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Capital Perspectives

Monthly investment analysis and insights from Wilmington Trust Investment Advisors

ON THE RECORD

Decoding the Market's Mixed Messages

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Tony Roth
Chief Investment Officer

Our investment process is built upon a carefully constructed view of the economy and market trends, which we then square against what the market is pricing. Obviously "the market" is not a singular entity but rather an amalgamation of different investors in different regions and asset classes, and there are times when the market gives us a mixed bag of messages about expectations for the future. Now is one of those times, and we extract a different read depending on whether we are analyzing stock vs. bond valuations or sector price action. When we boil it all down, we continue to err on the side of caution, expecting the market and the economy to face a more challenging second half of the year than we experienced in the first half. This is despite the U.S. avoiding default after coming to the brink. As a result, we maintain an underweight to risk assets in client portfolios, waiting for a more opportune time to increase risk.

Waiting for Godot

If the U.S. economy does enter recession, as we expect to occur at the end of 2023 or early 2024, it will likely go down as the most anticipated contraction in history. The Fed began its aggressive rate hike campaign more than 14 months ago, tightening monetary policy at the fastest pace in decades. Yet the real economy has not shown signs of rolling over—with a few exceptions, particularly manufacturing. One interesting dichotomy in the economic data is the difference between the "soft" economic data—survey-based data sources like consumer confidence and purchasing manager indices that ask respondents to report on observations or expectations related to the economy—and the kind of "hard" data that show actual spending or investment by consumers and businesses. The soft data have been very disappointing, yet the hard data have shown to be much stronger than expectations

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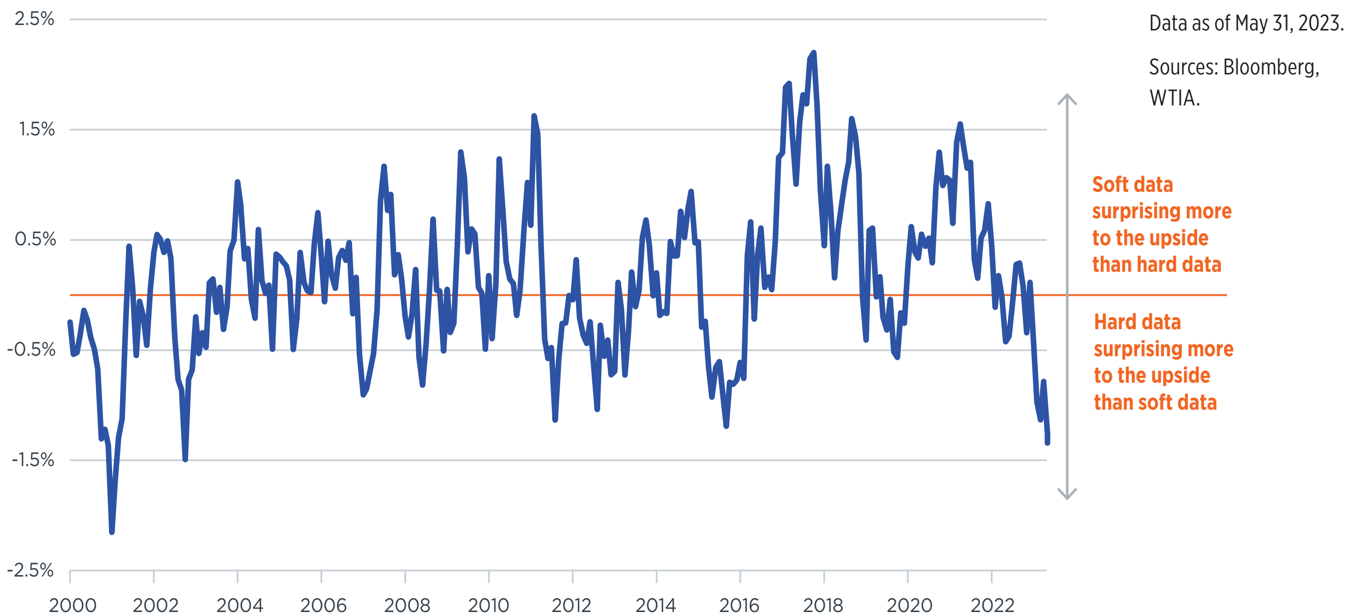
Figure 1

Mixed messages between hard and soft economic data

Differences in the surprise factor between the two data types



A positive number indicates the hard or soft economic data coming in better than expectations. Hard data are the average of the positive or negative data surprises for the retail/wholesale, personal/household, labor market, industrial, and housing/real estate sectors. Soft data are the Bloomberg U.S. surveys and business cycle indicators surprise index.

Should we believe the soft data or the hard data? Maybe both, if you can accept that the soft data are more forward-looking and the hard data either real-time or retrospective.

(Figure 1). First-quarter GDP in the U.S. showed growth of 1.3% q/q annualized, and the Atlanta Fed's real-time GDP estimate is projecting growth of 1.9% in the second quarter. Personal consumption expenditures were weak in February and March but bounced back in April.

Should we believe the soft data or the hard data? Maybe both, if you can accept that the soft data are more forward-looking and the hard data either real-time or retrospective. It is clear that the Fed's policy takes effect in the economy with a significant lag. This time, though, two factors are keeping consumers afloat longer than usual: 1) elevated savings from the extraordinary pandemic-era stimulus; and 2) a tight labor market due to early retirements and a drop-off in immigration during the pandemic. Our analysis shows that after adjusting for inflation, consumers still have excess savings of $3 trillion above the prepandemic trend.

On a per capita basis, the highest amount of savings resides in the top 1% by income, but the rest of the income distribution is still sitting on savings that is 30%–42% higher than 2019 levels. U.S. corporations are also sitting on higher-than-normal cash levels, which could blunt the impact of tightening lending conditions. As long as the labor market stays healthy, consumers should continue to spend. In the first five months of the year, the labor market added an average 314,000 jobs per month. The latest Job Openings and Labor Turnover Survey (JOLTS) showed job openings back above 10 million, equivalent to roughly 1.8 job openings per unemployed person looking for work (in a typical labor market we would expect 0.5–1 job

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Generally, when the Fed stops hiking, it signals a pivot toward easier policy. However, given the persistence of inflation, we are uniquely uncertain whether the Fed's next rate move after such a pause would be up or down.

openings per unemployed). Weekly initial unemployment claims have ticked up this year, but continuing claims remain low, indicating that people losing their jobs are finding new ones quickly.

Of course, a healthy consumer flush with cash cuts both ways, and a higher propensity to spend could keep inflation above the Fed's target if companies exploit pricing power. In fact, April inflation data disappointed to the upside, with core inflation proving especially sticky (either using the traditional ex-food-and-energy metric or the new focus of the Fed, the "supercore," which looks at core services excluding housing), elevating uncertainty about the Fed's path forward.

The Fed's next policy meeting is June 13–14, and a pause—for the first time since March 2022—is likely. Typically, the Fed is ensconced in either a rate-hiking or cutting cycle. It is during the transition periods that "Fed watching" really matters. Generally, when the Fed stops hiking, it signals a pivot toward easier policy. However, given the persistence of inflation, we are uniquely uncertain whether the Fed's next rate move after such a pause would be up or down. There is a distinct possibility that the Fed pauses in June only to raise rates again in July, which could put additional stress on the banking system and serve as a catalyst for a drawdown in equities. With the debt ceiling behind us, Fed watching will take center stage in a consequential way.

Equity bulls vs. bond bears

We also observe some tension between the signs provided by the equity vs. bond markets. Despite recession fears and regional bank failures, the S&P 500 has powered to an impressive total return of 12.1% year to date through June 5. The index is in an earnings recession, but the contraction thus far has been milder than expected. First-quarter earnings surprised positively, declining just 2% y/y with more than 4% revenue growth. This has supported equity valuations. Meanwhile, in the bond market the yield curve remains deeply inverted, with the spread between the yield on a 10-year vs. 2-year Treasury at -0.76%. (The normal shape of the yield

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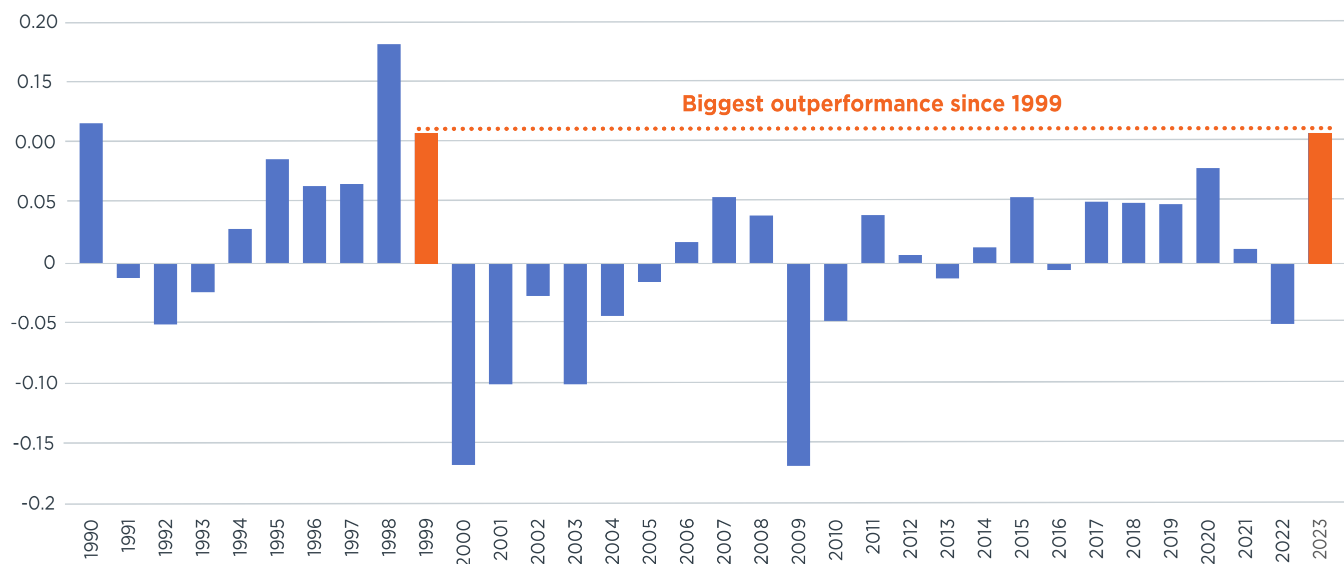
Figure 2

The narrowest market this century

Difference in total return between the S&P 500 market-cap-weighted index and the S&P 500 equal-weighted index



Data as of May 31, 2023. Sources: Bloomberg, WTIA.

A larger positive number indicates greater outperformance of the S&P 500 market-cap-weighted index, which also indicates narrower leadership in the market.

Past performance cannot guarantee future results. 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 which will reduce returns. There is no assurance that any investment strategy will be successful.

Today represents the narrowest leadership we have seen since the late 1990s. This is not necessarily a bad omen for future returns, but we are certainly seeing more pain reflected in economically sensitive parts of the equity market.

curve is upward sloping, with a 10-year Treasury bond yielding more than a 2-year Treasury.) This indicator is still blaring a recessionary warning and heralds significant rate cuts will be necessary.

However, looking beneath the surface of the equity market reveals more fragility than the overall index return would suggest. All of the S&P 500's roughly 12% return has been generated by just 10 of the largest stocks (all tech or tech-related), and these same stocks are responsible for all of the forward earnings growth expected over the next year. Another way to look at this is to examine the price return of the market-cap-weighted index vs. its equal-weighted counterpart (i.e., an index of the same companies but all given an equal weight in the index). The difference between these two is an indication of market breadth.

We tend to see the equal weight index outperform the traditional market-cap-weighted index when there is broad participation across companies, with the opposite indicating narrow leadership from the largest companies. Today represents the narrowest leadership we have seen since the late 1990s (Figure 2). This is not necessarily a bad omen for future returns, but we are certainly seeing more pain reflected in economically sensitive parts of the equity market like banks, autos, homebuilders, and retail. We would be comforted by broader and more diverse participation within the equity market.

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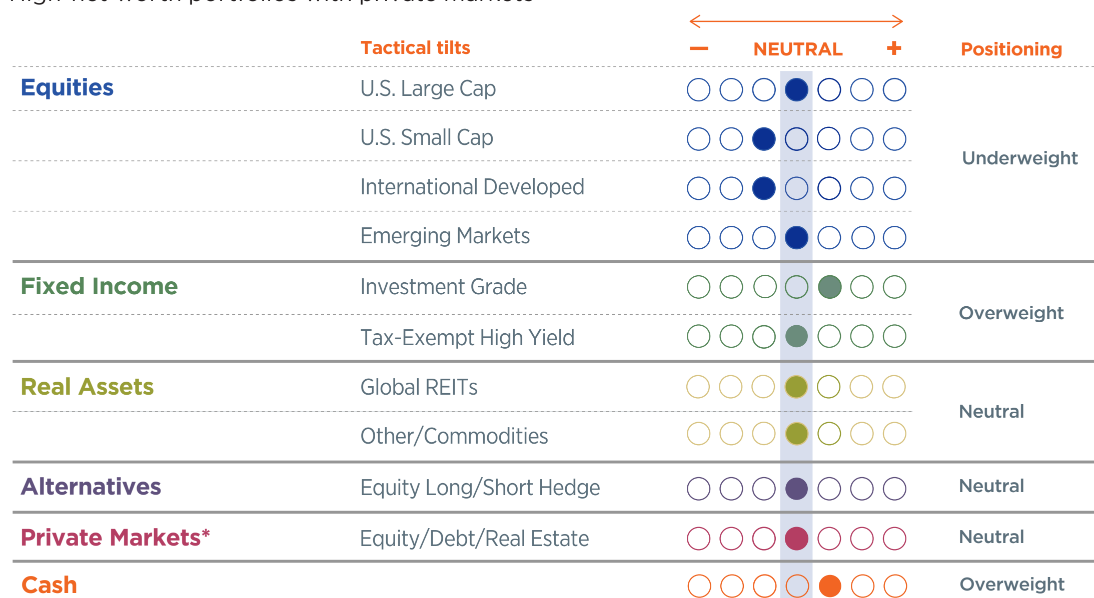
Figure 3

Current positioning

High-net-worth portfolios with private markets*



Data as of June 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.

* 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.

Listen to our Capital Considerations podcast,

Artificial Intelligence: Progression, Applications, and Impact,

where AI expert and author of *Own the AI Revolution* Neil Sahota continues his conversation with Tony, focusing on the speed of progress and applications, as well as how it may enhance the quality of our lives and in what ways.

Artificial intelligence (AI) enthusiasm has spread through the market like wildfire, and we will be discussing the vast applications and investment opportunities behind this significant technological advancement in an upcoming thematic research piece. However, we have also noted an easing of liquidity conditions in recent months, something to which we attribute at least part of the strong performance from growth stocks. In the wake of the regional bank stress, the Fed made available significant liquidity for banks through lending facilities. In addition, the Treasury has not been able to issue new debt since hitting its borrowing limit in January. Without new issuance on the market, the Treasury General Account (TGA) has been nearly depleted (hitting $0 is the "X-date"), and banks, primary dealers, and investors are sitting on more cash than they otherwise would be in a normal issuance environment. Upon passage of a debt ceiling deal, the TGA will begin to be replenished back to normal levels, requiring the Treasury to issue about five times the pre-COVID average annual bill supply in just three months. To properly absorb this flood of issuance into the market, liquidity or cash will be drained from the system and interest rates could rise. (More supply on the market depresses prices, which move inversely to yields.) As this transpires through the summer, we could see pressure on parts of the equity and fixed income markets.

Positioning

We continue to see the balance of risks for the market as skewed to the downside. The market has enjoyed an impressive run to the start the year, but most of those gains came in January. Since then, the S&P 500 has been stuck at the top end of a

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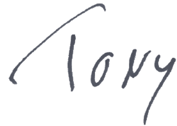
trading range, while small cap has suffered much more given its greater exposure to cyclical and bank stocks (and less exposure to AI). Small-cap equities are trading just a few percentage points off the October 2022 lows.

Outside of the U.S., the momentum has cooled. European economic data have been missing expectations, and Chinese manufacturing has slowed (the two are related, particularly when it comes to German industrial production and exports to China). In general, there is more skepticism about the strength of China's reopening compared to the start of the year. Additionally, there are reports of China grappling with another outbreak of COVID, but so far government restrictions on activity have been very muted.

We retain a defensive positioning compared to our long-term strategic asset allocation, with underweights to equities, including U.S. small-cap and international developed equities, and overweight positions to fixed income and cash (Figure 3). Within equities, we are focused on companies that are higher quality, meaning high profitability and low leverage. We expect the economy to slow and enter recession at some point in the second half of the year as the Fed's policy begins to bite. There is still a chance of a soft landing that avoids recession, but for that to occur we need to see more rapid improvement in core inflation such that the Fed can begin to ease its foot off the brake.

Best,



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ASSET CLASS OVERVIEW

International Equities

Sean Jenkins
Senior Research Analyst

AS OF MAY 31, 2023	Month	YTD	Trailing 12-month return
MSCI EAFE (Developed) Index	-4.23%	6.81%	3.06%
MSCI EAFE (Developed) Index - Local	-1.58%	8.20%	6.22%
MSCI EAFE (Developed) Growth Index	-3.08%	10.28%	6.13%
MSCI EAFE (Developed) Value Index	-5.39%	3.46%	0.08%
MSCI Euro Area Index	-5.59%	12.68%	10.59%
MSCI Japan Index	1.82%	7.41%	2.15%
MSCI Emerging Markets Index	-1.68%	1.05%	-8.49%
MSCI China Index	-8.70%	-9.40%	-16.58%

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

Year to date through May 31, eight of 11 sectors are in positive territory for the MSCI EAFE Index. Growth sectors of tech and consumer discretionary were the best performing, returning 24% and 15%, respectively. While emerging markets is having a positive return, it has greatly lagged developed markets, with utilities, consumer discretionary, and real estate all declining over 10%. Tech was the only double-digit return with 18%, though two stocks comprised over 65% of that return. Higher valuation (as defined by price-to-earnings) bested lower valuation, while performance through a quality lens (as defined by return-on-capital) showed no pattern.

European nations were spared the harsh winter that could have put pressure on consumer health, but that has not put a stop to inflation in the regions and ECB President Lagarde made clear she does not see a pause in their future. Europe had its own bank failure with Credit Suisse; further contagion has thus far failed to appear, and the institution was quickly absorbed by UBS. After solidifying power, Xi Jinping did an about-face on restrictive policies, although in "opening up," COVID cases have exploded and many believe the published figure is deflated by government efforts.

What's changing

The strong dollar that crippled USD returns vs. local returns in international markets has abated. As the Fed is expected to pause, Lagarde has increased hawkish rhetoric. This shift could fare well for continued USD weakening and stronger international returns. Also, higher rates tend to be worse for the more growth-oriented sectors like tech as U.S. markets have higher exposure to these types of sectors vs. international (which comprise more financials and industrials). As such, we could see a sustained shift to non-U.S. outperformance—and international markets come at considerably lower valuations. Lastly, dividend yields are higher in international markets and represent attractive absolute return.

Although China has reduced its restrictive policies and is moving toward the global COVID stance of living with the virus, nations have learned a harsh lesson on overreliance for supply chains and are seeking to reduce their reliance on China for manufacturing—prominent examples being Apple expanding production to India and TSMC building a $40bn plant in the U.S. Relatedly, European nations have dramatically reduced their reliance on Russia for their energy.

What we expect

The stars seemed aligned for non-U.S. markets to regain leadership, or at least not lag as significantly as they have in the recent past. As nations seek to reduce reliance on China, it is likely other Asian and Latin American nations (Mexico) will see demand for services. Finally, let's not overlook Putin, as the war in Ukraine rages on with some saying the conflict could last for decades.

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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.

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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.

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 CITR 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 CITR 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 CITR 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 (BCOMPRTR), formerly known as Dow Jones-UBS Precious Metals Subindex Total Return (DJUBPRTR), is a commodity group subindex of the Bloomberg CITR 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, supranationals 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.

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.

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.

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Glossary Continued

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.

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.

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.

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Glossary Continued

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.

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 marke

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.

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Glossary Continued

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.

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