



# Central bank armada drives markets into storm.

## Quarterly Snapshot

- Equities and fixed-income asset classes alike capsized around the globe during the second quarter, and commodity prices ran aground as the likelihood of recession increased.
- U.K. stocks posted significant losses, but they were not as steep as those of Japanese or European equities. U.S. stocks, meanwhile, had the sharpest drop among major markets.
- It's been our mantra for the past year that U.S. inflation would be higher for longer than most economists and investors appeared to expect. We believe this remains the case, although the gap between our expectations and those priced in markets has narrowed considerably. Investors, however, still seem to be betting that inflation pressures will ebb significantly starting in the second half of this year and fall to 3% by the end of 2023.

There was no safe harbor from choppy market cross currents during the second quarter. Equities and fixed-income asset classes alike capsized around the globe, and even commodity prices ran aground as the likelihood of recession increased.

Emerging-market equities fell by double digits during the quarter, although they still fared better than their developed-market counterparts, buoyed by a rebound in China. U.K. stocks posted significant losses, but they were not as steep as those of Japanese or European equities. U.S. stocks, meanwhile, had the sharpest drop among major markets as the U.S. dollar appreciated by 6.49% versus a trade-weighted basket of foreign currencies.

Value-oriented equities tended to fall by less than growth-oriented equities across both large- and small-cap markets, although the performance spread was much wider within larger companies. No sectors were spared from losses, but energy and consumer staples had the mildest declines, while information technology and consumer discretionary had the steepest.

Government-bond rates climbed throughout the second quarter as prices fell. U.S. Treasury yields increased across the yield curve, with shorter-term rates outpacing longer-term rates for the full quarter, flattening the curve. U.K. and eurozone government-bonds rates also rose across the curve, but longer-term rates increased by more than shorter-term rates.

Fixed-income performance ran the gamut of losses, moving from relatively modest declines for government bonds to more severe losses for emerging-market and high-yield bonds.

The tide began to turn on commodity markets, as prices began to recede in various commodities from mid-quarter onward. The Bloomberg Commodity Index fell by 5.92% during the second quarter, while Brent and West-Texas Intermediate crude-oil prices climbed by 4.13% and 5.46%, respectively. Natural gas prices fell by 4.43% and wheat prices tumbled by 12.13%. Energy commodity prices peaked in early June, while the high water mark for wheat prices came in mid-May.

OPEC+ (the Organization of the Petroleum Exporting Countries—plus Russia) agreed at the beginning of June to boost the size of an oil production increase by roughly 50% in July and August, totaling 648,000 new barrels per day.

## Key Measures: Q2 2022

EQUITY	
Dow Jones Industrial Average	-10.78% ↓
S&P 500 Index	-16.10% ↓
NASDAQ Composite Index	-22.28% ↓
MSCI ACWI Index (Net)	-15.66% ↓
BOND	
Bloomberg Global Aggregate Index	-8.26% ↓
VOLATILITY	
Chicago Board Options Exchange Volatility Index	28.71 ↑
PRIOR Quarter: 20.56	
OIL	
WTI Cushing crude oil prices	\$105.76 ↑
PRIOR Quarter: \$100.28	
CURRENCIES	
Sterling vs. U.S. dollar	\$1.22 ↓
Euro vs. U.S. dollar	\$1.05 ↓
U.S. dollar vs. yen	¥135.69 ↑

Sources: Bloomberg, FactSet, Lipper

The European Union (EU) imposed a partial ban on Russian crude oil and petroleum products in early June, blocking seaborne oil shipments but allowing Hungary, Slovakia and the Czech Republic to continue pipeline imports for domestic consumption. In a farther-reaching move, EU companies were banned from providing shipping insurance to transporters of Russian petroleum products—regardless of the destination country—depriving shippers of a critical market for insurers.

Russia began reducing natural gas pipeline supply to Europe in mid-June, limiting its ability to stockpile for winter, and driving prices in the region much higher.

The 27 members of the European Council agreed in late June to formally accept Ukraine and Moldova's candidacies to join the EU, taking the first steps to expand the union since Croatia's entrance in 2013.

Toward the end of the quarter, the North Atlantic Treaty Organization (NATO) announced a plan to increase its high-readiness Response Force (NRF) from 40,000 to 300,000 after activating NRF troops for the first time in its history following Russia's attack on Ukraine. Sweden and Finland's paths to join NATO brightened at the end of June. Turkey unblocked their applications and signed a trilateral memorandum of support for their memberships in exchange for weapons sales, and prioritization by the Scandinavian countries of Turkish extradition requests for purported Kurdish militants.

The U.S. followed NATO's planned increases with its own European expansion announcement at the end of the quarter. The buildout will include a permanent Army base in Poland, rotations through Romania and the Baltics, more Navy ships in Spain, air defenses in Italy, and fighter jets in the U.K.

## Economic Data

### U.S.

- U.S. manufacturing growth peaked in April after accelerating through early 2022, then cooled (slowly in May, and then sharply in June), leaving a soft expansion at the end of the second quarter.
- U.S. services-sector growth declined throughout the second quarter, moving from notably high levels in March to a weak expansion in June.
- The U.S. labor market remained quite healthy during the second quarter. New claims for unemployment benefits trended higher—from roughly 180,000 per week in April to about 230,000 per week in June—but remained low relative to history.
- The U.S. Consumer Price Index climbed to 8.6% year over year in May—the highest rate since December 1981—while the Personal Consumption Expenditures (PCE) Price Index (the Federal Reserve's preferred inflation gauge) edged down to 6.3%.

## U.K.

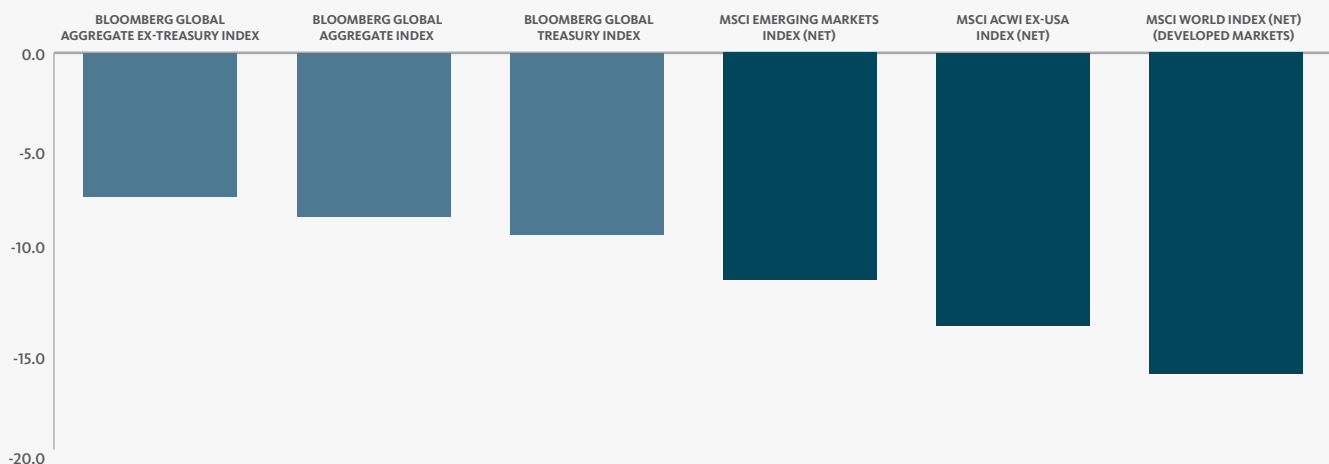
- U.K. manufacturing activity settled lower throughout the second quarter. Manufacturing growth in June was positive, but soft.
- Growth in the U.K. services sector cooled during the second quarter from a dizzying peak in March, ending in June at a moderately healthy pace of expansion.
- Inflation climbed to 9.1% in the U.K. for the 12-month period through May, the highest level in 40 years.
- The U.K. claimant count (which calculates the number of people claiming Jobseeker's Allowance) continued to improve in recent months—declining by roughly 85,000 from March through May, with total claimants representing 4.0% of the population in May compared to 4.2% in March.

## Eurozone

- The expansion in eurozone manufacturing continued to slow throughout the second quarter, ending in June with an anemic pace of growth.
- Activity in the eurozone services sector accelerated in April to strong growth territory, before softening to end the quarter with a modest but healthy expansion.
- The year-over-year rate of consumer price inflation in the eurozone climbed to 8.6% in June, hitting an all-time high.
- The eurozone unemployment rate held at 6.8% from February through April, before cracking through to 6.6% in May to set a new record low (since Eurostat began tracking the dataset in 1998).

## Major Index Performance in Q2 2022 (Percent Return)

■ FIXED INCOME ■ EQUITIES

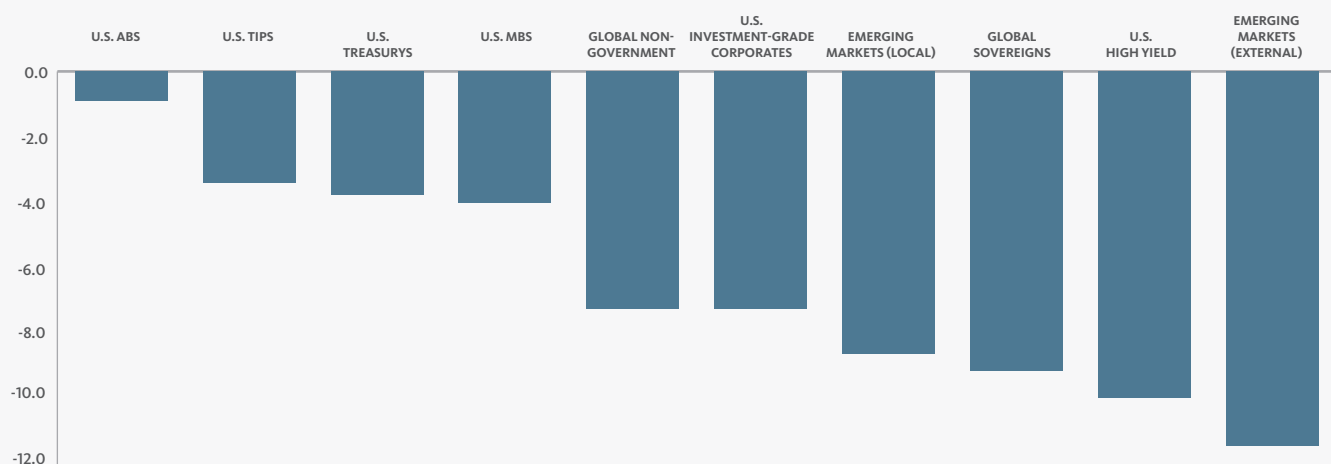


Sources: FactSet, Lipper

## Central Banks

- The Federal Open Market Committee (FOMC) increased the federal-funds rate by 0.50% (the first hike of its size since 2000) at its early-May meeting, and then by 0.75% (the first of its size since 1994) at its mid-June meeting, bringing the benchmark rate to a range between 1.50% and 1.75%. The central bank also announced plans to reduce its balance sheet in June, allowing Treasuries and mortgages to run off (that is, mature without being replaced) at maximum respective paces of \$60 billion and \$35 billion per month. Economic fundamentals deteriorated in the FOMC's latest quarterly Summary of Economic Projections (SEP), released in June. Real GDP projections declined for 2022, 2023, and 2024 compared to the March SEP, while projections for the unemployment rate increased across all three years, and inflation expectations increased for 2022. Projections for the federal funds rate were higher across the board as well.
- The Bank of England's (BoE) Monetary Policy Committee (MPC) voted to increase the bank rate by 0.25% at both its May and June meetings, increasing the benchmark rate to 1.25%. It also continued to reduce its balance sheet by ceasing to reinvest proceeds from its asset-purchase program, with an expected £3.2 billion (British pounds) in redemptions for July 2022.
- The European Central Bank (ECB) concluded new purchases in its Asset Purchase Programme (APP) with net purchases of €40 billion (euros) in April, €30 billion in May, and €20 billion in June. Following its early June meeting, the central bank announced it would cease new purchases in the APP and intended to increase benchmark rates in July and September. The specter of rising rates sent government bond spreads higher for economically weaker European countries—like Italy, Greece and Spain. The ECB convened an unscheduled meeting in mid-June to ensure markets it would intervene to avoid the fragmentation of the European government bond market.

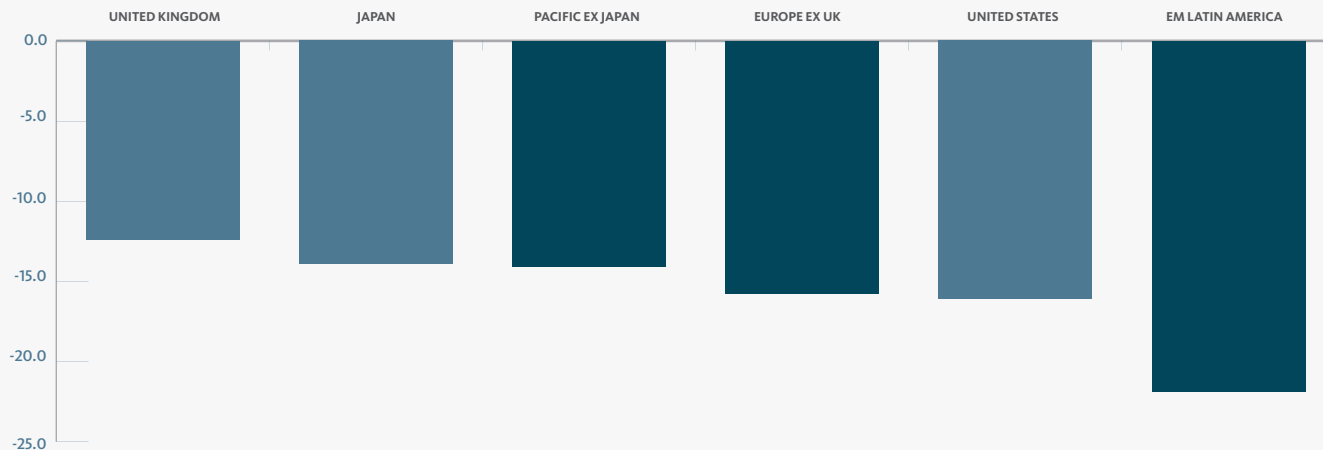
## Fixed-Income Performance in Q2 2022 (Percent Return)



Sources: FactSet, Lipper. See "Corresponding Indexes for Fixed-Income Performance Exhibit" in the Index Descriptions section for more information.

## Regional Equity Performance in Q2 2022 (Percent Return)

■ COUNTRIES ■ REGIONS



Sources: FactSet, Lipper. See “Corresponding Indexes for Regional Equity Performance Exhibit” in the Index Descriptions section for more information.

- The Bank of Japan (BOJ) redoubled its commitment to loose policy at its April and June meetings. Its short-term interest rate remained at -0.1%, and the 10-year Japanese government-bond (JGB) yield target held near 0%. The central bank continued to offer unlimited purchases of 10-year JGBs at 0.25% in order to keep its yield within the BOJ’s acceptable range.

## SEI’s View

It’s been our mantra for the past year that U.S. inflation would be higher for longer than most economists and investors appeared to expect. We believe this remains the case, although the gap between our expectations and those priced in U.S. markets has narrowed considerably and the pace of inflation’s increase is almost certainly close to a peak. Investors and the Fed still seem to be betting that inflation pressures will ebb significantly starting in the second half of this year and fall to 3% by the end of 2023.

Fed Chairman Jerome Powell continued to express hope that the Fed can achieve a “softish” landing, where inflation gradually decelerates back to the central bank’s 2% target without a recession. Unfortunately, there has been only one successful instance since the end of World War II (1951-to-1952) when inflation was running above 5%.

Federal funds-rate futures indicate that investors are anticipating a series of increases between now and year-end that would bring the funds rate to 3.4%. The peak is indicated to be between 3.75% and 4% a year from now. Markets are presumably pricing in a recession by the second half of 2023, considering the funds rate is projected to decline at that point.

We believe this to be a reasonable forecast, but the actual outcome will depend on how quickly the economy actually weakens and inflation ebbs. The evidence as of today suggests that the U.S. economy may continue to show a resilience that surprises both the Fed and investors.

## The possibility of a global wage-price spiral still cannot be dismissed out of hand.

There are signs of economic trouble ahead. The surge in U.S. mortgage rates is delivering a big blow to the housing market. Beyond real estate, economists have begun citing the big increase in retail inventories as a harbinger of recession. We are doubtful that the inventory problems of department stores and general merchandisers are serious enough to throw the economy into recession in the near term.

There is no denying that rising interest rates will slow economic growth. But changes in monetary policy affect the economy with a long and variable lag. While the financial strength of U.S. businesses and households is likely to ebb, the starting point is a very high one. The labor market, for instance, remains exceptionally tight. Until a better balance between the demand and supply of labor is achieved, one should expect further large wage gains at the lower end of the wage-income spectrum, where the job market is tightest.

American job switchers have enjoyed a sharper-than-average wage gain of 7.5% over the past 12 months. It should not be surprising that the U.S. quit rate is significantly higher than in 2019 or at the previous economic peak in 2007.

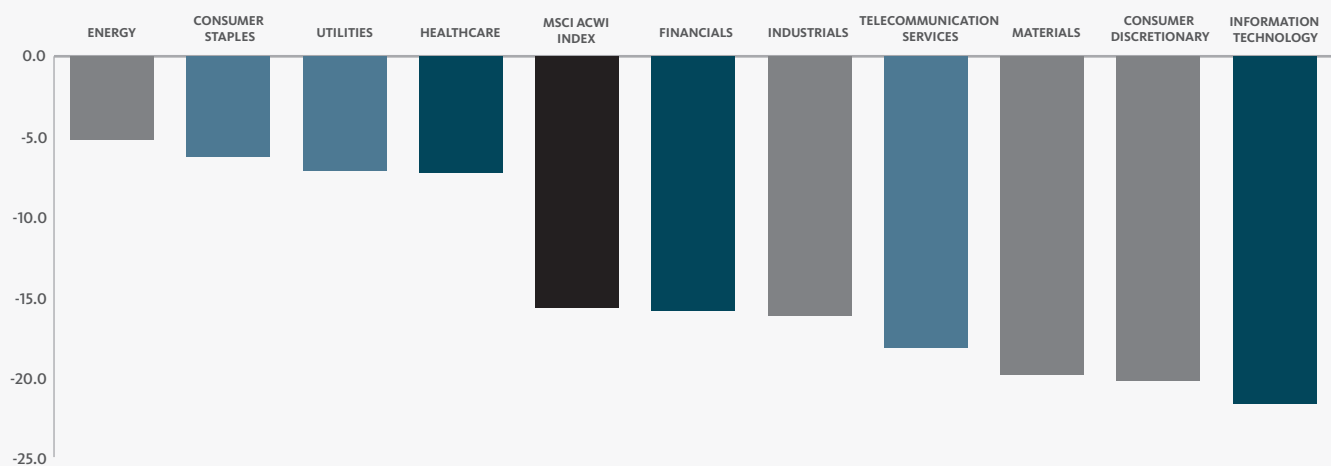
Other major developed economies aren't too far behind. The U.K. has an unemployment rate below 4%. Canada and Europe usually have unemployment rates that are considerably higher than the U.S. and the U.K. That remains the case, but both report jobless totals that are below previous cyclical lows.

All this suggests that workers are in a strong position to seek bigger wage gains in an effort to keep up with inflation. The possibility of a global wage-price spiral still cannot be dismissed out of hand. This could force central banks to raise interest rates more than they would prefer.

In Europe, the need to hike interest rates has once again raised the specter of another periphery debt crisis. Italian 10-year bonds are trading some 70 basis points higher against German bunds than they were at the start of the year. This is on top of the two percentage-point jump in German rates that has been logged over the same six-month stretch.

### Global Equity Sector Performance in Q2 2022 (Percent Return)

■ DEFENSIVES ■ BLENDS ■ CYCLICALS



Sources: FactSet, Lipper. MSCI ACWI Index Components (as defined by SEI).

The stress has not reached the crisis levels of the 2010-to-2012 period. Given all the other problems facing Europe, the ECB has vowed to support the weaker members of the eurozone with continued bond purchases.

As was the case last time, the economic priorities of the strongest countries are diverging from their weaker neighbors. The German-led bloc needs a more aggressive policy tightening along the lines of what the Fed is expected to do. Meanwhile, the weaker countries, Italy and Greece especially, now bear an even heavier debt burden relative to the size of their economies than was the case a decade ago. The interest expense on that debt could get out of hand fairly quickly if the cost of capital continues its sharp upward trajectory.

The ECB is so concerned about the situation that it actually held an emergency meeting the same day as the Fed's interest-rate announcement in order to assure markets that it is working on an "anti-fragmentation tool" that will keep spreads narrow while still allowing the central bank to fight inflation.

On a more positive note, China's economy appears to be in recovery mode. COVID-19 lockdowns in Beijing, Shanghai and other parts of the country have eased. The zero-COVID policy pursued by the Chinese government has hurt the economy to an extent seldom seen in the past three decades.

Home sales have also plummeted, falling 34% over the 12 months ended May. Chinese authorities are now trying to revive the property market by lowering mortgage rates, cutting mortgage down payment requirements and encouraging banks to start lending again.

Economy-wide lending has picked up, finally turning positive for the first time in a year. If that trend continues in the months ahead, other measures of current economic health should begin to recover too. Whether that will be enough to stave off a global recession is doubtful, however, in view of the rising interest-rate trend in the advanced economies. It might even prove counterproductive if a revival in Chinese demand for energy and other raw materials exacerbates the commodity-price boom at a time when global supplies are still constrained.

The poor performance of financial markets this year suggests that investors have already discounted a lot of bad news. The price decline in the S&P 500 Index recorded in the year-to-date contrasts sharply with the ongoing increases in forward-earnings estimates. The result has been one of the sharpest reductions in stock multiples outside of a recession in the past 25 years.

The froth certainly appears to have been taken out of the markets by this year's pullback. That's the good news. The bad news is that an economic recession and a corresponding decline in earnings might not yet be fully reflected in stock prices. Multiples tend to slide as projected earnings estimates fall. Even if price-to-earnings ratios remain at current levels, there could be a decline in projected earnings—and a comparable drop in stock prices—as analysts incorporate a recession's impact into their models. While the consensus view is that stock prices face rough seas ahead, it is possible that earnings multiples do not need to contract much further than they have already—with the caveat that bond yields stabilize near current levels and do not climb significantly higher.

The bad news is that an economic recession and a corresponding decline in earnings might not yet be fully reflected in stock prices.

## Glossary of Financial Terms

**Anti-fragmentation tool:** An anti-fragmentation tool refers to the ECB's plans to mitigate widening spreads between German government bond yields and those of economically weaker EU members.

**Asset Purchase Programme (APP):** The ECB's APP is part of a package of non-standard monetary policy measures that also includes targeted longer-term refinancing operations, and which was initiated in mid-2014 to support the monetary policy transmission mechanism and provide the amount of policy accommodation needed to ensure price stability.

**Bull market:** A bull market refers to a market environment in which prices are generally rising (or are expected to rise) and investor confidence is high.

**Commercial paper:** Commercial paper is a type of short-term loan that is not backed by collateral and does not tend to pay interest.

**Cyclical stocks:** Cyclical stocks or sectors are those whose performance is closely tied to the economic environment and business cycle. Managers with a pro-cyclical market view tend to favor stocks that are more sensitive to movements in the broad market and therefore tend to have more volatile performance.

**European Commission:** The European Commission is the executive branch of the European Union. It operates as a cabinet government, with 27 members of the Commission headed by a President.

**Fiscal cliff:** A fiscal cliff refers to the reduction or withdrawal of government spending, an increase in taxation, or both.

**Fiscal policy:** Fiscal policy relates to decisions about government revenues and outlays, like taxation and economic stimulus.

**Fiscal stimulus:** Fiscal stimulus refers to government spending intended to provide economic support.

**Inflation-Protected Securities:** Inflation-protected securities are typically indexed to an inflationary gauge to protect investors from the decline in the purchasing power of their money. The principal value of an inflation-protected security typically rises as inflation rises, while the interest payment varies with the adjusted principal value of the bond. The principal amount is typically protected so that investors do not risk receiving less than the originally invested principal.

**International Monetary Fund:** The International Monetary Fund (IMF) is an international organization of 189 member countries that promotes global economic growth and financial stability, encourages international trade, and reduces poverty.

**Group of 7 (G7):** The G7 is an inter-governmental forum for the leaders of major advanced democratic nations that includes Canada, France, Germany, Italy, Japan, the U.K. and the U.S.

**Hawk:** Hawk refers to a central-bank policy advisor who has a negative view of inflation and its economic impact, and thus tends to favor higher interest rates.

**Monetary policy:** Monetary policy relates to decisions by central banks to influence the amount of money and credit in the economy by managing the level of benchmark interest rates and the purchase or sale of securities. Central banks typically make policy decisions based on their mandates to target specific levels or ranges for inflation and employment.

**Mortgage-Backed Securities:** Mortgage-Backed Securities (MBS) are pools of mortgage loans packaged together and sold to the public. They are usually structured in tranches that vary by risk and expected return.

**NATO: The North Atlantic Treaty Organization (NATO) is an intergovernmental military alliance among 28 European countries and 2 North American countries.**

**Pandemic Emergency Purchase Programme (PEPP): PEPP is a temporary asset-purchase program of private and public sector securities established by the European Central Bank to counter the risks to monetary-policy transmission and the outlook for the euro area posed by the COVID-19 outbreak.**

**Price-to-earnings (PE) ratio: The PE ratio is equal to the market capitalization of a share or index divided by trailing (over the prior 12 months) or forward (forecasted over the next 12 months) earnings. The higher the PE ratio, the more the market is willing to pay for each dollar of annual earnings.**

**Quantitative easing:** Quantitative easing refers to expansionary efforts by central banks to help increase the supply of money in the economy.

**Taper tantrum:** Taper tantrum describes the 2013 surge in U.S. Treasury yields, resulting from the U.S. Federal Reserve's announcement of future tapering of its policy of quantitative easing.

**Yield:** Yield is a general term for the expected return, in percentage or basis points (one basis point is 0.01%), of a fixed-income investment.

**Yield curve:** The yield curve represents differences in yields across a range of maturities of bonds of the same issuer or credit rating (likelihood of default). A steeper yield curve represents a greater difference between the yields. A flatter curve indicates the yields are closer together.



## Index and Benchmark Descriptions

All indexes are quoted in gross performance unless otherwise indicated.

**The Bloomberg 1-10 Year US TIPS Index** measures the performance of inflation-protected public obligations of the U.S. Treasury that have a remaining maturity of 1 to 10 years.

**The Bloomberg Commodity Index** is composed of futures contracts and reflects the returns on a fully collateralized investment in the Index. This combines the returns of the Index with the returns on cash collateral invested in 13-week (3-month) U.S. Treasury bills.

**The Bloomberg US Asset Backed Securities (ABS) Index** measures the performance of ABS with the following collateral types: credit and charge card, auto and utility loans. All securities have an average life of at least one year.

**The Bloomberg Global Aggregate Index** is an unmanaged market-capitalization-weighted benchmark, tracks the performance of investment-grade fixed-income securities denominated in 13 currencies. The Index reflects reinvestment of all distributions and changes in market prices.

**The Bloomberg Global Aggregate ex-Treasury Index** is an unmanaged market index representative of the total-return performance of ex-Treasury major world bond markets.

**The Bloomberg Global Treasury Index** is composed of those securities included in the Bloomberg Global Aggregate Bond Index that are Treasury securities.

**The Bloomberg US Corporate Bond Index** is a broad-based benchmark that measures the investment-grade, fixed-rate, taxable corporate bond market.

**The Bloomberg US Mortgage Backed Securities (MBS) Index** measures the performance of investment-grade, fixed-rate, mortgage-backed, pass-through securities of Government National Mortgage Association (GNMA), Federal National Mortgage Association (FNMA) and Freddie Mac (FHLMC).

**The Bloomberg US Treasury Index** is an unmanaged index composed of U.S. Treasuries.

**The Bloomberg Commodity Index** is composed of futures contracts and reflects the returns on a fully collateralized investment in the Index. This combines the returns of the Index with the returns on cash collateral invested in 13-week (3-month) U.S. Treasury bills.

**The Employment Cost Index** is a quarterly economic series published by the U.S. Bureau of Labor Statistics that details the growth of total employee compensation. The index tracks movement in the cost of labor, as measured by wages and benefits, at all levels of a company.

**The Chicago Board Options Exchange Volatility Index (VIX)** tracks the expected volatility in the S&P 500 Index over the next 30 days. A higher number indicates greater volatility.

**CBOE Volatility Index (VIX Index):** The VIX Index tracks the expected volatility in the S&P 500 Index over the next 30 days. A higher number indicates greater volatility.

**The Dow Jones Industrial Average** is a widely followed market indicator based on a price-weighted average of 30 blue-chip New York Stock Exchange stocks that are selected by editors of *The Wall Street Journal*.

**The Employment Cost Index** is a quarterly economic series published by the U.S. Bureau of Labor Statistics that details the growth of total employee compensation. The index tracks movement in the cost of labor, as measured by wages and benefits, at all levels of a company.

**The FTSE All-Share Index** represents 98% to 99% of U.K. equity market capitalization. The Index aggregates the FTSE 100, FTSE 250 and FTSE Small Cap Indexes.

**The ICE BofA U.S. High Yield Constrained Index** contains all securities in The ICE BofA U.S. High Yield Index but caps exposure to individual issuers at 2%.

**The ICE BofA U.S. High Yield Index** tracks the performance of below-investment-grade, U.S. dollar-denominated corporate bonds publicly issued in the U.S. domestic market.

**The JPMorgan EMBI Global Diversified Index** tracks the performance of external debt instruments (including U.S. dollar-denominated and other external-currency-denominated Brady bonds, loans, eurobonds and local-market instruments) in the emerging markets.

**JPMorgan GBI-EM Global Diversified Index** tracks the performance of debt instruments issued in domestic currencies by emerging-market governments.

**The MSCI ACWI Index** is a market-capitalization-weighted index composed of over 2,000 companies, representing the market structure of 48 developed- and emerging-market countries in North and South America, Europe, Africa and the Pacific Rim. The Index is calculated with net dividends reinvested in U.S. dollars.

**The MSCI ACWI ex-USA Index** includes both developed- and emerging-market countries, excluding the U.S.

**The MSCI Emerging Markets Index** is a free float-adjusted market-capitalization-weighted index designed to measure the performance of global emerging-market equities.

**The MSCI Emerging Markets Latin America Index** captures large- and mid-cap representation across five emerging-market countries in Latin America.

**The MSCI EMU (European Economic and Monetary Union) Index** is a free float-adjusted market-capitalization-weighted index that is designed to measure the equity market performance of countries within EMU. The Index consists of the following 10 developed-market country indexes: Austria, Belgium, Finland, France, Germany, Ireland, Italy, Netherlands, Portugal and Spain.

**The MSCI Europe ex-UK Index** is a free float-adjusted market-capitalization-weighted index that captures large- and mid-cap representation across developed-market countries in Europe excluding the UK.

**The MSCI Frontier Emerging Markets Index** is a free float-adjusted market capitalization index designed to serve as a benchmark covering all countries from the MSCI Frontier Markets Index and the lower size spectrum of the MSCI Emerging Markets Index.

**The MSCI Japan Index** is designed to measure the performance of the large- and mid-capitalization stocks in Japan.

**The MSCI Pacific ex Japan Index** captures large- and mid-cap representation across four of five developed-market countries in the Pacific region (excluding Japan).

**The MSCI Russia Index** is designed to measure the performance of the large- and mid-cap segments of the Russian market. With 26 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Russia.

**MSCI United Kingdom Index** is designed to measure the performance of the large- and mid-cap segments of the U.K. market.

**MSCI USA Index** measures the performance of the large- and mid-cap segments of the U.S. market.

**The MSCI World Index** is a free float-adjusted market-capitalization-weighted index designed to measure the equity market performance of developed markets. The Index consists of the following 23 developed-market country indexes: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the U.K. and the U.S.

**The MSCI World ex-USA Index** is a free float-adjusted market-capitalization-weighted index that is designed to measure the equity market performance of developed markets, excluding the U.S.

**The NASDAQ Composite Index** is a market-value-weighted index of all common stocks listed on the National Association of Securities Dealers Automated Quotations (NASDAQ) system.

**Russell 1000 Growth Index** measures the performance of the large-cap growth segment of the U.S. equity universe. It includes those Russell 1000 Index companies with higher price-to-book ratios and higher forecasted growth values.

**The Russell 2000 Growth Index** measures the performance of the small-cap growth segment of the U.S. equity universe. It includes those Russell 2000 Index companies with higher price-to-value ratios and higher forecasted growth values.

**The Russell 1000 Value Index** measures the performance of the large-cap value segment of the U.S. equity universe. It includes those Russell 1000 Index companies with lower price-to-book ratios and lower expected growth values.

**The Russell 2000 Value Index** measures the performance of small-cap value segment of the U.S. equity universe. It includes those Russell 2000 Index companies with lower price-to-book ratios and lower forecasted growth values.

**The Shenzhen Stock Exchange Composite Index** tracks performance of A share stocks (which are denominated in renminbi, the local currency) and B share stocks (which are denominated in Hong Kong dollars, an offshore currency) on China's Shenzhen Stock Exchange.

**The S&P 500 Index** is a market-capitalization-weighted index that consists of 500 publicly-traded large U.S. companies that are considered representative of the broad U.S. stock market.

**The TOPIX, also known as the Tokyo Stock Price Index**, is a capitalization-weighted index of all companies listed on the First Section of the Tokyo Stock Exchange. The Index is supplemented by the subindexes of the 33 industry sectors. The Index calculation excludes temporary issues and preferred stocks, and has a base value of 100 as of January 4, 1968.

**The U.S. Consumer Price Index (CPI)** measures changes in the price level of a weighted-average market basket of consumer goods and services purchased by households. A consumer price index is a statistical estimate constructed using the prices of a sample of representative items whose prices are collected periodically.

**The U.S. Dollar Index (DXY Index)** measures the value of the U.S. dollar relative to a basket of other currencies, including the currencies of some of the US's major trading partners: the euro, Swiss franc, Japanese yen, Canadian dollar, British pound, and Swedish krona.

**The U.S. Personal Consumption Expenditures (PCE) Price Index** is the primary inflation index used by the Federal Reserve when making monetary-policy decisions

## Corresponding Indexes for Fixed-Income Performance Exhibit

U.S. High Yield	ICE BofA U.S. High Yield Constrained Index
Global Sovereigns	Bloomberg Global Treasury Index
Global Non-Government	Bloomberg Global Aggregate ex-Treasury Index
Emerging Markets (Local)	JPMorgan GBI-EM Global Diversified Index
Emerging Markets (External)	JPMorgan EMBI Global Diversified Index
U.S. Mortgage-Backed Securities (MBS)	Bloomberg US Mortgage Backed Securities Index
U.S. Asset-Backed Securities (ABS)	Bloomberg US Asset Backed Securities Index
U.S. Treasurys	Bloomberg US Treasury Index
U.S. Treasury Inflation-Protected Securities (TIPS)	Bloomberg 1-10 Year US TIPS Index
U.S. Investment-Grade Corporates	Bloomberg US Corporate Bond Index

## Corresponding Indexes for Regional Equity Performance Exhibit

United States	S&P 500 Index
United Kingdom	FTSE All-Share Index
Pacific ex Japan	MSCI Pacific ex Japan Index (Net)
Japan	TOPIX, also known as the Tokyo Stock Price Index
Europe ex U.K.	MSCI Europe ex UK Index (Net)
EM Latin America	MSCI Emerging Markets Latin America Index (Net)

## Disclosures

*This material represents an assessment of the market environment at a specific point in time and is not intended to be a forecast of future events, or a guarantee of future results. This information should not be relied upon by the reader as research or investment advice regarding SEI's portfolios or any stock in particular, nor should it be construed as a recommendation to purchase or sell a security, including futures contracts.*

*There are risks involved with investing, including loss of principal. International investments may involve risk of capital loss from unfavorable fluctuation in currency values, from differences in generally accepted accounting principles or from economic or political instability in other nations. Emerging markets involve heightened risks related to the same factors as well as increased volatility and lower trading volume. Narrowly focused investments and smaller companies typically exhibit higher volatility. Bonds and bond funds will decrease in value as interest rates rise. High-yield bonds involve greater risks of default or downgrade and are more volatile than investment-grade securities, due to the speculative nature of their investments.*

*Diversification may not protect against market risk. Past performance does not guarantee future results. Index returns are for illustrative purposes only and do not represent actual portfolio performance. Index returns do not reflect any management fees, transaction costs or expenses. One cannot invest directly in an index.*

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