

June 2023

2023 Midyear Outlook

Navigating end-of-cycle turbulence



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“History provides a crucial insight regarding market crises: they are inevitable, painful, and ultimately surmountable.”

— Shelby M.C. Davis, investor and philanthropist

Of the last nine Federal Reserve (Fed) tightening cycles, seven have resulted in recession. This current tightening cycle is the fastest and most aggressive since 1981 and makes it difficult to believe the U.S. economy can avoid a contraction when the dust eventually settles. The good news is that we believe there is firm evidence that the inflationary pressures of the past several years are in retreat and that the Fed’s actions have been working as intended.

Historically, there has been a natural order to economic cycles. A rapid rise in inflation has been followed by the Fed raising interest rates, which often has created conditions that lead to a bear market and then ultimately a recession. Later come Fed interest rate cuts and with them an eventual bull market and economic recovery.

This unbroken order is once again at play, and we believe the bear market of 2022 to 2023 is likely to evolve into recession during the back half of 2023 and into early 2024. It has been both the most predicted and longest anticipated recession in recent memory, as large amounts of legacy liquidity keep us inching toward the next slowdown.

To be clear, no one likes slowing earnings growth, deteriorating financial conditions, and (eventually) a labor market that should begin to show rising unemployment claims and a rising unemployment rate. However, economic cycles are natural, and the important point is to understand them and position portfolios accordingly. Our guidance — to remain defensive in portfolio positioning — has remained consistent through this period, and we reiterate that guidance in our 2023 Midyear Outlook.

We take our role of humbly seeking to provide actionable investment guidance to you as an investor very seriously. Preserving capital during more challenging times is often as important, or more important, than growing capital.

There will come a time to turn more opportunistic in positioning portfolios for a recovery; however, we need to respect the signals and understand when the risk and reward dynamic changes. Historically, bear markets have created some of the best opportunities to grow capital, and I see no apparent reason this one should be any different.

On behalf of my Wells Fargo Investment Institute colleagues and all our advisors, I want to thank you for the trust you extend to us as our clients.

A handwritten signature in black ink, appearing to read 'Darrell Cronk'. The signature is fluid and cursive.

Darrell L. Cronk, CFA

President, Wells Fargo Investment Institute

Chief Investment Officer, Wealth & Investment Management

What's inside

Global economypage 6

- A moderate U.S. recession and global economic slowdown are likely in 2023, followed by a gradual, U.S.-led global recovery in 2024.
- We foresee a range-bound 2023 U.S. dollar and clearer 2024 downtrend.

Global equitiespage 8

- We favor defensive equity positioning while 2023 earnings decelerate. Once the cyclical outlook shifts to anticipate an earnings recovery, we expect to add back risk more broadly.
- We continue to favor quality sectors in Energy and Health Care. Also, commodity supply constraints increasingly give the Materials sector some quality aspects, especially persistent revenue growth. We are selective among the sub-industries in these and other sectors.

Global fixed income page 14

- We favor long- and short-term fixed income, a barbell strategy, based on the two-pronged drivers of recession and a higher-for-longer Fed interest-rate policy.
- Credit quality is paramount and municipals retain positive momentum in our outlook.

Global real assets page 18

- We favor using 2023 to position for a strong 2024 in commodities. Real estate investment trusts (REITs) remain an unfavorable equity sector overall, but we are selective among the REIT sub-sectors.
- For yield investors, we prefer midstream energy assets to public REITs.

Global alternative investments* page 20

- We believe Distressed Credit strategies will capitalize on recession-driven credit market stress.
- Global Macro and Relative Value strategies typically exhibit low correlation to traditional equity and fixed-income markets and thereby offer a potential opportunity to diversify when traditional markets turn volatile.

Our top five portfolio ideas page 22



*Alternative investments are not appropriate for all investors and are only open to “accredited investors” or “qualified investors” within the meaning of the U.S. securities laws. They are speculative, highly illiquid, and designed for long-term investment and not as trading vehicles.

See pages 26–27 for important definitions and risk considerations.

2023 and 2024 year-end targets

Percent change in annual averages, unless otherwise noted			
Global economy	2022 actuals	2023 targets	2024 targets
U.S. GDP growth	2.1%	1.1%	1.5%
<i>Our economic forecast anticipates a recession in 2023 with a recovery starting in 2024.</i>			
U.S. CPI inflation ¹	6.5%	2.9%	2.8%
U.S. unemployment rate ²	3.6%	4.4%	4.9%
Global GDP growth	2.8%	2.3%	2.4%
Global inflation	7.1%	4.4%	3.3%
Developed market GDP growth	2.7%	1.2%	1.2%
Developed market inflation	8.5%	3.7%	2.5%
Eurozone GDP growth	3.4%	0.4%	0.6%
Eurozone inflation ¹	9.2%	2.1%	2.0%
Emerging market GDP growth	2.9%	2.6%	3.3%
Emerging market inflation	6.1%	4.8%	4.0%

NOTE: GDP = gross domestic product; CPI = Consumer Price Index. 1. December-to-December change 2. Three-month average, as of the fourth quarter

Equities	End of May 2023 values	Year-end 2023 targets	Year-end 2024 targets
S&P 500 Index	4180	4000–4200	4600–4800
<i>We anticipate the S&P 500 Index to be relatively flat into year-end with stock prices rebounding in 2024.</i>			
Earnings per share	\$223	\$205	\$220
Russell Midcap Index	2699	2700–2900	3200–3400
Earnings per share	\$151	\$145	\$160
Russell 2000 Index (small cap)	1750	1650–1850	2000–2200
Earnings per share	\$73	\$70	\$80
MSCI EAFE Index	2042	2000–2200	2300–2500
Earnings per share	\$153	\$145	\$160
MSCI Emerging Markets Index	959	850–1050	1000–1200
Earnings per share	\$84	\$75	\$80

Sources: Wells Fargo Investment Institute and Bloomberg, June 13, 2023. Latest economic and market data as of May 31, 2023; Latest earnings-per-share figures are for calendar year 2022. **Forecasts, targets, and estimates are based on certain assumptions and our current views of market and economic conditions, which are subject to change. An index is not managed and not available for direct investment. Past performance is no guarantee of future results.**

Fixed income	End of May 2023 values	Year-end 2023 targets	Year-end 2024 targets
Federal funds rate	5.25%	5.25%–5.50%	3.75%–4.00%
<i>We anticipate one more interest rate increase in 2023, before cuts in 2024.</i>			
10-year U.S. Treasury yield	3.65%	3.50%–4.00%	3.75%–4.25%
30-year U.S. Treasury yield	3.86%	3.50%–4.00%	4.00%–4.50%

Commodities	End of May 2023 values	Year-end 2023 targets	Year-end 2024 targets
WTI crude oil (\$ per barrel)	\$68	\$80–\$90	\$90–\$110
<i>We forecast flat-to-slightly higher energy prices in 2023 before recovery in 2024.</i>			
Brent crude oil (\$ per barrel)	\$73	\$85–\$95	\$95–\$115
Gold (\$ per troy ounce)	\$1963	\$2100–\$2200	\$2300–\$2400
Bloomberg Commodity Index	218	235–255	255–275

Foreign currencies	End of May 2023 values	Year-end 2023 targets	Year-end 2024 targets
Dollar/euro exchange rate	\$1.07	\$1.03–\$1.11	\$1.12–\$1.20
Yen/dollar exchange rate	¥139	¥130–¥140	¥120–¥130

Sources: Bloomberg and Wells Fargo Investment Institute, June 13, 2023. **Forecasts, targets and estimates are based on certain assumptions and on our current views of market and economic conditions, which are subject to change. Past performance is no guarantee of future results.**

Late-cycle blues

Key takeaways

- We expect a global slowdown that includes a moderate U.S. recession, followed by a gradual U.S.-led recovery in 2024.
- We believe Fed monetary policy and international fund flows into dollar-denominated assets during the recession will support a range-bound U.S. dollar, followed by a clearer 2024 dollar downtrend.

Investment implication

- Even if the Fed has nearly finished *raising* interest rates, the high *level* of rates and a likely recession should weigh on financial markets.

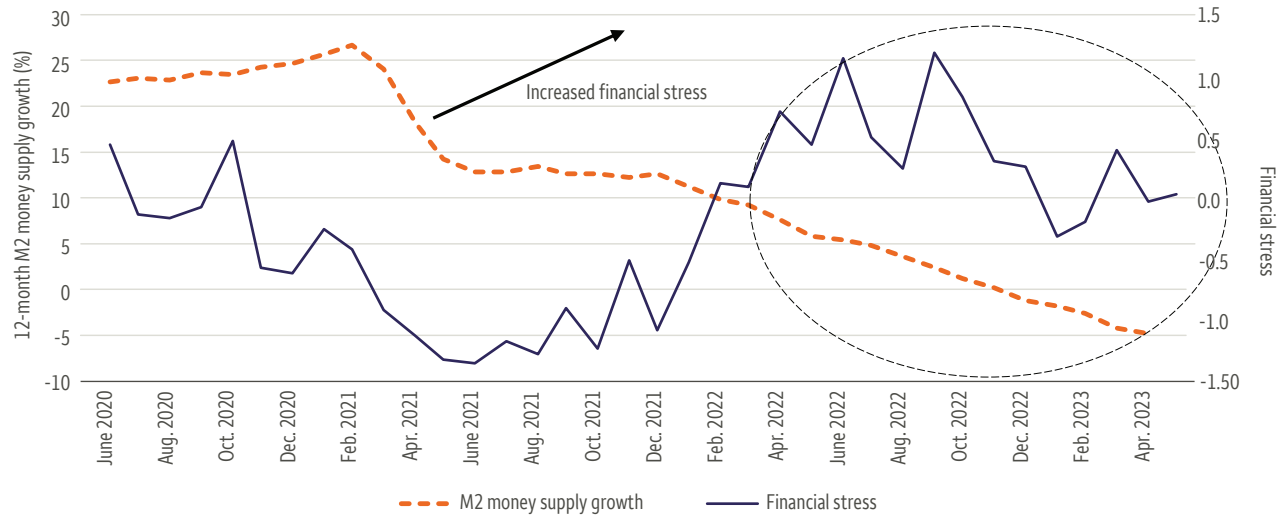
Trying not to break something

Mixed U.S. economic data are tilting increasingly toward a moderate recession. A manufacturing slowdown and housing's renewed weakness are adding to storm warnings from an inverted yield curve, steepening declines in leading indicators, and broadening geographic weakness. Pockets of strength in labor-intensive services and employment can cushion the slowdown, but they are no guarantee against a recession. Recent economic slowdowns occurred despite ongoing increases in inflation-adjusted services spending. What's more, employment is typically one of the last economic pillars to fall into recession, and its recent weakness suggests the economy's approach to recession is far along.

In our view, persistent credit tightening is growth's most visible threat in the next 18 months. The economy sidestepped a credit crunch in March, but recent declines in the money supply and other liquidity sources (see following chart) are just beginning to increase financial stress, threatening housing as well as consumer and business borrowing. One of the most apparent challenges in the coming year is an abrupt tightening of financial liquidity, brought on by deteriorating credit quality, renewed banking sector strains, stubbornly high inflation, or another unanticipated pandemic-like shock.

As inflation slows to below wage growth, we expect consumers to regain purchasing power that should help turn recession to recovery. Interest-rate cuts by the Fed next year and inventory rebuilding also should support growth. We expect policy uncertainties to add to the headwinds restraining economic growth in an election year, including the looming expiration of Trump-era tax cuts and, perhaps, cuts in recent stimulus as part of a debt-ceiling agreement. Our view is that the U.S. will lead Europe and other overseas economies in a global recovery from what likely will be a synchronized U.S.-European recession in 2023. Global support from China's economic recovery likely will be muted by a tilt toward less import-intensive, consumer-led growth through much of 2024.

Financial stress moving higher as money supply contracts



Sources: Federal Reserve Board and Bloomberg Financial News, Inc., data as of June 1, 2023.

Note: M2 money supply includes currency, demand, and small time deposits and is measured by year-over-year percent change. The Bloomberg Financial Conditions Index components measure widening quality spreads, volatility in equity and bond prices, and changes in money supply. Financial stress is measured by the number of standard deviations above or below the 1992 to 2008 index average. Please see the end of the report for index definitions.

Inflation is still the straw that stirs the drink in our outlook

Our key economic forecast is for inflation to fall below 3% in 2023 and through 2024. Inflation peaked early in this economic cycle, responding to a reversal of pandemic-related shocks. Looking ahead, our forecast below 3% assumes another, more typical round of disinflation coinciding with the start of a recession later this year. This aligns with current investor near- and longer-term inflation expectations, which remain under 3%.¹ What's more, inflation should be much less persistent now than when it was last this high over 45 years ago, when more pervasive cost-of-living agreements, less globalization, and other rigidities limited disinflation. In turn, much lower inflation should allow the Fed to cut rates in 2024. Together, lower inflation and lower rates should spark spending and earnings — a general (if gradual) economic recovery that carries implications for our outlook.

Wait till 2024 for clearer dollar downtrend

Our near-term bias remains for modest dollar upside within a range-trading environment. We expect the dollar to find support while the Fed keeps rates high for the rest of the year. Moreover, amid a global economic slowdown this year, additional support could come from international inflows to dollar-priced assets. For 2024, we foresee steady dollar depreciation, with the euro trading around \$1.16 by year-end. Our expectations for a global recovery should bring a weaker dollar as capital flows once more diversify away from the U.S. Further, we anticipate a rate convergence with the eurozone, as the Fed cuts rates more readily than the European Central Bank, which should also undercut the dollar.

Higher interest rates suggest that emerging market currencies in aggregate should continue to hold up better in the face of moderate dollar strength in 2023. A broader economic recovery in 2024 should help drive more pronounced emerging market currency gains.

1. We measure inflation expectations by the breakeven rate on one- and 10-year U.S. Treasury inflation-protected securities. The breakeven rate is that which equates the stated rate on an inflation-protected security to the yield on a comparable, conventional Treasury note or bond.

Stay defensive until recovery is in sight

Key takeaways

- After contracting in 2023, we expect earnings to expand modestly in 2024 as the economy emerges from recession. Valuations likely will rebound in 2024 to anticipate an earnings recovery.
- We believe that important developments in 2023 will shape the long-term investment appeal of equities tied to regional banks and artificial intelligence.

Investment implications

- Our defensive positioning favors quality. However, once risk and reward turn more favorable for economic and earnings recoveries, we expect our preferences to lean more cyclically.
- Our preference for quality also applies to sub-industry selection. In this context, "quality" refers to companies with sound balance sheets, strong levels of profitability and cash flow, the ability to generate consistent growth, and earnings stability.

Earnings recession in 2023, price recovery in 2024

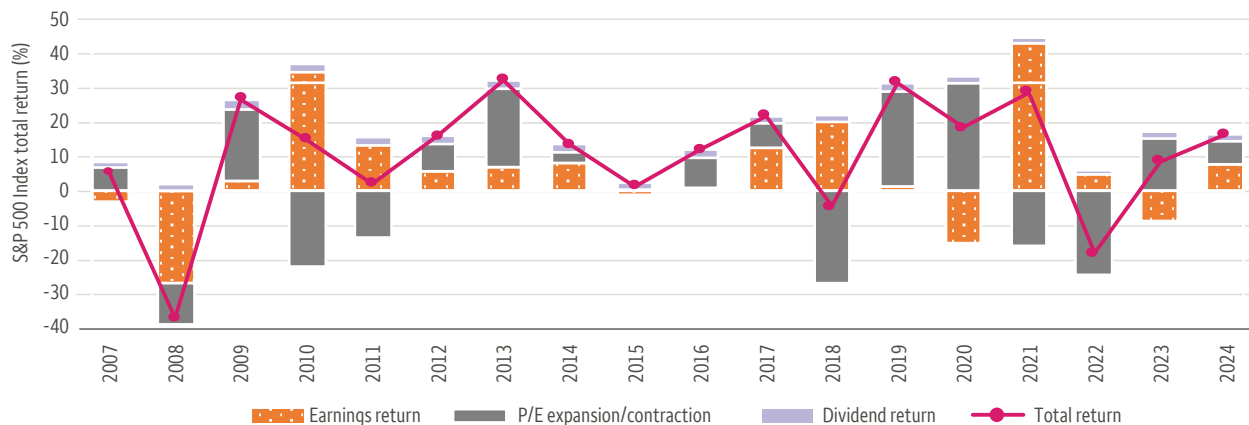
The S&P 500 Index earnings recession has begun with two consecutive quarters of contraction. Our view is that a recession will stall 2023 corporate revenue growth. Throw in sticky input and wage costs and we expect operating margins to continue declining toward pre-COVID-19 levels. Profits should rebound through 2024, as the economic recovery gradually takes hold, but corporate earnings may not recapture their 2022 peak until early 2025.

As is typical, equity prices likely will increase at a much more rapid pace than earnings can recover, leading to price/earnings (P/E) multiple spikes and above-average valuations in 2024. However, once the earnings recovery catches up to the price recovery during the back half of next year, we expect multiples to revert to average levels. The following chart illustrates how our view of earnings and multiple expansion could combine to drive returns this year and next, and how this expected interplay relates to history. It shows calendar-year contributions to return for the S&P 500 Index from 2007 to 2022 as well as our forecasts for 2023 and 2024.

Equities | Favored asset class

- U.S. Large Cap Equities

Earnings growth and P/E expansion should drive total return for the S&P 500 Index in 2024



Sources: Bloomberg and Wells Fargo Investment Institute. 2023 and 2024 figures are based on our year-end 2023 and 2024 targets. **Forecasts, targets, and estimates are based on certain assumptions and our current views of market and economic conditions, which are subject to change. An index is not managed and not available for direct investment. Past performance is no guarantee of future results.**

Looking for opportunities as the market pivots toward 2024 recovery

While equity markets are positive year-to-date, the economic and earnings weakness we anticipate should drive prices lower this year. As the economy weakens, our preference for quality and more defensive positioning in portfolios remains in effect. We maintain our preference for U.S. Large Cap Equities over U.S. Mid Cap Equities and U.S. Small Cap Equities.

Once the recession appears to be fully priced in to market valuations, we expect an opportunity to position for an emerging 2024 recovery. Based on prior cycles, that time will likely come while the economy is still within the grips of the recession. We foresee the end of the recession, the Fed cutting interest rates, an economic rebound in the U.S. and abroad, and easing credit conditions — in short, a favorable environment for risk assets.

We expect all equity asset classes to participate in the risk-on rebound and foresee outperformance for 2024 tilting toward lower-quality asset classes. Our year-end 2024 targets imply that U.S. Small Cap Equities will outpace U.S. Mid Cap Equities, which in turn should outpace U.S. Large Cap Equities. Similarly, within international equities, we expect that Emerging Market Equities will outperform Developed Market ex-U.S. Equities next year.

Seeking greater balance between U.S. and international equities

For this year, our quality bias extends to international equities, where we prefer Developed Market ex-U.S. Equities (neutral) over Emerging Markets Equities (unfavorable). This defensive positioning historically has worked well late in the cycle and should benefit investors early in the recession.

Our view toward Developed Market ex-U.S. Equities has improved over the past several months, culminating with an upgrade from a most unfavorable to a neutral rating in late April. After over 15 years of underperformance, we believe that these markets have reached an inflection point. While a recession in Europe is likely this year, we see risks as balanced between a rebound from multi-decade-low relative valuations and our forecast for a flat-to-lower dollar in 2024.

We view the political and economic headwinds associated with China as the main drivers of Emerging Market Equities. These headwinds ultimately keep us unfavorable and include ongoing political risks from Chinese regulatory reform, U.S.-China diplomatic and economic strains, and China's slower growth potential as it shifts to emphasize domestic consumption. The greater risk of downside volatility within Emerging Market Equities during a risk-off environment is also a concern as the global economic slowdown develops.

Sector and sub-industry guidance: Focus on quality

At the sector level, we prefer quality and defense as well. We hold favorable ratings on Materials, Health Care, and Energy, and unfavorable ratings on the highly cyclical Consumer Discretionary and interest-rate-sensitive Real Estate sectors.

The Health Care sector is often termed “a port in a storm,” and for good reason. We continue to expect a high level of earnings stability, solid underlying secular demand trends (from the combination of an aging population and technological advances), and generally reasonable valuations to provide a favorable backdrop. The Managed Care sub-industry should provide consistent growth at a reasonable price. Likewise, the Life Sciences Tools & Services and Medical Devices & Equipment sub-industries are favorable for their potential to benefit from growing adoption of new drugs and products.

The Energy sector's newfound capital discipline, characterized by a focus on deleveraging and shareholder returns rather than production growth, has only increased the attractiveness of this group. Our forecast for higher petroleum product prices reinforces our favorable Energy sector rating, while valuations remain at significant discounts to the broader market. Within this sector, we prefer Integrated Oil and Midstream C-Corps, which tend to have strong capital bases and a positive relationship with commodity price levels.

Outside of the Energy sector, Materials is one of the most levered sectors to our call for multi-year commodity price gains. Our 2024 dollar depreciation outlook should provide an additional tailwind. Materials is one of the most exposed sectors to international revenues. More generally, basic materials prices remain well above pre-pandemic levels, with high standing prices driving significant improvement in margin rates, cash-flow generation, and balance-sheet leverage in recent years. Consequently, while not always the case historically, the Materials sector now scores well with our quality theme. The sector's largest sub-industry, Industrial Gases, on which we are favorable, operates as a global triopoly, with high margins, sticky customer relationships, and upside opportunities in clean hydrogen.

We are neutral on the Information Technology sector, but emphasize that the sector's quality characteristics still merit a full allocation. The sector's largest constituents do have strong financial health — high margins, low balance-sheet leverage, and solid long-term growth prospects. These characteristics should cushion the blow as the economy rolls over. Within the sector we favor IT services, Networking Equipment, Semiconductor Equipment, and Software.

We are neutral on the Financials sector but believe a careful evaluation within the sector is warranted. While we do not expect a systemic banking crisis, more difficulty likely lies ahead for select regional banks while the situation transitions from a liquidity event to a credit event, with possibly more bank failures. Given current banking conditions, businesses likely will continue to move to the Universal Banks (i.e., larger banks), on which we remain favorable, considering their combination of diversified revenue streams, moderate valuations, liquidity, and capital. In this context, we prefer to allocate to Payment Processors or Commercial Property and Casualty Insurance, where we believe business conditions remain generally favorable.

Equity sector and sub-industry preferences

		Sub-industry guidance	
Sector guidance	Sector	Favorable	Unfavorable
Favorable	Energy	Integrated Oil; Midstream C-Corps	Refiners
	Health Care	Life Sciences Tools & Services; Managed Care; Medical Devices & Equipment	Generic Pharmaceuticals
	Materials	Industrial Gases	—
Neutral	Communication Services	Integrated Telecommunication Services; Interactive Home Entertainment; Interactive Media & Services	Alternative Carriers; Publishing
	Consumer Staples	Beverages; Consumable Merchandise Retail; Household Products	Tobacco Products
	Financials	Insurance Brokers; Payment Processors; Property & Casualty Insurance; Universal Banks	Business Development Companies; Mortgage REITs
	Industrials	Commercial & Professional Services; Defense Contractors; Multi-Industrials; Railroads	Airlines
	Information Technology	IT Services; Networking Equipment; Semiconductor Equipment; Software	Storage & Peripherals
	Utilities	Electric Utilities; Independent Power & Renewable Electricity Producers; Multi Utilities; Water Utilities	—
Unfavorable	Consumer Discretionary	Apparel Retail; Automotive Retail; Broadline Retail; Home Improvement Retail	Automobile Manufacturers; Casinos & Gaming; Homebuilding; Restaurants
	Real Estate	Data Center REITs; Industrial REITs; Infrastructure REITs; Self-Storage REITs	Diversified REITs; Lodging/Resort REITs; Office REITs; Specialty REITs; Timber REITs

Source: Wells Fargo Investment Institute; favored sub-industries by Global Securities Research group and favored sectors by Global Investment Strategy. As of June 13, 2023.

What might the recession playbook look like in the Financials sector?

Anticipating a potentially weaker economy, financial services management teams have been thinking about or are beginning to implement their version of a “recession playbook,” even if they differ on the odds of a recession, its potential depth, or duration. Discretionary expenses such as travel and entertainment expense may be curtailed and non-essential hiring may be paused, if planners believe that revenues are vulnerable.

We observe lenders looking to tighten lending standards, reduce credit availability, and add to their provisions for credit losses. The more conservative lenders likely assign more weight to the adverse economic scenarios in their reserving calculations. Management teams might pause share repurchase programs and be content to let capital build on the balance sheet until the economic conditions become clearer. Many banks may become reluctant to offer financial guidance, or may even withdraw guidance previously given, due to economic uncertainty.

In these complex and fast-moving markets, we prefer to focus on the classic drivers of the sector — liquidity, capital levels, the demand for credit, the path of interest rates, and credit-loss cycles. We think it pays to be even more selective when deploying capital into these investment conditions.

To that point, even as the turmoil in regional banking eventually subsides, the damage to the investment appeal of regional banks likely will persist. Regulatory authorities are likely to direct regional banks to carry more capital and on-balance-sheet, unencumbered liquidity. The regulatory and supervisory expense burden for regional banks is likely headed higher too. We think these measures will reduce the potential return on equity of regional banks collectively and make them less compelling investments — not only relative to other financial services companies, but also versus companies in other industries and sectors.

What to make of artificial intelligence (AI) and how to invest in it

Multiple computing paradigm shifts have materially impacted society. Computing transitioned from mainframes to personal computers in the 1980s. The adoption of smartphones drove another shift in the mid-2000s. In terms of size and importance, we believe generative AI represents the next major computing paradigm shift. Introduced in November 2022, generative AI-based large language model ChatGPT has in fact been the fastest-growing consumer application in history.² The technology is widely viewed as transformative and could impact multiple industries over the longer term, given its focus on increased productivity, efficiency, and cost reduction.

While we are constructive on the long-term opportunities, we caution that the current investor enthusiasm around AI is likely at a short-term peak. As with past technology cycles, we believe investors tend to overestimate the near-term prospects of an emerging and disruptive technology but underestimate the technology's long-term capacity to penetrate previously unforeseen end markets. Although we carefully evaluate incremental investments at current levels, we do believe longer-term investment opportunities exist.

2. Krystal Hu, "ChatGPT sets record for fastest-growing user base — analyst note", Reuters, February 2, 2023.

Some of the largest constituents within the Information Technology and Communication Services sectors ultimately should benefit from the evolution of AI. We believe AI-based deep learning applications are computing, networking, and semiconductor-intensive. This lends itself to a “deep pockets” landscape, where the companies with the largest pools of capital and data should ultimately prevail among the multiple long-term technology trends.

Within Software, we expect companies to make new investments that move quickly to embed generative AI into their product sets. Meanwhile, we believe select Semiconductor companies that sell graphic processing units and networking chips will benefit from supporting generative AI models. We also expect generative AI applications to be one of the leading drivers of wafer fab equipment demand in the coming years, supporting semiconductor capital equipment companies.

Stay defensive while awaiting opportunity

Key takeaways

- We believe that the next six to 18 months will present fixed-income investors with two distinct environments, recession and recovery. Still, we envision positive fixed-income returns, for both taxable and municipals, through year-end, supported largely by the income component.
- The anticipated recessionary environment should create headwinds for credit-oriented asset classes and sectors. Investment grade securities should retain strength, while dispersion in high yield should become apparent.

Investment implication

- Looking into 2024, we believe the yield curve will regain a positive slope. We favor remaining defensive in fixed-income portfolio allocations with a barbell strategy that favors both short term and long term. For now, our guidance is for investors to stay up in credit quality.

We believe that the next six to 18 months will present investors with two distinct fixed-income environments. During the balance of 2023, we anticipate falling longer-term U.S. Treasury yields, as economic growth slows, while short-term rates stay high during the Fed's ongoing inflation fight. Heading into 2024, however, these trends should reverse. The bond market is likely to look through the recession and push longer-term interest rates modestly higher, while the Fed cuts short-term rates to aid the economic recovery.

The quick transition between these two fast-moving economic environments may require fixed-income investors to be agile. We continue to anticipate periods of elevated volatility, especially as financial conditions tighten in the second half of 2023. Still, we envision positive fixed-income returns for the rest of the year, supported largely by the income component. We favor incorporating a barbell strategy which invests in short- and long-term fixed income.

Outlook improving for global bonds

We foresee an improving environment for Developed Market ex-U.S. Fixed Income this year and into 2024. Eurozone yields, although still generally lower than those available in U.S. markets, have risen significantly and narrowed their spread with the U.S. As the European Central Bank (ECB) continues to raise policy rates in 2023, these yields may have further to rise, but they may peak later this year once the ECB pauses its rate cycle. Further, our forecast for a clear dollar depreciation trend in 2024 would enhance returns in dollar terms.

Headwinds remain for emerging market debt, including developed economy recessions, higher inflation, reduced trade, and re-shoring of supply chains. Yet, these concerns are offset by attractive yields, modest defaults, and sovereign credit spreads that are well-contained at the index level. Improvements in the macro environment in 2024, with emerging markets expected to outstrip developed market growth rates, may help narrow spreads further and boost returns.

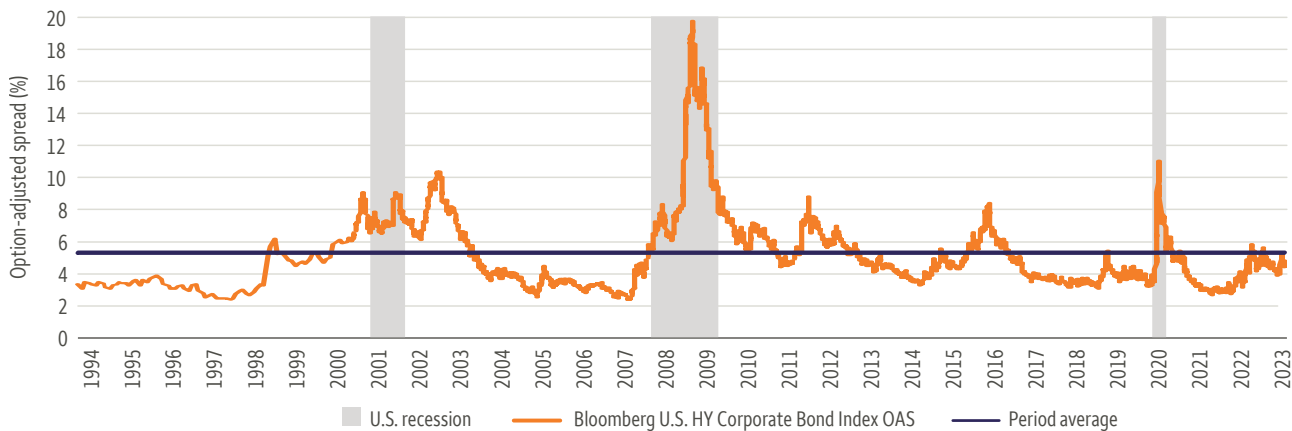
Up in credit quality ahead of a recession

U.S. corporate bonds in the investment-grade credit space should retain strong credit quality through a moderate earnings recession. We expect mild cash-flow deterioration among non-financial corporates flowing from a decline in underlying earnings in the second half of 2023. A vast majority of investment-grade issuers should retain current ratings despite a temporary decline in earnings. Their strong balance sheets and low interest costs should provide substantial cushion to navigate a downturn. Higher interest rates should have minimal effect, considering the relatively low amount of maturing debt to be refinanced.

Even among cyclical industries like Industrials, widespread credit downgrades seem unlikely in a moderate recession. The potential for “fallen angel” issuers that are downgraded to high yield likely will be driven by company-specific missteps in industries facing long-term challenges.³ While BBB credit quality is strong on a historical basis, we think investors would be better rewarded with slightly lower yields in higher-quality A-rated corporates headed into a period of likely spread widening (see following chart).

Widening high-yield corporate spreads highlight recessionary concerns

High-yield corporate spreads have been widening and approaching long-term averages as investors’ concerns for credit risk have increased.



Sources: Wells Fargo Investment Institute and Bloomberg, as of May 31, 2023. Monthly data: January 31, 1994, to July 31, 2000; daily data: August 15, 2000, to May 31, 2023. (OAS) Option-adjusted spread is the spread relative to a risk-free interest rate. An index is not managed and not available for direct investment. **Past performance is not a guarantee of future results.** Please see the end of the report for index definitions.

3. "Fallen angels" are U.S. corporate bonds that were previously in the investment-grade space but that now have fallen into the high-yield space due to a deterioration in credit quality. See pages 26–27 for important definitions and risk considerations.

A recessionary environment should create headwinds for some corporate bonds in the high-yield space. Later this year, we expect stronger performance from relatively strong BB-rated issuers, but diverging and much weaker returns from those rated B and lower. We expect that higher interest rates will be painful for more highly leveraged companies, especially those that rely on adjustable-rate debt. A looming wall of upcoming debt maturities for high-yield issuers may occur while funding costs rise significantly for companies that will likely face deeper earnings drawdowns. While we foresee the volume of defaults rising modestly to longer-term averages over the next year, this may understate the breadth of longer-term credit deterioration among issuers that will see their funding costs almost double over the next few years. In such an environment, even the strongest BB-rated bonds will likely experience market pressure.

In our opinion, current valuations on a credit spread basis for both investment-grade and high-yield corporate bonds appear to be somewhat expensive for this point in the economic cycle. We believe better entry opportunities lie ahead once credit spreads widen more in line with what we have observed during previous recessionary periods. In our view, government securities, and particularly U.S. Treasuries, would benefit relative to other investment-grade securities, because they have tended to be more resilient during economic downturns.

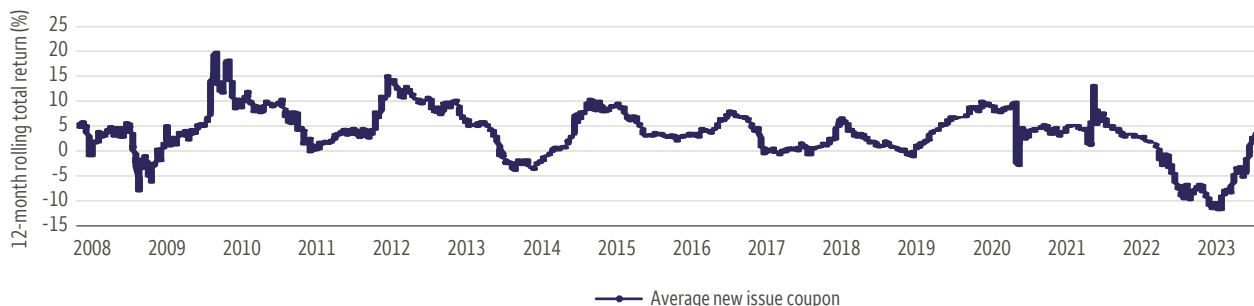
Consider municipal bonds

We believe that municipal bond issuers — backed by federal tax-exempt status, strengthened reserves, strong fiscal governance, conservative debt structures, and budget balancing powers — are generally positioned to withstand current economic pressures heading into the second half of 2023.

Since 2020, states have received a significant amount of federal support from multiple COVID relief packages and the \$1.2 trillion Infrastructure Investment and Jobs Act. Since the November 2021 enactment of the infrastructure law, states have started 29,000 transportation improvement projects alone.⁴ Broadly speaking, the large amount of federal stimulus money and higher-than-anticipated tax revenues in 2021 and 2022 led to large surpluses for many states as they finalized their most recent budgets. The bulk of pandemic-related assistance funds have come to an end and tax revenue growth is expected to slow. However, conservative budgeting and reserve building over the past several years have put many states in a strong position to withstand near-term budget stresses. During the first quarter of 2023, U.S. municipal bond defaults dropped to the lowest levels since the pandemic began, according to Moody's. We expect further gains to muni positions, based on positive momentum following a recent performance trough last year (see following chart).

Municipal bonds still positioned for a rebound

In our view, manageable supply, demand for tax-exempt income, and federal spending will continue to be key drivers of muni performance.



Source: Bloomberg and Global Securities Research Municipal Research Group, as of May 31, 2023. Municipal bond return represented by the Bloomberg Municipal Bond Index 12-Month Total Return. An index is not managed and not available for direct investment. **Past performance is not a guarantee of future results.** Please see the end of the report for index definitions.

4. According to the American Road & Transportation Builders Association.

Despite certain specific credit concerns, we continue to favor state general obligation (GO) bonds, particularly those rated in the AA category (Aa category by Moody's, AA category by S&P) or better. Given what are generally broad and diverse economies, combined with significant tax raising and expense management capabilities, individual states have historically shown resilience in credit quality, even during times of recession and economic uncertainty. We also have a stable sector outlook for local GO bonds, as well as those municipal securities for essential services, K-12 education, public higher education, housing, airports, ports, and toll roads. However, not all municipal sectors are immune from the current economic environment. We have a negative sector outlook for health care, private higher education, tobacco, tax increment financings, and special assessment district municipal securities.

We believe that an eventual recession in 2023 may result in even stronger demand for municipal bonds, which investors tend to perceive as a haven, given their lower volatility during times of turbulence. We remain favorable on municipals, and for investors in higher effective tax brackets, municipal securities remain relevant and an important part of fixed-income positioning.

Fixed income | Favored asset classes

- Short Term Fixed Income
- Long Term Fixed Income

Fixed income | Sector and sub-sector preferences

Sectors	Sub-sectors	
	Favorable	Unfavorable
U.S. Government securities (favorable)	U.S. Treasuries	
Investment-grade corporate bonds (neutral)	Banks, Health Care, Oil and Gas	Industrials, Consumer Discretionary
Securitized (neutral)		Commercial Mortgage Backed Securities
Municipal bonds (favorable)	Essential-service and tax-supported issuers; transportation issuers (for more aggressive investors)	Niche private higher-education institutions, smaller health care providers, tobacco, tax increment financing, and special assessment districts

Sector guidance by Global Investment Research, sub-sector guidance by Global Securities Research group. As of June 13, 2023.

The pause before the move higher

Key takeaways

- Long-term commodity bull markets occasionally pause for short intervals before moving higher.
- REITs remain an unfavorable equity sector.

Investment implication

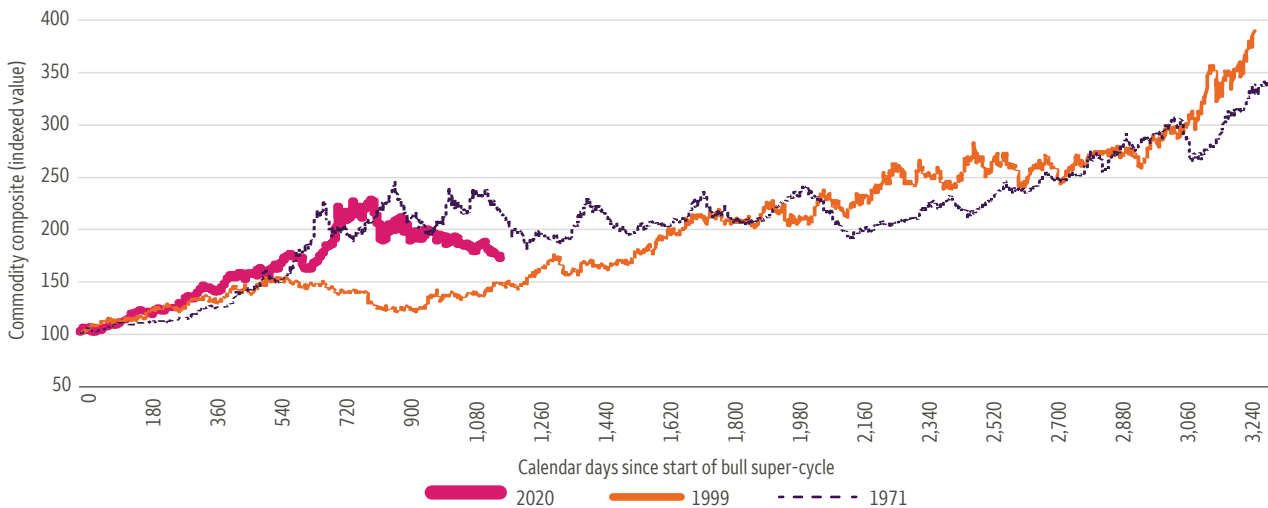
- We favor using 2023 commodity price weakness to position for a likely strong 2024. Precious metals are favorable, especially gold, but our preferred strategy for commodity allocation is a broad-based exposure that includes all sectors. Both public and private real estate offer selected intra-sector opportunities.

Commodity bull super-cycles are multiyear periods in which commodity prices climb together, as a family. They are driven by persistent supply shortages, which require years of higher commodity prices to incentivize extra production. Bulls typically last longer than a decade, using data back to the 1700s, and the shortest bull on record was nine years. Prices do not typically shoot straight higher, however. Bulls often grind higher, with the occasional short-term price pause. We believe 2023 is one of those short-term price pauses, before a resumption of the bull, and higher prices, through 2024.

While we acknowledge the role of somewhat weaker demand, the following chart shows that commodity prices are well supported, after accounting for the price consolidation following the extreme price gains at the start of the Russia-Ukraine war. Even under the pressure of a global economic slowdown, we foresee modest upside for commodity prices from current levels and stronger performance in 2024.

Modern commodity bull super-cycles

Commodity prices have tended to move together over multiyear periods called super-cycles. We believe a new bull super-cycle began in March 2020 (chart, solid pink line). Bull super-cycles are marked by strong commodity price performance, driven primarily by lack of supply.



Sources: Bloomberg and Wells Fargo Investment Institute. Commodity performance measured by our Commodity Composite, indexed to 100 as of the start of the bull super-cycle. Performance measured from October 4, 1971 to November 20, 1980; July 13, 1999 to July 2, 2008; and March 18, 2020 to June 1, 2023. An index is not managed and not available for direct investment. **Past performance is not a guarantee of future results.** Please see the end of the report for index definitions.

Gold prices to rise but we favor broad commodity exposure

Since 2020, investors have preferred to own economically sensitive commodities, such as oil, but in recent months, less economically sensitive commodities, such as gold, have taken price leadership. This leadership change in 2023 fits with greater concern about financial strains at regional banks and the tightening of credit to follow. Our outlook for a weaker U.S. dollar also should support gold and precious metals prices, and we recently upgraded the Precious Metals sector to favorable. The bull super-cycle is very likely to produce performance across all commodity sectors. At various times one or another sector is likely to take price leadership, as gold did recently. Rather than try to anticipate how future price leaders will alternate, we prefer to allocate to commodities via broad exposure, while multiyear supply constraints remain the prominent long-term feature across commodity sectors.

Public and private REITs — Still hounded by rising rates

Rising interest rates continue to weigh on real estate values. How bad it turns for public REITs depends in large part on the timing of future Fed policy actions. Should a recession force the Fed to cut interest rates in early 2024, which is our base case, public REITs may see some relief. There may even be buying opportunities, should prices become attractive enough next year. In the meantime, however, we maintain our unfavorable rating versus other equity sectors, which has been in effect for 18 months.

Intra-sector, we continue to favor those sectors with growth potential (Industrials) and shorter lease terms (Self-Storage) that benefit from higher rent inflation. We also favor those with secular tailwinds, such as Data Centers, and Infrastructure. Overall, however, we recognize that most public REITs face stiff headwinds in the form of higher capital costs and stalling occupancy growth. REITs focused on property development, especially, continue to be hit by elevated costs in construction materials (primarily steel, concrete, and lumber), land, and construction labor. Office and Lodging remain the public REIT sub-sectors that we favor least. As for private REITs, we are neutral on Core, Value-Add, and Opportunistic strategies.

Real assets | Favored asset class

- Commodities

Real assets | Sector and sub-sector preferences

Sector	Sub-sectors	
	Favorable	Unfavorable
Public Real Estate (Unfavorable)	Data Centers, Industrials, Infrastructure, and Self-Storage	Diversified, Lodging, Office, Specialty, Timber

Sector guidance by Global Investment Research, sub-sector guidance by Global Securities Research group. As of June 13, 2023.

Using alternatives to navigate challenging markets

Key takeaways

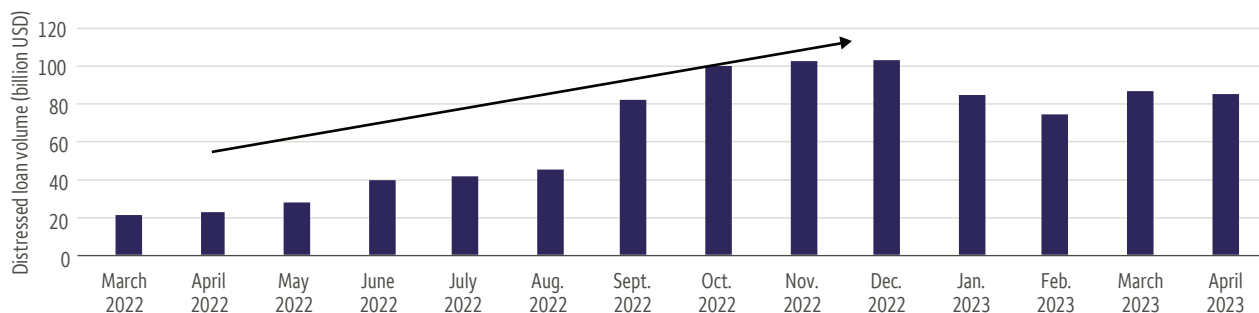
- Amid the backdrop of inflation, a weakening economy and rising interest rates, we favor alternative strategies that typically offer low correlation to traditional equity and fixed-income markets.
- We believe hedge fund and private Distressed Credit strategies can potentially capitalize on recession-driven credit market stress.

Investment implication

- Our favored strategies and sub-strategies are more defensive and historically have not correlated to traditional stock and bond markets. We will look to add risk as the downturn evolves and investors anticipate economic recovery.

Higher interest rates have led to higher debt service costs for many small and midsize businesses. In addition, elevated wage pressures and slowing consumer demand are making it difficult for companies to pass these costs on to consumers. Although we remain in the early innings of the weakening credit cycle, our guidance for Distressed Credit strategies in both hedge funds and private capital strategies is favorable, as we believe the opportunity set will continue to expand over the coming quarters (see chart). While Distressed Credit strategies can allow investors to remain opportunistic throughout the downturn, in general we remain focused on using alternative investments to diversify portfolios across market cycles.

U.S. distressed loan volumes trend upward



Source: Pitchbook | LCD, Morningstar LSTA US Leveraged Loan Index, data through April 30, 2023. Please see the end of the report for index definitions.

Hedge funds | Favored strategies and sub-strategies

- Event Driven: Distressed Credit
- Relative Value: Arbitrage, Long/Short Credit
- Macro: Systematic, Discretionary

Private capital | Favored strategies and sub-strategies

- Private Debt: Distressed/Special Situations
- Private Equity: Small and Mid-Cap Buyout, and Growth Equity

Alternative investments are not appropriate for all investors and are only open to “accredited investors” or “qualified investors” within the meaning of the U.S. securities laws. They are speculative, highly illiquid, and designed for long-term investment and not as trading vehicles.

Maintain defensive posture as the economy faces uncertainty

Given the continued economic uncertainty, we continue to favor Relative Value and Global Macro strategies, which tend to exhibit lower correlations to traditional stock and bond markets. We expect Global Macro hedge funds to perform well when capital markets show persistent trends, such as rising (of falling) prices in commodities, currencies, equity indexes, or interest rates. The performance of these strategies is often independent of general market direction, a trait that can offer diversification benefits when added to a portfolio of traditional stocks and bonds. Similarly, Relative Value – Arbitrage strategies can perform well regardless of market direction, as the strategies attempt to hedge market risks and capture the price inconsistencies across related securities.

Another strategy that we believe should be well positioned in the current environment and offer diversification benefits is Relative Value – Long/Short Credit. The dramatic growth in credit markets since the Great Financial Crisis, combined with rising dispersion between the performance of fixed-income securities, should allow for greater opportunities during the downturn. Environments where investors are increasingly rewarded for identifying improving or deteriorating credit fundamentals should benefit the performance in this category.

Neutral on the private capital strategy, selective on the sub-strategies

For Private Equity, we continue to see opportunities within the Small/Mid-Cap Buyout funds, given the more significant valuation dislocations witnessed in the category. Similarly, we maintain a favorable rating on Growth Equity strategies as the upcoming recession may provide opportunities to invest in businesses with attractive revenues and earnings growth, yet at more reasonable prices. While valuations remain under pressure across most areas of Private Equity, declining prices are welcomed by investors with cash to deploy as valuations reached lofty levels in recent years. As valuations potentially bottom during the looming recessionary period, we expect the environment to improve for funds that anticipate investing capital over the next several years at more attractive prices.

We remain neutral on Large Buyout and Venture Capital strategies, as valuations have yet to fully reflect the current market conditions and the deteriorating economic outlook.

While our current guidance remains mixed across Private Equity categories, we do believe secondary investments in Private Equity funds offer an attractive opportunity for investors today. Discounts to net asset value have increased in recent quarters as institutional investors had become over-allocated to Private Equity markets during the public market decline, prompting many to rebalance back into public equities and fixed-income classes. Secondary investments allow investors to avoid blind pool risk,⁵ shorten the time to a positive internal rate of return, and enter the market at an attractive price point given the recent discounts available.

Within Private Debt, we maintain our neutral guidance as the impact of higher interest rates continues to weigh on Direct Lending strategies. We expect that lower-quality borrowers, especially small and midsized businesses that suffer from higher input costs, rising wages, and an inability to raise prices may struggle under the weight of rising debt service costs. However, lenders with disciplined underwriting standards and a focus on higher-quality credits should be able to better navigate the environment as stress continues to build. In addition, these lenders may be able to capitalize on new market opportunities as small and regional banks continue to restrict lending practices.

5. A blind pool is a limited investment partnership that pools funds from a large number of investors but without giving the investors a stated investment objective. Beyond financial performance parameters, they are subject to few outside restrictions. The risk arises from the lack of transparency in the types of investments they make.

Our top five portfolio ideas

1 Rebalance regional equity exposure

Our upgrade of Developed Market ex-U.S. Equities to neutral ends our tactical lean towards U.S. equity markets. Our expectation that the U.S. dollar is likely to be flat-to-weaker should boost expected returns to non-U.S. assets (see following table). Interest-rate normalization following a lengthy period of record-low yields has favored international value stocks that are generally less adversely affected by higher discount rates. In addition, international diversification should help hedge against the possibility of localized economic shocks. A balanced global international exposure may help blunt a portfolio's exposure to U.S. banking issues and may help offset any negative impact on trade-oriented international markets because of China's new, long-term policy move to rely more on its domestic production than on imports. The potential timing and impact of such risks are unpredictable, which is why we have ended our regional bias for the U.S.

U.S. dollar regimes since 1971

Dollar regime (weak/stable/strong)	Time period	U.S. large caps (S&P 500 Index)	DM ex-U.S. equity (MSCI EAFE Index)	EM equity (MSCI Emerging Markets Index)
Weak	12/31/1971–6/30/1980	5.8%	11.6%	–
	12/31/1984–12/31/1987	18.0%	49.3%	–
	3/29/2002–6/30/2011	3.5%	7.5%	16.7%
Stable	12/31/1987–3/31/1995	13.8%	6.6%	25.7%
	9/30/2022–5/31/2023	17.9%	25.9%	11.1%
Strong	6/30/1980–12/31/1984	14.4%	8.5%	–
	3/31/1995–6/30/2001	17.3%	4.8%	-2.4%
	6/30/2011–9/30/2022	11.5%	3.0%	0.4%

Sources: Bloomberg and Wells Fargo Investment Institute, as of May 31, 2023. DM = developed markets. EM = emerging markets. U.S. large caps = S&P 500 Index. DM ex U.S. equity = MSCI EAFE Index. EM equity = MSCI Emerging Markets Index.

For each time frame, the highest value is highlighted in green. Returns for periods less than one year are not annualized. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Please see the end of the report for index definitions.

2 Mind the inconsistencies

Inconsistencies between the Fed's stated policy to keep rates high versus market expectations for rate cuts, and between the actual earnings recession versus market expectations for earnings growth will likely create financial-market volatility as the markets eventually correct the contradictions and reset price levels. In preparation for potential volatility ahead, we favor short-term fixed income over equity, especially the high-beta⁶ areas of the equity markets like small caps and emerging markets.

Some caution is warranted in certain areas of fixed income. High-yield spreads remain comfortably within historical ranges, but as investors resolve the discrepancies related to the economy and interest rates, we expect selling in the high-yield bond market that widens spreads. For now, we favor investment-grade fixed income and prefer to await a better entry opportunity into high-yield debt.

Contradictions in market consensus also are likely to create equity market volatility. In U.S. equity markets, the equity risk premium (ERP) provides a standard valuation metric based on the spread between earnings yield (inverse of the price-to-earnings multiple) and the 10-year U.S. Treasury yield. The ERP is now hovering near historical averages, indicating that equity prices do not sufficiently compensate investors to justify an overweight to equities over fixed income. A significant pullback in equity prices is likely.

A strategy with potential to take advantage of a credit-cycle deterioration in its early stages is distressed credit. As credit spreads widen, default rates will likely rise and could lead to more companies facing distressed situations. These companies can provide opportunities for qualified investors with an appropriate risk tolerance. Distressed credit funds have historically performed well near the end and after recessions.

3 Build resilience with hedge fund and private capital strategies

While alternatives may enhance returns, these assets can also diversify risk during periods of rising interest rates and elevated inflation. Macro and Relative Value hedge funds seek to exploit mispricing driven by policy changes or fundamental dislocations; Event Driven strategies focus on structured securities or idiosyncratic events. Stable cash flows make Relative Value Strategies more defensive, in our view. Global Macro strategies seek to capitalize on persistent price trends in up or down markets.

Private capital strategies may capitalize on acquiring early-stage or financing mid-sized companies, providing opportunities for investors with long time horizons. Private debt managers often negotiate floating-rate interest payments, and for many private real estate funds, the underlying property values appreciate over time and inflation-sensitive operating costs are borne by tenants. This helps mitigate the impact of inflation and higher interest rates. We see opportunities ahead for Private Equity as well, owing to sizable valuation dislocations, particularly in Small and Mid-Cap Buyout funds.

6. A high-beta equity is one that is more volatile than the rest of the market, which is often defined by proxy as the S&P 500 Index. High-beta equities can carry more risk of loss (compared to the S&P 500) as the economy goes from growth to recession, but potentially can generate higher returns as recession turns to recovery.

4 Position for a rebound in Commodities

Commodities have experienced a significant pullback coinciding with weakening economic data and leading indicators. The recent decline in prices is taking place within a commodity bull super-cycle that commenced in March 2020. Our research has found that the average bull super-cycle has lasted 17 years with interim pullbacks, providing periodic opportunities for investors to purchase commodity asset classes at more attractive prices. The recent drop in many raw materials prices may provide such an opportunity. In addition, oil prices, which comprise the highest weighting in the Bloomberg Commodity Index, have historically exhibited positive performance during and after recessions that occurred amid commodity bull super cycles — supporting our view for higher prices in 2024.

Alongside our positive outlook on commodities, in equities we favor the commodities-related sectors of Energy and Materials. Both sectors have underperformed year to date yet should rebound if prices of energy and raw materials rise as we expect.

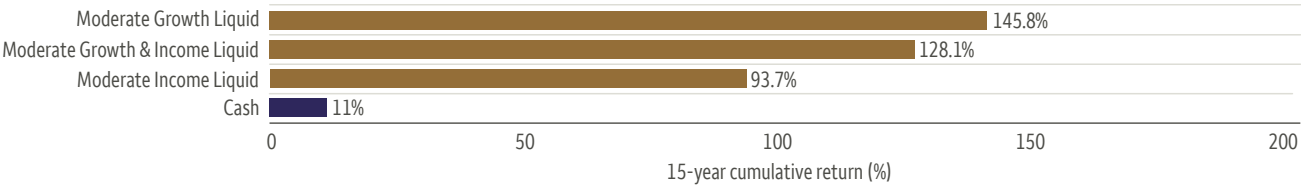
5 Use cash as a tool, not a long-term investment

With cash yields at elevated levels and markets expected to experience continued volatility, investors may be pondering moving to cash in lieu of remaining invested. While this may sound like a “less risky” strategy on paper, using cash as an investment comes with its own risks — a major one being the cash performance drag as it tends to drastically underperform diversified allocations over long time periods (see chart below). Even over shorter time frames, the opportunity cost of holding too much cash can be high as we expect cash yields to decline from current levels coinciding with the Fed rate cuts in 2024.

Cash is a necessary component of an investment portfolio as a tool to provide liquidity — for example when acting on trading opportunities. While cash has provided stability over the past year, as stocks and bonds exhibited elevated volatility, it has not been able to keep up over the long term, even compared with investment objectives designed to take on less risk. Exposure to a variety of asset classes in a diversified allocation has tended to be a more reliable strategy than cash for combined stabilization of returns and appreciation of asset values.

Over the long term, cash falls behind

While cash has performed well over the past year, it is a weak relative performer over longer periods.



Sources: Bloomberg, © 2023 – Morningstar Direct, All Rights Reserved(i), and Wells Fargo Investment Institute, showing returns for the 15 years ended May 31, 2023. Cash is represented by the Bloomberg U.S. Treasury Bills (1–3 Month) Index. Performance results for Moderate Income, Moderate Growth and Income, and Moderate Growth are for illustrative purposes only and are calculated using blended index returns. The allocations are dynamic and change as needed with adjustments to the strategic allocations. Index returns do not represent investment performance or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions, and do not reflect deduction for fees, expenses, or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** See the end of the report for composition of the allocations, risks, and definitions of indexes.

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Definitions

Moderate Growth is composed of: 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 8% Bloomberg U.S. Aggregate Bond Index, 3% Bloomberg U.S. Corporate High Yield Bond Index, 3% JPM EMBI Global Index, 31% S&P 500 Index, 14% Russell Midcap Index, 10% Russell 2000 Index, 12% MSCI EAFE Index, 12% MSCI Emerging Markets Index, 5% Bloomberg Commodity Index.

Moderate Growth & Income is composed of: 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 30% Bloomberg U.S. Aggregate Bond Index, 6% Bloomberg U.S. Corporate High Yield Bond Index, 5% JPM EMBI Global Index, 24% S&P 500 Index, 10% Russell Midcap Index, 6% Russell 2000 Index, 8% MSCI EAFE Index, 5% MSCI Emerging Markets Index, 4% Bloomberg Commodity Index.

Moderate Income is composed of: 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 58% Bloomberg U.S. Aggregate Bond Index, 4% Bloomberg U.S. Corporate High Yield Bond Index, 5% JPM EMBI Global Index, 16% S&P 500 Index, 5% Russell Midcap Index, 4% Russell 2000 Index, 4% MSCI EAFE Index, 2% Bloomberg Commodity Index.

Performance results for Moderate Growth, Moderate Growth & Income, and Moderate Income are for illustrative purposes only. Dynamic allocations change as needed with adjustments to the strategic allocations. Results do not represent actual trading and the results achieved do not represent the experience of any individual investor. In addition, results do not reflect the impact of any fees, expenses or taxes applicable to an actual investment. The indexes reflect the historical performance of the represented assets and assume the reinvestment of dividends and other distributions. An index is unmanaged and not available for direct investment. **Past performance does not guarantee future results.** *Different investments offer different levels of potential return and market risk.*

Bloomberg U.S. Aggregate Bond Index is a broad-based measure of the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market.

Bloomberg U.S. Corporate High Yield Bond Index covers the U.S. dollar-denominated, non-investment grade, fixed-rate, taxable corporate bond market. Securities are classified as high-yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB= or below. Included issues must have at least one year until final maturity.

Bloomberg U.S. Treasury Bills (1–3 Month) Index is representative of money markets.

Bloomberg United States Financial Conditions Index tracks the overall level of financial stress in the U.S. money, bond, and equity markets to help assess the availability and cost of credit.

Bloomberg Municipal Bond Index is an unmanaged index composed of long-term tax-exempt bonds with a minimum credit rating of Baa.

Commodity Composite Price Index measures a basket of commodity prices as well as inflation. It blends the historical commodity index introduced by George F. Warren & Frank A. Pearson, former academics at Cornell, collected and published commodity price data in their book, *Prices*, and the producer price index for commodities (PPI-Commodities), and the National Bureau of Economic Research (NBER) Index of Spot Market Prices of 22 Commodities and the Reuters Continuous Commodity Index. The index components and weightings, from Warren and Pearson's *Prices*, change over time but the 11 commodity groups used from 1786–1932 are: Farm Products, Foods, Hides and Leather products, Textile Products, Fuel and Lighting, Metals and Metal Products, Building Materials, Chemicals and drugs, Spirits (stopped tracking 1890), House furnishing Goods, and Miscellaneous. The PPI-Commodities is compiled by the Bureau of Labor Statistics and shows the average price change from the previous month for commodities such as energy, coal, crude oil and the steel scrap. The NBER Index of Spot Market Prices of 22 Commodities is a measure of price movements of 22 sensitive basic commodities whose markets are presumed to be among the first to be influenced by changes in economic conditions. The Reuters Continuous Commodity Index comprises 17 commodity futures that are continuously rebalanced: cocoa, coffee, copper, corn, cotton, crude oil, gold, heating oil, live cattle, Live hogs, natural gas, orange juice, platinum, silver, soybeans, sugar no. 11, and wheat.

Consumer Price Index (CPI) produces monthly data on changes in the prices paid by urban consumers for a representative basket of goods and services.

Bloomberg Commodity Index is comprised of 23 exchange-traded futures on physical commodities weighted to account for economic significance and market liquidity.

JPMorgan EMBI Global Index is a U.S. dollar-denominated, investible, market cap-weighted index representing a broad universe of emerging market sovereign and quasi-sovereign debt. While products in the asset class have become more diverse, focusing on both local currency and corporate issuance, there is currently no widely accepted aggregate index reflecting the broader opportunity set available, although the asset class is evolving. By using the same index provider as the one used in the developed-market bonds asset class, there is consistent categorization of countries among developed international bonds (ex. U.S.) and emerging market bonds.

Morningstar LSTA US Leveraged Loan Index is designed to deliver comprehensive, precise coverage of the U.S. leveraged loan market.

MSCI EAFE Index (Europe, Australasia, Far East) Index is a free float-adjusted market capitalization index designed to measure the equity market performance of developed markets, excluding the U.S. and Canada.

MSCI Emerging Markets Index is a free float-adjusted market capitalization index designed to measure equity market performance of emerging markets.

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Russell 2000® Index measures the performance of the 2,000 smallest companies in the Russell 3000® Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index, which measures the performance of the 3,000 largest U.S. companies based on total market capitalization.

Russell Midcap® Index measures the performance of the 800 smallest companies in the Russell 1000 Index, which represent approximately 25% of the total market capitalization of the Russell 1000® Index, which measures the performance of the 1,000 largest U.S. companies based on total market capitalization.

S&P 500 Index is a market capitalization-weighted index composed of 500 widely held common stocks that is generally considered representative of the US stock market.

Risk considerations

Forecasts and targets are based on certain assumptions and on our current views of market and economic conditions, which are subject to change.

All investing involves risks, including the possible loss of principal. There can be no assurance that any investment strategy will be successful and meet its investment objectives. Investments fluctuate with changes in market and economic conditions and in different environments due to numerous factors, some of which may be unpredictable. Asset allocation and diversification do not guarantee investment returns or eliminate risk of loss. Each asset class has its own risk and return characteristics, which should be evaluated carefully before making any investment decision. The level of risk associated with a particular investment or asset class generally correlates with the level of return the investment or asset class might achieve. Some of the risks associated with the representative asset classes include:

General market risks

Stock markets, especially foreign markets, are volatile. A **stock's** value may fluctuate in response to general economic and market conditions, the prospects of individual companies, and industry sectors. **International investing** has additional risks including those associated with currency fluctuation, political and economic instability, and different accounting standards. This may result in greater share price volatility. These risks are heightened in emerging and frontier markets. Investing in **small- and mid-cap companies** involves additional risks, such as limited liquidity and greater volatility.

Investments in **fixed-income securities, including municipal securities**, are subject to market, interest rate, credit, liquidity, inflation, prepayment, extension, and other risks. Bond prices fluctuate inversely to changes in interest rates. Therefore, a general rise in interest rates can result in a decline in the bond's price. **High-yield fixed-income** securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment-grade fixed-income securities. **Municipal securities** may also be subject to the alternative minimum tax and legislative and regulatory risk, which is the risk that a change in the tax code could affect the value of taxable or tax-exempt interest income.

Sovereign debt is generally a riskier investment when it comes from a developing country and tends to be a less risky investment when it comes from a developed country. The stability of the issuing government is an important factor to consider, when assessing the risk of investing in sovereign debt, and sovereign credit ratings help investors weigh this risk.

U.S. government securities are backed by the full faith and credit of the federal government as to payment of principal and interest if held to maturity. Although free from credit risk, they are subject to interest rate risk. Although Treasuries are considered free from credit risk they are subject to other types of risks. These risks include interest rate risk, which may cause the underlying value of the bond to fluctuate.

Although **Treasuries** are considered free from credit risk they are subject to other types of risks. These risks include interest rate risk, which may cause the underlying value of the bond to fluctuate.

Treasury Inflation-Protected Securities (TIPS) are subject to interest rate risk, especially when real interest rates rise. This may cause the underlying value of the bond to fluctuate more than other fixed income securities. TIPS have special tax consequences, generating phantom income on the “inflation compensation” component of the principal. A holder of TIPS may be required to report this income annually although no income related to “inflation compensation” is received until maturity.

Mortgage-related securities are subject to prepayment and call risks in addition to the risks of investing in debt securities. Call risk is the risk that the issuer will redeem the issue prior to maturity. This may result in reinvestment risk, which means the proceeds will generally be reinvested in a less favorable environment. Changes in prepayments may significantly affect yield, average life, and expected maturity.

Currency risk is the risk that foreign currencies will decline in value relative to that of the U.S. dollar. Exchange rate movement between the U.S. dollar and foreign currencies may cause the value of a portfolio's investments to decline.

A barbell strategy allows investors to take advantage of current interest rates by investing in short-term bonds, while also benefitting from the higher yields of holding long-term bonds.

Bond rating firms, such as Moody's, Standard & Poor's and Fitch, use different designations consisting of upper- and lower-case letters 'A' and 'B' to identify a bond's credit quality rating. 'AAA' and 'AA' (high credit quality) and 'A' and 'BBB' (medium credit quality) are considered investment grade. Credit ratings for bonds below these designations ('BB', 'B', 'CCC', etc.) are considered low credit quality, and are commonly referred to as “junk bonds”.

Sector investing

Sector investing can be more volatile than investments that are broadly diversified over numerous sectors of the economy and will increase a portfolio's vulnerability to any single economic, political, or regulatory development affecting the sector. **Communication** services companies are vulnerable to their products and services becoming outdated because of technological advancement and the innovation of competitors. Companies in the communication services sector may also be affected by rapid technology changes; pricing competition, large equipment upgrades, substantial capital requirements and government regulation and approval of products and services. In addition, companies within the industry may invest heavily in research and development which is not guaranteed to lead to successful implementation of the proposed product. Risks associated with the **Consumer Discretionary** sector include, among others, apparel price deflation due to low-cost entries, high inventory levels and pressure from e-commerce players; reduction in traditional advertising dollars, increasing household debt levels that could limit consumer appetite for discretionary purchases, declining consumer acceptance of new product introductions, and geopolitical uncertainty that could affect consumer sentiment. **Consumer Staples** industries can be significantly affected by competitive pricing particularly with respect to the growth of low-cost emerging market production, government regulation, the performance of the overall economy, interest rates, and consumer confidence. The **Energy** sector may be adversely affected by changes in worldwide energy prices, exploration, production spending, government regulation, and changes in exchange rates, depletion of natural resources, and risks that arise from extreme weather conditions. Investing in the **Financial** services companies will subject a investment to adverse economic or regulatory occurrences affecting the sector. Some of the risks associated with investment in the **Health Care** sector include competition on branded products, sales erosion due to cheaper alternatives, research and development risk, government regulations and government approval of products anticipated to enter the market. There is increased risk investing in the **Industrials** sector. The industries within the sector can be significantly affected by general market and economic conditions, competition, technological innovation, legislation and government regulations, among other things, all of which can significantly affect a portfolio's performance. **Materials** industries can be significantly affected by the volatility of commodity prices, the exchange rate between foreign currency and the dollar, export/import concerns, worldwide competition, procurement and manufacturing and cost containment issues. **Real estate** investments have special risks, including possible illiquidity of the underlying properties, credit risk, interest rate fluctuations, and the impact of varied economic conditions. Risks associated with the **Technology** sector include increased competition from domestic and international companies, unexpected changes in demand, regulatory actions, technical problems with key products, and the departure of key members of management. Technology and Internet-related stocks smaller, less-seasoned companies, tend to be more volatile than the overall market.

Alternative investments

Alternative investments, such as **hedge funds, private equity/private debt, and private real estate funds** are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program. They entail significant risks that can include losses due to leveraging or other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in a fund, potential lack of diversification, absence and/or delay of information regarding valuations and pricing, complex tax structures and delays in tax reporting, and less regulation and higher fees than mutual funds. Hedge fund, private equity, private debt, and private real estate fund investing involve other material risks, including capital loss and the loss of the entire amount invested. A fund's offering documents should be carefully reviewed prior to investing.

Private debt strategies seek to actively improve the capital structure of a company, often through debt restructuring and deleveraging measures. Such investments are subject to potential default, limited liquidity, the creditworthiness of the private company, and the infrequent availability of independent credit ratings for private companies. Investing in distressed companies is speculative and involves a high degree of risk. Because of their distressed situation, these securities may be illiquid, have low trading volumes, and be subject to substantial interest rate and credit risks. **Private capital investments** are complex, speculative investment vehicles not appropriate for all investors. They are not subject to the same regulatory requirements as registered investment products and engage in leverage and other aggressive investment practices. There is often limited (or even nonexistent) liquidity and a lack of transparency regarding the underlying assets.

Hedge fund strategies, such as **Event Driven, Equity Hedge, Global Macro, Relative Value, Structured Credit, and Long/Short Credit**, may expose investors to the risks associated with the use of short selling, leverage, derivatives, and arbitrage methodologies. Short sales involve leverage and theoretically unlimited loss potential because the market price of securities sold short may continuously increase. The use of leverage in a portfolio varies by strategy. Leverage can significantly increase return potential but create greater risk of loss. Derivatives generally have implied leverage, which can magnify volatility and may entail other risks, such as market, interest rate, credit, counterparty, and management risks. Private capital investments are complex, speculative investment vehicles not appropriate for all investors. They are not subject to the same regulatory requirements as registered investment products and engage in leverage and other aggressive investment practices. There is often limited (or even nonexistent) liquidity and a lack of transparency regarding the underlying assets.

Real assets

Real assets are subject to the risks associated with **real estate, commodities**, and other investments and may not be appropriate for all investors. The **commodities markets**, including investments in **gold and other precious metals**, are considered speculative, carry substantial risks, and have experienced periods of extreme volatility. Investing in a volatile and uncertain commodities market may cause a portfolio to rapidly increase or decrease in value, which may result in greater share price volatility. Investments in commodities may be affected by changes in overall market movements, commodity index volatility, changes in interest rates, or factors affecting a particular industry or commodity. Products that invest in commodities may employ more complex strategies, which may expose investors to additional risks. Investment in **real estate securities** includes risks, such as the possible illiquidity of the underlying properties, credit risk, interest rate fluctuations, and the impact of varied economic conditions.



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