



Capital Perspectives

Monthly investment analysis and insights from Wilmington Trust Investment Advisors

ON THE RECORD

On the Economy and Equities: Optimistic yet cautious

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Tony Roth
Chief Investment Officer

The end of the third quarter brings to a close what has been a challenging few months for stocks and bonds alike. Make no mistake: Year-to-date returns are still above average for equities and respectable for a diversified portfolio.¹ But the market has pulled back from gains that, in our view, had run well ahead of economic fundamentals, which are now on a weakening trajectory. Indeed, the strong economic growth of the third quarter is unlikely to continue at current levels as headwinds build for the U.S. consumer. But encouragingly, these challenges are not likely to result in a U.S. recession over the next year. Putting this all together, there are reasons to be both cautious and optimistic. The defensive stance we have maintained in portfolios all year is now paying off. At the same time, we are seeing opportunities emerging over a 12-month horizon for patient investors and believe our next move is likely to lean into stocks when the right moment presents itself.

Reason for optimism

On the optimistic side, the consumer has defied gravity this year and powered the economy to very solid growth through the third quarter. The overwhelming consensus from economists to start the year was that the U.S. economy would have entered recession by now, and strong consumer spending has forced most of Wall Street to either reverse or push out the timing of those expectations. Prime-age labor force participation has increased, and the number of people quitting jobs to take another for higher pay has come down markedly, easing wage inflation. Overall, the labor market is cooling but remains strong. And the single best thing for the

¹ Data as of September 30, 2023. Sources: Bloomberg, WTIA. 60/40 benchmark represents a 60% weight to the MSCI ACWI and 40% to the S&P Municipal Bond Index rebalanced monthly.

Figure 1

Real interest rates continue to push higher

Real 10-year Treasury yield



Data as of September 30, 2023.

Source: Federal Reserve Distributional Financial Accounts data.

Calculated as 10-year Treasury yield minus 10-year inflation breakeven rate.

A strong economy, resilient consumer, and Teflon job market may mean the Fed keeps rates higher for longer, which may have less rosy implications for markets.

economy is a strong job market that keeps paychecks rolling into consumer bank accounts. The manufacturing economy has been in recession, but leading indicators suggest activity may be bottoming. Outside of the U.S., economic growth in China and Europe has been very disappointing, but a series of measures to stimulate the Chinese economy may help global growth going forward.

Inflation is falling nicely. Headline Personal Consumption Expenditures (PCE) is still 4.2% y/y, but the 3-month annualized rate of inflation for Core PCE is now 2.2%, within reach of the Fed's target. The market is placing a 20%-25% chance of one more rate hike from the Fed. It is quite possible that by the time the November and December policy meetings roll around, the Fed sees ample evidence that a shift to a "hold and monitor" stance is justified. At that time, the focus will turn to how long the Fed maintains policy rates at these elevated levels. If inflation continues to decelerate, the Fed's policy will become increasingly restrictive, as measured by real interest rates (Figure 1), and the lagged effects of tight monetary policy will continue to build. The most notable takeaway from the September Federal Open Market Committee (FOMC) meeting (when the Fed's committee held rates steady at 5.5%), was its reassessment of how many rate cuts are expected in 2024. The median FOMC member went from projecting 100 basis points, or bps (1.00%) of rate cuts in 2024 to now just 50bps. A strong economy, resilient consumer, and Teflon job market may mean the Fed keeps rates higher for longer, which may have less rosy implications for markets.

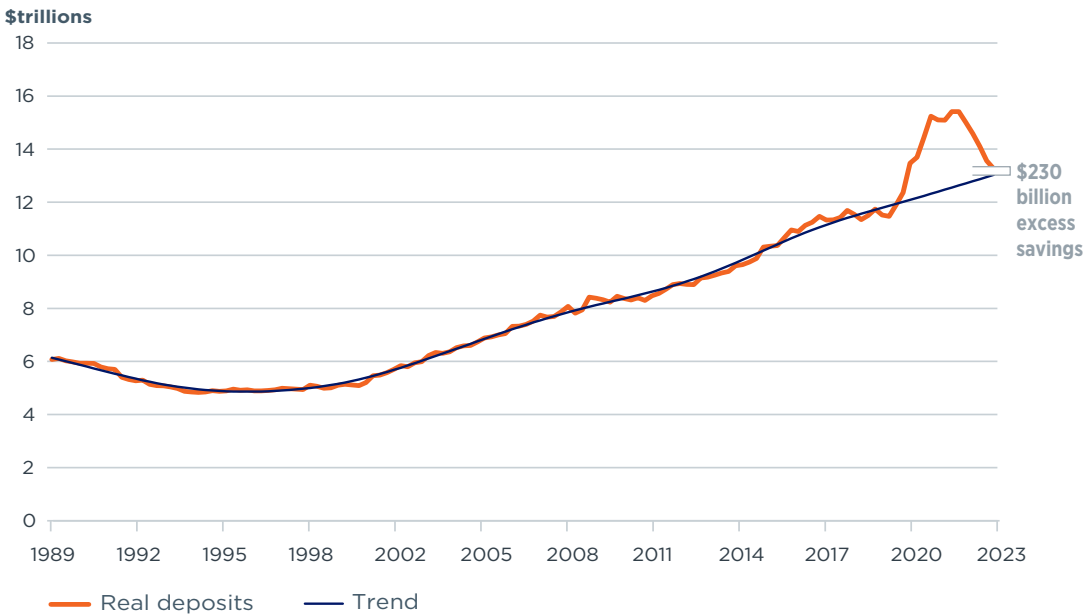
A healthy dose of caution

As we move into the fourth quarter, tailwinds for the consumer will fade and headwinds could begin to build. Consumer savings accounts are still padded from extraordinary Covid-related stimulus, but excess savings is being depleted at a rapid

Continued

Figure 2

Aggregate excess savings approach prepandemic trend
Total household deposits



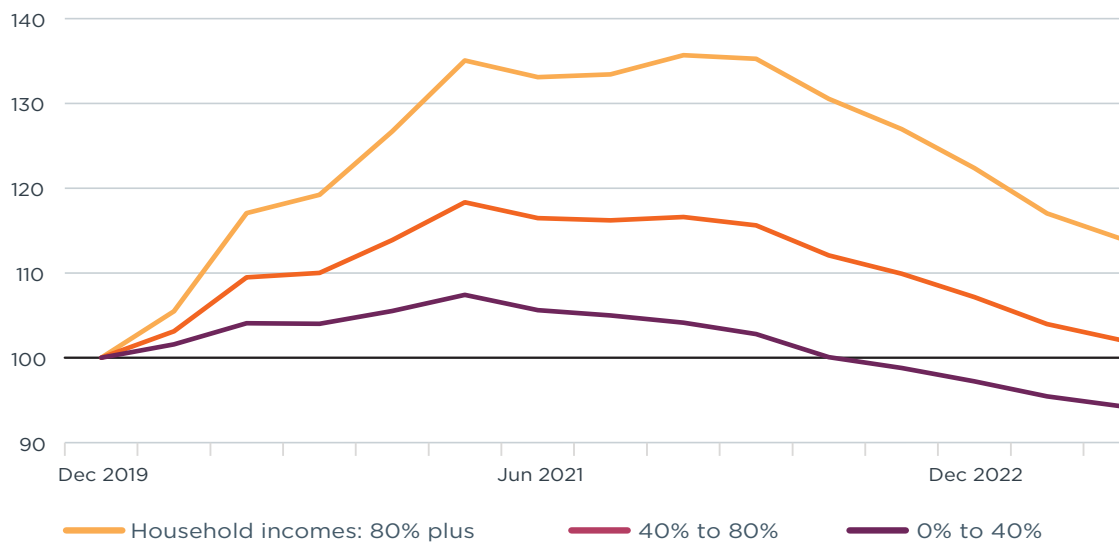
Data as of June 30, 2023.

Source: Federal Reserve Distributional Financial Accounts data.

pace (Figure 2). Admittedly, different data sources paint slightly different pictures of how much savings the consumer has left and where it is going. For example, not all excess savings is being spent. Some consumers are using savings to pay down debt, which strengthens balance sheets, while others are moving cash into higher-yielding fixed income securities. The consistent takeaway is that there is much less excess savings to power goods and services purchases than there was earlier this year. For the lower income demographic, savings are now below prepandemic levels (Figure 3).

Figure 3

Lower income consumers see savings below prepandemic levels
Real household savings



Data as of June 30, 2023.

Real household income data are indexed to 100 and measured relative to December 2019.

Source: Federal Reserve Distributional Financial Accounts data.

Continued

When we lay it all out, the balance of risks favors a soft landing for the U.S. economy. We place roughly 60% odds on slower but sustained economic growth as we move into 2024.

We are on the watch for further deterioration in the spending power of this lower income demographic—and we expect further pain from rising gasoline prices and resumption of student loan payments. Credit card delinquencies at the aggregate level are not alarming, but they are rising rapidly for lower income borrowers as borrowing rates hit their highest level on record at 20.7% in May.²

Other “known unknowns” include the duration and impact of union strikes, as well as the chance of a prolonged government shutdown. (At the time of writing, UAW strikes were still ongoing, and Congress had reached a deal to fund the government but only for an additional 45 days.) These policy risks tend to get lots of headlines but have historically had a temporary and modest impact on economic activity. Still, that does not mean they cannot provide another catalyst for profit-taking in the equity market.

When we lay it all out, the balance of risks favors a soft landing for the U.S. economy. We place the highest probability—slightly greater than even odds—on slower but sustained economic growth as we move into 2024. We give a roughly 25%–30% probability to a mild recession scenario, which could see a modest pullback in consumer spending and capex and a roughly 2% increase in the unemployment rate. The probability of a “no landing” scenario has increased in recent weeks. We define a no-landing scenario as economic activity continuing at an above-trend pace and necessitating “higher for longer” interest rates. Ironically, this no-landing scenario may be the worst for equities, since it could result in the Fed overtightening policy and sending the economy into a deeper recession further down the line.

Where the economy meets markets

A constructive economic outlook may seem at odds with our slightly defensive positioning in portfolios. We currently hold a slight underweight to U.S. small-cap and international developed equities versus our long-term strategic benchmark. When we compare the value proposition of equities to safer assets—including cash and investment-grade fixed income—we are hard-pressed to find a compelling argument for taking on added risk at this time. The 10-year Treasury yield climbed to 16-year highs in the third quarter. It is our view that rates will come down over the next 12 months, as growth slows and the Fed begins to cut rates. This argues for an overweight position in investment-grade fixed income.

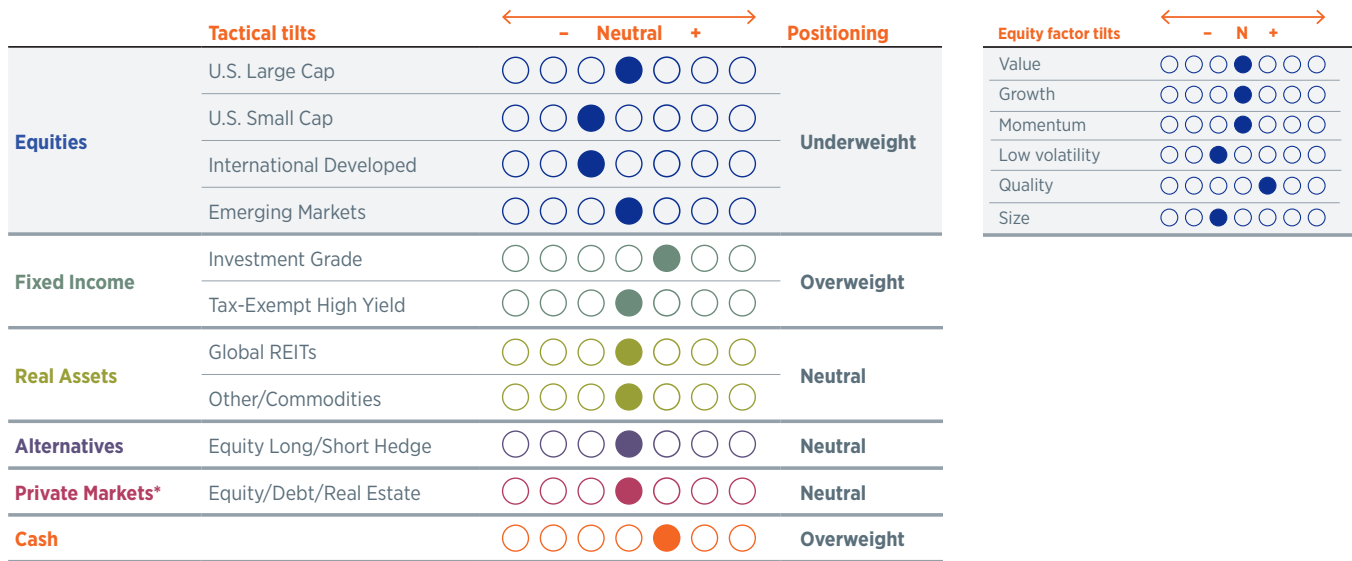
While we still hold slightly elevated levels of cash as dry powder, cash holds significant reinvestment risk—meaning that if short interest rates come down, return prospects will be much less attractive than if an investor had been holding longer-duration assets. The risk versus return profile for investment-grade fixed income is favorable, as the current yield means that even a moderate 50bps increase in rates from here could still result in positive total returns for bonds. Meanwhile, if rates fall by 50bps or more, total returns could approach double digits. For the municipal bond market in particular, municipalities have solid balance sheets with ample cash, and inefficiencies of that market offer potential for those focusing on sound credit research.

² Sources: The Federal Reserve Bank of St. Louis; Bloomberg.

Figure 4

Current positioning

High-net-worth portfolios with private markets*



* Private markets are only available to investors that meet Securities and Exchange Commission standards and are qualified and accredited. We recommend a strategic allocation to private markets but do not tactically adjust this asset class.

Data as of October 1, 2023.

Positioning reflects our monthly tactical asset allocation (TAA) versus the long-term strategic asset allocation (SAA) benchmark. For an overview of our asset allocation strategies, please see the disclosures.

Those highly valued stocks generally hold unique, dominant positions in one of the most exciting structural investment themes: artificial intelligence (addressed comprehensively in our research paper, [The Future of AI Is Here: Investment Risks & Opportunities](#)).

We recognize short-term risks for the U.S. economy, but the prospects over the next 12 months are brightening, especially relative to most other parts of the world. A preference for the U.S. over international equities is a feature of our long-term strategic asset allocation, and it could factor more prominently in our tactical positioning in coming months should the pullback in U.S. equities continue. Valuations for the U.S. equity market overall are a bit elevated, but this is not the case outside of the largest stocks. In addition, those highly valued stocks generally hold unique, dominant positions in one of the most exciting structural investment themes: artificial intelligence (addressed comprehensively in our research paper, [The Future of AI Is Here: Investment Risks & Opportunities](#)). A broadening of equity leadership and higher dispersion in the market (i.e., a market less reliant on just a handful of stocks for powering the gains) should benefit active managers focused on value and quality. Within our portfolios, we maintain balanced exposure between the growth and value factors and hold a preference for higher quality (lower leverage, higher profitability, and management quality). We expect this positioning to reap benefits for our clients in the months ahead.

Best,



Taxable Fixed Income

Ping Gu, CFA
Head of Credit Research

AS OF SEPTEMBER 29, 2023

	Month to date	YTD	Trailing 12-month return
Bloomberg U.S. Aggregate Bond Index	-2.54%	-1.21%	0.64%
Bloomberg U.S. Investment Grade Credit Index	-2.60%	0.03%	3.47%
Bloomberg Ba High Yield Index	-1.41%	3.95%	8.42%
Bloomberg U.S. Mortgage Backed Securities Index	-3.19%	-2.26%	-0.17%

Sources: FactSet, Bloomberg. Investing involves risks and you may incur a profit or a loss. Past performance cannot guarantee future results. Indices are not available for direct investment.

What we are seeing now

Fixed income markets have struggled coming out of the pandemic, particularly during 2022. The highest inflation in a generation has slowed but remains persistent and the Fed reacted with a rapid tightening cycle that led to historically negative returns across the asset class. Interest rates have moved higher over the past month on increased Treasury supply to finance the deficit and stronger economic growth.

Fixed income returns were negative across all fixed income markets in September 2023. The Bloomberg Barclays U.S. Credit Index OAS widened by 3 basis points, or bps (0.03%) month over month to 112bps, resulting in an excess return of 3bps and a total return of -260bps in September—year-to-date (YTD) excess return of 225bps, and total return of 3bps. From a sector's perspective, the energy and transportation sectors have been two of the best-performing sectors YTD benefiting from higher oil prices and airlines experiencing strong demand. The banking sector has lagged on fears of higher deposit costs and increased supply, producing 150bps of excess return YTD. At the rating level, BBBs outperformed as spreads tightened 13bps, leaving YTD excess return at 284bps (total return of 56bps).

What's changing

As of October 2, 2023, the 10-year Treasury yield is at 4.68%, up 48bps over the past month. This significant surge in interest rates raises concerns regarding outflows from investment-grade (IG) and high-yield (HY) bond funds and exchange-traded funds (ETFs). There were substantial outflows observed across the board, with U.S. investment grade experiencing an outflow of \$2.06 billion for the week ending on Wednesday, September 27. During the same period, U.S. high yield experienced an outflow of \$2.4 billion. As to supply, we saw \$19 billion and \$5 billion of U.S. IG and HY issuance, respectively, during the last week of September, while the month's supply amounted to \$125 billion

and \$24 billion, respectively. Notably, September IG supply this year was 3% lower than the average issuance of \$129 billion in September over the past four years (2018–2022, excluding 2020). Additionally, the landscape is shifting with an accumulation of negative headlines, including the ongoing United Auto Workers strike, complicated 2024 budget negotiations, and a “higher for longer” narrative.

What we expect

We anticipate that credit markets will begin to respond to the outlined negative catalysts; however, we expect modest supply and solid demand from higher yields should limit spread widening.

We believe the outlook for total returns is more favorable for investment-grade fixed income due to the current market environment. Higher yields provide high income levels in newly constructed portfolios. This should limit the downside should rates move higher and provide a significant tailwind for returns should rates decline later in the year.

Overall, we expect credit fundamentals will remain in decent shape. While certain metrics, such as interest coverage in both IG and HY, have experienced deterioration, positive trends include improving earnings before interest, taxes, depreciation, and amortization (EBITDA) margins and leverage remaining flat.

We continue to emphasize that credit selection will remain pivotal, and performance will be largely driven by idiosyncratic catalysts. Spreads have traded in a narrow range, and our projections do not foresee a substantial shift toward the year end. However, default rates have escalated to elevated levels over the past three months. Hence, we underscore that credit selection will be more crucial than ever for outperformance throughout the remainder of the year.

Disclosures

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Investing involves risks and you may incur a profit or a loss. Past performance does not guarantee future results. Diversification does not ensure a profit or guarantee against a loss. There is no assurance that any investment strategy will succeed.

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Any investment products discussed in this commentary are not insured by the FDIC or any other governmental agency, are not deposits of or other obligations of or guaranteed by M&T Bank, Wilmington Trust, or any other bank or entity, and are subject to risks, including a possible loss of the principal amount invested.

Some investment products may be available only to certain "qualified investors"—that is, investors who meet certain income and/or investable assets thresholds.

Alternative assets, such as strategies that invest in hedge funds, can present greater risk and are not suitable for all investors.

Any positioning information provided does not include all positions that were taken in client accounts and may not be representative of current positioning. It should not be assumed that the positions described are or will be profitable or that positions taken in the future will be profitable or will equal the performance of those described.

Indices are not available for direct investment. Investment in a security or strategy designed to replicate the performance of an index will incur expenses, such as management fees and transaction costs that will reduce returns.

An overview of our asset allocation strategies:

Wilmington Trust offers seven asset allocation models for taxable (high-net-worth) and tax-exempt (institutional) investors across five strategies reflecting a range of investment objectives and risk tolerances: Aggressive, Growth, Growth & Income, Income & Growth, and Conservative. The seven models are High-Net-Worth (HNW), HNW with Liquid Alternatives, HNW with Private Markets, HNW Tax Advantaged, Institutional, Institutional with Hedge LP, and Institutional with Private Markets. As the names imply, the strategies vary with the type and degree of exposure to hedge strategies and private market exposure, as well as with the focus on taxable or tax-exempt income.

Model Strategies may include exposure to the following asset classes: U.S. large-capitalization stocks, U.S. small-cap stocks, developed international stocks, emerging market stocks, U.S. and international real asset securities (including inflation-linked bonds and commodity-related and real estate-related securities), U.S. and international investment-grade bonds (corporate for Institutional or Tax Advantaged, municipal for other HNW), U.S. and international speculative grade (high-yield) corporate bonds and floating-rate notes, emerging markets debt, and cash equivalents. Model Strategies employing nontraditional hedge and private market investments will, naturally, carry those exposures as well. **Each asset class carries a distinct set of risks, which should be reviewed and understood prior to investing.**

Allocations:

Each strategy group is constructed with target policy weights for each asset class. Wilmington Trust periodically adjusts the policy weights' target allocations and may shift from the target allocations within certain ranges. Such tactical allocation adjustments are generally considered on a monthly basis in response to market conditions.

Continued

Disclosures Continued

The asset classes and their current proxies are:

- Large-cap U.S. stocks: Russell 1000® Index
- Small-cap U.S. stocks: Russell 2000® Index
- Developed international stocks: MSCI EAFE® (Net) Index
- Emerging market stocks: MSCI Emerging Markets Index
- U.S. inflation-linked bonds: Bloomberg US Treasury Inflation Notes TR Index Value Unhedged*
- International inflation-linked bonds: Bloomberg World ex US ILB (Hedged) Index
- Commodity-related securities: Bloomberg Commodity Index
- U.S. REITs: S&P US REIT Index
- International REITs: Dow Jones Global ex US Select RESI Index
- Private markets: S&P Listed Private Equity Index
- Hedge funds: HFRX Global Hedge Fund Index
- U.S. taxable, investment-grade bonds: Bloomberg U.S. Aggregate Index
- U.S. high-yield corporate bonds: Bloomberg U.S. Corporate High Yield Index
- U.S. municipal, investment-grade bonds: S&P Municipal Bond Index
- U.S. municipal high-yield bonds: 60% Bloomberg High Yield Municipal Bond Index / 40% Municipal Bond Index
- International taxable, investment-grade bonds: Bloomberg Global Aggregate ex US
- Emerging bond markets: Bloomberg EM USD Aggregate
- Cash equivalent: 30-day U.S. Treasury bill rate

All investments carry some degree of risk.

Return volatility, as measured by standard deviation, of asset classes is often used as a proxy for illustrating risk. Volatility serves as a collective, quantitative estimate of risks present to varying degrees in the respective asset classes (e.g., liquidity, credit, and default risks). Certain types of risk may be underrepresented by this measure. **Investors should develop a thorough understanding of the risks of any investment prior to committing funds.**

Quality ratings are used to evaluate the likelihood of default by a bond issuer. Independent rating agencies, such as Moody's Investors Service and Standard & Poors, analyze the financial strength of each bond's issuer. Ratings range from Aaa or AAA (highest quality) to C or D (lowest quality). Bonds rated Baa3 or BBB and better are considered **Investment Grade**. Bonds rated Ba1 or BB and below are **Speculative Grade** (also **High Yield**.)

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Glossary

30-day U.S. Treasury bill rate Bank of America Merrill Lynch U.S. 3-Month Treasury Bill Index measures the performance of a single U.S. Treasury bill added to the index at the beginning of the month and held for a full month; the issue is replaced with a newly selected issue at each month-end and the index will often hold the Treasury bill issued at the most recent three-month auction, it is also possible for a seasoned six-month bill to be selected.

Alpha is the excess return of an investment, relative to the return of a benchmark index.

Basis points refers to a common unit of measure for interest rates and other percentages in finance. One basis point is equal to 1/100th of 1%, or 0.01%, or 0.0001, and is used to denote the percentage change in a financial instrument.

Beta is a measure of how an individual asset moves when the overall stock market increases or decreases. Thus, beta is a useful measure of the contribution of an individual asset to the risk of the market portfolio when it is added in small quantity.

The Bloomberg Agriculture Subindex Total Return (BCOMAGTR), formerly known as Dow Jones-UBS Agriculture Subindex Total Return (DJUBAGTR), is a commodity group subindex of the Bloomberg CTR composed of futures contracts on coffee, corn, cotton, soybeans, soybean oil, soybean meal, sugar and wheat and reflects the return on fully collateralized futures positions and is quoted in USD.

The Bloomberg Commodity Index is composed of futures contracts and reflects the returns on a fully collateralized investment in the BCOM; it combines the returns of the BCOM with the returns on cash collateral invested in 13 week (3 Month) U.S. Treasury Bills.

The Bloomberg Commodity Total Return index (BCOMTR) is composed of futures contracts and reflects the returns on a fully collateralized investment in the BCOM and combines the returns of BCOM with the returns on cash collateral invested in 13 week (3 Month) U.S. Treasury Bills.

The Bloomberg Dollar Spot Index tracks the performance of a basket of 10 leading global currencies versus the U.S. Dollar. It has a dynamically updated composition and represents

a diverse set of currencies that are important from trade and liquidity perspectives.

The Bloomberg Energy Subindex Total Return (BCOMENTR), formerly known as Dow Jones-UBS Energy Subindex Total Return (DJUBENTR), is a commodity group subindex of the Bloomberg CTR composed of futures contracts on crude oil, heating oil, unleaded gasoline and natural gas and reflects the return on fully collateralized futures positions and is quoted in USD

The Bloomberg Global Aggregate Bond Index measures the performance of global investment-grade fixed-rate debt markets, including the U.S., Pan-European, Asian-Pacific, Global Treasury, Eurodollar, Euro-Yen, Canadian, and investment-Grade 144A index-eligible securities.

The Bloomberg Industrial Metals Subindex Total Return Index (BCOMTNT), formerly known as Dow Jones-UBS Industrial Metals Subindex Total Return (DJUBINTR), is a commodity group subindex of the Bloomberg CTR composed of longer-dated futures contracts on aluminum, copper, nickel and zinc and reflects the return on fully collateralized futures positions and is quoted in USD.

Bloomberg Municipal Bond Index covers the four main sectors of the USD-denominated long-term tax-exempt bond market: state, and local, general obligation bonds, revenue bonds, insured bonds, and pre-refunded bonds.

The Bloomberg Precious Metals Subindex Total Return (BCOMPRTTR), formerly known as Dow Jones-UBS Precious Metals Subindex Total Return (DJUBPRTR), is a commodity group subindex of the Bloomberg CTR composed of futures contracts on gold and silver. It reflects the return on fully collateralized futures positions and is quoted in USD.

The Bloomberg U.S. Aggregate Index measures the performance of the entire U.S. market of taxable, fixed-rate, investment-grade bonds. Each issue in the index has at least one year left until maturity and an outstanding par value of at least \$250 million.

The Bloomberg US Credit Index measures the investment grade, US dollar-denominated, fixed-rate, taxable corporate and government related bond markets. It is composed of the US Corporate Index and a non-corporate component that includes foreign agencies, sovereigns, supnationals and local authorities.

The Bloomberg U.S. High Yield Corporate Index, formerly Lehman Brothers U.S. High Yield Corporate Index, measures the performance of taxable, fixed-rate bonds issued by industrial, utility, and financial companies and rated below investment grade. Each issue in the index has at least one year left until maturity and an outstanding par value of at least \$150 million.

The Bloomberg U.S. Mortgage Backed Securities Index measures the performance of investment grade fixed-rate mortgage-backed pass-through securities of GNMA, FNMA, and FHLMC.

The Bloomberg US Treasury US TIPS TR USD index measures the performance of rules-based, market value-weighted inflation-protected securities issued by the U.S. Treasury. It is a subset of the Bloomberg US Treasury Inflation-Linked Bond Index (Series-L), which measures the performance of the US Treasury Inflation Protected Securities (TIPS) market. Federal Reserve holdings of US TIPS are not index eligible and are excluded from the face amount outstanding of each bond in the index.

Call risk: Call risk is the possibility that an issuer may redeem a fixed income security before maturity (a call) at a price below its current market price. An increase in the likelihood of a call may reduce the security's price.

Cambridge Global Private Equity Index is a horizon calculation based on data compiled from 2,354 private equity funds, including fully liquidated partnerships, formed between 1986 and 2019. All returns are net of fees, expenses, and carried interest.

Consumer price index measures the price of consumer goods and how they're trending and is a tool for measuring how the economy as a whole is faring when it comes to inflation or deflation.

Coupon, coupon rate, or coupon payment is the annual interest rate paid on a bond, expressed as a percentage of the face value and paid from issue date until maturity.

Continued

Glossary Continued

Credit risk: Fixed income securities carry the risk of default, which means that the security issuer fails to pay interest or principal when due. Many fixed income securities receive credit ratings from services such as Standard & Poor's and Moody's Investor Services, Inc. These services assign ratings to securities by assessing the likelihood of issuer default. Lower credit ratings correspond to higher credit risk.

Dow Jones Global ex. US Select RESI Index tracks the performance of equity real estate investment trusts (REITs) and real estate operating companies (REOCs) traded globally, excluding the U.S.

Drawdown is a peak-trough decline during a specific period for an investment, trading account, or fund and is usually quoted as the percentage between the peak and the subsequent trough.

Drift occurs when an asset or investment diverges significantly from its objective or investment style, such as market capitalization. It can result naturally from capital appreciation in one asset relative to others in a portfolio, a change in a fund's management, or a manager who begins to diverge from the portfolio's mandate. It can be corrected by rebalancing the fund to optimal weights.

Duration risk is the risk associated with the sensitivity of a bond's price to a one percent change in interest rates. The higher a bond's duration, the greater its sensitivity to interest rates changes.

Equity risk premium is the extra return that's available to equity investors above the return they could get by investing in a riskless investment like T-Bills or T-Bonds or cash.

ESG is a strategy that integrates environmental, social, and governance (ESG) factors into the investment process may avoid or sell investments that do not meet criteria set forth by the investment manager. Such investments may perform better than investments selected utilizing ESG factors.

Event-driven hedge fund strategies attempt to take advantage of temporary stock mispricing before or after a corporate event takes place. An event-driven strategy exploits the tendency of a company's stock price to suffer during a period of change.

Federal funds rate is the interest rate at which depository institutions lend reserve balances to other depository institutions overnight on an uncollateralized basis.

Global intangible low-taxed income (GILTI) is a category of income that is earned abroad by U.S.-controlled foreign corporations (CFCs) and is subject to special treatment under the U.S. tax code.

Gold can be significantly affected by international monetary and political developments as well as supply and demand for gold and operational costs associated with mining.

Headline inflation is a measure of the total inflation within an economy, including commodities such as food and energy prices, which tend to be much more volatile and prone to inflationary spikes.

HFR® (HedgeFundResearch) Indices are the established global leader in the indexation, analysis and research of the hedge fund industry. They are broadly constructed indices designed to capture the breadth of hedge fund performance trends across all strategies and regions.

HFRX Absolute Return Index and the HFRX Global Hedge Fund Index represent the overall composition of the hedge fund universe and comprise all eligible hedge fund strategies and selects constituents that characteristically exhibit lower volatilities and lower correlations to standard directional benchmarks of equity market and hedge fund industry performance.

HFRX Global Hedge Fund Index is designed to be representative of the overall composition of the hedge fund universe and are asset weighted based on the distribution of assets in the hedge fund industry.

Inflation-linked bonds are a specific type of index-linked securities that are tied to the costs of consumer goods as measured by the Consumer Price Index (CPI) or another index. Their values increase during inflationary periods, which reduces the risk of uncertainty.

Interest rate risk: Prices of fixed income securities rise and fall in response to changes in the interest rate paid by similar securities. Generally, when interest rates rise, prices of fixed income securities fall. However, market factors, such as the demand for particular fixed income securities, may cause the price of certain fixed income securities to fall while the price of other securities rise or remain unchanged. Interest rate changes have a greater effect on the price of fixed income securities with longer durations. Duration measures the price sensitivity of a fixed income security to changes in interest rates.

The ISM manufacturing index, also known as the purchasing managers' index (PMI), is a monthly indicator of U.S. economic activity based on a survey of purchasing managers at more than 300 manufacturing firms and is considered to be a key indicator of the state of the U.S. economy.

ISM Non-Manufacturing Index is an economic index based on surveys of more than 400 non-manufacturing (or services) firms' purchasing and supply executives and is part of the ISM Report On Business—Manufacturing (PMI) and Services (PMI).

ISM Services Prices Paid Index is a diffusion index calculated by adding the percent of responses indicating they paid more for inputs plus one-half of those responding who paid the same; resulting in a single number that is seasonally adjusted.

LIBOR is the average interbank interest rate at which a selection of banks on the London money market are prepared to lend to one another.

Long, or a long position, describes an investor's expectation of a holding's future value. A position that the investor expects will rise in value and plans to hold for a long period of time is often described as "held long." It is the opposite of short, or a short position.

M2 money supply is a measure of the money supply that includes cash, checking deposits, and other types of deposits that are readily convertible to cash such as CDs.

Macro hedge fund strategies generally focus on financial instruments that are broad in scope and move based on systemic or market risk (not security specific). In general, portfolio managers who trade within the context of macro strategies focus on currency strategies, interest rates strategies, and stock index strategies.

Continued

Glossary Continued

MSCI AC Asia ex Japan Index captures large- and mid-cap representation across two of three developed markets countries (excluding Japan) and nine emerging markets countries in Asia. The index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI All Country World Index (ACWI) is a stock index designed to track broad global equity-market performance. Maintained by Morgan Stanley Capital International (MSCI), the index comprises the stocks of about 3,000 companies from 23 developed countries and 26 emerging markets.

MSCI China Index captures large- and mid-cap representation across China A shares, H shares, B shares, Red chips, P chips and foreign listings (e.g. ADRs). The index covers about 85% of this China equity universe. Currently, the index includes large-cap A and mid-cap A shares represented at 20% of their free float adjusted market capitalization.

MSCI EAFE Growth Index captures large- and mid-cap securities exhibiting overall growth style characteristics across developed markets countries around the world, excluding the U.S. and Canada.

MSCI EAFE Index is an equity index which captures large and mid-cap representation across 21 Developed Markets countries around the world, excluding the U.S. and Canada. With 902 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI EAFE® (net) Index measures the performance of approximately 20 developed equity markets, excluding those of the United States and Canada; total returns of the index are net of the maximum tax withholding rates that apply in many countries to dividends paid to non-resident investors.

MSCI Emerging Markets (net) Index captures large- and mid-cap representation across 27 emerging markets countries. With 1,407 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI EAFE Value Index captures large- and mid-cap securities exhibiting overall value style characteristics across developed markets countries around the world, excluding the U.S. and Canada.

MSCI Emerging Markets Index captures large- and mid-cap representation across 26 emerging markets countries. The index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI Europe Index captures large- and mid-cap representation across 15 developed markets (DM) countries in Europe. The index covers approximately 85% of the free float-adjusted market capitalization across the European DM equity universe.

MSCI Japan Index is designed to measure the performance of the large- and mid-cap segments of the Japanese market. The index covers approximately 85% of the free float-adjusted market capitalization in Japan.

MSCI United Kingdom Index is designed to measure the performance of the large- and mid-cap segments of the UK market. The index covers approximately 85% of the free float-adjusted market capitalization in the UK.

Personal consumption expenditures is the primary measure of consumer spending on goods and services in the U.S. economy and is the primary engine that drives future economic growth.

Price-to-earnings (P/E) ratio measures a company's current share price relative to its earnings per share (EPS).

Producer Price Index (PPI) is a family of indexes measuring the average change in selling prices received by domestic producers of goods and services.

Real estate investment trusts, or REITs, are companies that own, operate, or finance income-generating real estate. Similar to mutual funds, REITs pool the capital of numerous investors, allowing them to earn dividends from real estate investments without having to buy, manage, or finance properties themselves.

Relative value hedge fund strategies cover a variety of low-volatility trading strategies with the consistent theme of attempting to reduce market risk, i.e., the manager seeks to generate a profit regardless of which direction the markets are moving. All relative value strategies minimize market risk by taking offsetting long and short positions in related stocks, bonds, and other types of securities.

Reverse optimization uses risk estimates and optimal portfolio weights (asset allocations) to derive the forward-looking returns that generate the highest expected risk-adjusted return for the portfolio; in contrast, traditional optimization uses risk estimates and forward-looking return assumptions to derive the portfolio weights (asset allocations) that generate the highest expected risk-adjusted return for the portfolio. Reverse optimization can be used to test or validate market outcomes in addition to (not as a replacement for) other methods of analysis.

Risk assets refers to assets that are not risk-free, such as currencies, equities, and other financial instruments. Treasuries are not included.

Russell 1000® Index measures the performance of the 1,000 largest companies in the Russell 3000 Index, representing approximately 92% of the total market capitalization of the Russell 3000 Index.

Russell 1000 Growth is a market capitalization-weighted index that measures the performance of the large-cap growth segment of U.S. equity securities; it includes the Russell 1000 index companies with higher price-to-book ratios and higher forecasted growth values.

Russell 1000 Value is a market capitalization-weighted index that measures the performance of the large-cap value segment of U.S. equity securities; it includes the Russell 1000 index companies with lower price-to-book ratios and lower expected growth values.

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.

S&P 500 index measures the stock performance of 500 large companies listed on stock exchanges in the U.S. and is one of the most commonly followed equity indices.

The S&P Developed Property index defines and measures the investable universe of publicly traded property companies domiciled in developed markets. The companies in the index are engaged in real estate related activities, such as property ownership, management, development, rental and investment.

Continued

Glossary Continued

S&P Listed Private Equity Index comprises the leading listed private equity companies that meet specific size, liquidity, exposure, and activity requirements. The index is designed to provide tradable exposure to the leading publicly-listed companies that are active in the private equity space.

The S&P Municipal Bond Index is a broad, market value-weighted index that seeks to measure the performance of the U.S. municipal bond market.

S&P US REIT Index measures the investable U.S. real estate investment trust market and maintains a constituency that reflects the market's overall composition.

Short-duration Treasury securities are backed by the full faith and credit of the U.S. government. They typically mature in one year or less.

Short, or short position, refers to a trading technique in which an investor sells a security with plans to buy it later; it is used when an investor expects the price of a security to fall in the short term.

Stagflation is persistent high inflation combined with high unemployment and stagnant demand in a country's economy.

Tail risk is the probability that the asset performs far below or far above its average past performance. Investors are most concerned with "left" tail risk, or the likelihood that observations fall three standard deviations below the average expected return.

Value sectors or stocks, generally refer to those trading at levels perceived to be below their fundamentals.

Yield curve plots yields (interest rates) of bonds having equal credit quality but differing maturity dates. The slope of the yield curve gives an idea of future interest rate changes and economic activity.

Yield to maturity is the estimated total return on a bond if the bond is held until it matures.

Yield to worst measures the lowest possible yield that can be received on a bond with an early retirement provision and must always be less than yield to maturity because it represents a return for a shortened investment period.