

# Capital Market Outlook

July 18, 2022

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

## IN THIS ISSUE

**Macro Strategy—*More Inflation, Less Growth*.** The economic forecasting community continues to mark down its gross domestic product (GDP) estimates for 2022 and 2023 while raising the outlook for inflation.

For example, compared to a year ago, the consensus real GDP growth forecast has more than halved, while the consensus inflation forecast has more than doubled for 2022. In fact, BofA Global Research now forecasts a U.S. recession starting later this year. This stagflationary dynamic supports our shift to more defensive portfolio positioning combined with inflation protection.

**Market View—*We Are 25% Through The Decade—What Lessons Have We Learned From The 2020s?*** The 2020s has been filled with market-moving events—pandemic, challenged by a military conflict in the heart of Europe, multidecade highs in terms of inflation. Bulls and bears have been spotted. And we’re only 25% through the decade.

Here’s what we have learned thus far: There’s no place to hide in a hyperconnected world; market excesses in one direction seems to lead to opposite market moves, fossil fuels will play a key role in the world’s energy future, and the cold war chill between the U.S. and China/Russia isn’t about to thaw any time soon.

**Thought of the Week—*Peak Paper Risk*:** We’re past the peak in household net worth for this cycle, with American’s collective net worth registering a decline of \$500 billion over Q1 per the Federal Reserve (Feds) quarterly snapshot of the U.S. balance sheets, as losses likely accelerated over the second quarter.

The decay in wealth portends weaker consumer spending levels in the near term, helping lead to our mild recession forecast in the U.S. economy this year.

## MACRO STRATEGY ►

**Robert T. McGee**  
Managing Director and Head of CIO Macro Strategy

## MARKET VIEW ►

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

**Lauren J. Sanfilippo**  
Director and Senior Investment Strategy Analyst

## THOUGHT OF THE WEEK ►

**Lauren J. Sanfilippo**  
Director and Senior Investment Strategy Analyst

## MARKETS IN REVIEW ►

Data as of 7/18/2022,  
and subject to change

### Portfolio Considerations

As this period of uncertainty matures, markets, in our view, will be searching for signs of stability to finally bottom out and create a new base. While risks remain, global Equities still have the support of higher nominal growth levels, healthy corporate profits, a strong consumer and an improvement in the service sectors in the near term. We still expect high-quality Fixed Income to be a diversifier, and this diversification effect has proven true when rate volatility decreases. For investors, there is a growing list of reasons to shore up and maintain strategic exposure to commodity prices.

Trust and fiduciary services are provided by Bank of America, N.A., Member FDIC and a wholly owned subsidiary of Bank of America Corporation (“BofA Corp.”).  
Investment products:

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

Please see last page for important disclosure information.

## More Inflation, Less Growth

*Robert T. McGee, Managing Director and Head of CIO Macro Strategy*

The latest Blue Chip Economic Indicators survey of economic forecasters shows the pattern of marking down real growth forecasts and marking up the expected path of U.S. inflation persisted into July. The consensus forecast for real GDP in 2022 was revised down by another half percentage point from 2.5% to 2%. One year before, the consensus was looking for 4.5% real GDP growth in 2022.

On the inflation front, the consensus raised its 2022 estimate for the consumer price index (CPI) to 7.8% from 7.4% the month before. A year ago, professional forecasters were looking for only 2.8% CPI inflation in 2022. Needless to say, like the Fed, most economists are still surprised by the strong underlying inflationary dynamic in the economy and continue to adjust their forecasts to close the yawning gap between their flawed expectations and reality.

Given this dismal track record, it's hard to have much confidence in the consensus outlook for 2023 growth and inflation, which also shows the same persistent pattern of downward revisions to real GDP growth (from 2.6% in January to just 1.1% in July) and upward revisions to inflation (from 2.4% in January to 3.6% in July).

As growth expectations approach “stall speed,” concerns about recession in 2023, or sooner, have naturally arisen. Recessions in high-inflation environments are different from recessions when inflation is relatively low, as has been the case over the past 40 years. For example, during the “secular stagnation” era of the pre-pandemic decades, when nominal GDP barely averaged 4%, the lowest U.S. growth trend since the 1930s, low nominal growth meant cash flows were less able to sustain the debt service in the highly leveraged U.S. economy, so the recurrent threat of a debt-deflation downward spiral kept Treasury bond yields at record lows, providing a hedge against a deflationary slowdown.

In contrast, in a high-and-rising-inflation environment, such as we have seen in the post-pandemic economy, Treasury bonds are vulnerable to the wealth erosion that high inflation inflicts on fixed-dollar promises for the future. As a result, rising rates have hit both stocks and bonds in a way not seen since the high-inflation era of the 1970s. In addition, higher inflation is more beneficial to nominal growth than low inflation. In turn, higher nominal growth makes it easier to service the debt load in the highly leveraged U.S. economy. It also helps explain why earnings recessions tend to be milder in high-inflation environments. Sales growth is stronger in high-inflation environments. The National Federation of Independent Business (NFIB) survey of independent businesses currently shows inflation is the biggest problem facing members to a degree not seen since the early 1980s, while weak sales growth is not cited as a significant issue. As inflation came down in the early 80s, inadequate sales growth rapidly became the bigger problem for business. Thus we would expect a similar pattern this time around as the Fed reins in inflation.

We are seeing these differences in the mix of data that, on one hand, still shows a very strong U.S. economy and, on the other hand, shows an economy that by some measures is already in recession. For example, the Atlanta Fed's GDPNow estimate currently shows negative “real” GDP growth in both Q1 and Q2 this year. Two consecutive quarters of negative real GDP growth is the typical “rule of thumb” criterion for a recession. Also, because inflation is outpacing wage gains, real personal income has been declining this year. Declining real income is one of the criteria the National Bureau of Economic Research (NBER) recession-dating committee looks for when designating recession periods.

Likewise, real consumption expenditures decline in a recession. As real income growth has gone negative, real consumer spending has decelerated sharply, from an 11.4% growth

### Investment Implications

Slowing growth and rising inflation are a toxic combination for risk assets. Defensive high-quality companies and sectors bar-belled with inflation beneficiaries are likely to help weather a prolonged bout of stagflation like that last seen in the late 1970s and early 1980s.

rate in the stimulus-jacked economy of 2021-Q1 to just 1.8% in 2022-Q1. With real income growth negative, consumers are reducing saving to maintain positive spending growth, an unsustainable situation at some point.

Many metrics still show cash flows, like corporate revenues, personal incomes, retail sales and profits well-above long-term averages because high inflation keeps nominal GDP elevated. Even as it comes down from the double-digit growth of the 2021 peak to about 8% recently, nominal growth is still double the average rate of the two decades prior to the pandemic.

Unfortunately, that 8% nominal growth has been eaten up by inflation, leaving real magnitudes close to zero, or no growth. That's why, for example, in the latest Institute for Supply Management (ISM) survey of manufacturers, one respondent notes that volumes are flat, but revenues are still on track because of price increases. Essentially, the U.S. economy has moved into the stagflation phase when consumers are spending more and getting less.

This leaves open the question of a still strong labor market, which through June produced jobs at a rate usually associated with strong real GDP and inconsistent with a recession. Indeed, declining payroll employment is one of the six factors the NBER committee uses to gauge whether the economy is in recession. The unemployment rate remains near its cycle low as well, consistent with other signs that the labor market remains the tightest it's been in a generation.

We suspect that is about to change. For one thing, leading indicators, such as initial claims for unemployment compensation, have been inching higher. Layoff announcements have begun to pick up as well. The employment components of both the ISM manufacturing and non-manufacturing surveys slipped below the break-even 50 mark in June, consistent with employment declining ahead.

Just as consumers are spending more for less, it appears that companies are employing more people to produce less. Put another way, labor productivity seems to be declining. Late in the business cycle, when the labor market is tightest, businesses are scraping the bottom of the labor market barrel, hiring workers who are, on average, increasingly less skilled and productive. That's one reason why productivity tends to suffer late in the cycle and inflation rises. Unit labor costs, which correlate directly with inflation, are surging as productivity falls this year.

Higher unit labor costs along with high inflation for other inputs are spreading through the economy and squeezing profit margins in more industries. While profits still look good given still strong nominal cash flows throughout the economy, the shift to lower real growth is causing a deceleration in profits growth that will continue as global economic growth weakens. The surge in the dollar is also hitting the profits of U.S. companies. In turn, weakening profits tend to prompt businesses to slow hiring and investment, which further reduces real growth as well as inflation, creating a negative dynamic that often ends in a recession.

Perhaps the most telling sign that this brew of higher inflation and slowing growth is unsustainable is evident in consumer surveys. The best labor market in a generation would normally be associated with strong consumer confidence. Yet, the University of Michigan survey of households, which dates back to 1952, finds sentiment at the lowest level in its 70-year history, which is not surprising since households are working more to buy less because of high inflation.

## We Are 25% Through The Decade—What Lessons Have We Learned From The 2020s?

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

Lauren J. Sanfilippo, Director and Senior Investment Strategy Analyst

You can't say this decade has been boring. Just 25% into the 2020s, the world economy has been stricken by a pandemic and challenged by a military conflict in the heart of Europe. Accompanying these tonic shifts: soaring inflationary pressures reminiscent of the 1970s, with June's CPI 9.1% headline figure the highest since late 1981. In the financial markets, bulls have been turned into bears, both Equities and bonds have cratered, the U.S. dollar has been super-charged by aggressive monetary tightening, and hard assets (energy/commodities) are outperforming light assets (technology). See Exhibit 1 for more on returns per assets and relative performances by decade.

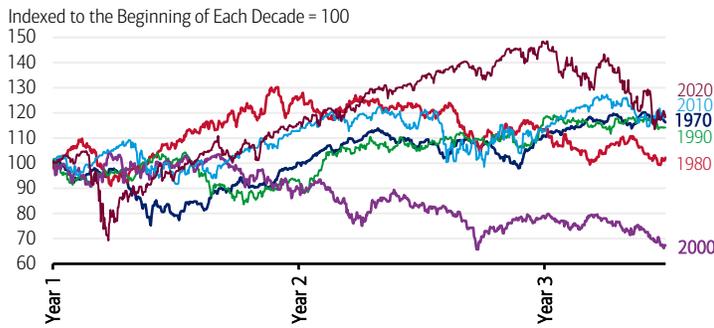
No one really knows what lies ahead. But we can glean a glimpse of the future by understanding the past. In that spirit, here a few key lessons of the 2020s:

### Exhibit 1: Asset Class Returns and Performance by Decades.

#### Portfolio Implications

The decade is young but has nevertheless aged investors young and old with an abundance of uncertainty and volatility. Navigating the choppy waters of today requires that investors have a strategic asset allocation plan in place, avoid chasing fades, have exposure to both light (technology) and hard (commodity) assets, and exposure to leading U.S. defense and cybersecurity plays.

1A) The First Quarter of Recent Decades



1B) 10 Leaders and 10 Laggards Asset Class Returns Over 1/1/2020 – 6/30/2022

	Return		Return
Natural Gas	148%	Office Real Estate Investment Trusts (REITs)	-31%
Construction & Engineering	129%	Broadcasting	-33%
Copper	123%	Drug Retail	-36%
Soybean Oil	103%	Movies & Entertainment	-39%
Heating Oil	93%	Hotels, Resort & Cruise Lines	-40%
Corn	92%	Apparel, Accessories & Luxury Goods	-44%
Steel	86%	Airplanes	-48%
Technology Hardware	80%	Casinos & Gaming	-52%
Coffee	80%	Turkish Lira	-64%
Soybeans	78%	MSCI Emerging Market (EM) Europe	-79%

Exhibit 1A: S&P 500 price return performance over the same period. Source: Bloomberg. Data through June 30, 2022. Exhibit 1B) Source: Bloomberg. Data through June 30, 2022. Short-term performance shown in Exhibit 1B to illustrate more recent trend. **Past performance is no guarantee of future results. It is not possible to invest directly in an index. Please refer to asset class proxies and index definitions at the end of this report.**

### We're all connected—like it or not.

Notwithstanding the deglobalization chatter, U.S. investors have never been more exposed to the vagaries of the world economy. While America is geographically blessed relative to many nations, we're not an island. Hence, what happens in Wuhan, China (considered the origin of coronavirus), doesn't stay in Wuhan. Similarly, supply chain bottlenecks in various parts of the world have a way of ricocheting around the globe. Ditto for the conflict in Ukraine, which has helped drive energy and food costs higher in the U.S. The point is that global linkages via trade, capital flows, data and immigration are thick and dense, and not easily unwound. There's no hiding from global dynamics.

So what does it all mean for U.S. investors? First and foremost, have a strategic asset allocation plan and stay with it in times of market volatility and uncertainty. Within portfolios, think high-quality assets, diversification among asset classes and dividend-growers, all potential bulwarks against sudden and unexpected market turns. Given the depth and transparency of the U.S. capital markets, our bias is home-grown, or titled toward the U.S. But we are constantly monitoring for favorable entry points overseas. In addition, know your downside risk tolerance and opportunistically rebalance.<sup>1</sup> Market volatility can strike from any corner of the world at any time, but there are measures to help mitigate these risks and capture upside opportunities.

### Of fades and fashion—what didn't change during the pandemic

A narrative emerged in the early stages of the pandemic that Americans were destined to become 21st century Bohemians—or stay largely separated from each other, huddle at home, shop from the couch, and pedal a bike in the basement, all while having wine and food delivered to the front door. So-called "stay-at-home" stocks became the rage and soared over 2020 and the early part of last year as the narrative gained traction.

However, what many thought was structural or "different this time" turned out to be anything but. Case in point: e-commerce. After spiking to a share of 16.4% of total retail

<sup>1</sup> See Chief Investment Office Portfolio Insights: "Five Principles for Long-term Investing," June 2022.

sales in Q2 2020, U.S. e-commerce sales fell to 14.6% of the total in Q2 2021 and currently hover around 14%. Consumers, as it turns out, like shopping in malls, don't mind going to gyms, movie theaters or eating out, and like to travel.

Meanwhile, the normalization of consumer behavior has undercut/hammered many high-flying stay-at-home stocks, providing a valuable lesson for investors: Market narratives can take on a life of their own, create excessive moves in one direction that are separated from economic reality, and which are then typically followed by extreme moves in the opposite direction. Parabolic rallies (think non-fungible token (NFT), special purpose acquisition company (SPAC), Cryptocurrency, etc.) tend to overshoot and undershoot, leaving investors bewildered and lighter in returns.

### **The crude reality: It's a fossil-fueled global economy, and going green isn't going to be easy.**

If we have learned anything this decade, it's that the energy transition toward a decarbonized future will be messy, lengthy and will require the help of traditional fossil fuels. One-quarter into the 2020s, the world is burning more coal and re-commissioning nuclear power plants, while the U.S. ramps up oil production while urging other nations to do the same.

The Ukraine/Russian conflict, of course, has set the global energy markets on edge. But there is more to this story. The push, for instance, to boost renewable power capacity (think solar, wind and batteries) is extraordinarily metal-intensive, requiring more minerals than fossil fueled-based counterparts. Not surprisingly, then, the surge in renewable electricity capacity over the past few years has triggered a commodities boom in mining and production. Ironically, the transition to clean energy could be less "clean" and "green" than commonly thought. As the International Energy Agency (IEA) notes:

*"A typical EV requires six times the mineral inputs of a conventional car, and an onshore wind plant requires nine times more mineral resources needed than a gas-fired plant. Since 2010, the average amount of new minerals needed for a new unit of power generation capacity has increased by 50% as the share of renewables has risen."*<sup>2</sup>

More broadly speaking, as Vaclav Smil, author of "How the World Really Works," writes:

*"We are a fossil-fueled civilization whose technical and scientific advances, quality of life, and prosperity rest on the combustion of huge quantities of fossil carbons, and we cannot simply walk away from this critical determinant of our fortunes in a few decades, never mind years. Complete decarbonization of the global economy by 2050 is now conceivable only at the cost of unthinkable global economic retreat."*

The upshot for investors: Even with the most recent pullback in commodities (food and energy), we remain long-term bulls on energy, mineral and mining, and agricultural goods (or FAANG 2.0<sup>3</sup>). The supercycle in Commodities isn't over, in our view.

### **U.S.-China relations: No going back**

It's chilly out there—not only is the divide between China and the United States showing no signs of healing, but Russia/Ukraine conflict has triggered a new Cold War between the U.S. and its major allies versus Russia and China. The world's been geopolitically cleaved into hostile camps.

The decade started with hopes that the Biden Administration would dial back anti-China sentiment in Washington, helping to repair some damage to U.S.-Sino relations. The pandemic, however, only served to amplify the differences between the two nations in trade, technology, foreign investment and a host of geopolitical hot spots (Hong Kong, the South China Sea, etc.). And China's support of Russia during the conflict has only hardened the divide between the U.S. and China, and accelerated the era of great power competition between the world's two largest economies. The rivalry is considered significant given the global economic weight of the U.S. and China, their high degree of economic interdependence, and aftershocks to the rest of the world.

For investors, the escalating tensions have the potential to increase market volatility and could put at risk numerous U.S. firms reliant on China for future earnings growth (and vice versa—Chinese firms doing business in the U.S. and elsewhere). Meanwhile, in terms of portfolio construction, we remain constructive on large U.S. defense firms and cybersecurity leaders. World military expenditures, led by the U.S., surpassed \$2 trillion for the first time in 2021; the trend is upward owing to the new Cold War and the coming boost in defense spending from Europe and Japan, among other regions/nations.

<sup>2</sup> See IEA, "The Role of Critical Minerals in Clean Energy Transitions," May 2021.

<sup>3</sup> Fuels, aerospace, agriculture, nuclear and renewables, gold and metals/minerals.

## Peak Paper Rich

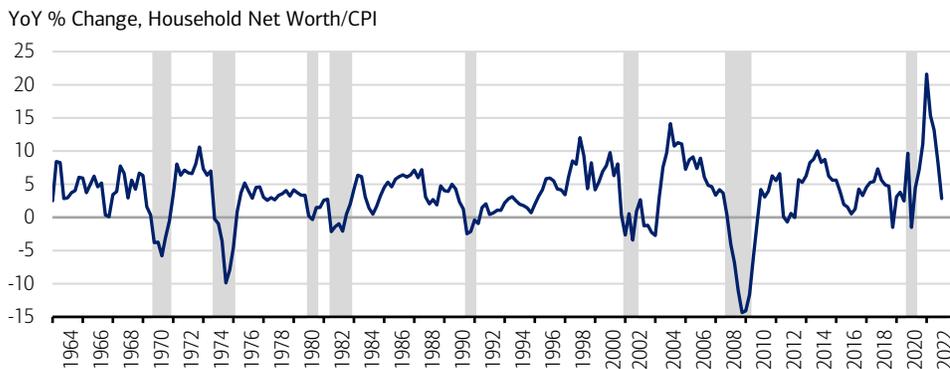
*Lauren J. Sanfilippo, Director and Senior Investment Strategy Analyst*

American’s collective net worth—on paper, at least—has climbed at a torrid rate over the past two years. Saving up an extra \$39 trillion over the course of the pandemic, households’ net worth rose to a record \$149.8 trillion by the end of 2021 according to the Fed. Over the first quarter of this year, however, the Fed’s quarterly snapshot of U.S. balance sheets shows a decline in wealth of \$500 billion, with losses likely accelerating over the second quarter. The Q1 decline was driven by a \$3 trillion fall in equity markets, only partially offset by real estate values climbing to \$1.6 trillion over the quarter. Courtesy of the \$6.6 trillion drop in Equities<sup>4</sup> over the second quarter, the next reading of household net worth could be even more dramatic. Although not yet negative, but trending to the downside, Exhibit 2 shows a negative year-over-year change in household net worth as typical during a recessionary period, given weakness across at least one wealth component (Equities, Real Estate, checkable deposits, etc.).

### Portfolio Implications

We’ve recently downgraded our view of the Consumer Discretionary sector based on multiple headwinds for the U.S. consumer. On a sector basis, we complemented this move by increasing our defensively oriented positions that tend to exhibit relative earnings strength during uncertain environments.

### Exhibit 2: Household Net Worth Deterioration Likely to Accelerate.



Shaded grey bars indicate U.S. recessions. Sources: Federal Reserve; FRED database; Bureau of Labor Statistics. Data as of June 2022.

We’re past the peak in household net worth for this cycle, with the latest inflation print of 9.1% for the CPI deteriorating worker’s earnings as declining asset prices pinch higher-income households in particular. While elevated levels of unprecedented wealth were additive to upside earnings surprises throughout 2021, the decay in paper wealth portends weaker consumer spending levels in the near term, helping lead to our mild recession forecast in the U.S. economy this year. As the saying goes, “As the U.S. consumer goes, so goes the U.S. economy”.

Equities

	Total Return in USD (%)			
	Current	WTD	MTD	YTD
DJIA	31,288.26	-0.2	1.7	-13.0
NASDAQ	11,452.42	-1.6	3.9	-26.5
S&P 500	3,863.16	-0.9	2.1	-18.3
S&P 400 Mid Cap	2,303.68	-0.7	1.6	-18.3
Russell 2000	1,744.37	-1.4	2.2	-21.8
MSCI World	2,568.64	-1.3	0.9	-19.8
MSCI Europe, Australasia, Far East	1,817.05	-1.8	-1.5	-20.8
MSCI Emerging Markets	961.85	-3.7	-3.5	-20.5

Fixed Income<sup>†</sup>

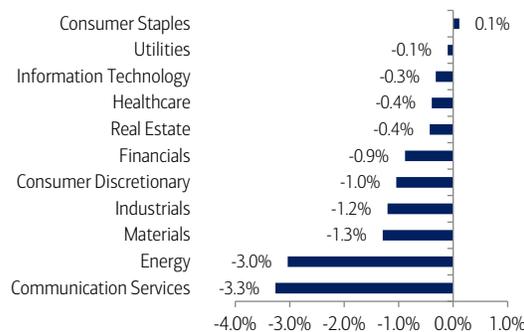
	Total Return in USD (%)			
	Current	WTD	MTD	YTD
Corporate & Government	3.70	0.87	0.55	-10.56
Agencies	3.33	0.34	0.03	-5.95
Municipals	2.98	0.31	1.46	-7.65
U.S. Investment Grade Credit	3.70	0.89	0.62	-9.80
International	4.63	1.06	1.12	-13.43
High Yield	8.56	0.26	1.78	-12.66
90 Day Yield	2.29	1.88	1.63	0.03
2 Year Yield	3.12	3.10	2.95	0.73
10 Year Yield	2.92	3.08	3.01	1.51
30 Year Yield	3.08	3.24	3.18	1.90

Commodities & Currencies

	Total Return in USD (%)			
	Current	WTD	MTD	YTD
Commodities				
Bloomberg Commodity	243.38	-2.1	-3.0	14.9
WTI Crude \$/Barrel <sup>††</sup>	97.59	-6.9	-7.7	29.8
Gold Spot \$/Ounce <sup>††</sup>	1708.17	-2.0	-5.5	-6.6

	Total Return in USD (%)			
	Current	Prior Week End	Prior Month End	2020 Year End
Currencies				
EUR/USD	1.01	1.02	1.05	1.14
USD/JPY	138.57	136.10	135.72	115.08
USD/CNH	6.76	6.69	6.69	6.36

S&P Sector Returns



Sources: Bloomberg; Factset. Total Returns from the period of 7/11/2022 to 7/15/2022. <sup>†</sup>Bloomberg Barclays Indices. <sup>††</sup>Spot price returns. All data as of the 7/15/2022 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.**

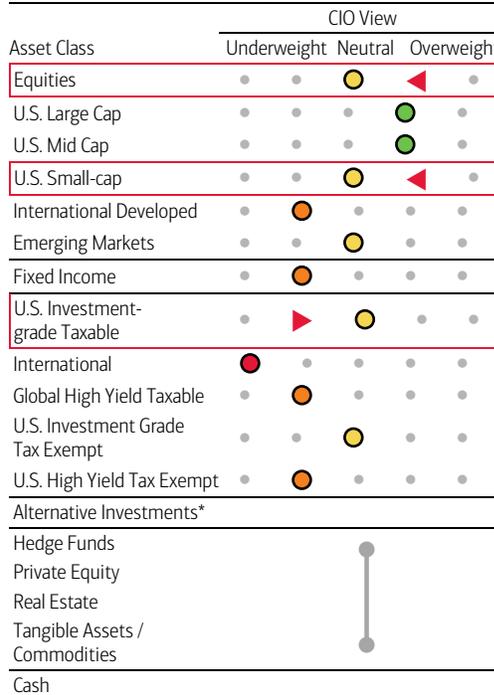
Economic Forecasts (as of 7/15/2022)

	2021A	Q1 2022A	Q2 2022E	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	-1.5*	-0.5	-2.0	1.1
CPI inflation (% y/y)	4.7	8.0	8.6*	8.2	6.9	7.9
Core CPI inflation (% y/y)	3.6	6.3	6.0*	6.2	5.9	6.1
Unemployment rate (%)	5.4	3.8	3.6	3.7	4.2	3.8
Fed funds rate, end period (%)	0.07	0.33	1.58	2.88	3.38	-

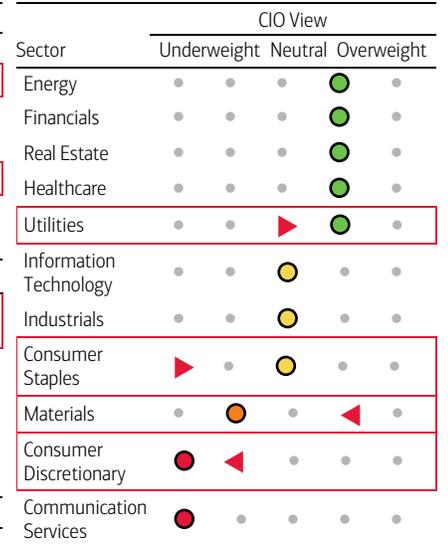
The forecasts in the table above are the base line view from BofA Global Research. The Global Wealth & Investment Management (GWIM) Investment Strategy Committee (ISC) may make adjustments to this view over the course of the year and can express upside/downside to these forecasts. Historical data is 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 July 15, 2022.

Asset Class Weightings (as of 7/5/2022)



CIO Equity Sector Views



\*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 July 5, 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.**

**Consumer Price Index (CPI)/Drug Retail** is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services. Indexes are available for the U.S. and various geographic areas.

**S&P 500 Equity Index** is a stock market index that measures the stock performance of 500 large companies listed on stock exchanges in the United States. It is one of the most commonly

**MSCI Emerging Markets (EM) Latin America Index** captures large and mid cap representation across 5 Emerging Markets (EM) countries in Latin America.

**MSCI EM Europe Index** captures large and mid cap representation across 5 Emerging Markets (EM) countries in Europe.

**Turkish lira** is the currency of Turkey and the Turkish Republic of Northern Cyprus.

**Construction & Engineering /Steel/Copper/Technology Hardware/Coffee/Agricultural & Farm Machinery/Soybeans/REITs/Broadcasting/Drug Retail/Hotels, Resorts & Cruise Lines/Apparel, Accessories & Luxury Goods/Drug Retail/ Airplanes/Casino & Gambling/S&P Sector Sub Sector and Industry Indexes** measure segments of the U.S. stock market as defined by GICS®. GICS enables market participants to identify and analyze companies at four levels of granularity using a common global standard.

## Important Disclosures

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

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.

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 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.").

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.

BoFA Global Research is research produced by BofA Securities, Inc. ("BofAS") and/or one or more of its affiliates. BofAS is a registered broker-dealer, Member SIPC, and wholly owned subsidiary of Bank of America Corporation.

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 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. Treasury bills are less volatile than longer-term fixed income securities and are guaranteed as to timely payment of principal and interest by the U.S. government. 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.

Cryptocurrency markets are highly volatile and risky, and may not be appropriate for most investors looking to meet long-term savings or retirement goals. Cryptocurrency and many crypto-related investments are subject to minimal regulatory oversight, and there may be no recourse should the cryptocurrency disappear due to a cybersecurity breach or hack. Cryptocurrency investors rely upon unregulated exchanges that may lack appropriate internal controls, making them susceptible to fraud, theft and hacking. Direct holding of cryptocurrency only exist on the Internet. Issuers can be located anywhere in the world, so it may be impossible to trace and recover lost funds through the courts. Cryptocurrency accounts are not insured by U.S. depository insurance. Creating a digital wallet to store cryptocurrency involves installing software on an investor's computer. As with any software download, hackers may include malicious code, creating unwanted files or programs that can cause harm to a computer or compromise data store

**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.

© 2022 Bank of America Corporation. All rights reserved.