CHIEF INVESTMENT OFFICE

Capital Market Outlook

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

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Macro Strategy—*How Long Do Economic Expansions Last During High Inflation Periods?* According to the National Bureau of Economic Research's (NBER) Business Cycle Dating Committee, the pandemic-induced recession ended in April 2020. The U.S. economy is three years into an expansion.

Since 1913, the average expansion during a high inflation period has lasted around three-and-a-half years,[1] about half of the length of expansions in low inflation regimes. The historical data on high inflation periods are consistent with our view that this expansion could be running out of steam. If we are heading into a recession this year, a re-test of the October 2022 S&P 500 low (near 3,600) would put annualized S&P 500 returns for this expansion more in line with past high inflation period expansions.

Market View—*Some Counterfactuals to the Deglobalization Debate:* Notwithstanding the incessant chatter about deglobalization and Washington's clarion call for U.S. firms to come home ("reshore"), key metrics of globalization suggest Corporate America is becoming more embedded globally, not less.

Just last year, U.S. exports of goods and services hit record highs; ditto for foreign affiliate income (a global proxy for earnings). U.S. foreign direct investment outflows were at near-record levels. Looking forward, key risks lie with mounting U.S. trade and investment policies that disincentivize/impede the foreign operations of U.S. firms.

Thought of the Week—*Concerns of Failed Bank Auctions Repricing MBS Exaggerated:* There have been widespread concerns about price volatility and liquidity in the agency mortgage-backed securities (MBS) market due to recent bank failures.

These worries are greatly overdone, in our opinion

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Data as of 5/1/2023, and subject to change

Portfolio Considerations

We adjusted our U.S. Equity sector allocations in April by lowering Financials to neutral from slight overweight, lowering Real Estate to slight underweight from neutral, and raising Communication Services to neutral from underweight. With markets trying to price in two main scenarios at once (recession on its way and a Federal Reserve (Fed) that "blinks" by pivoting to looser policy), we continue to remain neutral Equities and Fixed Income. The macro backdrop warrants near-term caution on risk-assets like Equities and High Yield and points to elevated volatility overall, but we continue to believe it will create opportunities for long-term investors over the rest of the year.

[1] Chief Investment Office; Analysis of NBER data.

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MACRO STRATEGY

How Long Do Economic Expansions Last During High Inflation Periods?

Jonathan W. Kozy, Managing Director and Senior Macro Strategy Analyst

Stepping back from the day-to-day grind of economic and earnings data, historical analysis of business cycle expansions and contractions (as dated by the NBER) since 1845 yields a few relevant takeaways for investors: 1) Expansions during high inflation periods have been shorter than average, averaging around three-and-a-half years. The current expansion is three years old. 2) Recessions during high inflation periods also tend to be shorter than average but not as short as during low inflation periods. 3) Periods of low and stable inflation like we saw from 1990 to 2020 led to relatively long expansions. 4) Highly volatile inflation/deflation periods like the one in the pre-World War I period correspond with shorter expansions and longer recessions. 5) On average, S&P 500 returns during high inflation expansions were lower than low inflation expansion periods. If history rhymes, the data suggest this expansion might be running out of steam, and S&P 500 returns will remain muted. Below we provide details (Exhibit 1) and commentary on these business cycle observations.

Investment Implications

If we are heading into a recession this year, a retest of the October 2022 S&P 500 low (near 3600) would put annualized S&P 500 returns for this expansion more in line with past high-inflation period expansions.

The current expansion is only three years old, but expansions during high inflation periods have not lasted much longer, on average. As Exhibit 1 shows, the average expansion since 1854 is around three-and-a-half years (41 months) long. The Exhibit also shows high inflation periods (defined by the Chief Investment Office) tend to have expansions near this long-term average, while low and stable inflation seems to provide a foundation for expansions that last twice as long, on average.

Looking closer at high inflation periods, the longest expansion during a high inflation period was 80 months, from 1938 to 1945. In the post-World War II period, the longest expansion during a high inflation period was 58 months in the late 1970s. The high inflation regime expansions of the 1970s and 1980s lasted around three years on average, about the length of the current expansion. The key point is that there is no shortage of historical precedent for this expansion to fade.

Low, stable inflation periods tend to lead to longer expansions. The Federal Reserve (Fed) Act of 1977 laid out the Fed's dual mandate of full employment and stable prices. Fed Chairman Paul Volcker took over the Fed in 1979 and, over the next eight years, fought to bring inflation growth lower. By the 1990s, the U.S. returned to a low and stable inflation regime, and the four expansions since Volcker have averaged over eight-and-a-half years. The longest expansion in history was 128 months, from 2009 until February 2020. For investors, the benefit of low and stable inflation has been more stable, predictable earnings and longer equity bull markets like we saw in the post-Great Financial Crisis (GFC) of 2008/2009 period.

Investors might take comfort in the observation that recessions tend to be shorter than average during high inflation periods. Deflationary environments have historically yielded the longest recessions. The GFC is one example of a deflationary threat, but the NBER data for the pre-World War II period also show longer recessions on average. The data are consistent with our view that this recession could only last a few quarters, but investors should pay attention to where inflationary forces end up.

Equity returns during low inflation expansions have been above average.[2] The S&P 500 produced above-average annualized returns of over 13% during the NBER-defined expansions of the 1980s, 1990s, 2000s and post-GFC. With inflation running in the low single digits, real returns were also firm. On the other hand, the two expansions during the high inflation periods of the 1970s saw lower nominal S&P 500 returns, on average, with

[2] Bloomberg and CIO calculations as of April 26, 2023.

much higher inflation. The expansion in the late 1970s produced double-digit equity returns but inflation was running 9% annually, stifling real returns.

Worth considering, this expansion is different in that the recession was not fundamental but driven by a pandemic shock. And the combination of monetary and fiscal stimulus was also unique in its size and scope, fueling risk appetites. Perhaps for this reason, equity returns from April 2020 to date have offered above average annualized S&P 500 returns. But this is a tale of two halves. The first half of the expansion had the S&P running at a 40%+ annualized rate. In the second half of the expansion, returns have been falling at a 10% annualized pace. If we are heading into a recession this year (the end of the expansion), a retest of the October 2022 S&P 500 low (near 3,600) would put annualized returns for this expansion more in line with past high-inflation-period-expansions and more in line with average expansion returns overall. While this expansion is indeed different, that would not be surprising.

We would remain cautious on U.S. Equities and maintain our neutral weight.

Exhibit 1: High Inflation Expansions Tend to be Shorter.

Peak month (Peak Quarter)	Trough month (Trough Quarter)	Contraction	Expansion	Cycle	
Red box indicates that the turning point quarter does not include the turning point month		*Duration, peak to trough*	*Duration, trough to peak*	*Duration, trough to trough*	*Duration, peak to peak*
August 1918 (1918 Q3)	March 1919 (1919 Q1)	7	44	51	67
January 1920 (1920 Q1)	July 1921 (1921 Q3)	18	10	28	17
May 1923 (1923 Q2)	July 1924 (1924 Q3)	14	22	36	40
October 1926 (1926 Q3)	November 1927 (1927 Q4)	13	27	40	41
August 1929 (1929 Q3)	March 1933 (1933 Q1)	43	21	64	34
May 1937 (1937 Q2)	June 1938 (1938 Q2)	13	50	63	93
February 1945 (1945 Q1)	October 1945 (1945 Q4)	8	80	88	93
November 1948 (1948 Q4)	October 1949 (1949 Q4)	11	37	48	45
July 1953 (1953 Q2)	May 1954 (1954 Q2)	10	45	55	56
August 1957 (1957 Q3)	April 1958 (1958 Q2)	8	39	47	49
April 1960 (1960 Q2)	February 1961 (1961 Q1)	10	24	34	32
December 1969 (1969 Q4)	November 1970 (1970 Q4)	11	106	117	116
November 1973 (1973 Q4)	March 1975 (1975 Q1)	16	36	52	47
January 1980 (1980 Q1)	July 1980 (1980 Q3)	6	58	64	74
July 1981 (1981 Q3)	November 1982 (1982 Q4)	16	12	28	18
July 1990 (1990 Q3)	March 1991 (1991 Q1)	8	92	100	108
March 2001 (2001 Q1)	November 2001 (2001 Q4)	8	120	128	128
December 2007 (2007 Q4)	June 2009 (2009 Q2)	18	73	91	81
February 2020 (2019 Q4)	April 2020 (2020 Q2)	2	128	130	146
1854 - 2020		17	41	58	59
1854 - 1919		22	27	48	49
1919 - 1945		18	35	53	53
1945 - 2020		10	64	75	75
High Inflation			**45**		
Deflation			**26**		
Low, Stable Inflation			**83**		

Sources: National Bureau of Economic Research; Chief Investment Office Calculations. NBER Data as of March 14, 2023.

MARKET VIEW

Some Counterfactuals to the Deglobalization Debate

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

Lauren J. Sanfilippo, Director and Senior Investment Strategy Analyst

There is little doubt that globalization is undergoing a significant stress test. Unfettered cross-border flows of goods, services, people and data is not a given any more—not in an era of rampant political populism-cum-nationalism that has catapulted national security objectives above economic efficiencies and profits. Today, the key risks to corporate growth and earnings pivot around decoupling, reshoring and derisking. All three factors, in our opinion, could entail higher input costs, less access to foreign markets, and declining operating leverage. That's the bad news.

The good news? The nefarious effects from deglobalization on Corporate America, and the corresponding evidence, is sparse—at least for now. Remarkably, and amid all the chatter about deglobalization, the U.S. last year posted near or record highs in 1) U.S. exports of goods and services; 2) foreign direct investment (FDI) outflows; and 3) foreign affiliate income abroad. That's another way of saying that many U.S. firms have done an excellent job managing their operations in the face of rising trade barriers, investment impediments and economic sanctions. We unpack each one of these factors below.

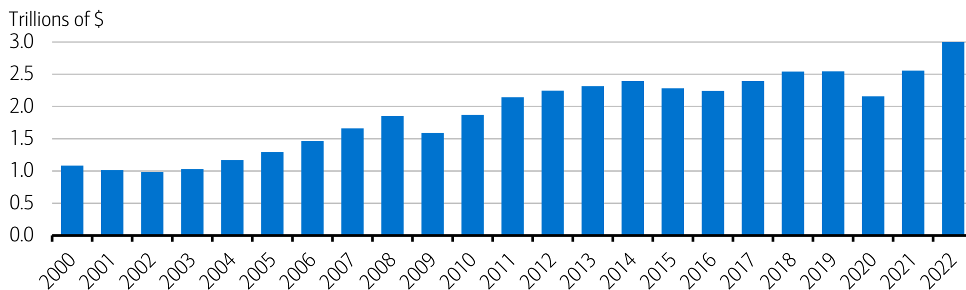
Portfolio Considerations

The global operations of Corporate America remain important to the top and bottom lines of firms. Access to foreign markets affords U.S. companies more consumers (demand) for their goods and services, and more human capital (supply) to drive production/activity. The forces of deglobalization are building but have yet to significantly impair U.S. profit growth.

U.S. Exports and the $3 Trillion No One is Talking About

U.S. exports of goods and services are a lot like Rodney Dangerfield—they don't get much respect. But they should. Why? Because what America exports in a year—a record $3 trillion in goods and services in 2022—is greater than the output of most nations, including big, industrialized economies like France and Canada (Exhibit 2). The outsized figure underscores the dynamism and competitiveness of the U.S. economy in both absolute and relative terms.

Exhibit 2: Demand for U.S. Goods/Services: America as an Exporting Juggernaut.



Source: Bureau of Economic Analysis. Data as of March 2023.

Even in the face of a super strong U.S. dollar, U.S. goods exports hit record highs in at least 29 nations last year, China included. According to figures from the Bureau of Economic Analysis (BEA), U.S. exports (goods) to the mainland topped $154 billion in 2022, with only United States-Mexico-Canada Agreement (USMCA) partners, Mexico and Canada, consuming more U.S. exports. We highlight this fact because as U.S.-Sino tensions turn more sour than sweet, there's a great deal of commerce at stake for U.S. firms, a point we continue to emphasize.

What is America peddling to China and the rest of the world? Answer: plenty. Think capital goods ($572 billion last year), industrial supplies ($811 billion), consumer goods ($246 billion), food and beverages ($208 billion), and autos and auto parts ($158 billion). Add to this list soaring U.S. energy exports (a record $269 billion) and record service exports (roughly $1 trillion), with the latter encompassing everything from transport to telecommunications, business services to financial services. Rarely discussed, service exports now rank as one of America's top exports.

On balance, whether it's soybeans or spacecraft, propane or plastics, accounting services or automobiles, the breadth of U.S. exports is virtually unparalleled. No nation exhibits more export dynamism than the U.S.; record U.S. exports in 2022 underscore the global footprint of Corporate America as well as the corresponding risks of rising global trade and investment protectionism.

A near-record year for foreign direct investment outflows
Despite the media's breathless gushing about U.S. reshoring, and headline-grabbing articles about new investment commitments in such key sectors as semiconductors, solar panels and electric vehicle batteries, Corporate America invested a near-record amount of capital abroad last year. According to figures from the BEA, U.S. FDI outflows totaled $373 billion, the highest annual figure in over a decade (Exhibit 3A).

The record total reflects many factors. First, U.S. multinationals are not about to give up on being "multinational" any time soon because they simply can't afford to. The future earnings growth of many firms depends on accessing foreign markets and overseas resources given that the U.S. economy accounts for only one-quarter of world gross domestic product and less than 5% of the world population. In other words, when it comes to global supply and demand, there is a great deal of both beyond U.S. shores.

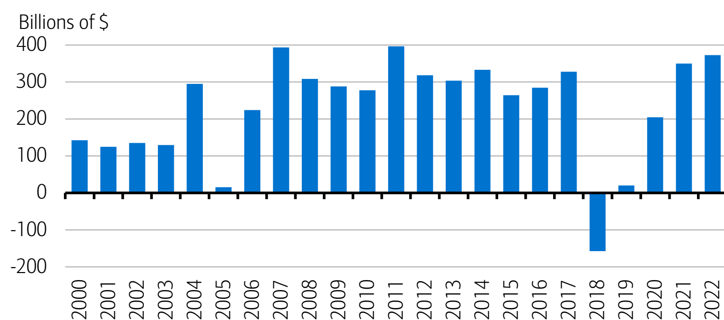
Second, global supply chains are rather "sticky' in nature, given the high fixed costs that come with offshoring or setting up foreign operations. "Reshoring," meanwhile, is expensive and costly, and entails significant additional fixed costs most firms are unwilling to undertake. The upshot: Replicating the entire supply chain would be expensive, inefficient, and a drag on future earnings, and hence the inertia of "reshoring."

Third and finally, and related to the above, for all the chatter about U.S. firms decamping en masse from China, there is little evidence thus far to suggest a whole scale change in this direction. Why? Because China's market is just too large and lucrative for U.S. firms not to be there. The mainland remains a key source of supply (labor) and demand (consumption); hence, U.S. FDI outflows to China topped $9.1 billion last year, some three times larger than flows in 2021 and the second-highest total on record ($11 billion in 2014).

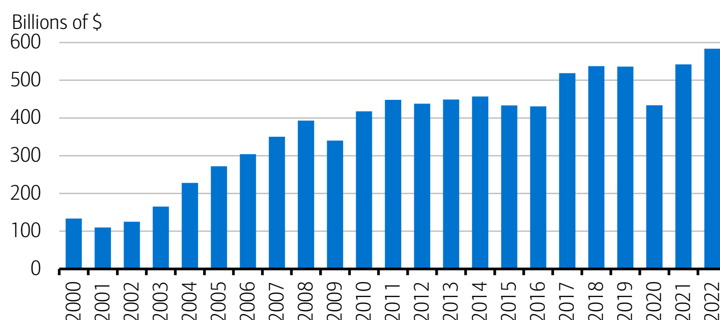
And a record year for foreign affiliate income (a proxy for global earnings)
U.S. firms are in the business of making money, and, when it comes to overseas markets/operations, the spoils were rather favorable last year. To this point, reported foreign affiliate income topped a record $583 billion in 2022, a 7.7% jump from the prior year (Exhibit 3B). Record affiliate income was reported close to home (Canada and Mexico), across Europe, (Belgium, France and Germany) and in Asia (Australia, India and Singapore). In China, U.S. affiliate income totaled just over $12 billion, down slightly from the prior year, but some 10.4% above from the pre-pandemic levels of 2019. By industry, technology and pharmaceuticals are the most globally leveraged among S&P sectors.

Exhibit 3: More U.S. Investment and Profits.

3A) Outward Bound: U.S. Direct Foreign Investment Abroad



3B) Passport To Profits: U.S. Affiliate Income Earned Abroad



Source: Bureau of Economic Analysis. Data as of April 26, 2023.

Investment summary
Sometimes it helps to sift through the noise and focus on the facts. And the facts are these: Corporate America remains both highly leveraged and dependent on the global economy. In the face of numerous deglobalization headwinds, key metrics of globalization suggest Corporate America is becoming more globally entrenched, not less. That's bullish for long-term earnings growth for large-cap U.S. firms. Earnings surprises to the upside could be in the cards given how well and nimbly firms have navigated the challenging global environment of today.

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Concerns of Failed Bank Auctions Repricing MBS Exaggerated

CIO Fixed Income Portfolio Management Team

There have been widespread concerns about price volatility and liquidity in the agency mortgage-backed securities (MBS) market due to recent bank failures. These worries are greatly overdone, in our opinion.

Silicon Valley Bank and Signature Bank entered Federal Deposit Insurance Corporation (FDIC) receivership in early April. Their combined portfolios totaled ~$114 billion, of which ~$85 billion was MBS. The FDIC is not a long-term holder of assets; it hired Blackrock to manage its sale. To minimize market volatility, multiple auctions are being held, with five auctions executed so far. The market expects the process to be completed by July.

The MBS market is $8.6 trillion (see sidebar)—$85 billion, therefore, represents less than 1% of the total market. Even among "active investors"—investors excluding central banks, commercial banks and foreign investors, which represents $1.9 trillion—the auctions make up only around 6%. Moreover, daily MBS trading is around $241 billion, so the combined portfolios represent just 0.19% of the annual volume.[3] Holding auctions over several trading days therefore easily helps mitigate price volatility.

Investors hoping for "fire sale" prices of cheap bonds have thus far been disappointed. Higher rates in 2022 caused MBS issuance to drop by 51% annually, to $1.7 trillion.[4] The recent additional auction supply was greeted well by money managers and funds that were underweight the sector. Banks were largely absent from the bidding. The lowest coupon bonds, with longer durations, were sold at barely wider spreads than those of recent trades, and the remaining paper sold well.

MBS option-adjusted spread bottomed out at 36 basis points (bps) in early February and had already risen to 53 bps when both banks showed signs of stress. By April 10 the near-term peak (69 bps) was in, and the index has tightened back to 65 bps.[5] Thus far, the auctions have been a non-event, and, while we remain vigilant, we expect future auctions won't affect market valuations. Therefore, we are still neutral MBS but are increasingly more favorably inclined to them at these modestly wider valuations.

Investment Implications

Agency passthrough mortgage-backed securities have grown cheaper, but we suggest that investors maintain a neutral stance given heightened volatility in the Fixed Income markets.

Agency MBS Ownership in Trillions

Entity	Amount ($)
Foreign Owned	1.2
Commercial Banks	2.77
Federal Reserve	2.64
Other	1.93
Total	**8.62**

Source: Ginnie Mae "Global Markets Analysis Report" as of March 2023. **Please refer to index definition at the end of this report.**

[3]Ginnie Mae "*Global Markets Analysis Report*" as of March 2023.
[4]Ibid.
[5]Ibid.

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Equities

	Current	WTD	MTD	YTD
	Total Return in USD (%)			
DJIA	34,098.16	0.9	2.6	3.5
NASDAQ	12,226.58	1.3	0.1	17.1
S&P 500	4,169.48	0.9	1.6	9.2
S&P 400 Mid Cap	2,490.40	-0.3	-0.8	3.0
Russell 2000	1,768.99	-1.2	-1.8	0.9
MSCI World	2,835.93	0.5	1.8	9.6
MSCI EAFE	2,143.85	0.1	2.8	11.5
MSCI Emerging Markets	977.05	-0.3	-1.1	2.8

Fixed Income†

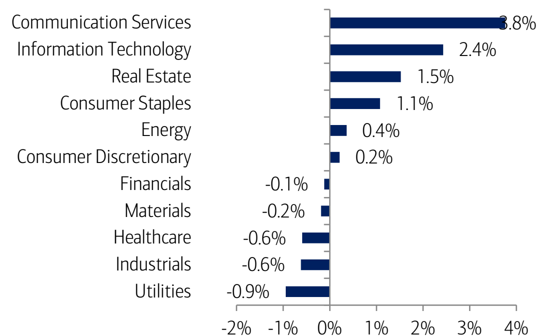
	Current	WTD	MTD	YTD
	Total Return in USD (%)			
Corporate & Government	4.28	0.88	0.63	3.82
Agencies	4.35	0.50	0.41	2.51
Municipals	3.39	0.11	-0.23	2.54
U.S. Investment Grade Credit	4.35	0.83	0.61	3.59
International	5.10	0.87	0.77	4.29
High Yield	8.48	0.49	1.00	4.60
90 Day Yield	5.03	5.02	4.69	4.34
2 Year Yield	4.01	4.18	4.03	4.43
10 Year Yield	3.42	3.57	3.47	3.87
30 Year Yield	3.67	3.78	3.65	3.96

Commodities & Currencies

Commodities	Current	WTD	MTD	YTD
	Total Return in USD (%)			
Bloomberg Commodity	230.96	-1.1	-0.8	-6.1
WTI Crude $/Barrel††	76.78	-1.4	1.5	-4.3
Gold Spot $/Ounce††	1990	0.3	1.1	9.1

Currencies	Current	Prior Week End	Prior Month End	2022 Year End
	Total Return in USD (%)			
EUR/USD	1.10	1.10	1.08	1.07
USD/JPY	136.30	134.16	132.86	131.12
USD/CNH	6.93	6.90	6.87	6.92

S&P Sector Returns



Sources: Bloomberg, Factset. Total Returns from the period of 4/24/2023 to 4/28/2023. †Bloomberg Barclays Indices. ††Spot price returns. All data as of the 4/28/2023 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 4/28/2023)

	2022A	Q1 2023A	Q2 2023E	Q3 2023E	Q4 2023E	2023E
Real global GDP (% y/y annualized)	3.4*	-	-	-	-	2.7
Real U.S. GDP (% q/q annualized)	2.1	1.6	2.0	0.9	-0.2	1.0
CPI inflation (% y/y)	8.0	5.8	4.2	3.5	3.1	4.1
Core CPI inflation (% y/y)	6.1	5.6	5.1	4.2	3.5	4.6
Unemployment rate (%)	3.6	3.5	3.5	3.8	4.3	3.8
Fed funds rate, end period (%)	4.33	4.83	5.13	5.13	5.13	5.13

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. **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 April 28, 2023.

Asset Class Weightings (as of 4/4/2023)

Asset Class	Underweight		Neutral	Overweight	
Global Equities			●		
U.S. Large Cap Growth			●		
U.S. Large Cap Value				●	
US. Small Cap Growth			●		
US. 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	Underweight		Neutral	Overweight	
Healthcare					●
Energy				●	
Utilities				●	
Consumer Staples			●		
Information Technology			●		
Communication Services	▶		●		
Industrials			●		
Financials			●	◀	
Materials		●			
Real Estate		●	◀		
Consumer Discretionary	●				

*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 Officse as of April 4, 2023. 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.

U.S. Mortgage-backed Securities (MBS)/Bloomberg U.S. Mortgage-backed Securities Index is the U.S. MBS component of the U.S. Aggregate index. The MBS Index covers the mortgage-backed pass-through securities of Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC).

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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. Bonds are subject to interest rate, inflation and credit risks. For investments in Agency Mortgage-backed Securities (AMBS) and Mortgage-backed Securities (MBS), 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. 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 or 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.

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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