

CHIEF INVESTMENT OFFICE

# Capital Market Outlook

January 18, 2022

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

## IN THIS ISSUE

**Macro Strategy—No Signs of Peak Inflation.** Inflation pressures continue to build in the U.S. economy. Consumer Price Index (CPI) rose 7% in the 12 months through December 2021, the biggest increase since 1982. The difference between now and then is that inflation was coming down from the double-digit levels of the 1970s as the Federal Reserve (Fed) curbed money growth and raised the federal funds rate to all-time record highs. In sharp contrast, money-supply growth remains in double digits today, and the Fed funds rate is still near zero. The result is ongoing accelerating inflation.

Policy is on track to change this, but monetary policy is more art than science, and it remains to be seen in which direction central bankers will err from here on.

**Market View—The Coming Boom in “Urban Mining”:** “Urban mining” is gaining traction for a number of reasons and should be on the radar screen of investors. A prosperous and digital world has created a mountain of e-waste and, in turn, created a potential future profits stream for leading waste and material management firms.

All in all, we are in the early innings of the creation of the circular economy, where the model of “recovery, reuse, remanufacturing” eclipses the “take-make-dispose” model of the past. Urban mining is a key node in this new model and is set to ramp up significantly in the years ahead.

**Thought of the Week—2022 Sees Shaky Start for Markets.** Bond and Equity markets had a volatile start to the year as investors worked through a number of headwinds, including elevated inflation readings, hawkish Federal Reserve minutes, and lingering coronavirus concerns.

However, our outlook for 2022 remains strong on the back of continued economic reopening, solid growth projections, and robust corporate earnings.

## MACRO STRATEGY ►

Chief Investment Office  
Macro Strategy Team

## MARKET VIEW ►

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

## THOUGHT OF THE WEEK ►

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Assistant Vice President and  
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## MARKETS IN REVIEW ►

Data as of 1/18/2022,  
and subject to change

## Portfolio Considerations

Equities are still more attractive than Fixed Income and we expect the level of profit growth to rise above the level of potential valuation. Within Fixed Income, below-benchmark duration is preferred, as fiscal and monetary policy supports higher inflation, stronger nominal growth and higher long-term rates over the medium term. Alternative Investment ideas for qualified investors, particularly infrastructure-related and more concentrated, active global investment management should be additive to portfolio returns given the increased volatility with capital markets’ transitioning.

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## No Signs of Peak Inflation

*Chief Investment Office, Macro Strategy Team*

December consumer prices surprised to the upside, a pattern that persisted throughout 2021, pushing the CPI annual rate to 7% instead of the 2% rate the Fed and consensus economists had expected as the year began. It will likely go down in the record books as one of the biggest forecast errors in recent memory.

The last time consumer prices rose so much was in 1982, though the situation was much different then. Rather than accelerating, inflation was coming down rapidly because the Fed had hiked the fed funds rate into the high teens in order to bring the money-supply growth rate down from the double-digit pace that pushed inflation above 10% in the 1970s. The disinflation process was well under way in 1982, setting off one of the biggest and strongest expansions in U.S. history. However, before that could happen, the Fed had to administer some pretty tough medicine, with the U.S. economy suffering a severe double-dip recession in 1980-1982 as a result. The big question for the markets is how much medicine it will take this time to turn around the still-rising inflation trend and whether the Fed has the stomach to administer that medicine. After ignoring the problem for the entire year, it has recently begun to “talk the talk.” This year we’ll see if it’s ready to “walk the walk.”

The notion that inflation will roll over without Fed action is increasingly untenable, although there is a sizeable contingent of economists and strategists still focused on pandemic-related, supply-chain constraints as the cause of high inflation. In the meantime, money-supply growth remains at levels previously associated with the high inflation we are seeing now, and the fed funds rate remains pinned near zero. Policy is on track to change this, but monetary policy is more art than science, and it remains to be seen in which direction central bankers will err from here on. Clearly, since the pandemic started, policymakers have chosen to err on the side of excessive ease, and the result is the highest inflation in 40 years.

The Fed’s decision to put quantitative tightening on the table for 2022, as revealed in the minutes from its December rate-setting meeting, has raised the chances of erring on the side of tightness, and that is what almost always ends economic expansions and bull markets in Equities. For example, quantitative tightening and rate hikes kept the market on edge during 2017 and 2018. The Fed’s balance sheet shrank, and money-supply growth decelerated from high single digits to low single digits until the market finally succumbed in December 2018, and the Fed reversed course.

Inflation and expansions tend to remain on track as long as the Fed is sufficiently accommodative. Throughout the 2017 tightening period, the S&P 500 performed reasonably well until 2018, when it suffered severe corrections early in the year and again at year-end. This is likely to happen again at some point in the policy normalization process. However, financial conditions currently are so accommodative that it is likely to take well into 2022 before the fault lines start to appear.

In the meantime, signs that high inflation is becoming more entrenched are proliferating (Exhibit 1). Early-stage inflation pressures continue to build in goods prices. Finished goods producer prices are still accelerating and, at 12.5% over the past year, reflect the highest inflation since 1980. Intermediate goods prices are up twice that rate, the most since the mid-1970s. Crude goods prices are up 38% over the past year, although their growth rate seems to have peaked. All told, producer prices still have a lot of momentum to be absorbed into retail prices. This is significant since consumer durable goods prices, for example, accelerated at a 22% annualized monthly pace in December 2021, rising 17% year over year, the most since 1942.

### Investment Implications

High inflation tends to benefit Real Assets like Commodities and Real Estate. Energy stocks have remained the best-performing S&P 500 sector as oil prices rise in this high-inflation environment. Commodities were the best-performing asset class in 2021 and have continued to benefit from rising prices. Many financial stocks, like those of banks, are leveraged to rising interest rates. Also, as the Fed stops its balance-sheet expansion and fiscal policy ends pandemic transfer payments, U.S. households and businesses are increasingly turning to the credit markets for cash. Banks’ profitable loan books have been big beneficiaries.

## Exhibit 1: Inflation Still Trending Higher.

Inflation Measures	%	Last time higher prior to 2021
<b>Consumer Prices</b> (Year-over-Year (Y/Y) % change, December 2021)		
CPI	7.0	Jun-82
"Core" CPI	5.5	Feb-91
<b>Producer Prices</b> (Y/Y % change, December 2021)		
Finished Goods	12.5	Oct-80
Intermediate Goods	24.3	Jan-75
Crude Goods	38.1	Jul-08
<b>Labor Costs</b>		
Employment Cost Index: Private Sector Wage and Salary (Y/Y % change Q3 2021)	4.6	Q3-1985
Average Hourly Earnings (Y/Y % change, December 2021)	4.7	
<b>House Prices</b>		
Case-Shiller U.S. Average (Y/Y % change October 2021)	19.1	1978
CPI Housing Costs (Y/Y % change, December 2021)	5.1	Oct-82
<b>Owners' Equivalent Rent</b> (Y/Y % change, December 2021)	3.8	2006

Sources: Haver Analytics; Chief Investment Office. Data as of January 14, 2022.

Perhaps more disturbing from the “persistence” point of view, the two key elements driving sticky inflation, labor costs and housing costs, are still in the early stages of working through the current inflation process. Real incomes fell on average in 2021 because wages lagged behind inflation and are scrambling to catch up. Average hourly earnings rose by double economists’ forecasts in December and were up 4.7% for the year, well behind the 7% inflation rate. The Fed’s preferred measure, the Employment Cost Index for private civilian workers’ wages and salaries, rose 4.6% in the year through Q3 2021, the biggest gain since 1985. Wage contracts in 2022 are likely to jump in order to compensate workers for their lost purchasing power in 2021. This is especially true for state and local government workers, who are more tied to union contracts set on an annual basis. Their wages rose by only half as much as private sector workers in 2021 but are likely to see tough contract negotiations for 2022 as they try to catch up. Long story short, there is a lot of catching up under way that is behind the sharp acceleration in labor costs. The National Federation of Independent Business (NFIB) reports that independent businesses are giving the most widespread wage increases in several decades. Wage inflation is the most pervasive driver of general inflation once it kicks in, and it’s kicking in big time. The NFIB reports the most widespread selling price increases since the 1970s as businesses pass through the rising wages.

Housing is the other long-lagged contributor to inflation persistence, and it’s also building a head of steam. In 2021, U.S. home prices rose about 20%, breaking the records set back in the late 1970s. Some analysts have calculated that computing the CPI with the 1970s methodology, which used house prices directly in the index, would push the 2021 CPI jump over 10%. Instead, the effect of rising home prices is now distributed over time, as they filter through into rents. That process has begun. As seen in Exhibit 1, the housing component of the CPI is up 5.1% in 2021, the most since 1982. Like the other measures in Exhibit 1, it is accelerating sharply and points to persistence in 2022. Research at the Dallas Federal Reserve Bank estimates housing components in the CPI will be rising by about 6% over the next two years.

Given this worrisome inflation outlook, investors should consider increasing allocations to Real Assets and Financial assets that benefit from the strong pricing environment that inflation creates. In addition, as the Fed eventually catches up and slows the runaway excess demand currently straining global supply chains, a transition to more defensive investments that outperform in late-cycle slowdown environments is likely to become necessary. For now, however, it’s full steam ahead, as growth remains strong and inflation shows no signs of rolling over any time soon.

## The Coming Boom in “Urban Mining”

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

“Cities are the mines of the future.” — Jane Jacobs, Visionary Urbanist

“Urban mining” sounds like an oxymoron because when investors think “mining,” they think of massive, dusty machinery gouging out a parcel of land in a sparse part of a distant country in search of a valuable commodity—whether it be iron, gold, copper, silver, palladium or other minerals and metals. That’s traditional mining, which is booming of late due to a number of factors, ranging from stronger-than-expected global growth to the metal/mineral-intensity of the Green Revolution.

Then there is “urban mining”—a term largely unfamiliar to investors but one that will become commonplace in the years ahead. This type of mining can take place anywhere (with resource-deficient Japan an emerging leader) and pivots on mining, recycling or recovering raw materials from e-waste largely found in cities. What’s e-waste? Think discarded devices like mobile phones, PCs, televisions, batteries, household appliances, printers, and related electronic items like monitors and cords.

E-waste is a residual of a more prosperous world in general and a world increasingly gone digital in particular. Overlay the pandemic and attendant surge in remote working, and the supply of e-waste has only soared over the past few years. To this point, with work and education more home-based, global personal computer sales (and other hardware accessories) have soared since 2020. Also adding to the e-waste mountain: shortened product lifecycles, the global diffusion of the internet and therefore an expanding hardware user base, and the digitalization of one industry after another.

The soaring costs of traditional raw materials are also driving interest in urban mining, as is the fact that it’s become more cost efficient (and therefore profitable) to mine an iPhone, computer or monitor as opposed to leaving pox marks all over the global landscape. Speaking of pox marks, urban mining also scores well with environmental, social and governance (ESG) factors, since it leaves a smaller environmental footprint relative to traditional mining, which requires an abundance of energy, sand and water, and produces harmful climate residuals.

Some key numbers to consider:

According to the World Bank, the world generated a record 53.6 metric tons of e-waste in 2019, the last year of available statistics, versus 9.2 metric tons in 2014. The World Bank estimates that e-waste will grow to around 75 metric tons by 2030, a doubling in roughly 16 years<sup>1</sup> (Exhibit 2).

- The value of raw materials in the global e-waste generated in 2019 totaled roughly \$57 billion, more than the GDP of many nations, with iron, copper, and gold contributing the most in value. Up to 7% of the world’s gold may currently be contained in e-waste.<sup>1</sup>
- Asia accounted for nearly half (46.5%) of total e-waste in 2019, followed by the Americas (24.4%) and Europe (22.4%)<sup>1</sup>. By country, China was the largest producer of e-waste in 2019 (Exhibit 3).
- Only 17.4% of e-waste was collected and recycled in 2019, i.e., mined. That means a staggering sum—some 44.3 metric tons of e-waste—was discarded, incinerated or illegally exported to lower-income nations for second-hand production<sup>1</sup> (Exhibit 4).
- In 2019, the U.S. produced roughly 7 million tons of e-waste, with just 15% recycled, even though the value of the raw materials in the e-waste totaled almost \$7.5 billion.<sup>2</sup>

<sup>1</sup> See “The Global E-waste Monitor 2020,” World Bank, 2020.

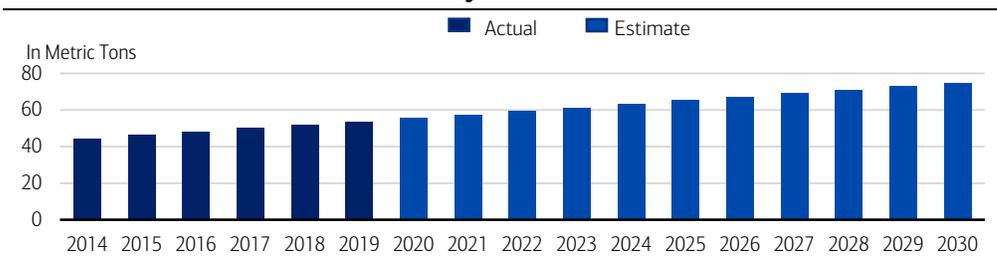
<sup>2</sup> See “A Canary in an Urban Mine: Environmental and Economic Impacts of Urban Mining,” Center for Strategic & International Studies, July 29, 2021.

### Investment Implications

Directly investing in the urban mining theme is challenging in that the market for recycling and recapturing e-waste is fragmented, lacks scale and is composed of many small players. However, leader firms in waste and materials management are increasingly focused on recycling of e-waste as a future driver of earnings growth and, for now, represent constructive investment opportunities.

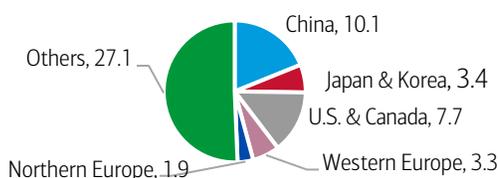
- Electronic waste represents around 2% of waste in U.S. landfills but accounts for roughly 70% of total toxic waste, and hence the urgency to recycle/mine e-waste.<sup>3</sup>
- One iPhone requires 46 different elements,<sup>4</sup> with gold, palladium and platinum among the top three.

### Exhibit 2: Global E-Waste Generated by Year.



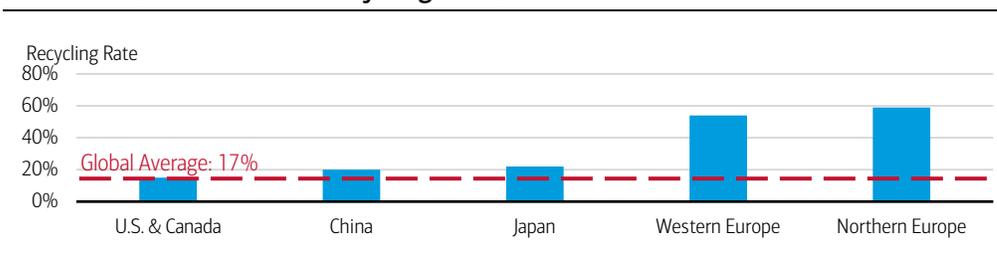
Source: Global E-Waste Monitor 2020. Report retrieved as of January 14, 2022.

### Exhibit 3: E-waste Generation Breakdown, By Country (In Metric Tons) for 2019.



Source: Global E-waste Monitor 2020. Report retrieved as of January 14, 2022.

### Exhibit 4: Global E-Waste Recycling Rates for 2019.



Source: Global E-Waste Monitor 2020. Report retrieved as of January 14, 2022.

All of the above is another way of saying that there is tremendous upside potential for urban mining—notably in a world where resource scarcity, extraction and emissions are intensifying. Presently, global recycling rates remain low, although the “take-make-dispose” model of the past is being rethought by policymakers, corporations and households.

It’s unlikely that the past will be prologue. More nations are awakening to the hazards and opportunities associated with e-waste and have stepped up the pace of legislation encouraging recycling and related activities. More corporations are designing more products that can be reused and recycled, and leveraging technology to harvest second-hand products and components. Consumers, meanwhile, notably millennials and Gen Z, are increasingly aware of their digital footprint and increasingly demanding that firms and governments adopt more sustainable products and policies.

All in all, we are in the early innings of the creation of the circular economy, where the model of “recovery, reuse, remanufacturing” eclipses the “take-make-dispose” model of the past. Urban mining is a key node in this new model and is set to ramp up significantly in the years ahead.

<sup>3</sup> See “ESG Sector Insights: Global IT Hardware,” Morgan Stanley, March 26, 2021.

<sup>4</sup> See “A world of minerals in your mobile device”, U.S. Geological Survey, September 2016.

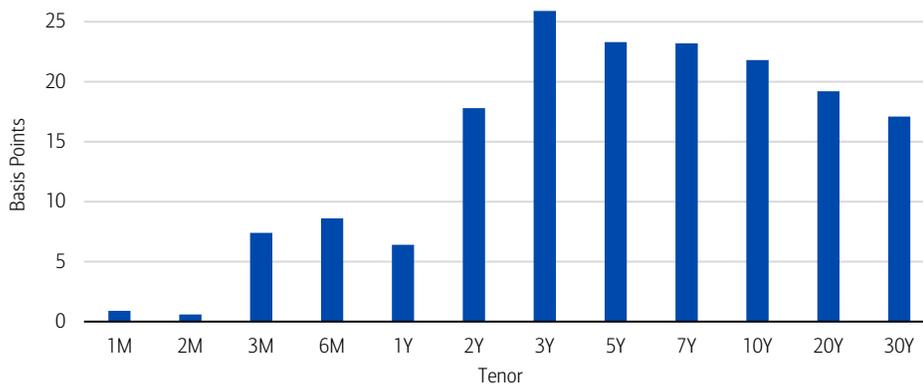
## 2022 Sees Shaky Start for Markets

*Emily Avioli, Assistant Vice President and Investment Strategist*

Markets kicked off 2022 with rocky footing, following an exceptionally strong December that closed out the third consecutive year of double-digit gains for Equities. The first trading days of the year brought fresh headwinds for investors—including elevated inflation readings, hawkish Fed minutes, and lingering coronavirus concerns—creating tumult in bond and equity markets alike.

A variety of economic data recently fanned concerns that inflation is running too hot, including wage growth that surprised to the upside and a near-four-decade-high CPI reading. The December Fed meeting minutes added fuel to the fire, amplifying expectations for earlier policy rate increases and possible quantitative tightening. Meanwhile, an uptick in coronavirus cases continued to generate uncertainty for investors. Amid the confluence of these events, interest rates moved higher across the curve (Exhibit 5), with the 10-year note briefly reaching the highest level since the beginning of the pandemic.

**Exhibit 5: Year-to-Date Change In U.S. Treasury Yields.**



Refers to the year-to-date change in yield to maturity (not year-to-month) for the U.S. Treasury Actives Curve Across tenors. Source: Bloomberg. Data as of January 12, 2022.

While volatility remains slightly elevated, with the Chicago Board Options Exchange (CBOE) Volatility Index (VIX) hovering around 18, Equities have generally been able to shake off Fed hawkishness at the index level. But the broad march higher in yields has dampened highly valued Growth-oriented stocks, which tend to be more sensitive to rising interest rates. Technology is down roughly 3% year to date, underperforming the S&P 500 by over 2%,<sup>5</sup> while Value-oriented sectors like Energy and Financials are up 14% and 6%, respectively.<sup>6</sup>

Churn below the surface could continue, but Equities have historically been able to absorb the type of slow hiking cycle that the Fed is currently signaling. Despite a volatile start to the year, our outlook for 2022 remains strong on the back of continued economic reopening, solid growth projections, and robust corporate earnings.

### Portfolio Considerations

Diversification across asset classes and within Equities has the potential to increase in importance as yields rise and repositioning continues. Volatility may persist, but it's our view that market weakness could represent buying opportunities for long-term investors.

<sup>5</sup> Bloomberg, data as of January 11, 2022. Index referenced is the S&P 500 Technology Sector GICS level 1 index.

<sup>6</sup> Indexes referenced are the S&P 500 Energy Sector GICS level 1 index and the S&P 500 Financials Sector GICS level 1 index.

Equities

	Total Return in USD (%)			
	Current	WTD	MTD	YTD
DJIA	35,911.81	-0.9	-1.1	-1.1
NASDAQ	14,893.75	-0.3	-4.8	-4.8
S&P 500	4,662.85	-0.3	-2.1	-2.1
S&P 400 Mid Cap	2,782.64	-0.4	-2.0	-2.0
Russell 2000	2,162.46	-0.8	-3.7	-3.7
MSCI World	3,173.12	-0.1	-1.8	-1.8
MSCI EAFE	2,333.00	0.2	-0.1	-0.1
MSCI Emerging Markets	1,257.46	2.6	2.1	2.1

Fixed Income†

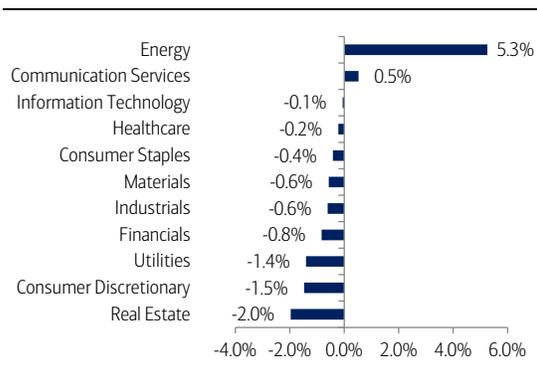
	Total Return in USD (%)			
	Current	WTD	MTD	YTD
Corporate & Government	1.94	-0.27	-1.97	-1.97
Agencies	1.39	-0.14	-0.97	-0.97
Municipals	1.33	-0.24	-0.93	-0.93
U.S. Investment Grade Credit	2.04	-0.29	-1.82	-1.82
International	2.62	-0.44	-2.37	-2.37
High Yield	4.58	0.07	-0.87	-0.87
90 Day Yield	0.11	0.09	0.03	0.03
2 Year Yield	0.97	0.86	0.73	0.73
10 Year Yield	1.78	1.76	1.51	1.51
30 Year Yield	2.12	2.12	1.90	1.90

Commodities & Currencies

	Total Return in USD (%)			
	Current	WTD	MTD	YTD
Commodities				
Bloomberg Commodity	221.15	2.2	4.4	4.4
WTI Crude \$/Barrel††	83.82	6.2	11.4	11.4
Gold Spot \$/Ounce††	1817.94	1.2	-0.6	-0.6

	Total Return in USD (%)			
	Current	Prior Week End	Prior Month End	2020 Year End
Currencies				
EUR/USD	1.14	1.14	1.14	1.14
USD/JPY	114.19	115.56	115.08	115.08
USD/CNH	6.36	6.38	6.36	6.36

S&P Sector Returns



Sources: Bloomberg, Factset. Total Returns from the period of 1/10/2022 to 1/14/2022. †Bloomberg Barclays Indices. ††Spot price returns. All data as of the 1/14/2022 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 1/14/2022)

	2021E	Q1 2022E	Q2 2022E	Q3 2022E	Q4 2022E	2022E
Real global GDP (% y/y annualized)	5.8*	-	-	-	-	4.2
Real U.S. GDP (% q/q annualized)	5.6*	4.0	4.0	3.0	2.0	4.0
CPI inflation (% y/y)	4.7*	7.1	5.8	4.7	3.3	5.2
Core CPI inflation (% y/y)	3.6*	6.0	5.0	4.3	3.5	4.7
Unemployment rate (%)	5.4*	3.7	3.3	3.1	3.0	3.3
Fed funds rate, end period (%)	0.07	0.38	0.63	0.88	1.13	1.13

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. **Past performance is no guarantee of future results. 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 January 14, 2022. 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.

Asset Class Weightings (as of 1/11/2022)

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	●	●	●
Financials	●	●	●
Industrials	●	●	●
Materials	●	●	●
Information Technology	●	●	●
Consumer Discretionary	●	●	●
Real Estate	●	●	●
Healthcare	●	●	●
Communication Services	●	●	●
Consumer Staples	●	●	●
Utilities	●	●	●

\*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 January 11, 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** 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 followed equity indices.

**Chicago Board Options Exchange (CBOE) Volatility Index (VIX)** is a popular measure of the stock market's expectation of volatility based on S&P 500 index options.

**Consumer Price Index (CPI)** is an index of the variation in prices paid by typical consumers for retail goods and other items.

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

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

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**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.

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.

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