

A decorative geometric pattern of overlapping triangles in shades of blue and green is overlaid on the left side of the image. A prominent white triangle is positioned to the left of the main text.

**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**

**3RD QUARTER 2023
Investment Landscape**

Verus business update

Since our last Investment Landscape webinar:

- Verus hired four employees:
 - **Dan Hougard, FSA**, Associate Director | Actuarial Services (Chicago)
 - **Chibueze Odoh**, Public Markets Analyst (Seattle)
 - **Madison Martin**, Performance Analyst (Seattle)
 - **Palmer Pederson**, Performance Analyst (Seattle)
- In addition, we've partnered with Rainier Scholars for a summer internship position. Rainier Scholars is a program that offers a pathway to college graduation for underrepresented communities.
 - **Moses Dagmawi**, Summer Intern (Seattle)

Recent Verus research

Visit: verusinvestments.com/research

Annual research

2023 REAL ASSETS OUTLOOK

In our Outlook last year, we said, “We believe inflation will likely begin falling later in 2022.” And though that turned out to be true, we came to that conclusion because we believed the Fed would choke off the pressures of inflation. Coming into 2023, it appeared as though inflation would continue to retreat lower, but unexpected price increases have complicated the picture. There are now banking instability issues, geopolitics, a softening economy, and a dozen other headline issues weighing on investors’ minds.

We believe the Fed will keep policy tight until inflation returns to their target level. We expect rates to stay higher for longer, which could present challenges and opportunities across private markets which have broadly failed to adjust equity values for the new higher-rate environment.

The Verus 2023 Real Assets Outlook includes insights around the following trends:

- Dislocations in Commercial Real Estate
- Elevated valuations in Infrastructure
- Declining interest in Natural Resources

Topics of interest

PRIVATE REAL ESTATE IN TAFT-HARTLEY PORTFOLIOS

Taft-Hartley pension funds in the United States often make allocations to private real estate with the dual objectives of generating robust returns and supporting union workers by investing in “labor-friendly” real estate strategies. There is occasionally a misconception that investing in labor-friendly real estate strategies involves sacrificing performance.

In this Topic of Interest whitepaper, we examine core real estate manager performance over time using the North American Building Trades Report Card to identify whether a performance difference does in fact exist. We conclude, based on the data, that labor-friendly private real estate performance has been competitive with the broader private real estate universe and that significant return was not sacrificed when investing in labor-friendly strategies during the period examined.

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2nd quarter summary

THE ECONOMIC CLIMATE

- Real GDP increased at a 2.0% rate in Q1 (1.8% growth year-over-year). The slowdown from the prior quarter reflected weaker inventory buildups and slower business investment. An upturn in consumer spending was the greatest support to economic growth, as consumption has ticked along at a steady rate. **p. 9**
- The unemployment rate remained very tight at 3.6% in June. The workforce appears to be experiencing a healthy, and possibly low pain, rebalancing of resources. Many workers are returning to the workforce while fewer job openings are being posted. Both of these effects reduce the mismatch between *workers available* and *available jobs*. **p. 12**

PORTFOLIO IMPACTS

- The U.S. consumer has shown resiliency. Household budgets have been strained by high inflation and a jump in interest rates; however, the boom in wealth over the past decade, fueled by a substantial bull market in stocks and in residential real estate, may provide a cushion in the next downturn. It remains unclear whether the U.S. will face recession in the near-term. **p. 13**
- The Cboe VIX implied volatility index fell to a surprisingly low level, despite broad expectations of recession, regional bank risks, and other not-yet-known consequences of liquidity withdrawal from the financial system. The index fell from 18.7% to 13.6% during the second quarter. **p. 30**

THE INVESTMENT CLIMATE

- The Fed implemented an additional rate hike to a new range of 5.00–5.25%, but longer-term U.S. interest rates remain anchored. This has resulted in the most deeply inverted U.S. yield curve since the early 1980s at -1.06% (defined as 10-year UST yield minus 2-year UST yield). **p. 19**
- Inflation fell further in the U.S., with June CPI coming in at a surprisingly low 3% year-over-year and Core CPI at 4.8%. Weakening energy prices have had a big impact on overall inflation levels, though prices appear to also be softening across many other types of goods and services, suggesting milder inflation is not solely an energy story. **p. 10**

ASSET ALLOCATION ISSUES

- Global equities persisted in their upward trajectory during Q2 (MSCI ACWI +6.2%). International developed markets underperformed domestic equities (S&P 500 +8.7%, MSCI EAFE +3.0%), as did emerging markets (MSCI EM +0.9%). U.S. equities rallied for a third consecutive quarter. A surge in AI-focused hype helped drive an expansion in the valuations of large tech firms. **p. 24**
- Growth stocks (+12.8%) outpaced value (+4.1%) once again, bringing the year-to-date performance differential to +23.9%. Sector-specific drivers, including product launches and upward adjustments to company guidance among Information Technology (+18.6%) mega-caps, drove growth stocks higher. Over recent years, certain style factors have exhibited some of the wildest swings in history. **p. 26**

Equity & credit markets performed strongly during Q2

A variety of risks hang overhead, though markets appear to be expecting a “soft landing”

What drove the market in Q2?

“U.S. inflation cooled in June for the 12th straight month”

HEADLINE CONSUMER PRICE INFLATION (YEAR-OVER-YEAR)

Jan	Feb	Mar	Apr	May	Jun
6.4%	6.0%	5.0%	4.9%	4.1%	3.0%

Article Source: CNN, July 12th, 2023

“Top U.S. banks raise dividends after sailing through Fed stress tests”

KBW REGIONAL BANKING INDEX (MONTHLY RETURN)

Jan	Feb	Mar	Apr	May	June
2.9%	0.5%	-20.6%	-3.6%	-8.7%	7.1%

Article Source: Reuters, June 30th, 2023

“This classic recession indicator just hit its lowest level since 1981”

10-YEAR U.S. TREASURY YIELD MINUS 2-YEAR U.S. TREASURY YIELD

Jan	Feb	Mar	Apr	May	Jun
-0.68%	-0.79%	-0.64%	-0.56%	-0.56%	-0.89%

Article Source: CNBC, July 7th, 2023

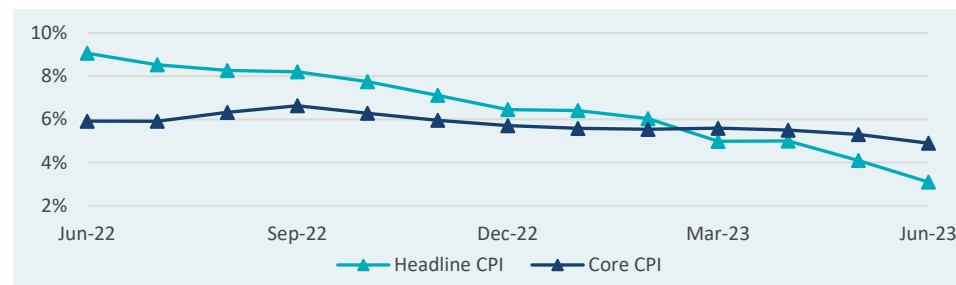
“Fed pauses interest rate hikes, signals two more increases likely...”

FED FUNDS TARGET RATE – UPPER BOUND

Q1 22	Q2 22	Q3 22	Q4 22	Q1 23	Q2 23
0.50%	1.75%	3.25%	4.50%	5.00%	5.25%

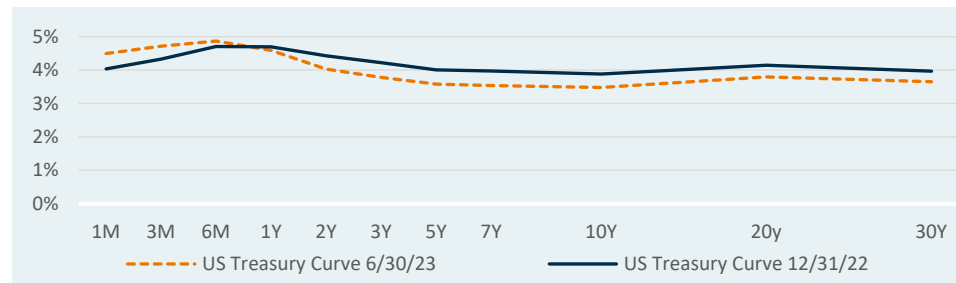
Article Source: USA Today, June 14th, 2023

U.S. HEADLINE VS. CORE INFLATION (YEAR-OVER-YEAR)



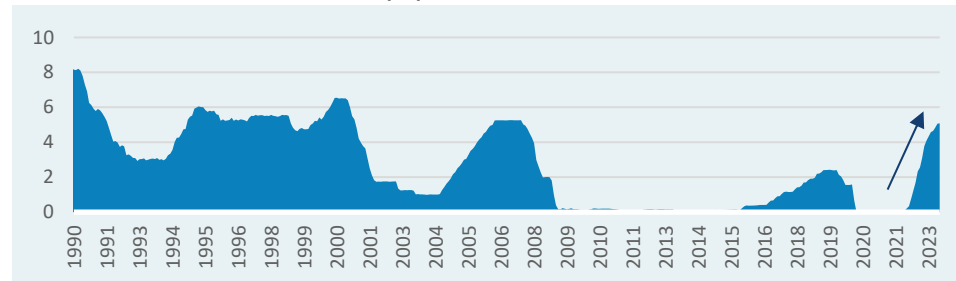
Source: FRED, as of 6/30/23

DEEP U.S. YIELD CURVE INVERSION



Source: Bloomberg, as of 6/30/23

EFFECTIVE FED FUNDS RATE (%)



Source: FRED, as of 6/30/23

Economic environment

U.S. economics summary

- Real GDP increased at a 2.0% rate in the first quarter of 2023 (1.8% growth year-over-year). The slowdown reflected weaker inventory buildups and slower business investment. Despite loftier inflation and higher interest rates, many economic signals are positive and/or improving.
- Inflation fell further in the U.S., with June CPI coming in at a surprisingly low 3% year-over-year and Core CPI at 4.8%. Weaker energy prices have had a large impact on overall inflation levels, though prices appear to also be softening across many other types of goods and services, suggesting milder inflation is not solely an energy story.
- The U.S. consumer has shown resiliency, with spending moving along at a moderate pace—at 2.1% year-over-year in May. These consumption patterns will be worth watching, as spending is the largest driver of economic growth.
- The Fed released its annual banking stress test results, which was applicable to the “too big to fail” class of banks. Results helped ease banking concerns as all 23 banks passed.
- The unemployment rate remained very tight at 3.6% in June. The workforce appears to be experiencing a healthy, and possibly low pain, rebalancing of resources. Many workers are returning to the workforce at the same time that fewer job openings are posted. Both of these effects reduce the mismatch between the total number of workers available relative to available jobs.
- Consumer sentiment improved slightly during the second quarter by most measures but remains pessimistic. The University of Michigan Consumer Sentiment survey showed that the outlook has improved due to factors such as the debt ceiling resolution and falling inflation.

	Most Recent	12 Months Prior
Real GDP (YoY)	1.8% 3/31/23	3.7% 3/31/22
Inflation (CPI YoY, Core)	4.8% 6/30/23	8.9% 6/30/22
Expected Inflation (5yr-5yr forward)	2.3% 6/30/23	2.1% 6/30/22
Fed Funds Target Range	5.00–5.25% 6/30/23	1.50–1.75% 6/30/22
10-Year Rate	3.81% 6/30/23	2.98% 6/30/22
U-3 Unemployment	3.6% 6/30/23	3.6% 6/30/22
U-6 Unemployment	6.9% 6/30/23	6.7% 6/30/22

GDP growth

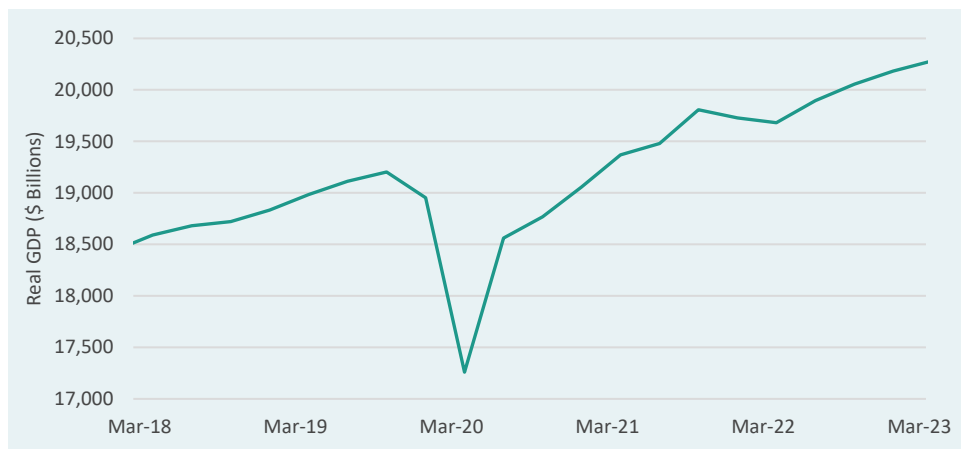
Real GDP increased at a 2.0% rate in the first quarter of 2023 (1.8% growth year-over-year). The slowdown from the prior quarter reflected weaker inventory buildups and slower business investment. An upturn in consumer spending was the greatest support to economic growth, as consumption has ticked along at a steady rate despite higher costs of borrowing. Second quarter GDP growth is expected to be 2.3%, according to the Atlanta Fed GDPNow forecast, as of July 10th.

Growth varied across industries, with service-producing industries producing 2.6% growth, government-related growing 2.7%, and goods-producing industry growth falling by -0.7%.

The economy has increasingly shown signs of resilience, casting doubt on whether a recession is imminent. Markets seem to be interpreting this resilience as a negative development, due to implications for even tighter monetary policy and a more aggressive Federal Reserve in the fight against inflation. This *bad news is good news* dynamic was illustrated on July 6th when ADP's National Employment Report indicated that 497,000 private sector jobs were added in June—double the expected number. This strong report sent bond yields higher and equity markets lower.

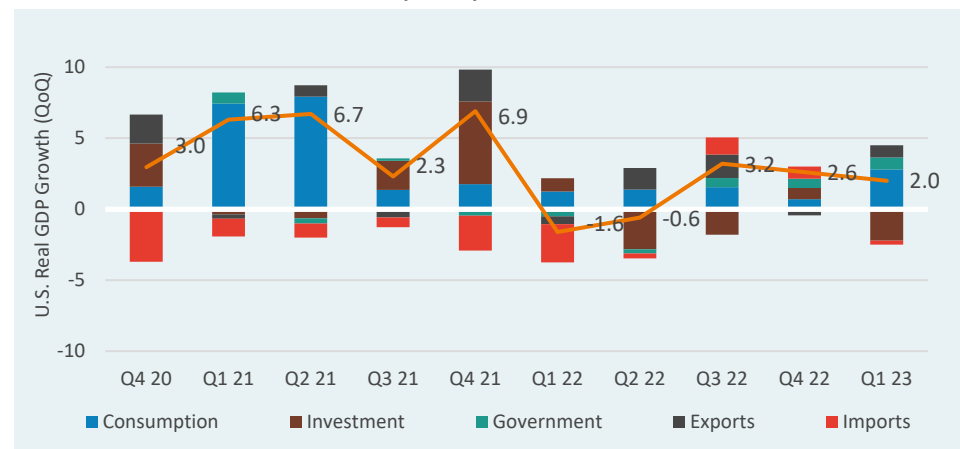
The U.S. economy continues to show resilience despite aggressive monetary tightening & low consumer confidence

U.S. REAL GROSS DOMESTIC PRODUCT



Source: FRED, as of 3/31/23

U.S. REAL GDP COMPONENTS (QOQ)



Source: FRED, as of 3/31/23

Inflation

Inflation has continued to move lower in the U.S., with June CPI coming in at a surprisingly low 3% year-over-year and Core CPI (ex-food & energy) at 4.8%. Weaker energy prices have had a significant impact on overall inflation levels, as well as *base effects* as larger price moves of 2022 begin to fall out of the official twelve-month inflation calculation. In recent months, prices appear to also be softening across many other types of goods and services, suggesting milder inflation is not solely an energy story. Inflation concerns are now centered on core inflation (ex-food & energy) which remains stubbornly high and has shown fewer signs of abating.

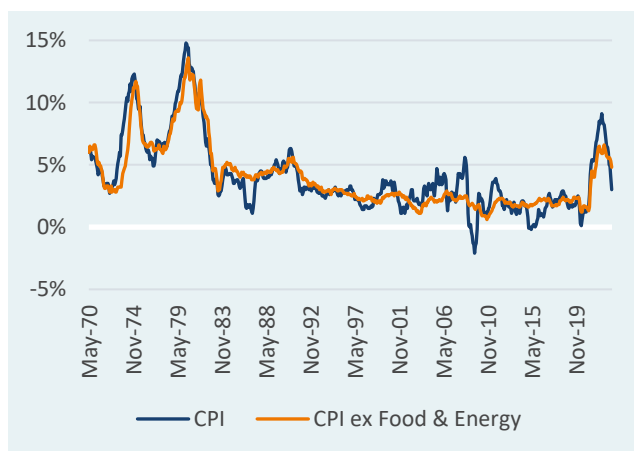
rising faster than wages which contributed to an environment where real household incomes were falling (wages not keeping up with goods and services prices). Recently this trend has reversed. This may lead to an environment in which households are benefiting from inflation as wages rise faster than inflation in the prices of goods and services.

In past editions of this document, we predicted that inflation (CPI) was very likely to fall to around 4% in Q2 for technical reasons related to the twelve-month window with which inflation is calculated. These effects have played out as expected.

U.S. inflation continues to fall, though persistent monthly core inflation (ex-food & energy) is a concern

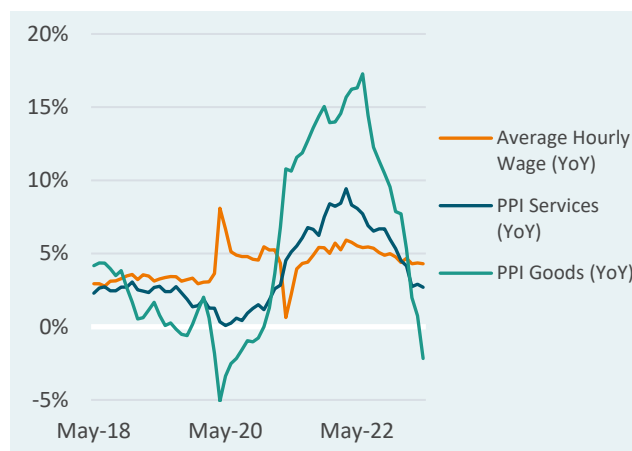
Earlier in the U.S. inflationary cycle business input costs were

U.S. CPI (YOY)



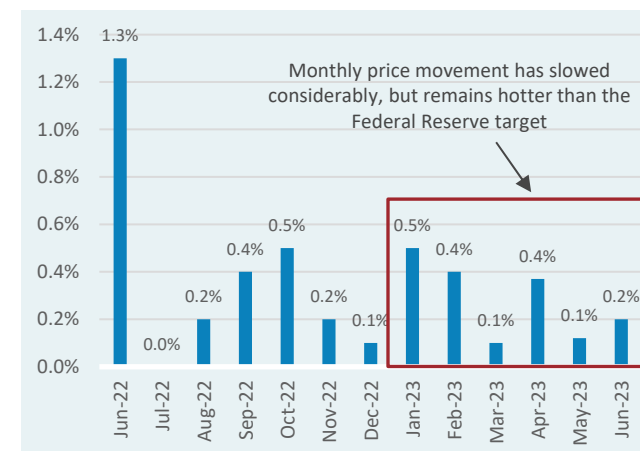
Source: BLS, as of 6/30/23

HIGHER PRICES MAY NOW BENEFIT CONSUMERS



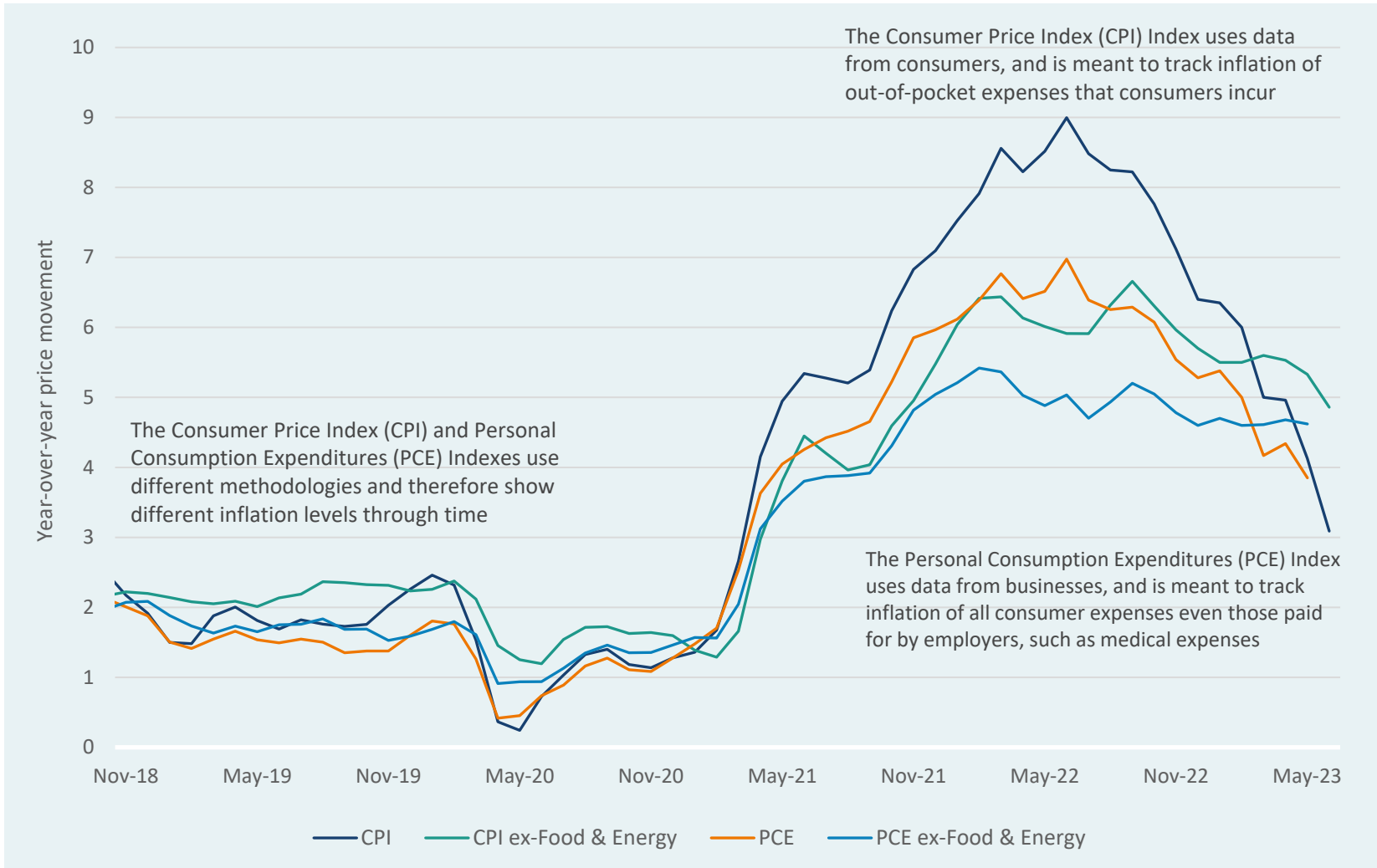
Source: FRED, BLS, as of 5/31/23

MONTHLY PRICE MOVEMENT



Source: BLS, as of 6/30/23

How are inflation conditions evolving?



U.S. inflation continues to fall, though persistent monthly core inflation (ex-food & energy) is a concern

Source: FRED, Verus, PCE data as of 5/31/23, CPI data as of 6/30/23

Labor market

The unemployment rate remained very tight at 3.6% in June, despite far higher interest rates, liquidity withdrawal from the Federal Reserve, and concerns of a possible recession.

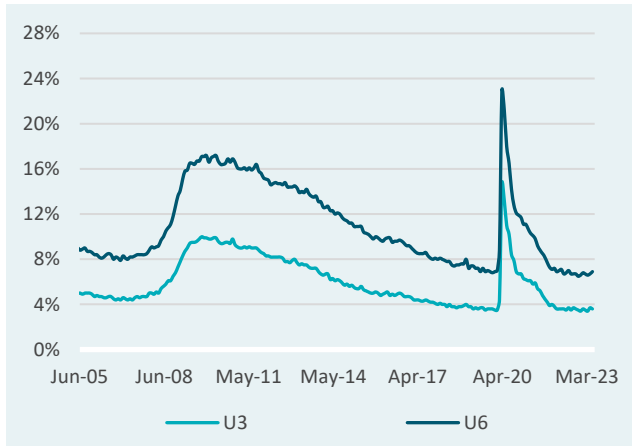
Labor participation rates further recovered over the quarter as many workers who had left the labor force during the pandemic are once again seeking employment. This recovery has been highly concentrated in the core age cohort (25-54 years). In fact, the labor participation rate of this age group has surpassed the pre-pandemic level. Workers aged 55 and older have overall not been returning to the workforce. Participation of these workers has actually declined slightly

over the past year.

Overall, the workforce appears to be experiencing a healthy, and possibly relatively low pain, rebalancing of resources. Many workers are returning to the workforce at the same time that fewer job openings are posted. Both of those effects reduce the mismatch between the number of *workers available* and the *available jobs*. These unique dynamics could allow for a reduction in labor market tightness without a major cycle of layoffs, while potentially also helping ease inflation pressure if a looser labor market helps dampen wage growth.

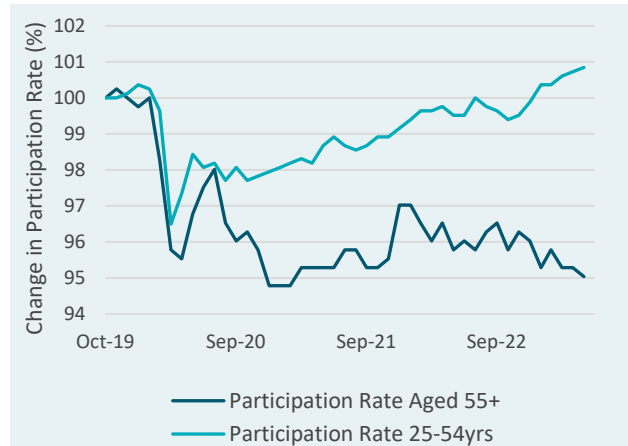
Many workers who left the labor force during the pandemic are returning to the job market, helping to rebalance labor conditions

U.S. UNEMPLOYMENT



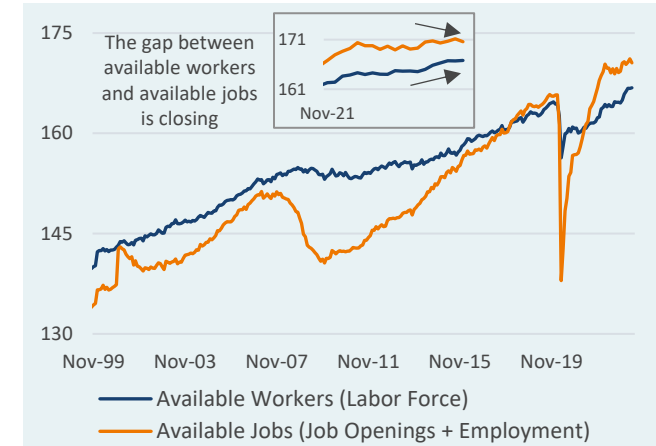
Source: FRED, as of 6/30/23

LABOR FORCE PARTICIPATION RATE



Source: FRED, as of 6/30/23

WORKERS AVAILABLE VS. AVAILABLE JOBS



Source: BLS, as of 5/31/23

The consumer

The U.S. consumer has shown resiliency, with real (inflation-adjusted) personal consumption expenditures moving along at a moderate pace—at 2.1% year-over-year in May. These consumption patterns will be worth watching, as spending is the largest driver of economic growth and is likely the greatest determinant of whether recession occurs in the near-term.

Personal savings rates remain depressed, but this does not seem to be resulting in stronger spending behavior. We suspect lower savings rates are at least partly a product of

high inflation and falling real (inflation-adjusted) incomes.

Household budgets have come under strain due to high inflation in recent years and a sharp increase in interest rates which impacted borrowing costs. However, it is important to contrast this with the fact that Americans have experienced a boom in wealth and prosperity over the past decade, fueled by substantial bull markets in stocks and in residential real estate, among other assets. This wealth may serve as somewhat of a unique buffer against economic weakness.

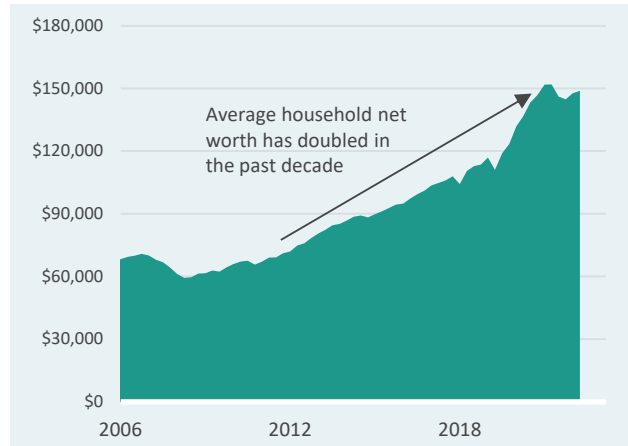
The vast wealth created over the past decade may serve as a unique buffer against economic weakness

REAL PERSONAL SPENDING



Source: FRED, as of 5/31/23

AVERAGE HOUSEHOLD NET WORTH



Source: FRED, as of 1/31/23

PERSONAL SAVINGS RATE



Source: FRED, as of 5/31/23

Sentiment

Consumer sentiment improved slightly during the second quarter by most measures but remains pessimistic. The University of Michigan Consumer Sentiment survey showed that the outlook has brightened due to factors such as the debt ceiling resolution and falling inflation.

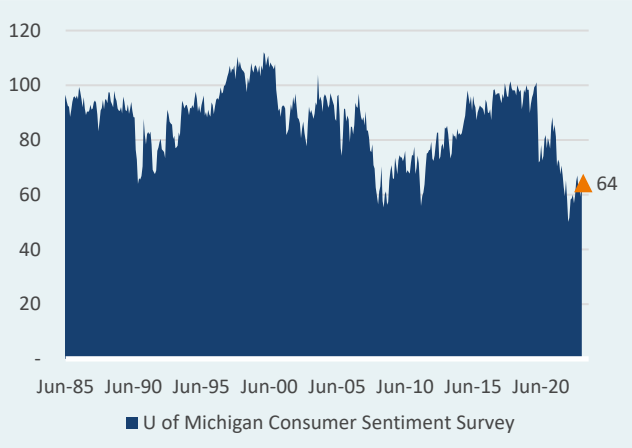
Consumer confidence as indicated by the Conference Board improved materially, although confidence readings reflect levels typically associated with recession within the next year. According to the Conference Board survey, responses suggested a more positive outlook for family finances, better

labor market conditions, and further declines in inflation. Across age cohorts, Americans younger than age 35 expressed the largest gains in optimism.

The NFIB Small Business Optimism index improved slightly but remains at very depressed levels. Difficulties in hiring qualified employees and high inflation were the greatest small business concerns in June. Fewer business owners reported plans to increase prices, perhaps an indication of easing inflation pressure.

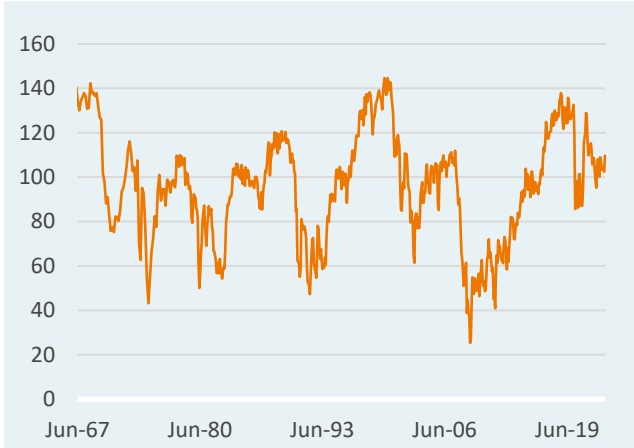
Sentiment improved during Q2 but remains poor by most measures

CONSUMER SENTIMENT



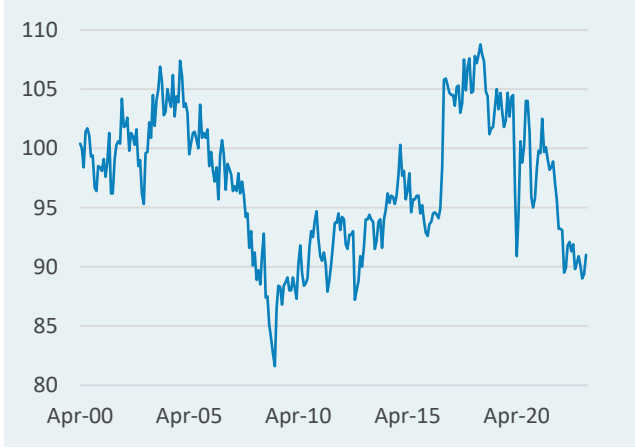
Source: University of Michigan, as of 6/30/23

CONFERENCE BOARD CONSUMER CONFIDENCE



Source: Conference Board, as of 6/30/23

NFIB SMALL BUSINESS SENTIMENT



Source: NFIB, as of 6/30/23

Housing

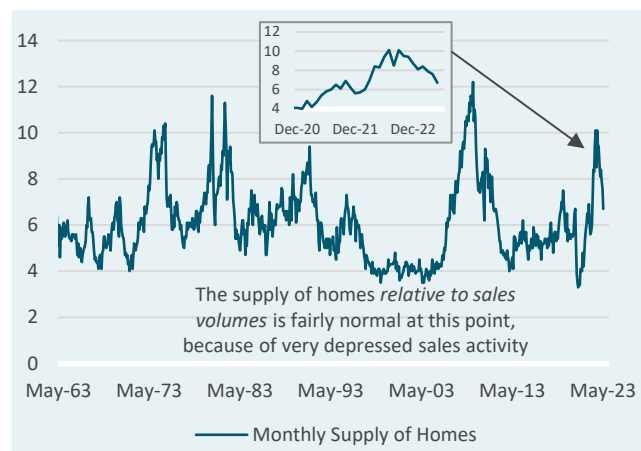
The U.S. housing market continues to face difficult conditions. High mortgage rates and extremely poor affordability have led to the slowest existing home sales activity since the depths of the bear market following the 2008-2009 Housing Crisis. However, conditions are currently very different from that time, as there are few signs of distressed sales. Many sellers are simply refusing to list their homes rather than selling at lower prices—effectively reducing available inventory. Additionally, many potential sellers with very low mortgage interest rates are choosing not to list their homes due to the high financial costs of giving up their low mortgage rate. These dynamics

have contributed to very low housing supply, effectively providing an ongoing support to higher home values.

Together, very low home inventories and weak sales activity have resulted in a fairly normal supply of homes *relative to demand*. It remains to be seen whether the market will experience a cooling and leveling off in the near-term, or whether price depreciation will need to occur to rebalance the market and incentivize potential buyers to make a purchase.

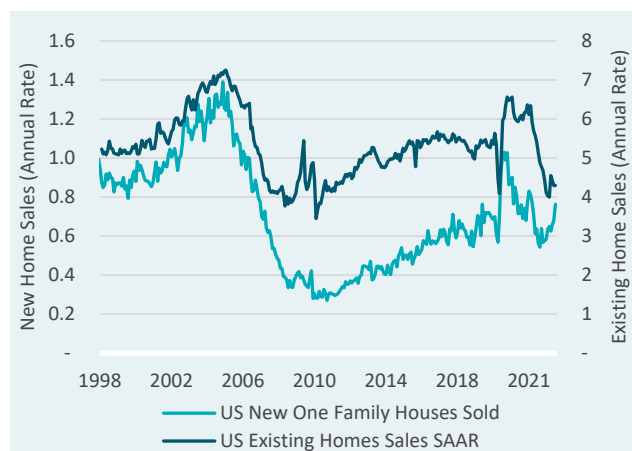
Home sales have slowed to a crawl as affordability is poor, and potential sellers don't want to lose their low interest rates

HOUSING SUPPLY



Source: FRED, as of 5/31/23

HOME SALES: NEW & EXISTING (MILLIONS)



Source: FRED, as of 5/31/23

HOUSING AFFORDABILITY



Source: FRED, as of 4/30/23

International economics summary

- Developed-economy growth has slowed materially. Many countries faced heavy risks, including energy crises, inflation uncertainty, contracting government spending, and higher interest rates. However, many areas have fared better than initially feared, helping to boost the performance of international equities. The IMF forecasts a pronounced slowing of growth in developed economies from 2.7% in 2022 to 1.3% in 2023, and a relatively unchanged emerging market growth rate from 4.0% to 3.9%.
- Unlike the Federal Reserve’s recent pause, many central banks have opted for more rate hikes amid backdrops of relative economic strength and persistent inflation. In June, the Bank of England voted 7-2 for a +50bps increase while the European Central Bank and Bank of Canada hiked +25bps. The ECB also raised core inflation projections to 5.4% through year-end and

lowered GDP growth to 0.9% for the year.

- On June 16th, the Bank of Japan announced that they would keep their low-rate policy unchanged. The dovish stance, including expectations for cooling inflation, was negative for the yen. Following the announcement, the yen weakened through month-end to finish -2.5% lower against the dollar.
- Inflation fell further across developed countries and has dropped surprisingly quickly in the emerging markets. China now faces a 0% inflation rate and risks of deflation, while inflation in Brazil has fallen from over 11% in late 2022 to below 4% in May. Further declines in prices could create new market risks as deflation has serious economic implications, especially in heavily debt-burdened nations.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	1.8% 3/31/23	3.0% 6/30/23	3.6% 6/30/23
Eurozone	1.0% 3/31/23	5.5% 6/30/23	6.5% 5/31/23
Japan	1.3% 3/31/23	3.2% 5/31/23	2.6% 5/31/23
BRICS Nations	4.9% 3/31/23	4.2% 3/31/23	4.8% 12/31/22
Brazil	4.0% 3/31/23	3.9% 5/31/23	8.3% 5/31/23
Russia	(1.8%) 3/31/23	2.5% 5/31/23	3.2% 5/31/23
India	6.1% 3/31/23	4.8% 6/30/23	7.7% 5/31/23
China	4.5% 3/31/23	0.0% 6/30/23	5.2% 5/31/23

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.

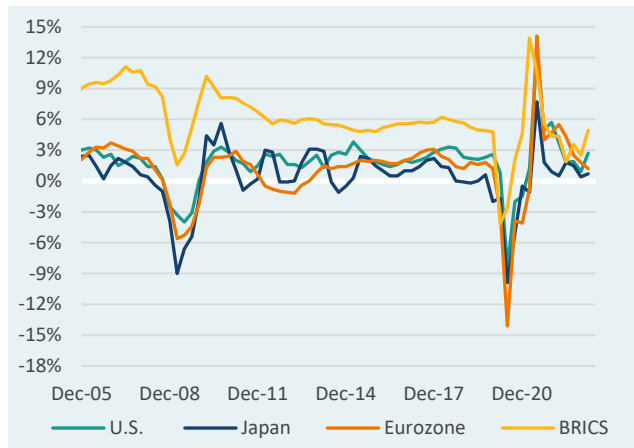
International economics

Developed economies have suffered a material slowdown in growth, though not as dramatic as economists had feared at the beginning of the year. All twenty countries of the Eurozone have now entered a technical recession, on the back of a significant contraction in government spending as well as central bank rate hikes. Meanwhile, as many developed economies cope with stagnating growth, emerging economies have fared better overall, despite the more moderate growth rate of China. The IMF forecasts a pronounced slowing of growth in developed economies from 2.7% in 2022 to 1.3% in 2023, and a relatively unchanged rate of growth of emerging

markets from 4.0% to 3.9%.

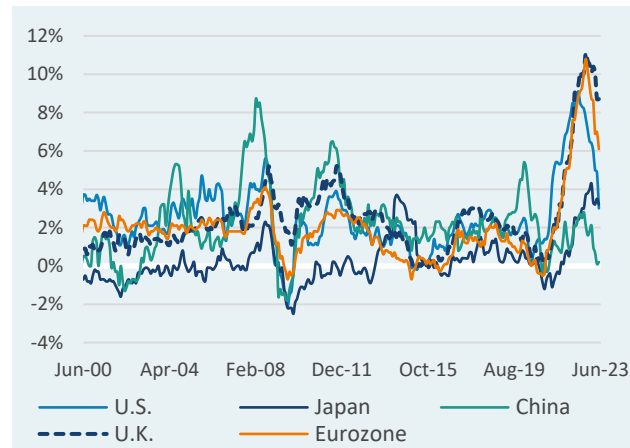
Inflation has subsided in many developed countries and dropped surprisingly quickly across emerging markets. China now faces a 0% inflation rate and risks of deflation, while inflation in Brazil has fallen from over 11% in late 2022 to below 4% in May. Further declines in prices could create new market risks as deflation has serious economic implications, especially in heavily debt-burdened nations. Deflation creates an environment where debt loads are *growing* on an inflation-adjusted basis.

REAL GDP GROWTH (YOY)



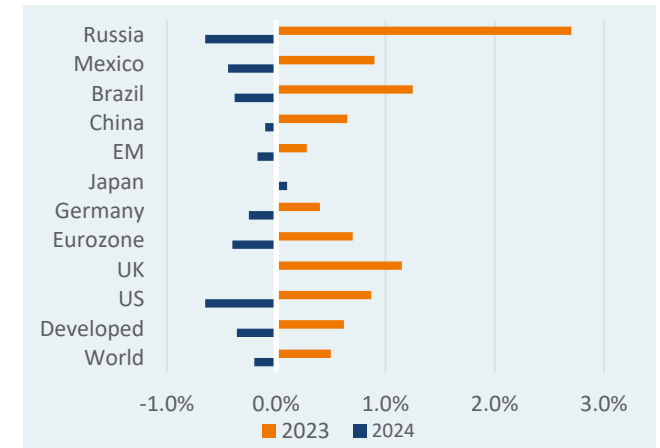
Source: Bloomberg, as of 3/31/23

INFLATION (CPI YOY)



Source: Bloomberg, as of 6/30/23 – or most recent release

GROWTH FORECASTS: CHANGES OVER PAST 6M



Source: Bloomberg median of economist estimates, as of 6/22/23

Fixed income rates & credit

Fixed income environment

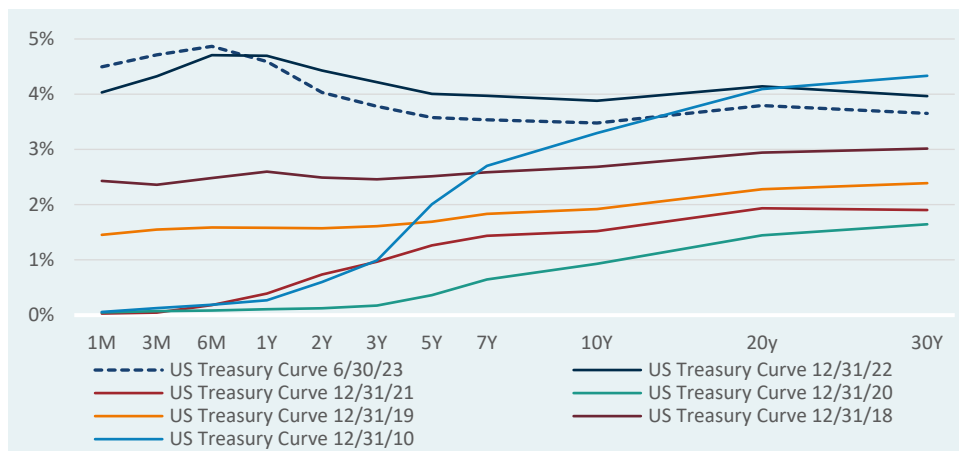
- The 10-year U.S. Treasury yield increased during the quarter from 3.48% to 3.81%, reversing the decline experienced during Q1. Despite an additional rise in short-term interest rates, longer-term interest rates remain anchored. This has resulted in the most deeply inverted yield curve since the early 1980s at -1.06% (10-year Treasury yield minus 2-year Treasury yield).
- The Federal Reserve opted to keep interest rates stable in June, but signaled two more rate hikes were ahead in 2023. Some referred to this messaging as a “hawkish pause”. Despite cooling inflation, the Fed appears concerned about strong ongoing labor market conditions and persistent monthly price rises. Markets are pricing in a high likelihood of a +25bps July hike.
- Historically, equities and bonds have experienced negative correlation (moved in opposite directions through time). In 2022, both equities and bonds suffered losses as the Fed continued tightening monetary policy. Following the failure of SVB, the asset classes seems to have resumed negative correlation behavior.
- During the second quarter, higher quality credit and U.S. Treasuries saw mild losses. Riskier credit performed very well as credit spreads have stayed surprisingly tight. Longer duration investment grade corporate bonds disappointed, returning -0.3%.
- Despite concerns related to the future path of Federal Reserve rate hikes, interest rate volatility declined during the quarter as indicated by the ICE BofA “MOVE” Index, which measures the volatility priced into U.S. Treasury bonds. While inflation has moderated in recent quarters, the market may need to price in additional rate hikes should it remain above the Federal Reserve's target of roughly 2%, which could contribute to further volatility.

	QTD Total Return	1 Year Total Return
Core Fixed Income (Bloomberg U.S. Aggregate)	(0.8%)	(0.9%)
Core Plus Fixed Income (Bloomberg U.S. Universal)	(0.6%)	0.0%
U.S. Treasuries (Bloomberg U.S. Treasury)	(1.4%)	(2.1%)
U.S. High Yield (Bloomberg U.S. Corporate HY)	1.7%	9.1%
Bank Loans (S&P/LSTA Leveraged Loan)	3.1%	10.7%
Emerging Market Debt Local (JPM GBI-EM Global Diversified)	2.5%	11.4%
Emerging Market Debt Hard (JPM EMBI Global Diversified)	2.2%	7.4%
Mortgage-Backed Securities (Bloomberg MBS)	(0.6%)	(1.5%)

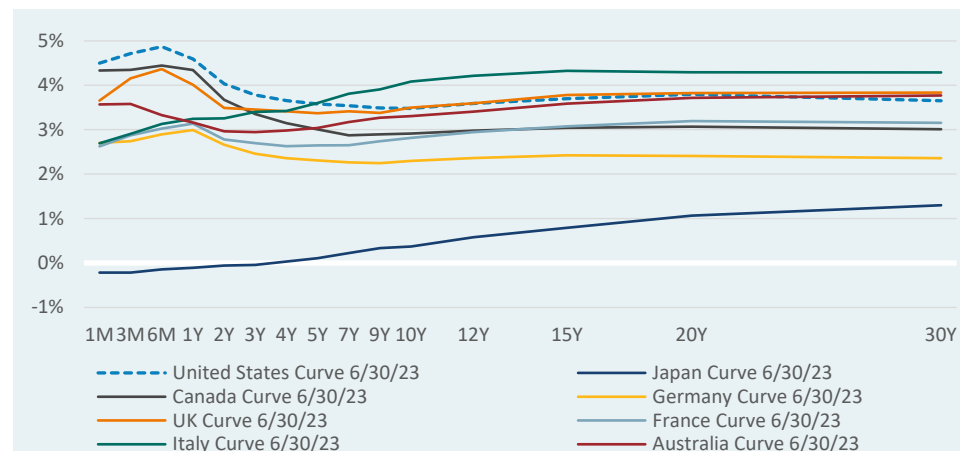
Source: Bloomberg, as of 6/30/23

Yield environment

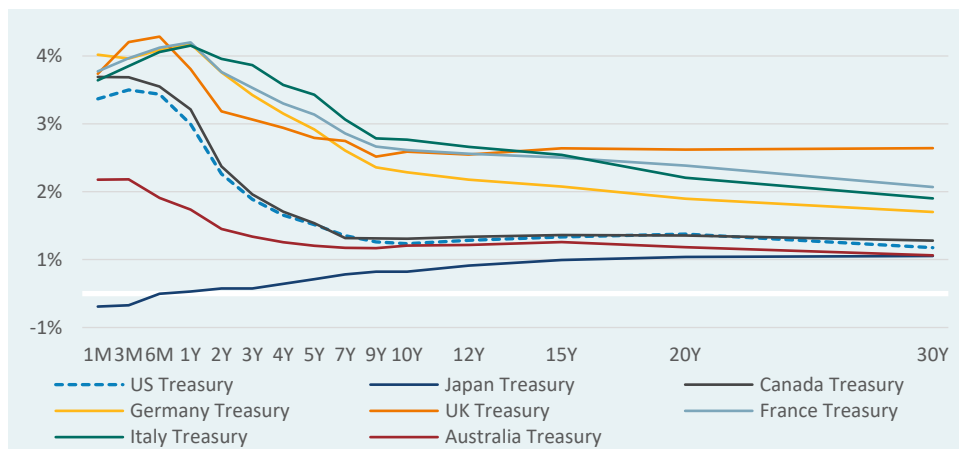
U.S. YIELD CURVE



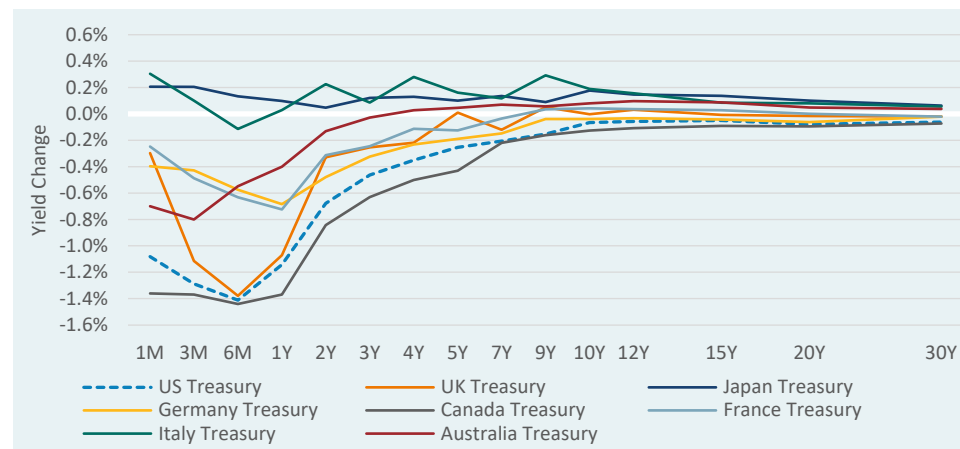
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 6/30/23

Credit environment

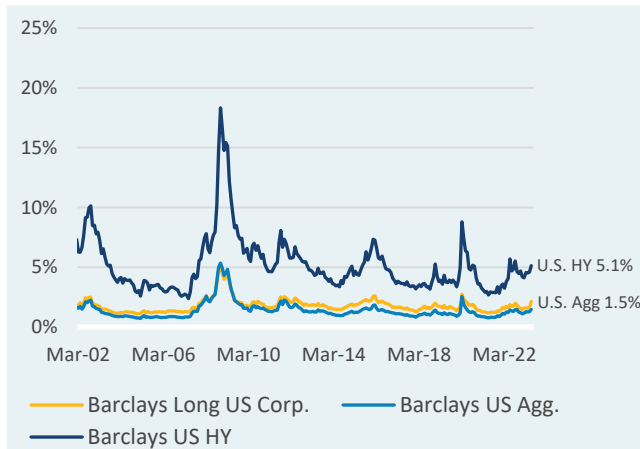
During the second quarter, fixed income markets delivered mixed results with lower-quality credits such as bank loans and high yield bonds outperforming higher-quality credits. Bank loans posted strong returns for the period, delivering 3.1%, followed by high-yield bonds which returned 1.7%. Longer duration investment grade corporate bonds disappointed, returning -0.3%.

Within high-yield bonds, lower quality CCC-rated bonds continued their strong run, outperforming BB- and B-rated bonds. CCC-rated bonds returned 4.7% during the period compared to 1.8% and 0.8% for B-rated and BB-rated bonds, respectively. Bank loans delivered strong returns during the period as investors favored shorter-duration assets given the expectation of interest rate rises. Lower-quality bank loans also

outperformed higher-quality loans, with CCC-rated loans rising 3.3% compared to 2.5% for BB-rated loans.

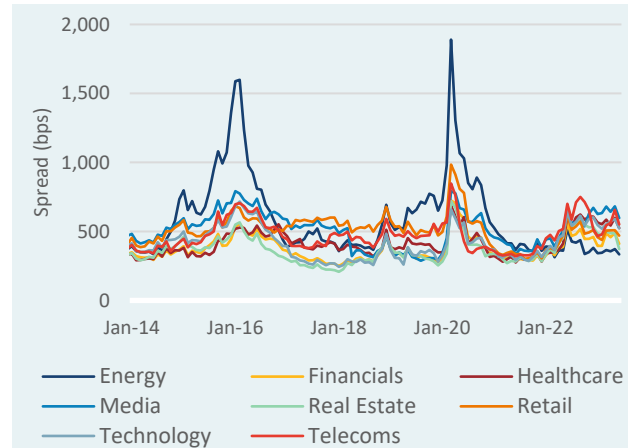
Credit spreads widened during the quarter on fears of an economic slowdown, the effects of higher interest rates, and as heightened credit stress weighed on prices. Lower-quality high-yield bond spreads rose by more than 0.6% during the period to 5.1%, while investment grade spreads increased by roughly 0.2% to 1.5%. Broadly, spreads remain close to their long-term historical averages, which suggests that investors maintain a fairly positive credit outlook. However, if the U.S. economy were to show real signs of weakening, credit spreads would likely move wider.

SPREADS



Source: Barclays, Bloomberg, as of 6/30/23

HIGH YIELD SECTOR SPREADS



Source: Bank of America, as of 6/30/23

CREDIT SPREAD (OAS)

Market	6/30/23	6/30/22
Long U.S. Corp	2.1%	1.9%
U.S. Inv Grade Corp	1.3%	1.6%
U.S. High Yield	5.1%	5.7%
U.S. Bank Loans*	5.4%	5.9%

Source: Barclays, Credit Suisse, Bloomberg, as of 6/30/23

*Discount margin (4-year life)

Default & issuance

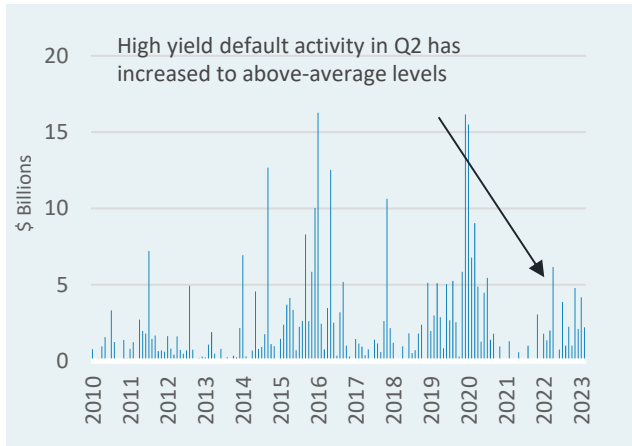
Default activity, while remaining below the long-term trend, increased during the second quarter. Twelve companies defaulted, which were concentrated in the Technology, Industrial, Retail, and Financial-related sectors. A total of \$32.2 billion was affected by default or distressed exchanges during Q2, up from \$20.8 billion in the prior quarter. Notable company defaults included Diebold (Technology), WeWork (Financials), Westco (Industrial) and Bed, Bath & Beyond (Retail).

Past twelve-month default rates for both high-yield bonds and bank loans increased as the cost of borrowing jumped. At the end of the quarter, the trailing one-year default rate of high-yield bonds rose to 2.4%, up from 1.9% in the prior quarter. While defaults have increased, they remain

below the long-term annual average of roughly 3.2% for high-yield bonds. High-yield default recovery rates fell, ending the period at 33.0%, down -11.5% from the previous quarter.

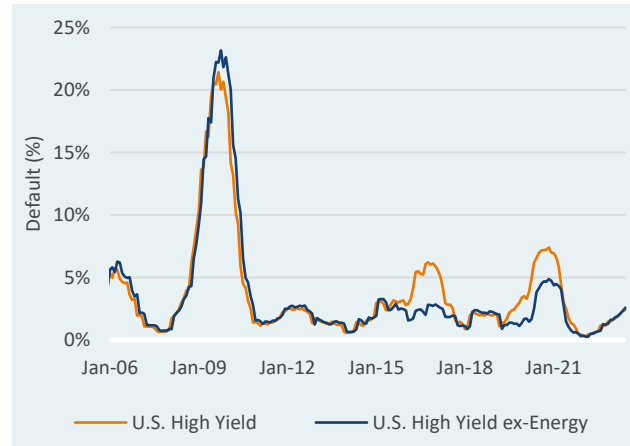
The pace of investment-grade credit issuance slowed, with \$333 billion of issuance compared to \$412 billion in the first quarter. Conditions were different in levered credit, which saw high-yield bond issuance accelerate to \$56 billion—up from \$40.2 billion in Q1. In contrast to prior years, the 2023 level of investment-grade issuance is on track to match 2022, while high-yield issuance is significantly ahead of the pace set during that same period.

U.S. HY MONTHLY DEFAULTS (PAR WEIGHTED)



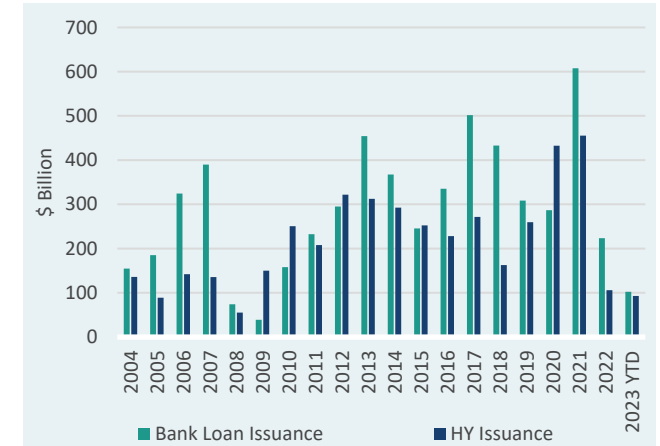
Source: BofA Merrill Lynch, as of 6/30/23

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



Source: BofA Merrill Lynch, as of 6/30/23 – par weighted

DEVELOPED MARKET ISSUANCE (\$ BILLIONS)



Source: BofA Merrill Lynch, all developed markets, as of 6/30/23

Equity

Equity environment

- Global equities persisted in their upward trajectory during Q2 (MSCI ACWI +6.2%). Domestic equities (S&P 500 +8.7%) outperformed both international developed (MSCI EAFE +3.0%) and emerging markets (MSCI EM +0.9%).
- U.S. equities rallied for a third consecutive quarter as mega-cap technology stocks remained top performers. A surge in AI-focused hype helped drive an expansion in the valuations of large tech firms including Nvidia and Apple – which became the first company to exceed \$3 trillion in market cap.
- The effects of currency movements on portfolio performance was mixed during Q2. Varying central bank approaches to inflation have contributed to much uncertainty around the path of the U.S. dollar and therefore heightened volatility for investors with unhedged currency exposure. During the past year, currency movement led to a -2.5% loss for investors with unhedged exposure to international developed equity (MSCI EAFE unhedged +18.8%, MSCI EAFE hedged +21.3%).
- Growth stocks (+12.8%) again outpaced value (+4.1%), bringing the year-to-date performance differential to +23.9%. Over recent years, style factors (ex: small vs large, value vs growth) have exhibited some of the wildest swings in history.
- The Cboe VIX implied volatility index moved to surprisingly low levels, despite broad expectations of recession, ongoing risks of regional bank contagion, and other not-yet-known consequences of central bank liquidity withdrawal from the financial system. The index fell from 18.7% to 13.6% during the second quarter.

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)
U.S. Large Cap (S&P 500)	8.7%		19.6%	
U.S. Small Cap (Russell 2000)	5.2%		12.3%	
U.S. Equity (Russell 3000)	8.4%		19.0%	
U.S. Large Value (Russell 1000 Value)	4.1%		11.5%	
US Large Growth (Russell 1000 Growth)	12.8%		27.1%	
Global Equity (MSCI ACWI)	6.2%	6.2%	16.5%	17.5%
International Large (MSCI EAFE)	3.0%	5.0%	18.8%	21.3%
Eurozone (EURO STOXX 50)	4.1%	4.5%	36.3%	34.7%
U.K. (FTSE 100)	2.4%	0.0%	14.0%	10.9%
Japan (TOPIX)	4.2%	16.0%	19.4%	31.2%
Emerging Markets (MSCI Emerging Markets)	0.9%	1.6%	1.8%	3.4%

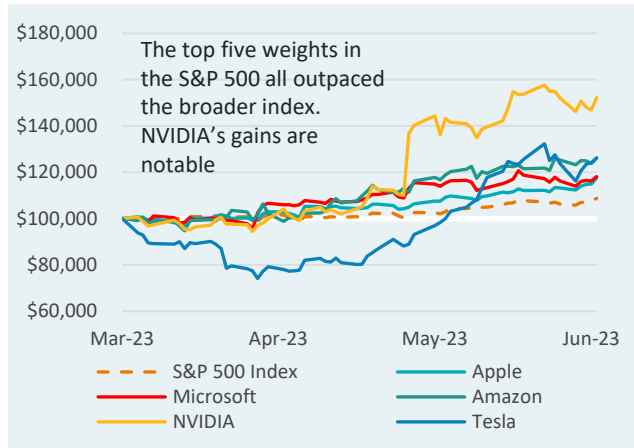
Source: Russell Investments, MSCI, STOXX, FTSE, JPX, as of 6/30/23

Domestic equity

U.S. equities rallied (S&P 500 Index +8.7%) for a third consecutive quarter as mega-cap technology stocks remained top performers. A surge in AI-focused hype helped drive an expansion in the valuations of tech firms such as Apple, which became the first company to exceed \$3 trillion in market cap, and Nvidia, which became the fifth trillion-dollar company in the S&P 500 following its recent ascent. This trend was apparent from the strong overall outperformance of the Information Technology sector. Breadth improved near quarter-end as investors digested a pause in Fed rate hikes and expectations for a U.S. recession eased, providing a tailwind for sectors excluded from the tech rally.

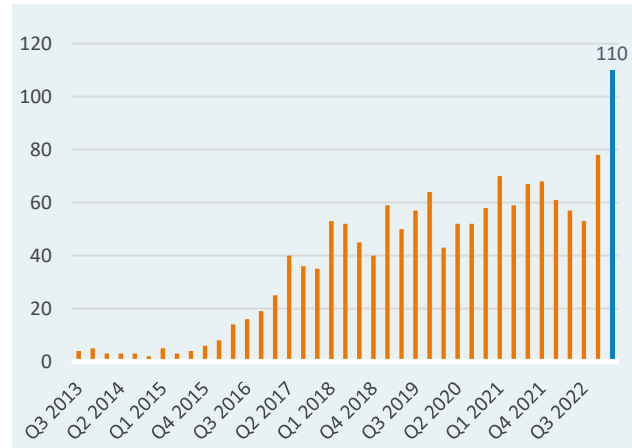
The Financial sector (+5.3%) saw some reprieve in the second quarter and recovered slightly from steep March declines which resulted from the collapse of three mid-sized banks. In its annual stress test, the Federal Reserve found the 23 largest U.S. banks capable of weathering a severe recession while proceeding with their respective lending businesses. Despite the results, the industry faces mounting headwinds including a deeply-inverted yield curve and the prospect of further Fed tightening.

GROWTH OF \$100,000 QUARTER TO DATE



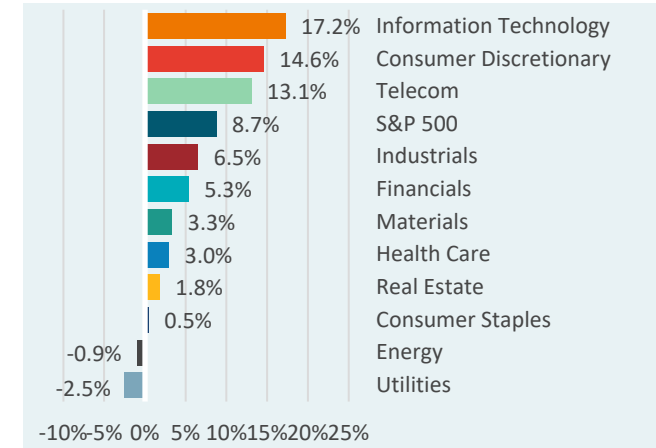
Source: Bloomberg, as of 6/30/23

OF S&P COMPANIES CITING "AI" ON EARNINGS CALLS



Source: FactSet, as of 6/30/23

Q2 2023 SECTOR PERFORMANCE



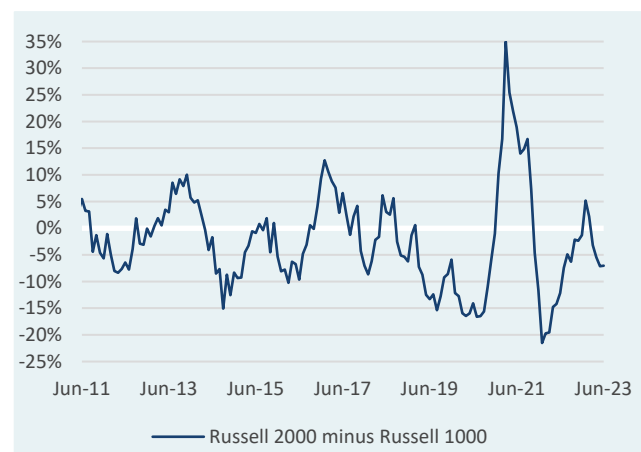
Source: Morningstar, as of 6/30/23

Domestic equity size & style

Growth stocks (+12.8%) continued to outpace value (+4.1%), bringing the year-to-date performance difference to +23.9%. Sector-specific drivers, including product launches and upward adjustments to company guidance among Information Technology (+18.6%) heavyweights, drove growth index performance. Sector behavior has persistently contributed to style factor disparity. This was evident in Q2 alongside large gains in Information Technology (+17.2%) and notable underperformance from Energy and Utilities (-0.9% and -2.5%, respectively).

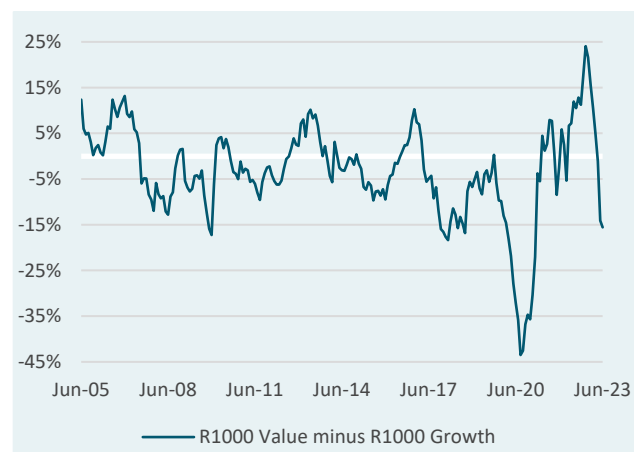
Over recent years, style factors (ex: small vs large, value vs growth) have exhibited some of the wildest swings in history. We maintain our view that factor timing should rarely be pursued for most investors. There are occasions when market mispricing offers a compelling case to tilt into a style factor, though these occasions come along perhaps every few decades rather than every few years. We believe that style investing is most appropriately pursued in a strategic manner based on each individual investor's market beliefs and long-term goals.

SMALL CAP VS LARGE CAP (YOY)



Source: FTSE, as of 6/30/23

VALUE VS GROWTH (YOY)



Source: FTSE, as of 6/30/23

1-YEAR SIZE & STYLE PERFORMANCE

	Value	Core	Growth
Large Cap	11.5%	19.4%	27.1%
Mid Cap	10.5%	14.9%	23.1%
Small Cap	6.0%	12.3%	18.5%

Source: Bloomberg, as of 6/30/23

International developed equity

International developed equities lagged the domestic market but outpaced emerging market equities for a third straight quarter. The MSCI EAFE Index rose +3.0% in unhedged currency terms as both Asian and European equities notched gains. International developed markets have performed very well over the past year despite recession, aggressive central bank interest rate hikes, and a severe energy crisis in Europe, up +18.8% (MSCI EAFE) relative to the global opportunity set at +16.5% (MSCI ACWI). Some of this behavior may relate to Europe's energy crisis turning out less severe than originally feared. We expect that relatively cheap valuations of many

markets may act as somewhat of a floor in the case of near-term equity stress, given that the gap in pricing between U.S. and non-U.S. stocks is at one of the widest levels in history.

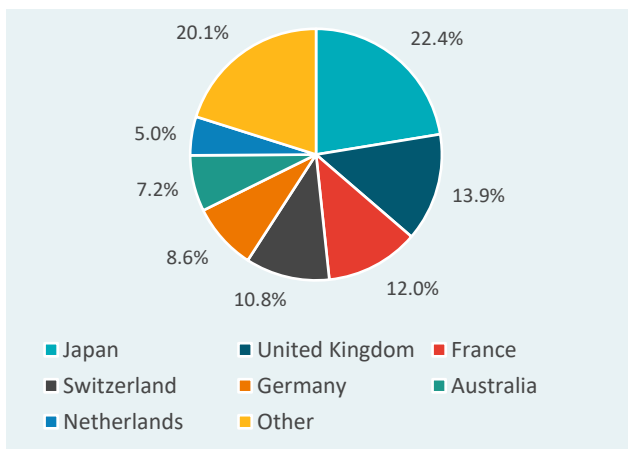
Japanese equities (MSCI Japan +6.4%) saw broad gains after the Bank of Japan held interest rates in negative territory and economic data showed resilience in the face of weakening global demand. Additional factors, including stronger-than-expected earnings from automakers and tech conglomerates, helped boost the Nikkei Index to 33-year highs.

INTERNATIONAL DEVELOPED EQUITY



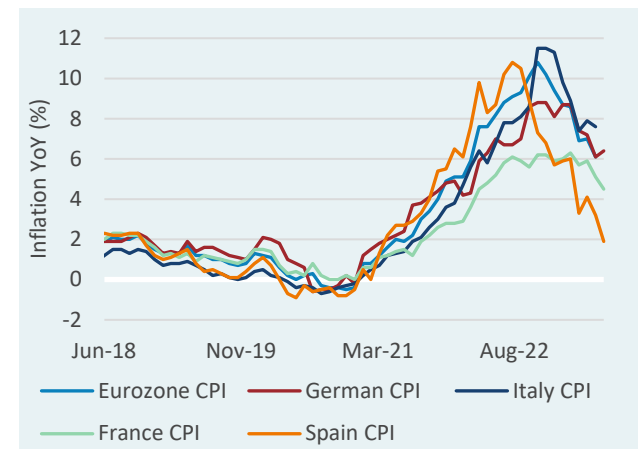
Source: MSCI, as of 6/30/23

MSCI EAFE INDEX COUNTRY DECOMPOSITION



Source: MSCI, as of 6/30/23

EUROZONE INFLATION



Source: Bloomberg, as of 6/30/23 or latest release

Emerging market equity

Emerging market equities lagged other global markets again in the second quarter. The MSCI EM Index finished up +0.9%, while the MSCI EAFE Index rose +3.0% and the S&P 500 gained +8.7%.

There were substantial performance differences across the emerging markets complex in Q2, ranging from Brazil's performance of +20.7% to China's -9.7%. We believe skilled active management is a preferred way to navigate risks and potentially bolster performance in this asset class.

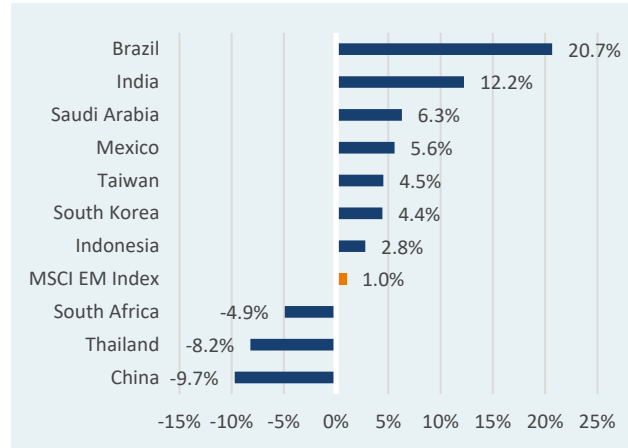
Over the past year, China's reopening provided a significant boost to equities, though not large enough to recover from previous significant losses driven by a mix of the three-year "zero-covid" policy, government crackdowns on large technology names, and knock-on effects from property market stress. Negative China sentiment has been building recently due to developments such as increasing geopolitical tensions with the U.S. (which eased on the margin following Secretary of State Blinken's visit to China), credit issues amongst property and local government financing vehicles, and a very high youth unemployment rate.

EMERGING MARKET EQUITY



Source: MSCI, as of 6/30/23

Q2 2023 MSCI COUNTRY RETURNS (USD)



Source: Bloomberg, MSCI, as of 6/30/23

MSCI CHINA INDEX



Source: MSCI, as of 6/30/23

Equity valuations

Equity valuation disparities continued to be wide. U.S. equities are priced at a 50% valuation premium (Price/Earnings) over international developed, at 21.0 and 14.2, respectively. Although domestic markets arguably face more attractive conditions on a relative basis, high valuations have historically acted as a material headwind to medium- and longer-term performance.

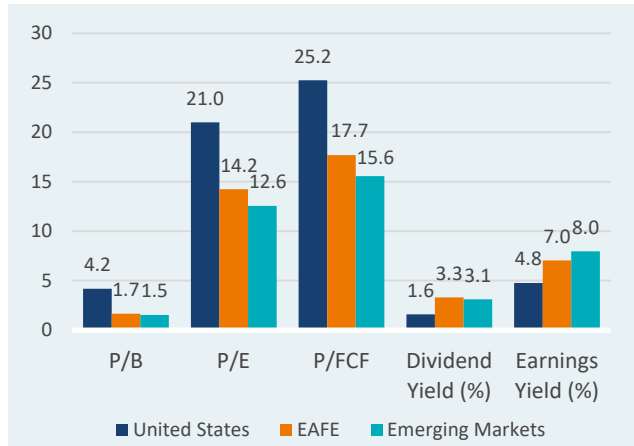
Emerging market equities are now priced near their longer-term average, though valuations differ considerably from country-to-country. For example, Taiwan is cheap by historical standards, with prices likely reflecting a discount for risks

related to China and slowing semiconductor demand. India is richly priced relative to history, perhaps in recognition of the country's high growth and greater potential as Chinese growth has moderated.

Quickly rising interest rates should theoretically result in a sharp fall in equity valuations, in order to maintain the "equity risk premium" of stock returns over bond returns. This effect has not yet occurred, which means the yield of equity is now only slightly more than the yield of high-quality bonds. Many investors may find bonds relatively attractive (and stocks relative less unattractive) in the current environment.

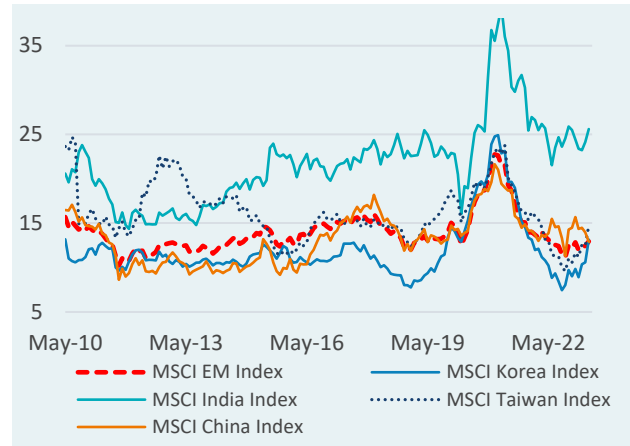
High-quality bonds are yielding nearly as much as equities, increasing the relative attractiveness of bonds

MSCI VALUATION METRICS (3-MONTH AVG)



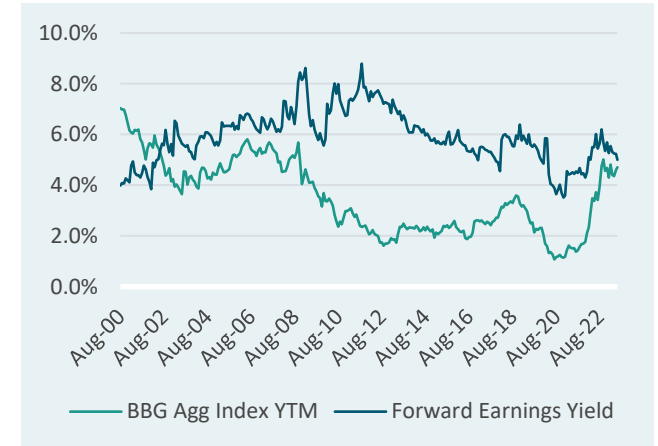
Source: Bloomberg, as of 6/30/23

P/E EMERGING MARKETS



Source: MSCI, Bloomberg, as of 5/31/23

U.S. VALUATIONS: BONDS VS. STOCKS



Source: Bloomberg, Standard & Poor's, as of 6/30/23

Market volatility

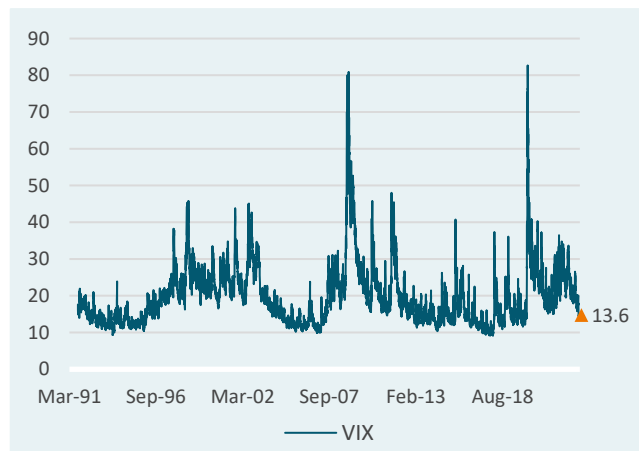
The Cboe VIX implied volatility index has moved to surprisingly low levels, despite broad expectations of recession, ongoing risk of regional bank contagion, and other not-yet-known consequences of central bank liquidity withdrawal from the financial system. The index fell from 18.7% to 13.6% during the second quarter.

The realized volatility of global equity markets has been elevated. Emerging market volatility in recent years has been lower than developed market volatility—an uncommon occurrence historically speaking. This trend has now reversed

as realized risk in emerging markets surpassed most developed economy public markets.

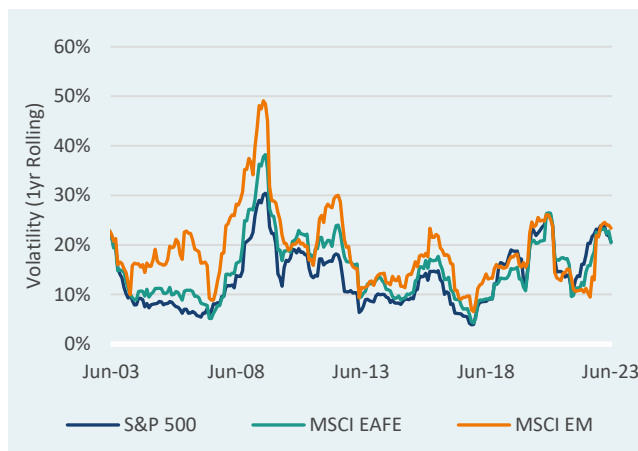
The first half of 2023 has been a truly unique environment for fixed income. Federal Reserve tightening, mass withdrawal of liquidity from the financial system, and a deeply inverted yield curve have led to elevated uncertainty and market volatility. These conditions are captured by the ICE BofA “MOVE” Index, which measures the volatility priced into U.S. Treasury bonds.

U.S. IMPLIED VOLATILITY (VIX)



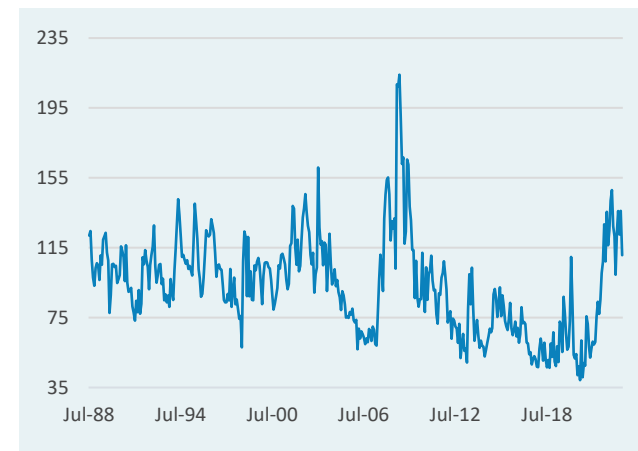
Source: Cboe, as of 6/30/23

REALIZED VOLATILITY



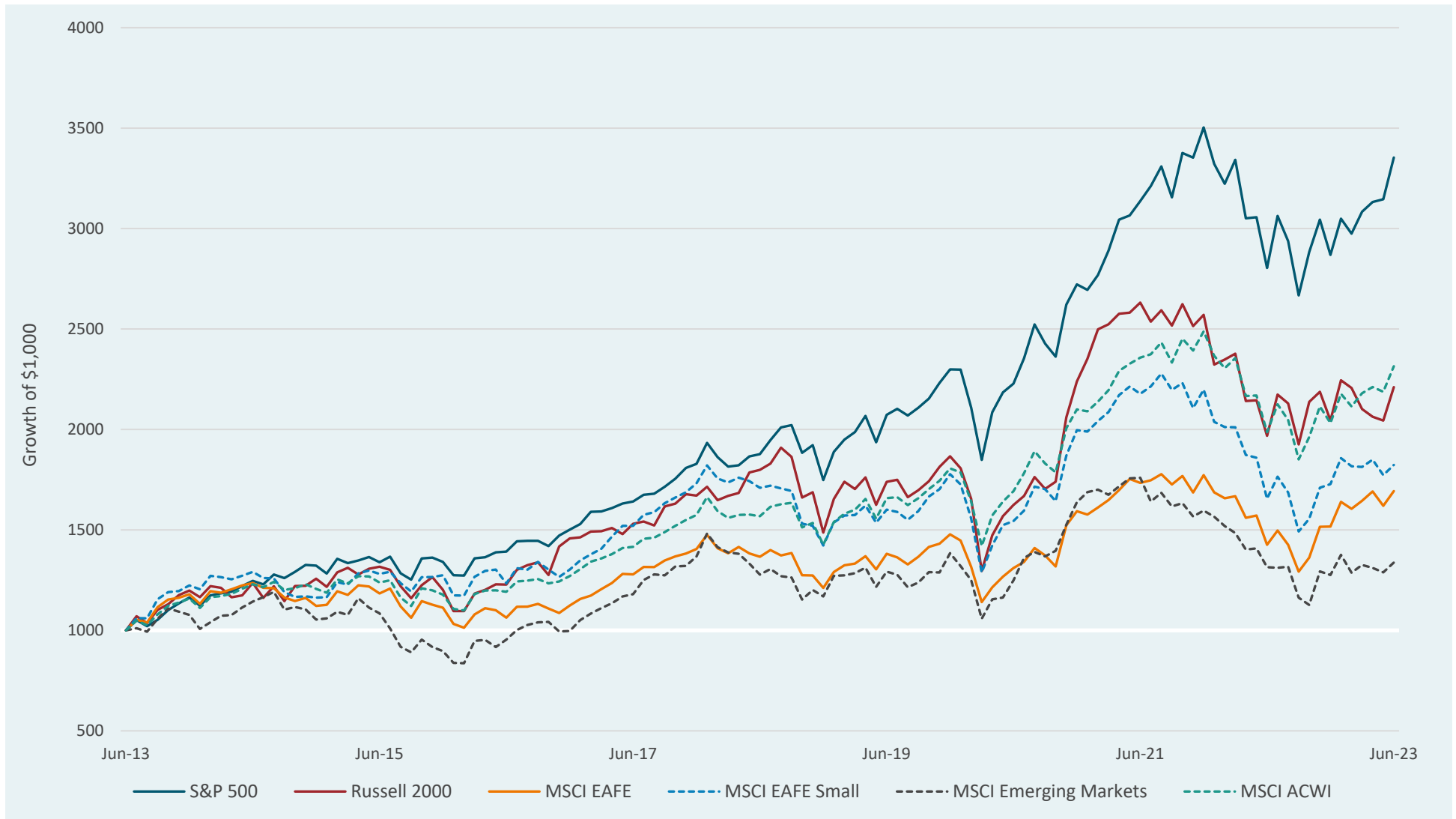
Source: S&P, MSCI, as of 6/30/23

U.S. TREASURY IMPLIED VOL (“MOVE” INDEX)



Source: Bloomberg, as of 6/30/23

Long-term equity performance



Source: MPI, as of 6/30/23

Other assets

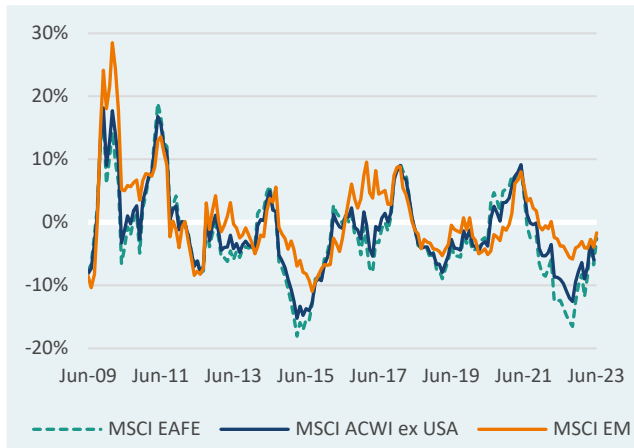
Currency

The effects of currency volatility on portfolio performance was mixed in Q2. Overall, the value of the U.S. dollar was unchanged on a trade-weighted basis. Varying central bank approaches to fighting inflation has contributed to much uncertainty around the path of the U.S. dollar and therefore the volatility generated by currency movement for investors with unhedged currency exposure (what we refer to as “embedded currency”). During the past full year, currency movement led to a -2.5% loss for investors with unhedged exposure to international developed equity (MSCI EAFE unhedged +18.8%, MSCI EAFE hedged +21.3%).

portfolio risk while also increasing long-term expected returns. The MSCI Currency Factor Mix Index—a representation of a passive investment in the currency market—has shown a positive one-year rolling return over most periods with very low volatility. This contrasts to the unhedged currency exposure that most investors own, which has demonstrated high volatility and frequent losses.

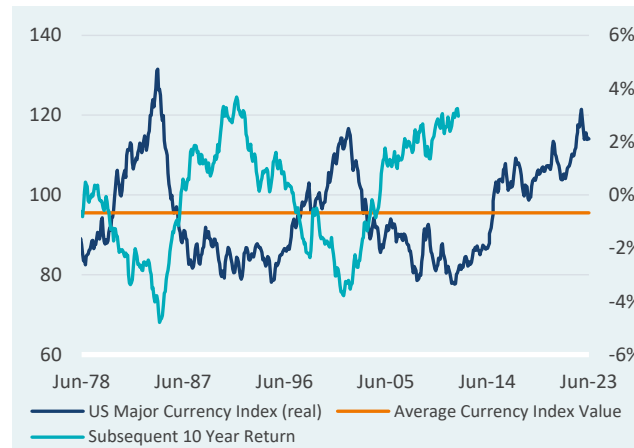
A thoughtful currency program may allow investors to reduce their total

EFFECT OF CURRENCY (1-YEAR ROLLING)



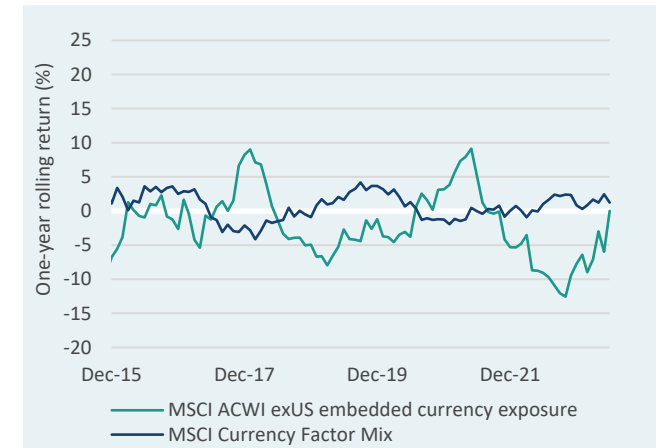
Source: MSCI, as of 6/30/23

BLOOMBERG DOLLAR SPOT INDEX



Source: Federal Reserve, as of 6/30/23

EMBEDDED CURRENCY VS CURRENCY FACTORS



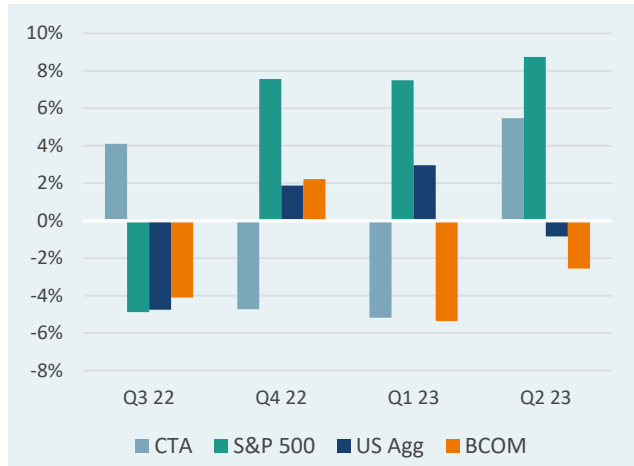
Source: Bloomberg, MSCI, as of 6/30/23

CTAs pivot, merger arbitrage gets hit

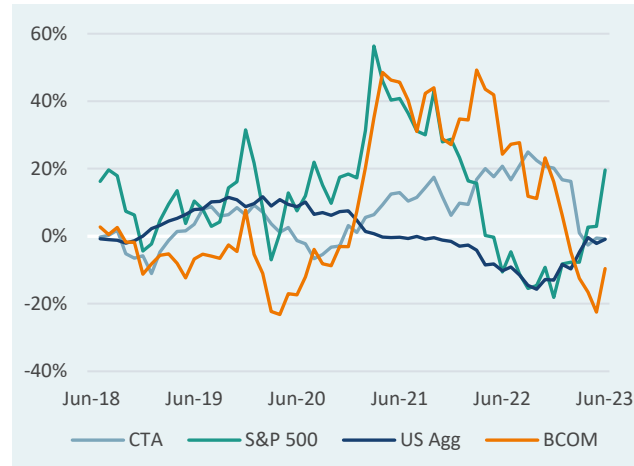
Commodity Trading Advisor (CTA) strategies, as proxied by the SocGen CTA Index, rebounded in Q2 after their worst two consecutive quarters (4Q22 through 1Q23) on record going back to the year 2000. When looking at major asset class returns for each of the last four quarters, it becomes clear that trend following strategies flipped to investing long in the equity markets after two strong quarters in a row for stocks. Trailing twelve-month returns as of the end of the quarter show fixed income at a performance inflection point and commodities bottoming out after a difficult year. Any gains in the near term for CTA strategies will likely depend on whether equity markets continue upward.

An interesting opportunity in merger arbitrage is unfolding, as an aggressive antitrust stance from the Federal Trade Commission and Chairperson Lina Kahn has pushed merger spreads to wide levels while equity markets have enjoyed a period of strong returns over the past year. Average deal spreads have increased to reflect this additional regulatory risk. Prior to this current period, the HFRI Merger Arbitrage index had only posted a negative 12-month return during COVID-19 (2020), the Global Financial Crisis (2008-2009), and the Tech Bubble (2001-2002). Each of those periods involved a recession.

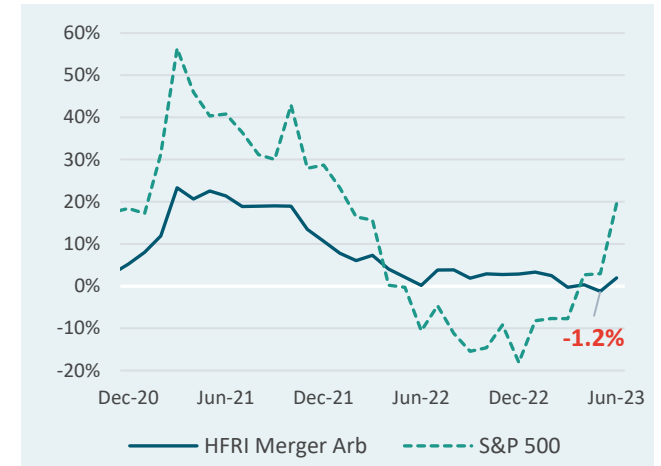
QUARTERLY RETURNS – PAST 4 QUARTERS



CTA 1-YEAR RETURNS, LAST 5 YEARS



MERGER ARB 1-YEAR RETURNS, LAST 3 YEARS



Source: HFR, MPI, Morningstar. SocGen, Data as of 6/30/23

Appendix

Periodic table of returns

	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	29.0	15.1	15.7
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	16.7	11.9	12.6
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	13.6	8.1	9.2
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	11.7	6.7	8.8
60/40 Global Portfolio	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	8.8	4.7	8.3
Small Cap Equity	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	8.1	4.6	8.3
Large 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	5.1	4.4	7.3
Emerging Markets Equity	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	4.9	4.2	5.5
Small Cap Value	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	2.5	4.2	5.4
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	2.3	3.5	3.4
Cash	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	2.3	3.3	3.0
US Bonds	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	2.1	1.5	1.5
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	-1.8	0.9	0.9
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	-7.8	0.8	-1.0

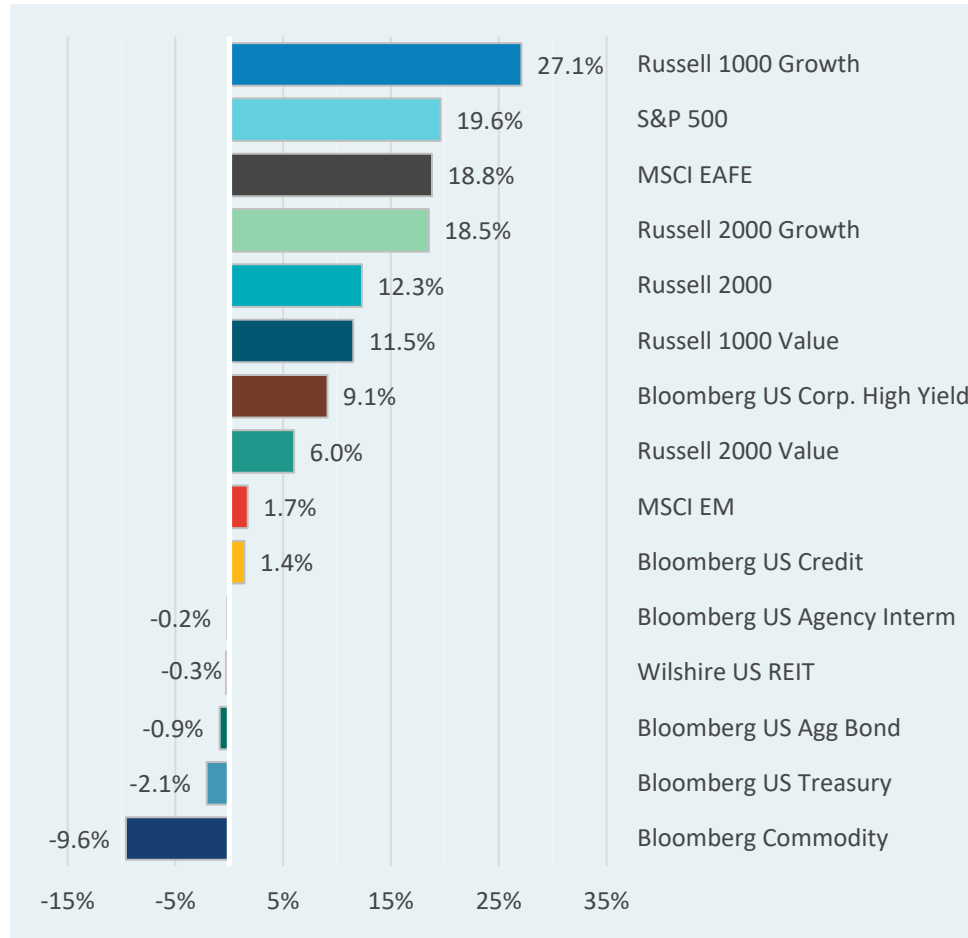
BEST
↑
WORST
↓

 Large Cap Equity	 Small Cap Growth	 Commodities
 Large Cap Value	 International Equity	 Real Estate
 Large Cap Growth	 Emerging Markets Equity	 Hedge Funds of Funds
 Small Cap Equity	 US Bonds	 60% MSCI ACWI/40% Bloomberg Global Bond
 Small Cap Value	 Cash	

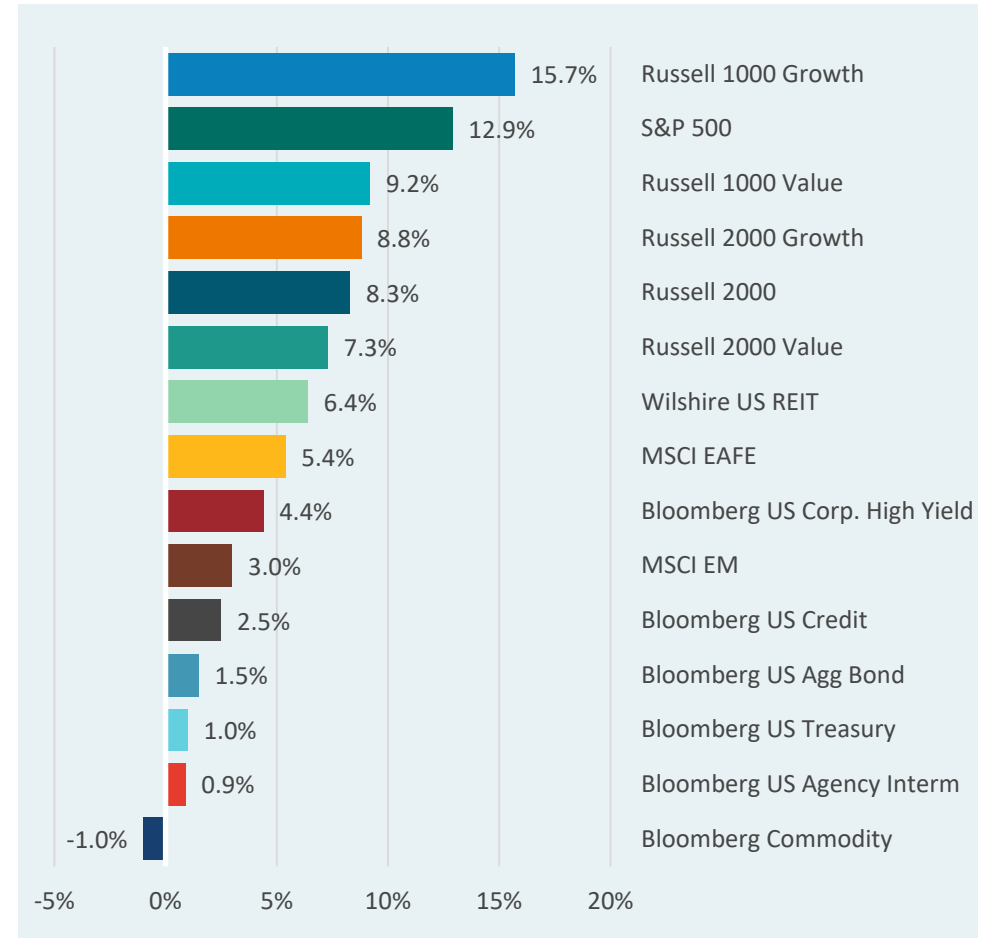
Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, Bloomberg US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, Bloomberg Global Bond. NCREIF Property Index performance data as of 3/31/22.

Major asset class returns

ONE YEAR ENDING JUNE



TEN YEARS ENDING JUNE



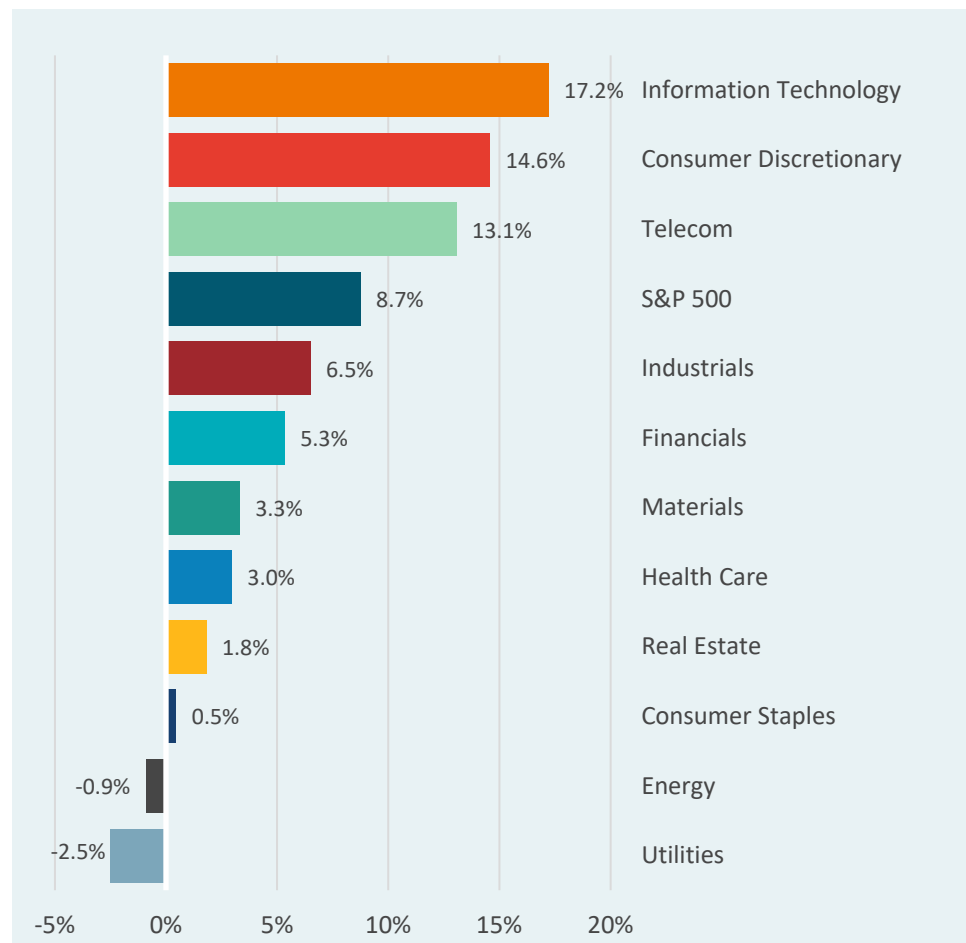
*Only publicly traded asset performance is shown here. Performance of private assets is typically released with a 3- to 6-month delay.

Source: Morningstar, as of 6/30/23

Source: Morningstar, as of 6/30/23

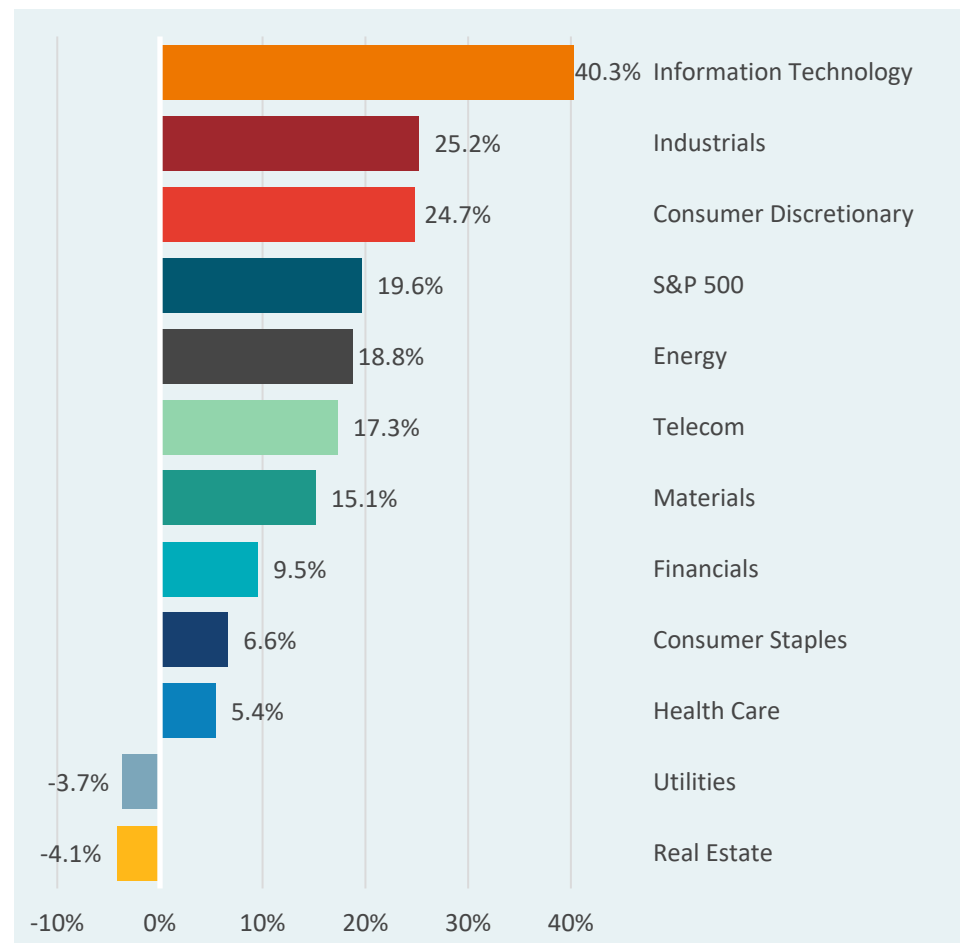
S&P 500 sector returns

QTD



Source: Morningstar, as of 6/30/23

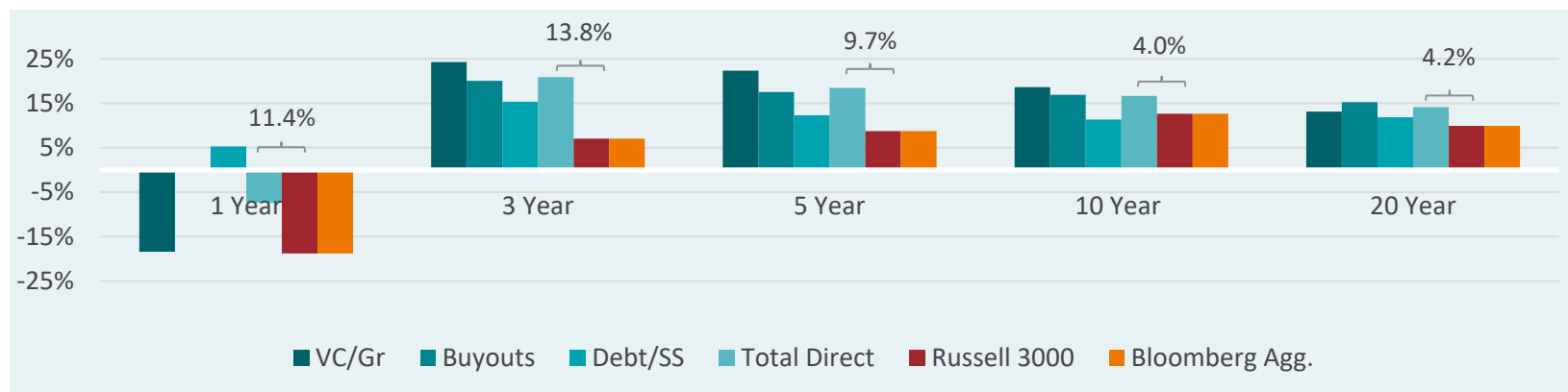
ONE YEAR ENDING JUNE



Source: Morningstar, as of 6/30/23

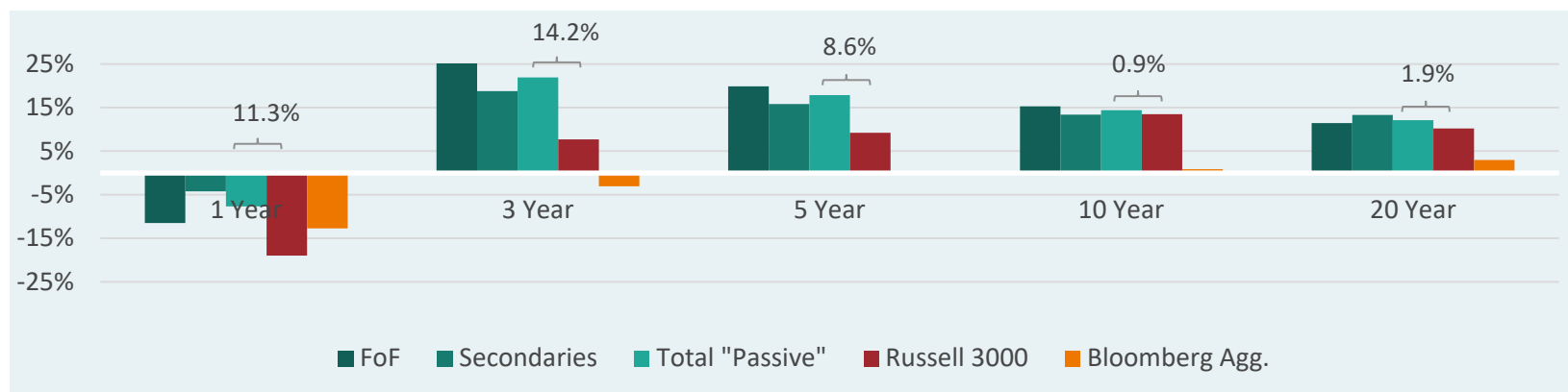
Private equity vs. traditional assets performance

DIRECT PRIVATE EQUITY FUND INVESTMENTS



Direct P.E Fund Investments outperformed comparable public equities across all time periods.

“PASSIVE” STRATEGIES

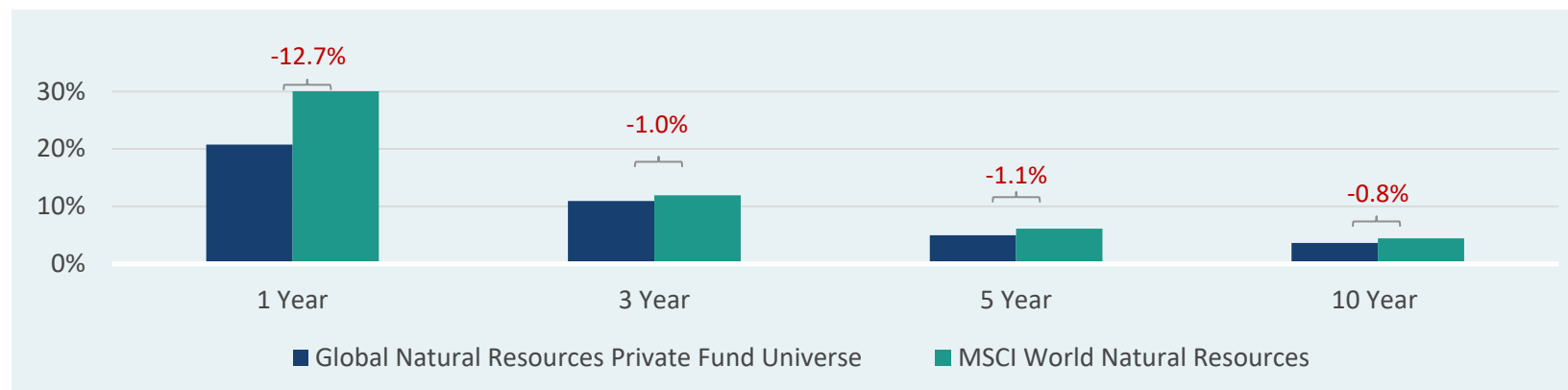


“Passive” strategies outperformed comparable public equities across all time periods.

Sources: Refinitiv PME: U.S. Private Equity Funds sub asset classes as of December 31, 2022. Public Market Equivalent returns resulted from “Total Passive” and Total Direct’s identical cash flows invested into and distributed from respective traditional asset comparable.

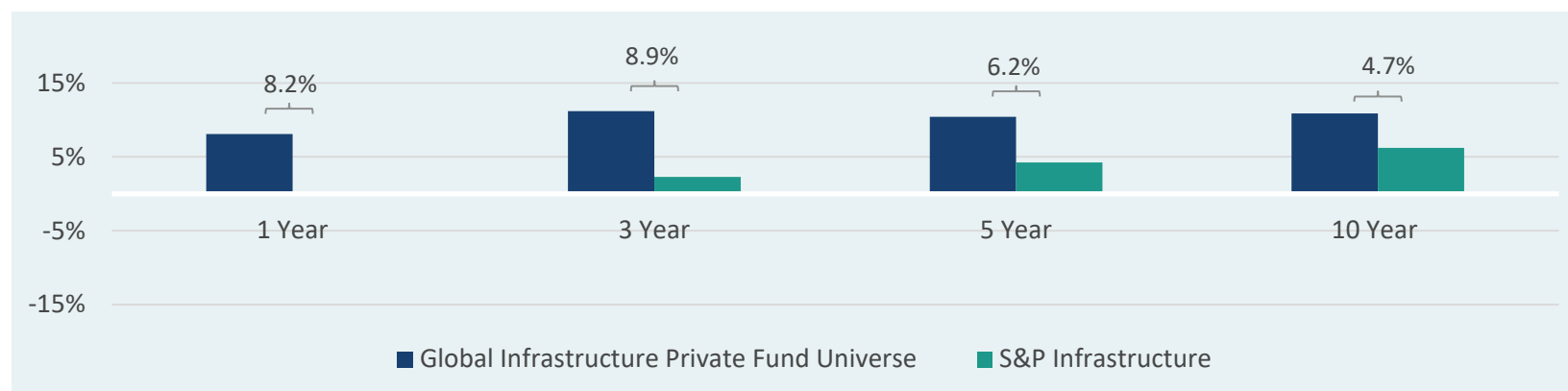
Private vs. liquid real assets performance

GLOBAL NATURAL RESOURCES FUNDS



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

GLOBAL INFRASTRUCTURE FUNDS

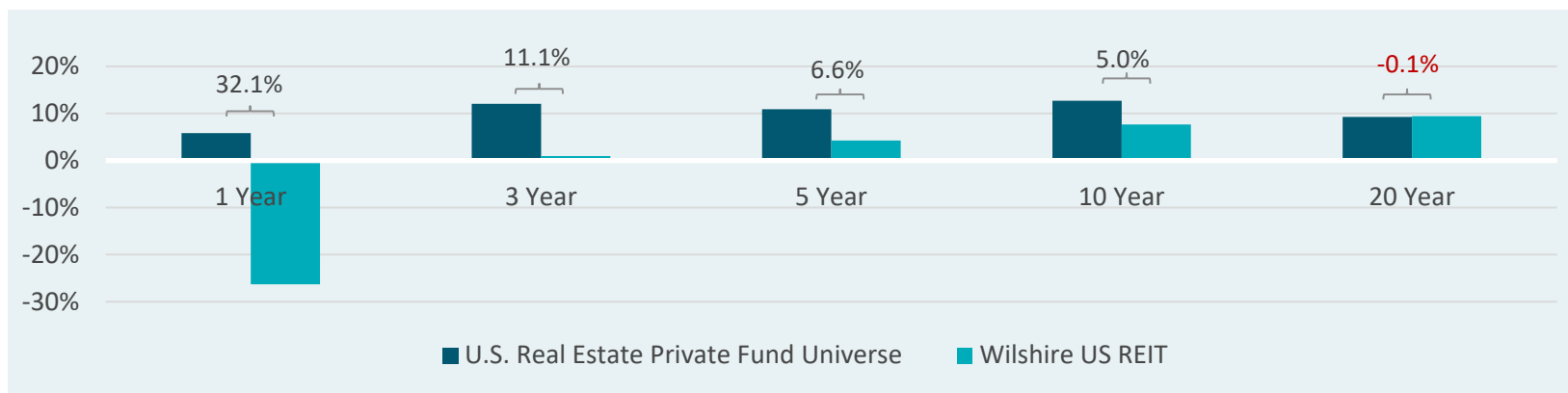


Infra. funds outperformed the S&P Infra. across all periods.

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 December 31, 2022. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real assets universes.

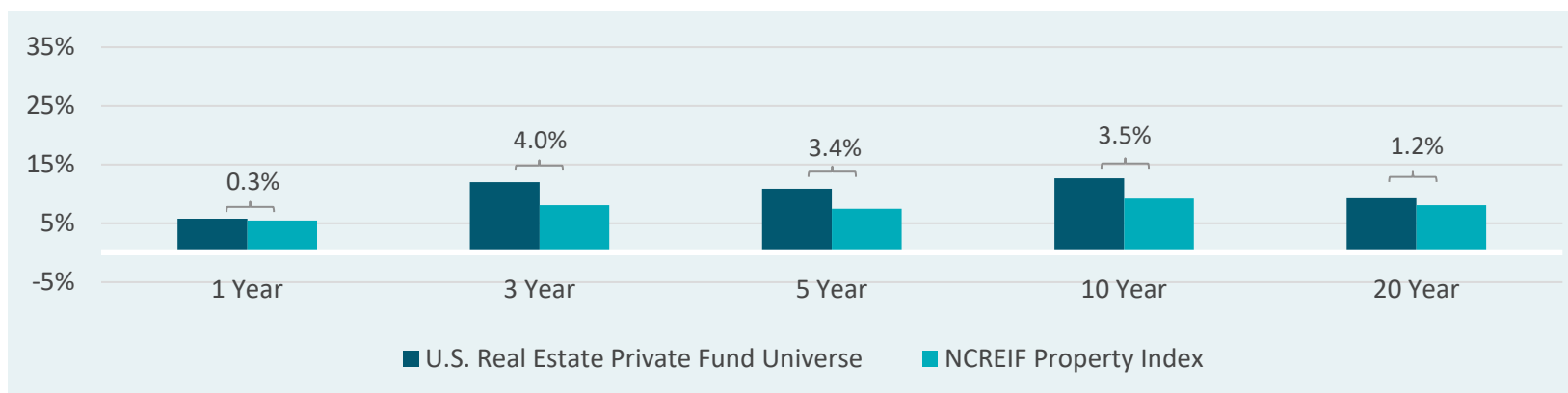
Private vs. liquid and core real estate performance

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



U.S. Private R.E. funds outperformed the Wilshire U.S. REIT Index across all time periods, aside the 20-year

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 December 31, 2022. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real estate universes.

Detailed index returns

DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index							
S&P 500	6.6	8.7	16.9	19.6	14.6	12.3	12.9
S&P 500 Equal Weighted	7.7	4.0	7.0	13.8	15.8	10.2	11.5
DJ Industrial Average	4.7	4.0	4.9	14.2	12.3	9.6	11.3
Russell Top 200	6.2	9.9	19.4	20.9	14.6	13.2	13.5
Russell 1000	6.8	8.6	16.7	19.4	14.1	11.9	12.6
Russell 2000	8.1	5.2	8.1	12.3	10.8	4.2	8.3
Russell 3000	6.8	8.4	16.2	19.0	13.9	11.4	12.3
Russell Mid Cap	8.3	4.8	9.0	14.9	12.5	8.5	10.3
Style Index							
Russell 1000 Growth	6.8	12.8	29.0	27.1	13.7	15.1	15.7
Russell 1000 Value	6.6	4.1	5.1	11.5	14.3	8.1	9.2
Russell 2000 Growth	8.3	7.1	13.6	18.5	6.1	4.2	8.8
Russell 2000 Value	7.9	3.2	2.5	6.0	15.4	3.5	7.3

INTERNATIONAL EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
MSCI ACWI	5.8	6.2	13.9	16.5	11.0	8.1	8.8
MSCI ACWI ex US	4.5	2.4	9.5	12.7	7.2	3.5	4.7
MSCI EAFE	4.6	3.0	11.7	18.8	8.9	4.4	5.4
MSCI EM	3.8	0.9	4.9	1.7	2.3	0.9	3.0
MSCI EAFE Small Cap	2.9	0.6	5.5	10.2	5.7	1.3	6.2
Style Index							
MSCI EAFE Growth	3.5	2.8	14.2	20.2	6.3	5.4	6.4
MSCI EAFE Value	5.6	3.2	9.3	17.4	11.3	2.9	4.1
Regional Index							
MSCI UK	3.9	2.2	8.4	13.2	12.6	2.8	3.9
MSCI Japan	4.1	6.4	13.0	18.1	5.7	3.1	5.2
MSCI Euro	6.4	3.8	19.9	32.7	11.7	5.2	6.2
MSCI EM Asia	2.7	(0.8)	4.0	(0.9)	1.2	1.2	4.7
MSCI EM Latin American	12.0	14.0	18.5	29.8	16.4	4.8	1.1

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
Bloomberg US TIPS	(0.3)	(1.4)	1.9	(1.4)	(0.1)	2.5	2.1
Bloomberg US Treasury Bills	0.4	1.2	2.3	3.6	1.2	1.5	1.0
Bloomberg US Agg Bond	(0.4)	(0.8)	2.1	(0.9)	(4.0)	0.8	1.5
Bloomberg US Universal	(0.2)	(0.6)	2.3	(0.0)	(3.4)	1.0	1.8
Duration							
Bloomberg US Treasury 1-3 Yr	(0.5)	(0.6)	1.0	0.1	(1.1)	0.9	0.8
Bloomberg US Treasury Long	(0.0)	(2.3)	3.7	(6.8)	(12.1)	(0.9)	1.8
Bloomberg US Treasury	(0.8)	(1.4)	1.6	(2.1)	(4.8)	0.4	1.0
Issuer							
Bloomberg US MBS	(0.4)	(0.6)	1.9	(1.5)	(3.7)	0.0	1.1
Bloomberg US Corp. High Yield	1.7	1.7	5.4	9.1	3.1	3.4	4.4
Bloomberg US Agency Interm	(0.5)	(0.4)	1.5	(0.2)	(2.0)	0.7	0.9
Bloomberg US Credit	0.3	(0.3)	3.1	1.4	(3.4)	1.7	2.5

OTHER

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Index							
Bloomberg Commodity	4.0	(2.6)	(7.8)	(9.6)	17.8	4.7	(1.0)
Wilshire US REIT	5.4	3.3	6.7	(0.3)	8.6	4.4	6.4
CS Leveraged Loans	2.2	3.1	6.3	10.1	6.2	4.0	4.1
S&P Global Infrastructure	3.0	(0.1)	3.8	4.2	10.6	5.3	6.7
Alerian MLP	4.5	6.2	9.8	31.5	31.2	5.9	0.8
Regional Index							
JPM EMBI Global Div	2.2	2.2	4.1	7.4	(3.1)	0.6	2.8
JPM GBI-EM Global Div	3.3	2.5	7.8	11.4	(1.4)	0.3	(0.6)
Hedge Funds							
HFRI Composite	2.2	2.2	3.5	5.1	8.2	5.0	4.7
HFRI FOF Composite	1.2	1.5	2.3	3.7	5.0	3.3	3.4
Currency (Spot)							
Euro	2.3	0.4	2.2	4.4	(1.0)	(1.4)	(1.7)
Pound Sterling	2.6	2.8	5.7	4.7	1.0	(0.8)	(1.8)
Yen	(3.3)	(7.9)	(8.7)	(6.0)	(9.3)	(5.2)	(3.7)

Source: Morningstar, HFRI, as of 6/30/23.

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.lanqerresearch.com)

University of Michigan Consumer Sentiment Index - A survey of consumer attitudes concerning both the present situation as well as expectations regarding economic conditions 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. (<http://www.nfib-sbet.org/about/>)

NAHB Housing Market Index - the housing market index is a weighted average of separate diffusion indices 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 $(\text{Good-Poor} + 100)/2$ to the present and future sales series and $(\text{High/Very High-Low/Very Low} + 100)/2$ 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.

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