

# Verus business update

### Since our last Investment Landscape webinar:

- Verus hired Adam Babson, Director of Portfolio Management (Seattle)
- JC Faubion, CFA, Senior Consulting Associate, obtained the CAIA charter
- James Wadner, Performance Analyst, recently passed his CFA level I exam
- We celebrated our 38th anniversary. Wurts Johnson & Company (founding name) was established in January 1986.
- Recent research, found at <u>verusinvestments.com/research</u>:
  - Is now the time to de-risk?
  - Liquidity needs during market drawdowns
  - 2024 Annual Capital Market Assumptions

# Table of contents



### **VERUSINVESTMENTS.COM**

SEATTLE 206.622.3700
CHICAGO 312.815.5228
PITTSBURGH 412.784.6678
LOS ANGELES 310.297.1777
SAN FRANCISCO 415.362.3484

Economic environment	7
Fixed income rates & credit	19
Equity	24
Other assets	33
Appendix	36

# Recent Verus research

### Visit: <u>verusinvestments.com/research</u>

### **Topics of interest**

### LIQUIDITY NEEDS DURING MARKET DRAWDOWNS

What is the fundamental reason why investors should care about liquidity? In short, investors want to avoid being forced to sell high-returning assets that have fallen in value in order to pay for benefits, philanthropic spending, expenses, and cover capital calls for their private asset programs. We first touch on the different definitions of liquidity and illustrate how these relate to institutional portfolios. Second, we examine those liquidity characteristics in times of market stress, the way in which illiquid assets often behave, and how that impacts investors. Lastly, we outline a tool that we have created and discuss how this can be used to assist clients with gauging the appropriate level of liquidity in their own portfolios. Overall, we believe investors should put much thought and care into portfolio liquidity decisions.

### IS NOW THE TIME TO DE-RISK?

Is now a good time to engage in derisking strategies? The combination of rising interest rates and relatively strong risk asset performance since 2020 seem to suggest so. We aim to give plan sponsors a better appreciation of the potential benefits of de-risking strategies and examine when it would be most prudent to adopt these strategies. ERISA plan sponsors that have frozen benefits or report actuarial obligations with a market-based interest rate will find this paper most applicable to them.

### Annual research

### 2024 CAPITAL MARKET ASSUMPTIONS

Capital Market Assumptions guide our advice and recommendations. They reflect the best judgments of our research and investment teams regarding the expected long-term behavior of capital markets.

# 4<sup>th</sup> quarter summary

### THE ECONOMIC CLIMATE

- Real GDP increased at a 2.9% pace from a year ago in Q3 (4.9% quarter-over-quarter annualized rate). The economy has remained relatively strong while inflation now appears likely to fall closer to the Fed's 2% target in 2024. These expectations contributed to a dovish pivot from the Fed, a sharp drop in interest rates, and a notable market rally as the possibility of a soft landing has risen. p. 8
- Unemployment fell slightly from 3.8% to 3.7%, though the labor participation rate dropped sharply towards the end of the year. The labor market remains surprisingly resilient after roughly a full year of higher interest rates. p. 13

### **PORTFOLIO IMPACTS**

- Consumer sentiment has been incredibly poor, and one of the greatest concerns for Americans is inflation. Although inflation has fallen considerably, prices of goods and services remain high, placing strain on budgets. Because inflation measures the rate of change of prices, rather than the level of prices, lower inflation has failed to ease the financial pressure that many households face. p. 15
- The Cboe VIX implied volatility index moved even lower during Q4, from 17.5 to 12.5. At the same time, bond market volatility was very high, as indicated by the "MOVE" Index. Uncertainty around inflation, the Federal Reserve's possible interest rate path and the extent of rate cuts, potential recession, and fears around the U.S. fiscal situation are likely contributing to market shakiness. p. 31

### THE INVESTMENT CLIMATE

- An abrupt change in Federal Reserve communication regarding interest rate cuts during the quarter coincided with sharply lower bond yields, higher equity valuations, and further tightening of credit spreads. p. 9
- U.S. headline inflation fell during the quarter, from 3.7% to 3.3% year-over-year. Core CPI (ex-food & energy) declined from 4.1% to 3.9%. Low inflation numbers in October and November (0.0% and 0.1% month-over-month) were counterbalanced by a surprisingly high inflation number in December (0.3% month-over-month). p. 10

### **ASSET ALLOCATION ISSUES**

- U.S. equities (S&P 500 +11.7%) led international developed equities (MSCI EAFE +10.4%) and emerging market equities (MSCI EM +7.9%) during the quarter. Domestic equities also led non-U.S. equities over the full year while emerging markets lagged. Wide sector performance differences contributed to U.S. leadership given a much heavier tech focus of the domestic market. *p. 26*
- Style factor performance was mixed during Q4. Small cap outperformed large cap by +2.0%. Value underperformed Growth by -3.2%. Over the full year, small caps underperformed large caps by -9.6% while value stocks underperformed growth by a whopping -31.2%. Besides an extreme period of value underperformance during 2020, calendar year 2023 was the worst 1-year rolling period in more than two decades. p. 27

Risk assets
rallied in Q4
following a
dovish pivot
from the
Federal
Reserve and
recent
economic data
suggesting a
greater chance
of a soft
landing



# What drove the market in Q4?

### "A Soft Landing is in View as Inflation Drops"

HEADLINE C	PI MONTH-C	VER-MONTH	CHANGES		
July	Aug Sept		Oct	Nov	Dec
0.2%	0.6%	0.4%	0.0%	0.1%	0.3%

Article Source: WSJ, November 14th, 2023

### "U.S. Labor Market Resilience Keeps Economy Afloat as Year Ends"

U-3 UNEMP	LOYMENT RA	ATE				
July	Aug	Sept	Oct	Nov	Dec	
3.5%	3.8%	3.8%	3.8%	3.7%	3.7%	

Article Source: Reuters, December 21st, 2023

### "U.S. Consumer Spending, Inflation Slow in Sign of Cooling Economy"

U.S. NOMIN	Aug         Sept         Oct         Nov         Dec           2.8%         4.0%         2.2%         4.0%         5.6%				
July	Aug	Sept	Oct	Nov	Dec
2.8%	2.8%	4.0%	2.2%	4.0%	5.6%

Article Source: Bloomberg, November 30th, 2023

### "Fed Holds Rates Steady, Indicating Three Cuts Coming in 2024"

FOMC PROJECTED END OF 2023 FED FUNDS RATE													
Sep 22 SEP Dec 22 SEP		Mar 23 SEP	June 23 SEP	Sept 23 SEP	Dec 23 SEP								
4.60%	5.10%	5.10%	5.60%	5.60%	5.40%								

Article Source: CNBC, December 13th, 2023

### **HEADLINE & CORE CPI (YEAR-OVER-YEAR)**



Source: BLS, as of 12/31/23

### **CHANGE IN NONFARM PAYROLLS**



Source: BLS, as of 12/31/23

### TREASURY YIELD MOVEMENTS (FOURTH QUARTER)



Source: Bloomberg, as of 12/31/23



# Economic environment



# U.S. economics summary

- Real GDP increased at a 2.9% pace year-over-year in Q3 (4.9% quarter-over-quarter annualized rate). The economy has remained relatively strong while inflation appears more likely to fall closer to the Fed's target in 2024. These expectations contributed to a dovish pivot from the Federal Reserve in December, a sharp drop in interest rates, and a notable market rally as the possibility of a soft landing has risen.
- U.S. headline inflation fell during the quarter, from 3.7% to 3.3% year-overyear. Core CPI (ex-food & energy) declined further from 4.1% to 3.9%. Low inflation numbers in October and November (0.0% and 0.1% month-overmonth) were counterbalanced by a surprisingly high inflation number in December (0.3% month-over-month).
- Consumer spending has been stable, with real personal consumption expenditures up +2.7% year-over-year in November, the strongest growth figure since early 2022. However, strong spending appears to be at the expense

- of a low household savings rate (4.1% in November) and may be partly driven by necessity (higher prices of goods & services) rather than by a positive financial or economic outlook.
- The job market has shown mixed signals, increasing in total size during 2023 but arguably with some weakness around the edges. Unemployment rose during the year but fell slightly in Q4 from 3.8% to 3.7%. This historic mismatch between jobs available and workers available has been slowly closing.
- Consumer sentiment improved slightly but remains incredibly poor. Inflation is a central concern for Americans.
   Although inflation has fallen considerably, prices of goods and services remain high, placing strain on budgets. Because inflation measures the rate of change of prices, rather than the level of prices, lower inflation has failed to ease the financial pressure that many households face.

	Most Recent	12 Months Prior
Real GDP (YoY)	2.9% 9/30/23	1.7% 9/30/22
Inflation (CPI YoY, Core)	3.9% 12/31/23	6.4% 12/31/22
Expected Inflation (5yr-5yr forward)	2.2% 12/31/23	2.3% 12/31/22
Fed Funds Target Range	5.25–5.50% 12/31/23	4.25–4.50% 12/31/22
10-Year Rate	3.88% 12/31/23	3.88% 12/31/22
U-3 Unemployment	3.7% 12/31/23	3.5% 12/31/22
U-6 Unemployment	7.1% 12/31/23	6.5% 12/31/22

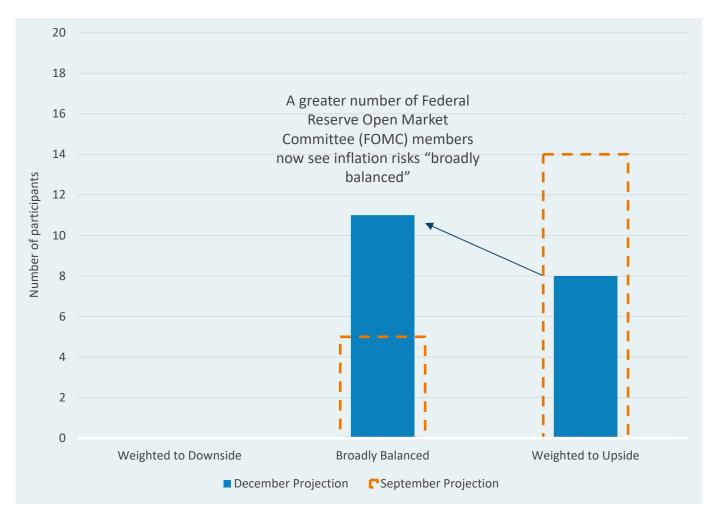


# Shifting signaling from the Federal Reserve

### December 2023 risks to core inflation: FOMC participants

On December 13<sup>th</sup>, the Fed's tone shifted. Powell spoke to a much rosier inflation picture and described a greater focus on both sides of its dual mandate—price stability and full employment.

Although optimistic, Powell's comments emphasized a cautious view of the restrictive policy's impact, "Our actions have moved our policy rate well into restrictive territory, meaning that tight policy is putting downward pressure on economic activity and inflation, and the full effects of our tightening likely have not yet been felt... Given how far we have come, along with the uncertainties and risks that we face, the Committee is proceeding carefully."



Source: Federal Reserve December 2023 Summary of Economic Projections



# Inflation

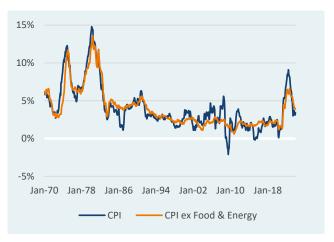
U.S. headline inflation fell during the quarter, from 3.7% to 3.3% year-over-year in December. Core CPI (ex-food & energy) declined further from 4.1% to 3.9%. It is not yet clear how long it will take for inflation to return to the Federal Reserve's 2% target, or how bumpy that ride might be. Low inflation numbers in October and November (0.0% and 0.1% month-over-month) were counterbalanced by a surprisingly high inflation release in December (0.3% month-over-month).

Most of the largest initial drivers of U.S. inflation, such as food, energy, and used autos, are now moderating in price and helping to bring inflation down towards the Fed's 2%

target. Additionally, the largest component of the inflation "basket" of goods and services is shelter prices (the cost of rents or renter's equivalent). The calculation of shelter for official government data purposes tends to reflect market rent movements with a lag. Market-based rent indexes reflect much lower rent inflation. For example, the series published by Zillow indicates 3.3% year-over-year inflation as of December. This suggests that as government shelter data catches up with true market rent prices, the greatest support to current inflation levels (shelter costs) will drop materially, potentially bringing inflation officially back to around a 2% level.

Inflation & other economic data released in Q4 suggests a path for inflation to fall towards 2% in 2024

### U.S. CPI (YOY)

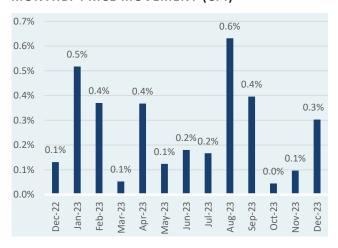


### ZILLOW OBSERVED RENT VS. SHELTER CPI (YOY)



### Source: Zillow Observed Rent Index, as of 12/31/23

### MONTHLY PRICE MOVEMENT (CPI)



Source: BLS, as of 12/31/23

Source: BLS, as of 12/31/23

# GDP growth

Real GDP increased at a 2.9% pace from a year ago in the third quarter (4.9% quarter-over-quarter annualized rate). The large uptick was driven by consumption, which continues to show resiliency. While many investors have expected high inflation and weaker wage growth to impact spending, a combination of pandemic related excess savings and a strong decade of household wealth expansion is likely providing a cushion against an economic slowdown. Outside of consumption, all major categories, besides net exports, positively contributed to GDP growth.

The economy has remained relatively strong while inflation

now appears likely to fall closer to the Fed target in 2024. These expectations contributed to a sharp drop in interest rates towards the end of 2023, and a notable market rally, as the possibility of a soft landing has risen.

A string of positive economic news occurred throughout the fourth quarter. The economic outlook has improved along with this new information, though we continue to believe economic bumpiness is on the horizon—perhaps in mid-2024. However, U.S. markets appear to be fully pricing in the softlanding narrative, which likely limits the upside if that were to come to fruition.

The U.S. economy continues to show resilience despite aggressive monetary tightening & low consumer confidence

### U.S. REAL GROSS DOMESTIC PRODUCT



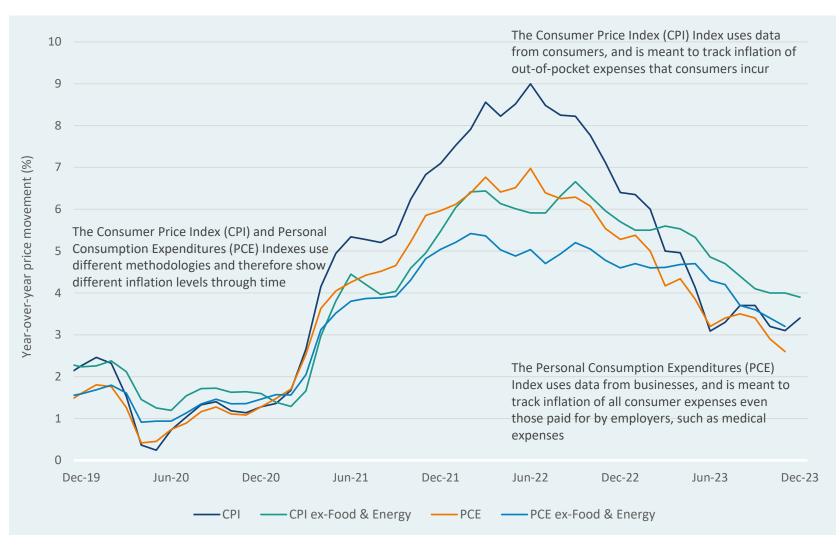
U.S. REAL GDP COMPONENTS (QOQ)



Source: FRED, as of 9/30/23 Source: FRED, as of 9/30/23



# How are inflation conditions evolving?



Recent price trends suggest inflation may move closer to the Fed's 2% target in 2024

A moderation of shelter prices, which tend to be lagged in official statistics, could be the most notable driver of lower inflation in future quarters

Source: FRED, Verus, PCE data as of 11/30/23, CPI data as of 12/31/23



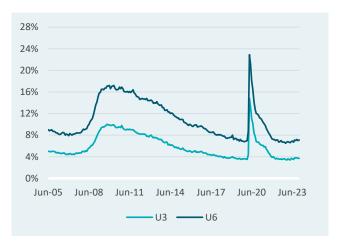
# Labor market

Unemployment fell slightly in Q4 from 3.8% to 3.7%, though the labor participation rate dropped sharply towards the end of the year from 62.8% to 62.5%. According to most available metrics, the labor market remains surprisingly resilient. While throughout history higher interest rates, and yield curve inversion in particular, have typically been followed by recession, the economy has been strong in the face of higher interest rates for roughly a full year. These dynamics have fueled hope that the economy may achieve a soft landing.

Some mixed signals have appeared in recent months. The labor participation rate has fallen for both younger and older

workers, potentially a sign of stalling of strong postpandemic job growth. Rebalancing within the labor market continued, as the mismatch between the number of *workers available* and the number of *available jobs* closes. This gap was 5.5 million at the beginning of the year and fell to 2.5 million in November. This rebalancing appears to be due to positive factors (a growing workforce) rather than negative factors (fewer jobs available), as more Americans are seeking employment and finding jobs that had previously gone unfilled. The gap between available jobs and available workers was cut in half during 2023, as the labor market moves into balance

### U.S. UNEMPLOYMENT



### LABOR FORCE PARTICIPATION RATE BY AGE



### Source: FRED, as of 12/31/23

### WORKERS AVAILABLE VS. AVAILABLE JOBS



Source: BLS, Verus, as of 11/30/23



Source: FRED, as of 12/31/23

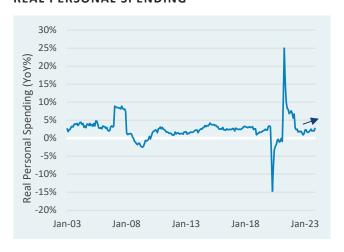
## The consumer

We believe there are two important sides to the U.S. consumer picture. First, spending has been stable, as real (inflationadjusted) personal consumption expenditures continued at a moderate pace, at 2.7% year-over-year in November—the strongest growth figure since early 2022. But second, strong spending appears to be coming at the expense of household savings (very low at 4.1% in November) and may be partly driven by necessity (higher prices of goods and services) rather than driven by a positive financial or economic outlook. This latter point is supported by incredibly poor consumer sentiment.

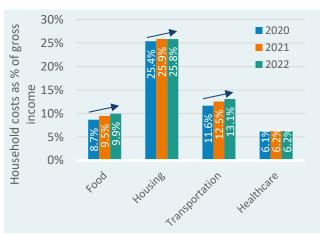
As discussed in last quarter's report, wealth for the majority of

Americans has greatly expanded over the past decade, fueled by higher home prices, a bull market for stocks, and broad economic strength. However, this stands in stark contrast to reports of widespread financial difficulties of Americans. For example, a Lending Club survey conducted in November 2023 indicated that 62% of consumers are living paycheck to paycheck. In this unique environment, it is difficult to gauge the extent to which greater wealth, though often illiquid, might help extend strong spending into future quarters, or whether spending is set to slow as households reset their spending to lower levels to try and return to more conservative budgets with an appropriate savings rate.

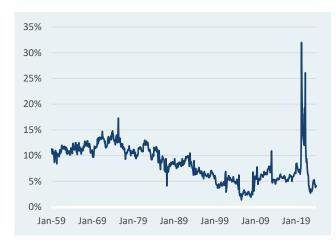
### **REAL PERSONAL SPENDING**



### HIGHER COSTS EATING INTO BUDGETS



### PERSONAL SAVINGS RATE



Source: BLS, Verus, as of 9/8/23 – household costs as % of gross income Source: FRED, as of 11/30/23



Source: FRED, as of 11/30/23

# Sentiment

Sentiment readings were up slightly during Q4 but remain pessimistic. The University of Michigan Consumer Sentiment survey improved from 67.9 to 69.7 on reports that households believe inflation is on a better trajectory.

A confusing aspect of the consumer picture is the large disconnect between economic data (good in many respects) and sentiment readings (very poor overall). For example, inflation has mostly normalized but many Americans continue to express deep concerns about high inflation and difficulties in making ends meet. A major driver of this disconnect is what we might call the "lower inflation conundrum". As displayed below, prices surged substantially in recent years, meaning inflation was high, but then prices plateaued, which led inflation to come down. Why hasn't

lower inflation led Americans to feel better about the economy? This is because inflation measures the *rate of change* in the price of goods and services, not the overall level. Prices are currently very high while the rate of inflation is fairly low.

The NFIB Small Business Optimism index improved slightly during Q4, with the gains occurring in December. The index has now been below the 50-year average level for two years. According to the report, 23% of business owners reported inflation as the most important issue for business operations—now a greater concern than the labor shortage. Small businesses remain very pessimistic about conditions and do not expect these conditions to improve in 2024.

Sentiment improved slightly during the quarter

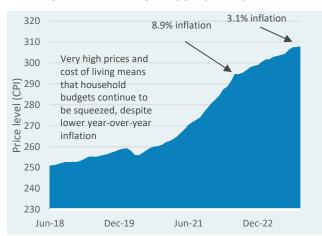
Inflation remains very poor

### **CONSUMER SENTIMENT**



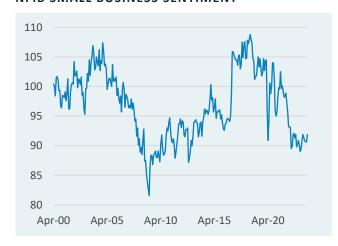
Source: University of Michigan, as of 12/31/23

### THE "LOWER INFLATION" CONUNDRUM



Source: FRED, as of 11/30/23

### NFIB SMALL BUSINESS SENTIMENT



Source: NFIB, as of 12/31/23

# Housing

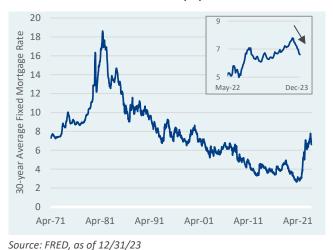
Home prices increased 3.0% in the third quarter, with ongoing support from very low housing inventory levels. It is possible that low inventories, high costs of new construction, a lack of forced sales (home sales due to financial stress), and an unwillingness of current homeowners to sell and sacrifice their existing low mortgage rate, could act as an ongoing support to high home prices despite extreme unaffordability.

On a brighter note, housing affordability on the margin may be moving in a better direction. Despite mild gains in home prices, the 30-year average fixed mortgage rate has fallen from a 23-year high of 7.3% to 6.6% at the

end of December. A moderation in mortgage rates, with expectations for a handful of Federal Reserve rate cuts in 2023, could help affordability and provide a support to home demand in the near-term.

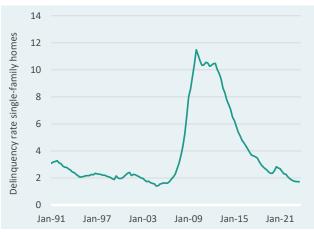
Mortgage delinquency levels of single-family homeowners continue to be muted, at 1.7% as of Q3. Surprisingly, mortgage delinquency rates have consistently declined since the pandemic. This may be a reflection of significant home equity built up for the average homeowner, the ability of homeowners to draw on that equity to help make financial ends meet, and a hesitance to default on a loan if the loan is not underwater.

### **30-YEAR MORTGAGE RATE (%)**



### 14

SINGLE-FAMILY HOME DELINQUENCY RATE (%)



Source: FRED, as of 9/30/23

### HOUSING AFFORDABILITY



Source: FRED, as of 9/30/23 – Housing affordability is calculated as the cost of a median priced single-family home at the current mortgage rate, as a percentage of the median family income



# International economics summary

- The ongoing threat of inflation, and central banks' tightrope act of working to battle that inflation without tipping economies into recession, was expected to be a key risk of 2024. However, in the fourth quarter inflation has fallen more quickly than expected, while economic growth has generally been more resilient. The global growth picture seems to have improved, all else equal, although growth is still expected to slow materially in the coming quarters.
- Conflicts within the Middle East have led to heightened geopolitical tensions, and broader escalation is a notable risk. While military action has been relatively confined, further conflict could have a material impact on global supply chains and energy markets. The war in Ukraine, which played a large part in initially driving inflation across developed economies, is still fresh in many investors' minds.
- Inflation fell significantly in the Eurozone and U.K., helping to take

- some pressure off the ECB and BOE (headline inflation receded to 3.4% and 4.0% across the Eurozone and U.K., respectively). Despite the easing of price pressures, interest rates sit at multi-decade highs at both central banks which does little to change expectations for stagnant and potentially even negative economic growth.
- China reported GDP growth of 5.2% in 2023, exceeding the 5% growth target set by the CCP. While the reported figure is slightly above the CCP's target, growth has disappointed investors and economists alike, especially following a nearly threeyear COVID-19 lockdown. The country continues to face a variety of challenges including incredibly dire demographic trends, geopolitical tension with the U.S., slowing growth, financial distress amongst the property sector and local government financing vehicles, a heavy national debt burden, and deflation.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	<b>2.9</b> % 9/30/23	3.4% 12/31/23	3.7% 12/31/23
Eurozone	<b>0.0%</b>	2.9%	6.4%
	9/30/23	12/31/23	11/30/23
Japan	1.5%	2.4%	2.4%
	9/30/23	12/31/23	11/30/23
BRICS Nations	5.0% 9/30/23	1.5% 12/31/23	<b>4.8%</b> 12/31/22
Brazil	2.0%	4.6%	7.5%
	9/30/23	12/31/23	11/30/23
Russia	5.5% 9/30/23	<b>7.4%</b> 12/31/23	2.9% 11/30/23
India	7.6%	5.7%	8.7%
	9/30/23	12/31/23	12/31/23
China	5.2%	-0.3%	5.1%
	12/31/23	12/31/23	12/31/23

NOTE: India lacks reliable government unemployment data. Unemployment rate shown above is estimated from the Centre for Monitoring Indian Economy. The Chinese unemployment rate represents the monthly surveyed urban unemployment rate in China.



# International economics

The ongoing threat of inflation, and central banks' tightrope act of working to battle that inflation without tipping economies into recession, was expected to be a key risk of 2024. However, in the fourth quarter inflation has fallen more quickly than expected, while economic growth has generally been more resilient. The global growth picture seems to have improved, all else equal, although growth is still expected to slow materially in the coming quarters.

Although broad macroeconomic conditions improved, additional risks surfaced throughout the quarter, as conflicts within the Middle East escalated. Tensions remain high and concerns around global supply chains

and energy markets have been at the forefront—though impacts across commodity markets have been muted so far.

The outlook remains uncertain. Geopolitical tension is still high, especially as the U.S. and China compete for dominance in the technology sector. Developed economies in the Eurozone and Japan are projected by the World Bank to grow less than 1% in 2024, far below historical long-term averages. On the flip side, emerging and developing economies still boast strong growth targets. India is a highlight, as growth expectations for both 2024 and 2025 sit above six-percent.

### REAL GDP GROWTH (YEAR-OVER-YEAR)



### INFLATION (CPI YEAR-OVER-YEAR)



Source: Bloomberg, as of 12/31/23 – or most recent release

### **WORLD BANK REAL GDP FORECASTS**



Source: World Bank Global Economic Prospects, as of 1/9/24



Source: Bloomberg, as of 9/30/23

# Fixed income rates & credit



# Fixed income environment

- The 10-year U.S. Treasury yield reversed its gains from the prior quarter, falling from 4.58% to 3.88% in Q4, as the market reassessed inflation conditions and the Federal Reserve's likely path. Further signs that inflation is moderating toward target, along with surprisingly upbeat economic news, likely contributed to the Federal Reserve's "dovish pivot" as it has been referred to. The 10year yield ended 2023 unchanged.
- During Q4, credit markets delivered strong results, led by lower-quality bonds such as high yield and bank loans. High yield gained +7.2% (Bbg U.S. Corporate High Yield), while bank loans rose +2.8% (S&P/LSTA Leveraged Loan). Longer duration investment grade corporate bonds (Bloomberg U.S. Long Corporate Credit) rose 14.0% during the quarter as both falling interest rates and narrower credit spreads acted as a tailwind.
- The U.S. yield curve has remained inverted for 1.5 years, which is

- among the most extended periods in modern history. This is indicated by the 10-year minus 2-year Treasury yield—ending the year at -35bps, up from -44bps in Q3. Unique attributes of the current economic environment suggest that this curve inversion may not coincide with a near-term recession.
- US interest rates remained steady during the quarter as inflation continued to moderate towards the Federal Reserve Bank's 2.0% target. Importantly, expectations for future rate cuts increased following the statement made by Chairman Powell that future rate hikes may not be required.
- With inflation and economic growth continuing to moderate during the quarter, market expectations for future rate cuts by the Federal Reserve increased. As a result, interest rates across the US Treasury curve declined meaningfully, with shorter-term rates declining more than longer-term rates.

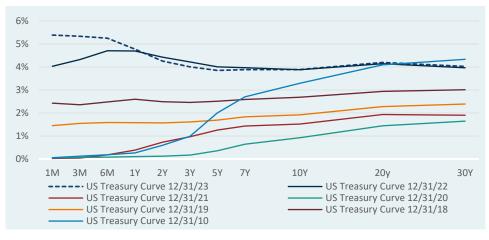
	QTD Total Return	1 Year Total Return
Core Fixed Income (Bloomberg U.S. Aggregate)	6.8%	5.5%
Core Plus Fixed Income (Bloomberg U.S. Universal)	6.8%	6.2%
U.S. Treasuries (Bloomberg U.S. Treasury)	5.7%	4.1%
U.S. Treasuries: Long (Bloomberg U.S. Treasury 20+)	13.4%	2.7%
U.S. High Yield (Bloomberg U.S. Corporate HY)	7.2%	13.4%
Bank Loans (S&P/LSTA Leveraged Loan)	2.8%	13.3%
Emerging Market Debt Local (JPM GBI-EM Global Diversified)	8.1%	12.7%
Emerging Market Debt Hard (JPM EMBI Global Diversified)	9.2%	11.1%
Mortgage-Backed Securities (Bloomberg MBS)	7.5%	5.0%

Source: Bloomberg, as of 12/31/23

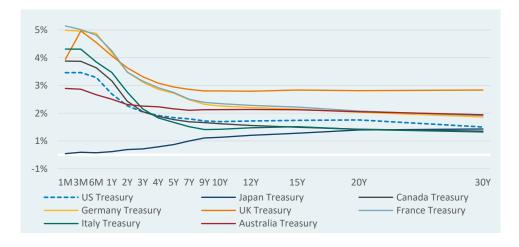


# Yield environment

### **U.S. YIELD CURVE**

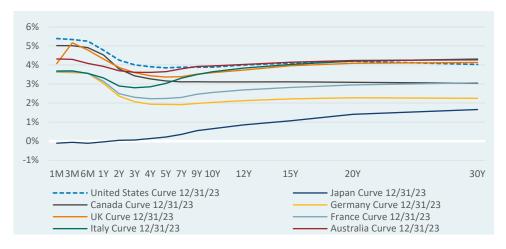


### YIELD CURVE CHANGES OVER LAST FIVE YEARS

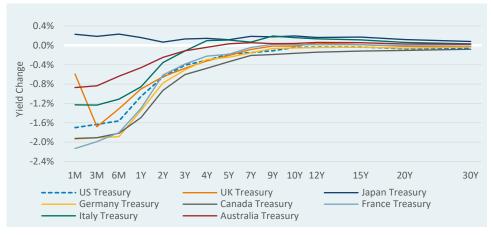


### Source: Bloomberg, as of 12/31/23

### **GLOBAL GOVERNMENT YIELD CURVES**



### **IMPLIED CHANGES OVER NEXT YEAR**





# Credit environment

During the fourth quarter, credit markets delivered strong positive results, led by lower-quality credits such as high yield bonds and bank loans. High yield bonds delivered strong results gaining 7.2% (Bbg U.S. Corporate High Yield), while bank loans rose 2.8% (CS Leveraged Loans). Longer duration investment grade corporate bonds (Bloomberg U.S. Long Corporate Credit) rose 14.0% during the quarter as both falling interest rates and narrower credit spreads acted as a tailwind.

Higher-quality BB-rated bonds outperformed lower quality credits during the period returning 7.3% compared to 6.8% and 6.6% for B-rated and CCC-rated bonds, respectively. While absolute returns were positive, bank loans delivered a less-than-impressive 2.8%, primarily due to the

combination of falling interest rates and expectations that the Federal Reserve Bank would begin cutting rates in the future.

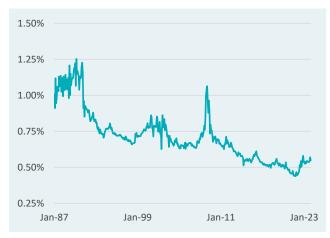
Credit spreads narrowed during the quarter despite concerns related to an economic slowdown, weakening corporate fundamentals, and rising geopolitical tensions. Lower-quality, high yield bond spreads fell by 0.6% to roughly 3.2%, while investment grade spreads decreased by roughly 0.2% to 1.0%. Broadly, spreads remain below their long-term historical averages, which suggests that investors remain confident about the ability of those companies to service their debt. That said, slower U.S. economic growth could lead to wider credit spreads as investors seek safety in higher quality assets.

### **SPREADS**



Source: Barclays, Bloomberg, as of 12/31/23

### HIGH YIELD BONDS MONTHLY INCOME RETURN



Source: Bloomberg, as of 12/31/23

### **CREDIT SPREAD (OAS)**

Market	12/31/23	12/31/22
Long U.S. Corp	1.2%	1.6%
U.S. Inv Grade Corp	1.0%	1.3%
U.S. High Yield	3.2%	4.7%
U.S. Bank Loans*	5.0%	5.9%

Source: Barclays, Credit Suisse, Bloomberg, as of 12/31/23 \*Discount margin (4-year life)



# Default & issuance

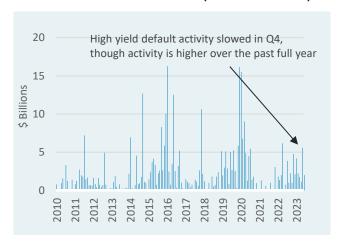
Default activity increased during Q4 as increased borrowing costs acted as a headwind. Eighteen companies defaulted, which were concentrated in the retail, telecommunications, and financial sectors. A total of \$15.8 billion of bank loan and high yield bonds were affected by default or distressed exchanges, up from \$11.5 billion in the prior quarter. Notable company defaults included Rite Aid (Retail), Ligado Networks (Telecommunications), and WeWork (Financial).

For 2023, both the number of defaults and volume increased meaningfully year-over-year. During the period, 88 companies defaulted on \$83.7 billion in high-yield bonds and bank loans compared to 35 companies and \$47.8 billion in 2022. High yield bond default rates have

increased to roughly 2.8%, up from 1.7% a year earlier, but are still below the long-term annual average of roughly 3.2%. High-yield default recovery rates ended the year at 32.8%, down sharply from 55.3% a year ago at the same time.

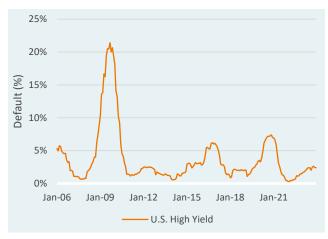
The issuance of investment grade credit slowed from the prior quarter, down to \$204 billion from \$275 billion. With borrowing costs falling as interest rates declined, high-yield bond issuance climbed slightly to \$42 billion, up from \$40 billion in Q3. On a year-over-year basis, the volume of both investment-grade and high yield issuance increased, up \$69.1 billion and \$5.3 billion, respectively.

### U.S. HY MONTHLY DEFAULTS (PAR WEIGHTED)



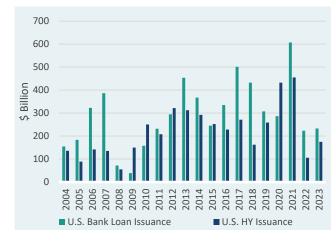
Source: BofA Merrill Lynch, as of 12/31/23

### U.S. HY SECTOR DEFAULTS (LAST 12 MONTHS)



Source: BofA Merrill Lynch, as of 12/31/23 – par weighted

### **DEVELOPED MARKET ISSUANCE (\$ BILLIONS)**



Source: BofA Merrill Lynch, all developed markets, as of 12/31/23



# Equity



# Equity environment

- Domestic equities delivered a strong rally to finish Q4, driven by a combination of better-thanexpected Q3 earnings and signals of easing from the Federal Reserve. The S&P 500 Index gained +26.3% during 2023.
- U.S. equities (S&P 500 +11.7%) led international developed equities (MSCI EAFE +10.4%) and emerging market equities (MSCI EM +7.9%) during the quarter. Domestic equities also led non-U.S. equities over the full year, while emerging markets were laggards. Wide sector performance differences contributed to U.S. leadership, given the much heavier tech focus of the domestic market.
- The U.S. dollar fell sharply, as investors reassessed Federal Reserve policy and interest rates retraced lower. This move created a tailwind for investors with unhedged exposure to foreign currencies. On a trade-weighted

- basis, the value of the U.S. dollar fell -4.3%. However, over the full calendar year investors with unhedged currency exposure saw moderate losses, due to wide fluctuations of the dollar.
- Style factor investing delivered mixed performance for investors in Q4. Over the full year, style investing suffered substantially.
   Small cap underperformed by -9.6% while value stocks underperformed growth by a whopping -31.2%. Besides an extreme period during 2020, calendar year 2023 was the worst 1-year rolling period in more than two decades.
- The Cboe VIX implied volatility index moved even lower during the fourth quarter, from 17.5 to 12.5 in December. Priced volatility is incredibly low—at a level that has historically tended to coincide with very strong economic and market conditions.

	QTD TOTA	L RETURN (hedged)	1 YEAR TOTAL RETURN (unhedged) (hedged)						
U.S. Large Cap (S&P 500)	11.	7%	26.	3%					
U.S. Small Cap (Russell 2000)	14.	0%	16.	9%					
U.S. Equity (Russell 3000)	12.	1%	26.	0%					
U.S. Large Value (Russell 1000 Value)	9.5	5%	11.5%						
US Large Growth (Russell 1000 Growth)	14.	2%	42.7%						
Global Equity (MSCI ACWI)	11.0%	9.7%	22.2%	22.7%					
International Large (MSCI EAFE)	10.4%	6.0%	18.2%	19.9%					
Eurozone (EURO STOXX 50)	13.3%	9.3%	26.5%	25.6%					
U.K. (FTSE 100)	6.9%	2.5%	14.3%	8.8%					
Japan (TOPIX)	8.2%	3.6%	19.3%	35.7%					
Emerging Markets (MSCI Emerging Markets)	7.9%	5.7%	9.8%	10.1%					

Source: Russell Investments, MSCI, STOXX, FTSE, JPX, as of 12/31/23



# Domestic equity

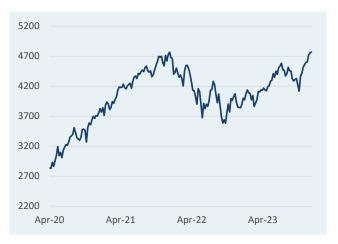
Domestic equities finished the fourth quarter with a strong rally, driven by a combination of better-than-expected Q3 earnings and signals of easing from the Federal Reserve. The S&P 500 Index delivered a gain of +26.3% over 2023, boosted by a +11.7% rise over the final quarter of the year. Shares in the U.S. outperformed international developed and emerging markets over the calendar year.

Third-quarter earnings surprised to the upside, driven by large earnings beats in the communication services and consumer discretionary sectors. Per FactSet, in Q3 earnings grew by 4.9% year-over-year, in contrast to initial expectations of a -0.3% decline at the beginning of the quarter.

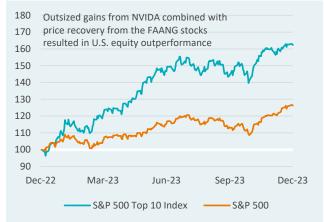
From a sector perspective gains were broad, outside of energy. Real estate and information technology outperformed—driven by easing rates on the long-end of the curve and strong demand within the accelerated computing and artificial intelligence space.

Going forward, domestic equities likely face a challenging environment to build off of the large gains seen in 2023. Valuations remain elevated as the S&P 500 Index approaches a new all-time high. At the same time, earnings growth has been modest, with Q4 earnings expected to come in at +1.3% per FactSet. Although the outlook remains challenged, growth catalysts such as stable inflation, monetary easing, and greater chance of a soft-landing present investors with upside opportunity.

### **S&P 500 PRICE INDEX**

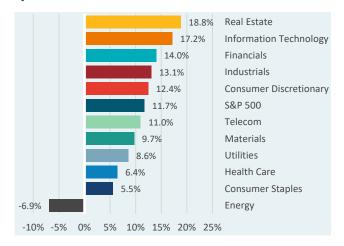


### 2023 PERFORMANCE (INDEX 100)



### Source: Bloomberg, S&P, as of 12/31/23

### **Q4 2023 SECTOR PERFORMANCE**



Source: Morningstar, as of 12/31/23

Source: Bloomberg, as of 12/31/23

# Domestic equity size & style

Style factor investing delivered mixed performance for investors in the fourth guarter. Small cap outperformed large cap by +2.0% during Q4 (Russell 2000 vs. Russell 1000). Value underperformed Growth by -3.2% (Russell 1000 Value vs. Russell 1000 Growth). Over the full year, style investing suffered substantially. Small cap underperformed by -9.6% while value stocks underperformed growth by a whopping -31.2%. Besides an extreme period during 2020, calendar year 2023 was the worst 1-year rolling period in more than two decades.

The wide variability of style investing continues to be fueled by extreme sector volatility. For example, the information technology sector, which tends to be more concentrated in growth stocks, performed +57.8% in

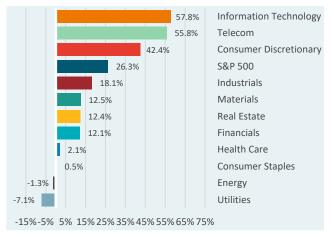
2023. Meanwhile, utilities and energy sectors, which tend to be more concentrated in value stocks, performed -7.1% and -1.3%, respectively. Mega cap growth stocks have propelled the U.S. market higher in 2023—a reversal from significant losses in 2022. Many market-leading stocks are concentrated in technology and telecom sectors, which have outperformed the overall index (+57.8% and +55.8%, respectively).

We believe sector variability and the way this has contributed to style factor volatility is further evidence that style investing should be a longterm decision. Short-term factor timing decisions should typically be pursued only in the rare occasion of obvious market mispricing and a foreseen catalyst for price correction.

VALUE VS. GROWTH 1-YR ROLLING



**VALUE VS GROWTH (YOY)** 



1-YEAR SIZE & STYLE PERFORMANCE

	Value	Core	Growth
Large Cap	11.5%	26.5%	42.7%
Mid Cap	12.7%	17.2%	25.9%
Small Cap	14.6%	16.9%	18.7%

Source: Morningstar, as of 12/31/23 Source: FTSE, as of 12/31/23



Source: FTSE, as of 12/31/23

# International developed equity

International developed equities also benefited from shifting expectations around Federal Reserve policy in the fourth quarter, with the MSCI EAFE Index delivering a +10.4% gain in unhedged currency terms. Fading dollar strength provided a large boost, as expectations for potential easing from the Federal Reserve contrasted against shifting policy from the ECB and BOE.

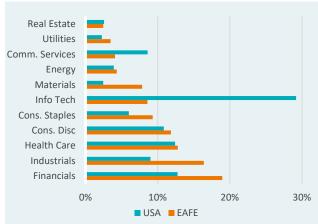
In terms of relative performance, international developed shares trailed the U.S., but outperformed emerging market equities. Sector weightings played the largest role, as gains from mega-cap technology names drove domestic performance, contrasting against the heavier financials and industrial sector composition of the MSCI EAFE index.

Despite macroeconomic challenges, international developed equities saw strong performance in 2023, up +18.2% in unhedged dollar terms. Japanese shares continued to benefit from zero-interest rate policy and shifting investment away from China and into Japan. European shares were lifted by better-than-expected global growth and the ability for companies to pass off higher prices — resulting in strong earnings.

### INTERNATIONAL DEVELOPED EQUITY



### MSCI EAFE VS. USA SECTOR WEIGHTING



### Source: MSCI, as of 12/31/23

### JAPAN TOPIX PRICE INDEX



Source: Tokyo Stock Exchange, as of 12/31/23



Source: MSCI, as of 12/31/23

# Emerging market equity

Emerging markets saw a positive end to 2023, rising +7.9% in the fourth quarter – helping to notch a +9.8% gain for the index over the 2023 calendar year. While rebounding from losses seen last year (-20.1% decline in 2022), emerging market equities underperformed both domestic and international developed equities for the second straight year.

Most countries within the index saw positive returns in the last quarter of the year, fueled by the broader rally in risk assets as U.S. monetary policy expectations eased. China was the outlier, declining -4.2%.

Chinese shares remain the elephant in the room within emerging markets. The MSCI EM ex China Index outperformed the flagship index by more than 10% in 2023, which highlights the large drag that China has caused, given its nearly 30% country weight in the index. The country continues to face a variety of challenges including incredibly dire demographic trends, geopolitical tension with the U.S., slowing growth, financial distress amongst the property sector and local government financing vehicles, a heavy national debt burden, and deflation. Combined with further consolidation of power within the CCP, the cheap pricing of Chinese equities may be justified.

### **EMERGING MARKET EQUITY**



### Q4 2023 MSCI EM COUNTRY RETURNS (USD)



### Source: Bloomberg, MSCI, as of 12/31/23

### MSCI EM VS. EM EX CHINA (GROWTH \$100K)



Source: Bloomberg, MSCI, as of 12/31/23



Source: MSCI, as of 12/31/23

# Equity valuations

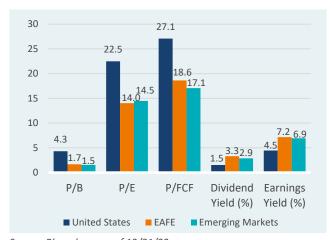
U.S. equity valuation drifted further above those of non-U.S. equities during the quarter. The domestic market is priced at a historic 71% premium over emerging market equities, up from a 59% premium in the third quarter. A portion of the U.S. pricing premium is due to a larger U.S. technology sector, which tends to demand higher valuations, though the valuation gap remains wide even after adjusting for sector composition.

The lower valuations of international developed equities may be at least partly justified due to weaker growth potential and unique challenges in those markets, though rising valuations create a high bar for future profit growth. In order for U.S. equities to justify high valuations over the

longer-term, business will need to generate supernormal earnings growth, and/or stock multiples will need to move upward even further.

U.S. equity market valuations seem to have defied rising interest rates. Theoretically (and historically) speaking, equities should be fairly sensitive to sharply higher interest rates—the present value of stocks is less when rates are high due to the discounting effect, higher interest rates damage profits as financing is more expensive, and the overall economy tends to slow as borrowing costs rise which bodes poorly for profits. At least for now, the U.S. market remains richly valued and median bank forecasts are for a healthy 2024 S&P 500 return.

### MSCI VALUATION METRICS (3-MONTH AVG)



Source: Bloomberg, as of 12/31/23

### FORWARD PRICE/EARNINGS RATIO



Source: MSCI, Bloomberg, as of 12/31/23

### 2024 S&P 500 MEDIAN FORECAST



Source: Bloomberg, as of 1/10/24. Banks included in forecast include J.P. Morgan, Goldman Sachs, Bank of America, Citibank, Morgan Stanley, Deutsche Bank, and UBS.



# Market volatility

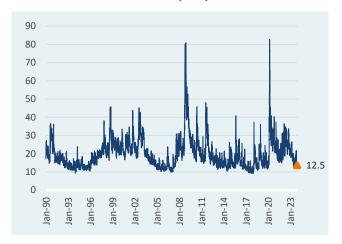
The Cboe VIX implied volatility index moved even lower during the fourth quarter, from 17.5 to 12.5 in December. Priced volatility is incredibly low—at a level that has historically tended to coincide with very strong economic and market conditions.

Realized volatility of global equity markets over the past year has also moderated. The relative volatility of markets has moved back in line with historical behavior—U.S. equities showing the lowest volatility, followed closely by international developed equities, and with emerging market

equities delivering greater risk. This behavior is a reversal of recent years when emerging market volatility was lower than that of developed markets—an uncommon occurrence historically speaking.

Bond markets remain shaky, as indicated by the "MOVE" Index—which calculates the implied volatility of U.S. Treasury securities. Uncertainty around inflation, the Federal Reserve's interest rate path and the extent of rate cuts, potential recession, and fears around the U.S. fiscal situation, are likely to act as an ongoing support to volatility.

### U.S. IMPLIED VOLATILITY (VIX)



### REALIZED VOLATILITY



### U.S. TREASURY IMPLIED VOL ("MOVE" INDEX)



Source: S&P, MSCI, as of 12/31/23

Source: Bloomberg, as of 12/31/23



*Source: Choe, as of 12/31/23* 

# Long-term equity performance



Source: MPI, as of 12/31/23



# Other assets



# Currency

The U.S. dollar fell sharply in the fourth quarter, as investors reassessed Federal Reserve policy and interest rates retraced lower. This move created a tailwind for investors with unhedged exposure to foreign currencies. On a trade-weighted basis, the value of the U.S. dollar fell - 4.3%. However, following wide fluctuations of the dollar during 2023, and the performance volatility that resulted, investors with unhedged foreign currency exposure saw moderate losses. For investors with unhedged international developed equity exposure, this delivered a loss of -1.7%. Unhedged exposure to emerging market currencies resulted in a loss of -0.2%.

As investors evaluate market movements and performance of 2023, it may be worth reflecting on the benefits which a more thoughtful

currency approach might deliver. A better approach may reduce the uncompensated risk of unhedged foreign currency exposure. Additionally, the MSCI Currency Factor Mix Index—a representation of a passive investment in the currency market, by investing in currencies with higher interest rates, currencies that are undervalued, and currencies that are showing positive price momentum—has shown a positive one-year rolling return over most periods with low volatility. This is what was delivered in 2023. During the year, an unhedged exposure to currency markets (assuming MSCI EAFE equity implementation) resulted in a loss of -1.7% and volatility of 7.5%. Meanwhile, an implementation to Currency Factor Mix delivered a gain of +1.4% and volatility of 2.5%.

### EFFECT OF CURRENCY (1-YEAR ROLLING)

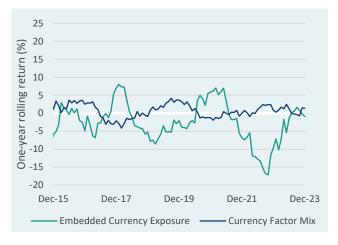


### **U.S. DOLLAR MAJOR CURRENCY INDEX**



Source: Bloomberg, as of 12/31/23

### **EMBEDDED CURRENCY VS CURRENCY FACTORS**



Source: Bloomberg, MSCI, as of 12/31/23



Source: MSCI, as of 12/31/23

# Event strategies lead in equity, credit

Stock and credit markets rallied in the fourth quarter, and directionally biased strategies within those markets outperformed non-directional peers. Within the equity focused strategy group:

- Activist strategies, which benefited from their smaller cap exposure, continued their run of strong performance with favorable up capture relative to L/S peers.
- Interestingly, value managers outperformed growth counterparts despite growth indexes outperforming value, likely due to a smaller cap bias.

Within the fixed income / credit focused strategy group:

- Event Driven credit strategies such as Distressed and Credit Arbitrage outperformed Relative Value credit strategies such as Structured Credit and Long/Short Credit, as market directionality paid off and economic optimism benefited special situation, catalyst-oriented positioning.
- Event Driven strategies have outperformed both stocks and high yield over the last few years after struggling to keep up in the decade following the Global Financial Crisis.

### **4Q RETURNS (%) FOR EQUITY STRATEGIES**



Source: HFR, MPI. Data as of 12/31/23 EH = Equity Hedge ED = Event Driven

### HFRI EVENT DRIVEN RETURNS VS STOCKS/HY



Source: HFR, MPI.. Data as of 12/31/23 HFRI Event Driven (Total) vs Bloomberg US Corp HY & MSCI World Index

### 4Q RETURNS (%) FOR CREDIT STRATEGIES



Source: HFR, MPI. Data as of 12/31/23 ED = Event Driven RV = Relative Value



# Appendix



# Periodic table of returns

Small Cap Value

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	YTD	5-Year	10-Year
Large Cap Growth	56.3	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	37.3	6.7	36.4	38.5	28.3	16.1	42.7	19.5	14.9
Large Cap Equity	48.5	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	30.2	1.9	31.4	34.6	27.6	9.4	26.5	15.5	11.8
Small Cap Growth	47.3	20.7	20.1	23.5	15.8	-6.5	34.5	24.5	2.6	17.9	34.5	13.0	0.9	17.3	25.0	0.0	28.5	21.0	27.1	1.5	18.7	10.9	8.4
International Equity	46.0	18.3	14.0	22.2	11.8	-21.4	32.5	19.2	1.5	17.5	33.5	11.8	0.6	12.1	22.2	-1.5	26.5	20.0	26.5	-4.7	18.2	10.0	7.4
Small Cap Equity	39.2	16.5	7.5	18.4	11.6	-25.9	28.4	16.8	0.4	16.4	33.1	6.0	0.0	11.8	21.7	-3.5	25.5	18.3	25.2	-7.5	16.9	10.0	7.2
60/40 Global Portfolio	30.0	14.5	7.1	16.6	10.9	-28.9	27.2	16.7	0.1	16.3	32.5	5.6	-0.4	11.3	17.1	-4.8	22.4	14.0	17.7	-13.0	15.4	9.2	7.2
Small Cap Value	29.9	14.3	6.3	15.5	10.3	-33.8	23.3	16.1	-2.1	15.3	23.3	4.9	-0.8	11.2	14.6	-6.0	22.0	10.3	14.8	-14.5	14.6	8.2	6.8
Large Cap Value	29.7	12.9	5.3	15.1	7.0	-35.6	20.6	15.5	-2.9	14.6	12.1	4.2	-1.4	8.0	13.7	-8.3	18.6	7.8	11.3	-14.5	11.5	7.2	5.1
Emerging Markets Equity	25.2	11.4	4.7	13.3	7.0	-36.8	19.7	13.1	-4.2	11.5	11.0	3.4	-2.5	7.1	7.8	-9.3	18.4	7.5	8.9	-17.3	9.8	7.0	4.3
Hedge Funds of Funds	23.9	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	-5.5	10.5	9.0	2.8	-3.8	5.7	7.7	-11.0	8.7	4.6	6.5	-19.1	6.3	5.3	3.3
US Bonds	11.6	6.9	4.6	9.1	4.4	-38.4	11.5	8.2	-5.7	4.8	0.1	0.0	-4.4	2.6	7.0	-11.2	7.8	2.8	2.8	-20.1	5.5	5.1	2.7
Cash	9.0	6.3	4.2	4.8	-0.2	-38.5	5.9	6.5	-11.7	4.2	-2.0	-1.8	-7.5	1.0	3.5	-12.9	7.7	0.5	0.0	-20.4	5.0	3.7	1.8
Real Estate	4.1	4.3	3.2	4.3	-1.6	-43.1	0.2	5.7	-13.3	0.1	-2.3	-4.5	-14.9	0.5	1.7	-13.8	6.4	0.5	-1.5	-26.4	-5.1	1.8	1.2
Commodities	1.0	1.4	2.4	2.1	-9.8	-53.2	-16.9	0.1	-18.2	-1.1	-9.5	-17.0	-24.7	0.3	0.9	-14.6	2.1	-3.1	-2.5	-29.1	-7.9	1.1	-1.1
	Lar	ge Cap	Equity	У				Small (	Cap Gr	owth				Con	nmodit	ies							
	Lar	ge Cap	Value					Interna	ationa	l Equity	/			Rea	l Estat	e							
	Lar	ge Cap	Grow	th				Emergi	ng Ma	rkets E	quity			Hed	ge Fur	nds of F	unds						
	Sm	all Cap	Equity	y				US Bon	ds					60%	MSCI	ACWI/	40% BI	oombe	rg Glob	al Bond	i		

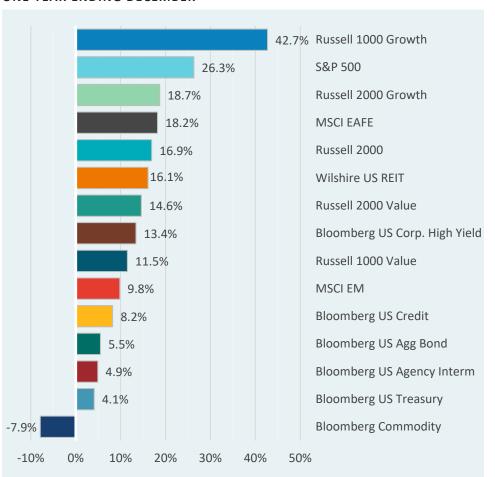
Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, Bloomberg US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, Bloomberg Global Bond. NCREIF Property Index performance data as of 9/30/23.

Cash

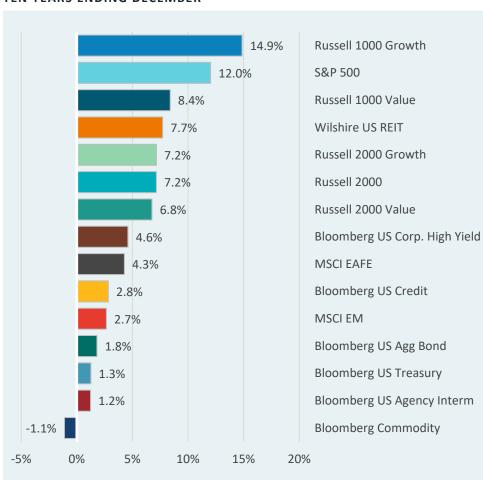


# Major asset class returns

### ONE YEAR ENDING DECEMBER



### TEN YEARS ENDING DECEMBER



\*Only publicly traded asset performance is shown here. Performance of private assets is typically released with a 3- to 6-month delay.

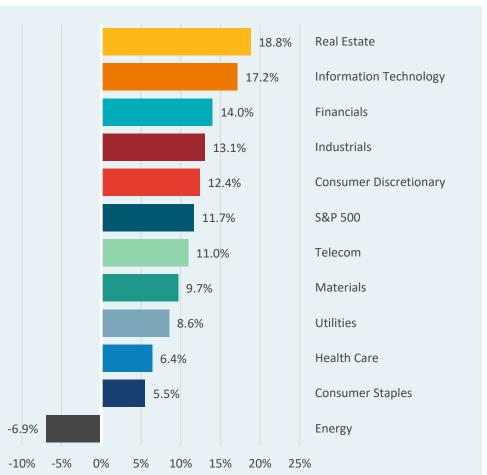
Source: Morningstar, as of 12/31/23

Source: Morningstar, as of 12/31/23

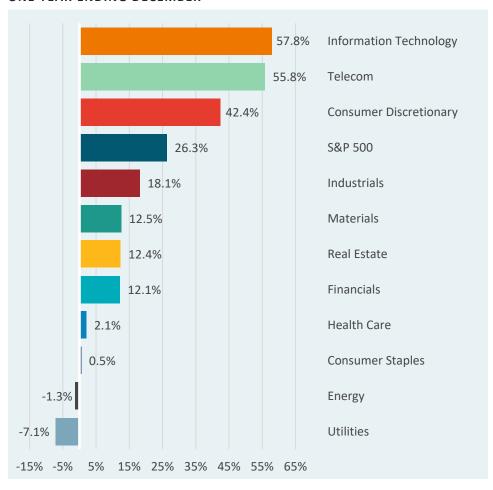


# S&P 500 sector returns

### QTD



### ONE YEAR ENDING DECEMBER



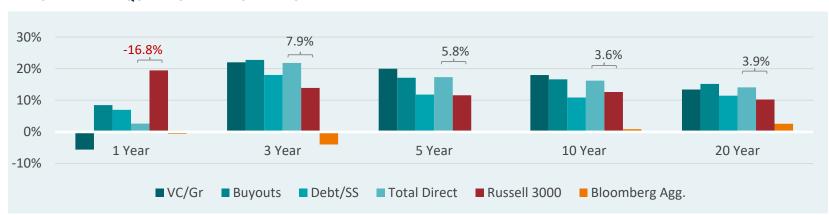
Source: Morningstar, as of 12/31/23



Source: Morningstar, as of 12/31/23

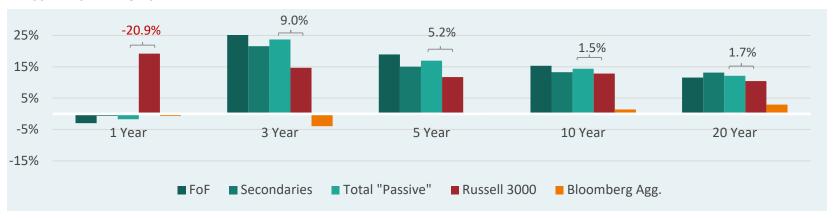
# Private equity vs. traditional assets performance

### **DIRECT PRIVATE EQUITY FUND INVESTMENTS**



Direct P.E Fund Investments outperformed comparable public equites across all time periods, aside from the 1-year.

### "PASSIVE" STRATEGIES



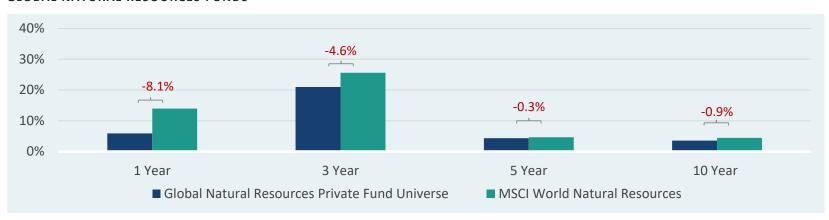
"Passive" strategies outperformed comparable public equities across all time periods, aside from the 1-year.

Sources: Refinitiv PME: U.S. Private Equity Funds sub asset classes as of June 30, 2023. Public Market Equivalent returns resulted from "Total Passive" and Total Direct's identical cash flows invested into and distributed from respective traditional asset comparable.



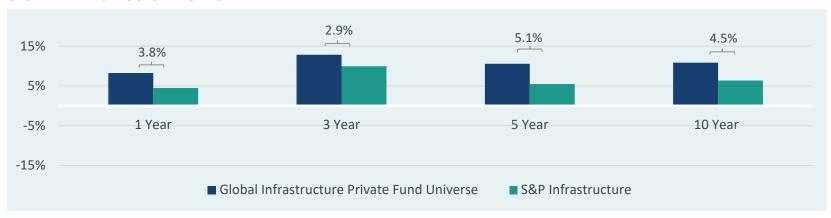
# Private vs. liquid real assets performance

### **GLOBAL NATURAL RESOURCES FUNDS**



N.R. funds underperformed the MSCI World Natural Resources benchmark across all periods.

### GLOBAL INFRASTRUCTURE FUNDS



Infra. funds outperformed the S&P Infra. across all periods.

Sources: Refinitiv PME: Global Natural Resources (vintage 1999 and later, inception of MSCI World Natural Resources benchmark) and Global Infrastructure (vintage 2002 and later, inception of S&P Infrastructure benchmark) universes as of June 30, 2023. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real assets universes.



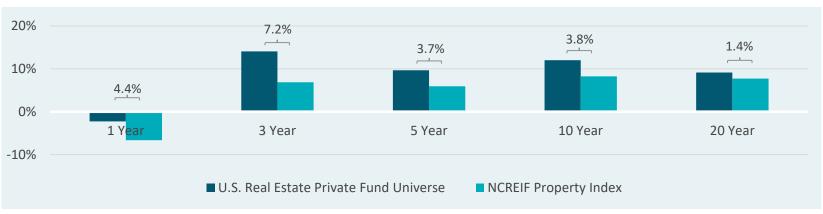
# Private vs. liquid and core real estate performance

### U.S. PRIVATE REAL ESTATE FUNDS VS. LIQUID UNIVERSE



U.S. Private
R.E. fund
performance
relative to the
Wilshire U.S.
REIT Index has
been mixed.

### U.S. PRIVATE REAL ESTATE FUNDS VS. CORE FUNDS



U.S. Private R.E. Funds outperformed the NCREIF Property Index across all time periods.

Sources: Refinitiv PME: U.S. Real Estate universes as of June 30, 2023. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real estate universes.



# Detailed index returns

DOMESTIC EQUITY								FIXED INCOME							
	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year		Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index								Broad Index							
S&P 500	4.5	11.7	26.3	26.3	10.0	15.7	12.0	Bloomberg US TIPS	2.7	4.7	3.9	3.9	(1.0)	3.2	2.4
S&P 500 Equal Weighted	6.9	11.9	13.9	13.9	9.3	13.8	10.4	Bloomberg US Treasury Bills	0.5	1.4	5.1	5.1	2.1	1.9	1.3
DJ Industrial Average	4.9	13.1	16.2	16.2	9.4	12.5	11.1	Bloomberg US Agg Bond	3.8	6.8	5.5	5.5	(3.3)	1.1	1.8
Russell Top 200	4.1	11.7	29.9	29.9	10.0	16.5	12.7	Bloomberg US Universal	3.8	6.8	6.2	6.2	(3.0)	1.4	2.1
Russell 1000	4.9	12.0	26.5	26.5	9.0	15.5	11.8	Duration							
Russell 2000	12.2	14.0	16.9	16.9	2.2	10.0	7.2	Bloomberg US Treasury 1-3 Yr	1.2	2.6	4.3	4.3	(0.1)	1.3	1.0
Russell 3000	5.3	12.1	26.0	26.0	8.5	15.2	11.5	Bloomberg US Treasury Long	8.6	12.7	3.1	3.1	(11.4)	(1.2)	2.3
Russell Mid Cap	7.7	12.8	17.2	17.2	5.9	12.7	9.4	Bloomberg US Treasury	3.4	5.7	4.1	4.1	(3.8)	0.5	1.3
Style Index								Issuer							
Russell 1000 Growth	4.4	14.2	42.7	42.7	8.9	19.5	14.9	Bloomberg US MBS	4.3	7.5	5.0	5.0	(2.9)	0.3	1.4
Russell 1000 Value	5.5	9.5	11.5	11.5	8.9	10.9	8.4	Bloomberg US Corp. High Yield	3.7	7.2	13.4	13.4	2.0	5.4	4.6
Russell 2000 Growth	12.0	12.7	18.7	18.7	(3.5)	9.2	7.2	Bloomberg US Agency Interm	1.6	3.2	4.9	4.9	(1.1)	1.1	1.2
Russell 2000 Value	12.4	15.3	14.6	14.6	7.9	10.0	6.8	Bloomberg US Credit	4.2	8.2	8.2	8.2	(3.2)	2.4	2.8
INTERNATIONAL EQUITY								OTHER							
Broad Index								Index							
MSCI ACWI	4.8	11.0	22.2	22.2	5.7	11.7	7.9	Bloomberg Commodity	(2.7)	(4.6)	(7.9)	(7.9)	10.8	7.2	(1.1)
MSCI ACWI ex US	5.0	9.8	15.6	15.6	1.5	7.1	3.8	Wilshire US REIT	10.2	16.3	16.1	16.1	7.5	7.6	7.7
MSCI EAFE	5.3	10.4	18.2	18.2	4.0	8.2	4.3	CS Leveraged Loans	1.6	2.9	13.0	13.0	5.6	5.6	4.4
MSCI EM	3.9	7.9	9.8	9.8	(5.1)	3.7	2.7	S&P Global Infrastructure	4.2	10.9	6.8	6.8	6.0	7.4	5.7
MSCI EAFE Small Cap	7.3	11.1	13.2	13.2	(0.7)	6.6	4.8	Alerian MLP	(3.4)	3.0	23.8	23.8	31.8	10.9	1.6
Style Index								Regional Index							
MSCI EAFE Growth	5.7	12.7	17.6	17.6	0.3	8.8	5.1	JPM EMBI Global Div	4.7	9.2	11.1	11.1	(3.6)	1.7	3.2
MSCI EAFE Value	4.9	8.2	19.0	19.0	7.6	7.1	3.2	JPM GBI-EM Global Div	3.2	8.1	12.7	12.7	(3.2)	1.1	0.1
Regional Index								Hedge Funds							
MSCI UK	4.5	6.9	14.1	14.1	8.8	6.9	2.5	HFRI Composite	2.6	3.6	7.5	7.5	4.3	7.0	4.5
MSCI Japan	4.4	8.2	20.3	20.3	0.7	6.9	5.0	HFRI FOF Composite	2.3	3.4	6.3	6.3	2.3	5.1	3.3
MSCI Euro	4.4	12.9	25.2	25.2	6.0	9.3	4.1	Currency (Spot)							
MSCI EM Asia	3.3	6.7	7.8	7.8	(6.9)	4.3	4.1	Euro	1.2	4.3	3.5	3.5	(3.4)	(0.7)	(2.2)
MSCI EM Latin American	8.3	17.6	32.7	32.7	9.9	6.1	2.1	Pound Sterling	0.7	4.4	6.0	6.0	(2.3)	0.0	(2.6)

Source: Morningstar, HFRI, as of 12/31/23



5.9 (6.4) (6.4) (9.9) (4.9) (2.9)

# **Definitions**

Bloomberg US Weekly Consumer Comfort Index - tracks the public's economic attitudes each week, providing a high-frequency read on consumer sentiment. The index, based on cell and landline telephone interviews with a random, representative national sample of U.S. adults, tracks Americans' ratings of the national economy, their personal finances and the buying climate on a weekly basis, with views of the economy's direction measured separately each month. (www.langerresearch.com)

**University of Michigan Consumer Sentiment Index** - A survey of consumer attitudes concerning both the present situation as well as expectations regarding economic conducted by the University of Michigan. For the preliminary release approximately three hundred consumers are surveyed while five hundred are interviewed for the final figure. The level of consumer sentiment is related to the strength of consumer spending. (www.Bloomberg.com)

NFIB Small Business Outlook - Small Business Economic Trends (SBET) is a monthly assessment of the U.S. small-business economy and its near-term prospects. Its data are collected through mail surveys to random samples of the National Federal of Independent Business (NFIB) membership. The survey contains three broad question types: recent performance, near-term forecasts, and demographics. The topics addressed include: outlook, sales, earnings, employment, employee compensation, investment, inventories, credit conditions, and single most important problem. (<a href="https://www.nfib-sbet.org/about/">https://www.nfib-sbet.org/about/</a>)

NAHB Housing Market Index – the housing market index is a weighted average of separate diffusion induces for three key single-family indices: market conditions for the sale of new homes at the present time, market conditions for the sale of new homes in the next six months, and the traffic of prospective buyers of new homes. The first two series are rated on a scale of Good, Fair, and Poor and the last is rated on a scale of High/Very High, Average, and Low/Very Low. A diffusion index is calculated for each series by applying the formula "(Good-Poor + 100)/2" to the present and future sales series and "(High/Very High-Low/Very Low + 100)/2" to the traffic series. Each resulting index is then seasonally adjusted and weighted to produce the HMI. Based on this calculation, the HMI can range between 0 and 100.

# Notices & disclosures

Past performance is no guarantee of future results. This report or presentation is provided for informational purposes only and is directed to institutional clients and eligible institutional counterparties only and should not be relied upon by retail investors. Nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security or pursue a particular investment vehicle or any trading strategy. The opinions and information expressed are current as of the date provided or cited only and are subject to change without notice. This information is obtained from sources deemed reliable, but there is no representation or warranty as to its accuracy, completeness or reliability. Verus Advisory Inc. expressly disclaim any and all implied warranties or originality, accuracy, completeness, non-infringement, merchantability and fitness for a particular purpose. This report or presentation cannot be used by the recipient for advertising or sales promotion purposes.

The material may include estimates, outlooks, projections and other "forward-looking statements." Such statements can be identified by the use of terminology such as "believes," "expects," "may," "will," "should," "anticipates," or the negative of any of the foregoing or comparable terminology, or by discussion of strategy, or assumptions such as economic conditions underlying other statements. No assurance can be given that future results described or implied by any forward looking information will be achieved. Actual events may differ significantly from those presented. Investing entails risks, including possible loss of principal. Risk controls and models do not promise any level of performance or guarantee against loss of principal.

"VERUS ADVISORY™ and any associated designs are the respective trademarks of Verus Advisory, Inc. Additional information is available upon request.



