Index** is an index published monthly by The Conference Board. It is used to predict the direction of global economic movements in future months.

**BofA Global Financial Stress Index** calculated, cross market measure of risk, hedging demand and investor flows in the global financial system.

**Real Broad Trade Weighted Dollar Index** is a measure of the value of the United States dollar relative to other world currencies.

**Goldman Sachs U.S Financial Conditions Index** is a weighted sum of a short-term bond yield, a long-term corporate yield, the exchange rate, and a stock market variable.

## Important Disclosures

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

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

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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. Mortgage-backed securities are subject to credit risk and the risk that the mortgages will be prepaid, so that portfolio management may be faced with replenishing the portfolio in a possibly disadvantageous interest rate environment. Generally, when interest rates decline, prepayments accelerate beyond the initial pricing assumptions, which could cause the average life and expected maturity of the securities to shorten. Conversely, when interest rates rise, prepayments slow down beyond the initial pricing assumptions and could cause the average life and expected maturity of the securities to extend and the market value to decline. 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. 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.

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