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Monthly investment analysis and insights from Wilmington Trust Investment Advisors

ON THE RECORD

Reassessing Recession Risks





Tony RothChief Investment Officer

It often seems as if the market has a mind of its own—acting as a singular trader and pricing in new information instead of simply reflecting the consensus of millions of investors.

Today's heightened degree of uncertainty has the market confused, unable to make up "its mind" on whether the bottom is in and a new bull market is about to take hold or if there is further pain ahead. Extended indeterminacy over the speed of disinflation and its follow-on impacts on the economy are likely to leave U.S. equites range bound for at

least the balance of this year. This includes whether an increasingly higher fed funds rate will crash the consumer and the economy. In our view, we are likely to see a shallow recession in 2023 followed by a tepid recovery, one that will nonetheless usher in a new growth cycle for stocks.

The Fed's [brake] pedal to the metal

The Federal Reserve's (Fed) rate-hike campaign this year has been so aggressive it has left all corners of the market reeling. For perspective on just how much the market has adjusted its expectations for Fed policy, consider that one year ago, the fed funds rate was as low as it could go at 0–0.25%, the Consumer Price Index or CPI came in at 6.2% year over year (y/y), and the market was expecting one to two hikes (25 basis points, or bps, each) from the Fed in 2022 (Figure 1). Fast forward to today, and despite the Fed implementing the equivalent of fifteen 25bps rate hikes, inflation is still 8.2% y/y. The market expects the Fed to keep going, and the Fed has confirmed as much.

In the first nine months of this year, the Fed hiked nearly twice as fast as any rate-hike cycle in the last 40 years (Figure 2). For now, there is no more dual mandate (stable prices and full employment); there is only the goal of bringing the rate of inflation back in line with the Fed's 2% target. This will not be easy, as price

Figure 1

Federal funds futures implied policy rate for December 2022

Violent repricing of monetary policy expectations



Data as of October 31, 2022. Source: Bloomberg.

Figure 2

The Fed has embarked on the most aggressive rate-hike cycle in history

Cumulative change in Fed Funds Rate



Data as of October 27, 2022.

Sources: Bloomberg, WTIA.

Past performance cannot guarantee future results.

Encouragingly, inflation looks to have peaked, and leading indicators of inflation are all pointing in the same direction: down.

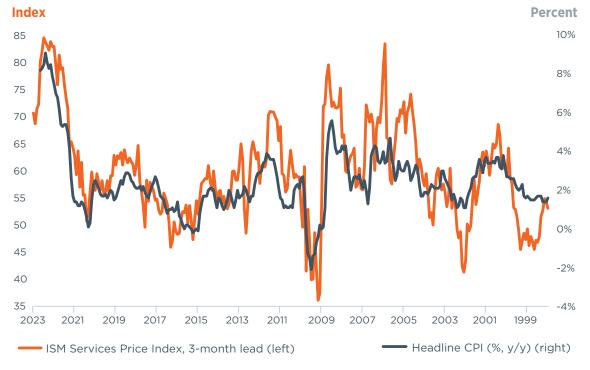
pressures have rotated from goods to services, and rent inflation (together with other home price categories makeup approximately one-third of the CPI) is likely to remain sticky. Encouragingly, inflation looks to have peaked, and leading indicators of inflation are all pointing in the same direction: down. For example, among the more positive signals is the ISM Services Prices Paid Index, which has historically tracked CPI quite well and is pointing to a steep deceleration in the overall level of inflation (Figure 3). This is what is meant by disinflation, namely prices rising but less aggressively than in the past. In light of recent data, and as detailed below, we no longer expect inflation to slow quickly enough to avoid at least a mild recession.

In a perverse way, good news has become bad news because stronger economic data give the Fed more cover to raise rates while also exacerbating demand-driven inflation. In particular, September's Job Openings and Labor Turnover Survey (JOLTS) report showed an upturn in job openings—normally a positive sign for the economy. But with nearly two jobs for every unemployed person looking for work, the labor market is clearly too tight. The labor participation rate from the October payroll report is also moving in the wrong direction, indicating a prime age participation rate for individuals aged 25–54 is still 0.6% below the prepandemic peak. A tight labor market is expected to continue to exert upward pressure on wages, which, if not accompanied by an increase in productivity, could result in sticky inflation. In fact, worker productivity has languished this year, contracting at the fastest rate since 1982, the reasons for which we will delve into in our 2023 Capital Markets Forecast.

¹ Sources: Bloomberg, WTIA.

² Source: Bloomberg.

Figure 3 **Leading indicators point to inflation deceleration**ISM Services Price Index and Headline CPI



ISM data as of October 31, 2022. CPI data as of September 30, 2022. Sources: Macrobond, Institute for Supply Management, and U.S. Bureau of Labor

Statistics.

Right now, our call for a recession denotes a drop in capex, reduced consumer activity, and a contraction of economic activity. It does not necessarily carry with it deep job losses.

Evolving our view

At this point, the key question is whether inflation can decelerate fast enough to slow the Fed's pace of hikes or elicit rate cuts in the second half of 2023 and ultimately avoid a recession. As indicated, we have lost confidence in the "soft landing" scenario and are now expecting a mild recession in 2023. Even a year from now, we do not see the CPI getting back to the Fed's 2% target, and while its signal to the market could turn more dovish if inflation begins to consistently surprise to the downside, the Fed has made it abundantly clear that it does not want to make the mistakes of policymakers in the '70s, who eased policy too soon. This makes rate cuts in 2023 less likely, and we expect the burden of a 4.75% or higher peak fed funds rate to slow consumer spending and capital expenditures (capex) enough to cause a short, mild contraction in the economy.

To be clear, right now, our call for a recession denotes a drop in capex, reduced consumer activity, and a contraction of economic activity. It does not necessarily carry with it deep job losses as even shallow recessions typically entail. In light of the historically tight job market, many employers, particularly small businesses, will hoard workers unless and until it is absolutely necessary to part ways with them. Along these lines, the structural tightness of the labor market could result in an economic contraction less painful than that of corporate earnings. The third quarter showed softening earnings. Despite growth of 3.0% for the S&P 500 index, strength in the energy sector has masked a contraction of -5.0% for the S&P 500 ex-energy index.

Figure 4

High-net-worth portfolios with private markets*

	Tactical tilts	<pre>NEUTRAL +</pre>	Positioning
Equities	U.S. Large Cap	000000	
	U.S. Small Cap	000 • 000	Neutral
	International Developed	000000	Neutrai
	Emerging Markets	000 • 000	
Fixed Income	Investment Grade	000 • 000	Neutral
	Tax-Exempt High Yield	000 • 000	Neutrai
Real Assets	Inflation-linked Bonds	000000	
	Global REITs	000 • 000	Underweight
	Other/Commodities	000 • 000	
Alternatives	Equity Long/Short Hedge	000000	Underweight
Private Markets*	Equity/Debt/Real Estate	000 • 000	Neutral
Cash		0000000	Overweight

Data as of November 1, 2022.

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.

For more, listen to the latest episode of my podcast, Capital Considerations:

Mining the True Value of Bitcoin

Alyse Killeen, the Founder and Managing Partner of Stillmark, joins me to talk about the growing Bitcoin ecosystem and its fundamental value. At this time, our call for a mild recession in 2023 is not resulting in a change to portfolios (Figure 4), though it alters the calculus (timing and magnitude) of relative upside and downside. We hold a neutral allocation to equities, with a preference for U.S. over international. Mild recessions typically have drawdown profiles more benign than those of the last few recessions. In this case, we would expect further downside of 5%–10% for U.S. large-cap equities—not enough additional downside to reduce risk given how unpredictable and violent the market's recovery can be. However, patience is necessary. It may not be until the first quarter of 2023 that we receive convincing evidence of slowing inflation and an end to the Fed's rate hikes.

Additional policy risk

It says something about the environment that we've made it this far into my letter—just two days after the midterm elections—before discussing the backdrop in Washington. A divided government is the best outcome the markets could have hoped for, though partisanship could escalate further. Changes to tax or spending policy are unlikely, but the debt ceiling will resurface as a risk in 2023 unless Democrats take unilateral action during the lame-duck session. A debt-ceiling crisis, or the threat of one, could exacerbate market volatility and recession risks next year.

An additional source of policy risk worth mentioning is located further from home. In October, at the National Party Congress, President Xi solidified an unprecedented third term as President. This was expected, but what took investors by surprise was the expediency with which he replaced his governing body to include only ardent

^{*} 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 we do not tactically adjust this asset class.

Are you on track to reach your investment goals?

Schedule time with your advisor for an analysis called PARAGON™ (portfolio analysis, risk assessment, and goals optimization), which can reveal planning gaps and opportunities.

supporters, removing any semblance of checks, balances, or diversity of ideas. Consolidating power increases the policy risk coming from China, further unnerving investors. However, since then, policymakers have made some comments that have provided comfort to the investment community, including indicating a desire for financial market stability and the possibility of a meaningful relaxation of China's zero-COVID policy in the first half of 2023. For more on the implications of the recent Party Congress, please see our recent Wilmington Wire.

Positioning amidst uncertainty

This has been the worst year for a diversified portfolio of stocks and bonds in multiple generations. Despite an expectation for a mild recession in 2023, we believe the worst is behind us. Interest rates could move modestly higher, but at 4.2% we think the 10-year Treasury yield is near the highs of the cycle. Even if expectations for the peak fed funds rate move above 5%, it only increases the risk of a recession and further inversion of the yield curve. (The Treasury curve is currently inverted between the 10-year and 2-year maturities, while briefly inverting between the 10-year and 3-month portions in October.) The current yield on high-quality bonds is likely adequate to offset a modest increase in rates over a 12-month time horizon, assuming only a mild deterioration of credit quality.

As discussed above, equities could see further downside and continued choppiness into next year. However, it is incredibly difficult to time the market. Significantly reducing risk from equities requires timing not only the exit from but also the return to the equity market. History tells us that the equity market will bottom before the backdrop improves in a convincing manner, and in fact, it is common for the equity market to bottom early in or even just before the onset of a recession. The bounce off the bottom is often violent, and missing these strong days can significantly detract from long-term wealth creation. We are staying invested but looking for opportunities across regions (favoring the U.S. over international developed) and factors (tilting slightly toward growth, quality, and lower volatility). Should the market move sharply higher or lower without a commensurate change to our view of the risks, we will adjust portfolios accordingly.

Instead of our December issue of this publication, we look forward to sharing with you next month the pinnacle of our annual research efforts, our 2023 Capital Markets Forecast.

Inflationary Vortex: The gravitational pull of labor, China, and energy, will explore the unfolding trends that we believe may lead us out of the price pressure swirl. Please be sure to read the outlook and discuss with your advisor how its insights may impact your investment objectives and overall wealth plan.

Wishing you a healthy, happy holiday season. Until next year,



ASSET CLASS OVERVIEW

International Equities

Sean Jenkins Senior Research Analyst

	AS OF OCTOBER	AS OF OCTOBER 31, 2022		
	Month	YTD	Trailing 12-month return	
MSCI EAFE (Developed) Index	5.38%	-23.17%	-23.0%	
MSCI EAFE (Developed) Growth Index	4.32%	-30.13%	-29.58%	
MSCI EAFE (Developed) Value Index	6.45%	-15.99%	-16.35%	
MSCI Euro Area Index	8.85%	-26.73%	-27.07%	
MSCI Japan Index	2.96%	-24.20%	-24.67%	
MSCI Emerging Markets Index	-3.11%	-29.42%	-31.03%	
MSCI China Index	-16.81%	-42.79%	-47.90%	

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 October 31, energy is the only sector in positive territory for the MSCI EAFE Index, posting approximately a 20% gain, with technology on the other end of the spectrum down nearly 35%. Lower quality outperformed higher quality, while lower valuation slightly outperformed higher valuation. Emerging markets underperformed developed markets, led by China's more than 40% decline. Additionally, U.S. dollar returns for international equities are more than 1000bps less than their local performance.

Several major headwinds are affecting international markets. The EU and UK are being hard hit by cost-of-living increases as they funnel spending toward skyrocketing energy bills. Meanwhile the war in Ukraine appears to be escalating with Russia targeting critical infrastructure areas leading to electricity outages and water supply shortages. Many eyes are cautiously following Credit Suisse's efforts to shore up what some call a six billion franc capital shortfall.

What's changing

In the back half of the year through October 31, energy was still the sole positive sector, but technology was only down about 2%, making it the third-best performing sector in the index. Higher valuation outperformed lower valuation and higher quality outperformed lower quality—a reversal from the first six months of the year. Emerging markets' underperformance intensified, down nearly triple the developed markets portion of the MSCI ACWI ex-US Index.

What isn't changing in the UK's leadership? First it was bye-bye Boris, then ta-ta Truss, could it be sayonara Sunak next? With chatter about a general election, there is increased uncertainty about the direction of the nation. On the other side of the ledger is China, where President Xi secured an unprecedented third term as the second-largest nation's leader and solidified control after stocking his Standing Committee with loyalists, setting the stage for unopposed policies aimed toward "common prosperity."

What we expect

With the above-mentioned headwinds, we would expect choppy markets ahead until some clarity is achieved.

Recessions in the UK and EU seem probable. It's also likely a safe bet to say that interest rates will be structurally higher for the foreseeable future.

The following would represent major risks to the markets:

Further escalation of the Ukraine war could lead to increased North Atlantic Treaty Organization involvement, increased tensions with China, Taiwan, and the U.S. could be very disruptive to global trade, and a default of Credit Suisse could lead to a further leg down in the market.

Given high pessimism present in the market, should company earnings come in stronger than expected, markets could gain a much-needed foothold.

Disclosures

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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.

Disclosures Continued

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.

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 Bal or BB and below are **Speculative Grade** (also **High Yield**.)

Paragon

Paragon® is a portfolio analysis, risk assessment, and goal optimization tool. The Paragon report uses hypothetical examples in conjunction with forecasts for inflation, economic growth, and asset class returns, volatility, and correlation and provides you with general financial planning information and to serve as one tool in helping you develop a strategy for pursuing your financial goals. It is not intended to provide specific legal, investment, accounting, tax or other professional advice. For specific advice on these aspects of your investments, you should consult your professional advisors.

Gold

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

ESG

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.

DEFINITIONS

Alpha is a measure of performance on a riskadjusted basis. The excess return of a strategy relative to the return of the benchmark index is a strategy's alpha.

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

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 guoted 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 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 with at least one year until maturity and an outstanding par value of at least \$150 million.

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.

Disclosures Continued

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 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.

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 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 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.

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.

Drawdown measures the potential drop in portfolio asset values for the most recent stock market peak to the most recent stock market trough.

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.

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.

The federal funds rate is the target overnight inter-bank lending interest rate set by the Fed.

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.

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.

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.

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 largeand 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 US and Canada. With 902 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

Disclosures Continued

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.

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

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.

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 capitalizationweighted 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 approximately 2,000 smallest-cap American companies in the Russell 3000 Index, which is made up of 3,000 of the largest U.S. stocks.

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.

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

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