

April 15, 2024

**2025 year-end forecasts.**

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**2024 year-end forecast changes.**

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## Modest adjustments to our targets and outlook

Although the trajectory of our 2024 economic and market outlook has not changed, we are making modest adjustments to our 2024 targets and are extending our outlook through year-end 2025.<sup>1</sup> The economy’s pivot into brisker growth this year is likely to be limited since high private debt levels may constrain the rebound. Looking ahead, should the economy gain momentum in 2025 as we expect, inflation is likely to pivot higher from its trough this year.

Our concern is that the steady, five-month rally in the S&P 500 Index may assume a strong economic rebound, coupled with diminishing inflation concerns and aggressive Federal Reserve (Fed) rate cuts. This view strikes us as an overly optimistic and unrealistic view. If the economy is to remain strong, then inflation is also likely to stay sticky for longer, which likely would delay Fed rate cuts. Moreover, we expect market volatility to pick up as investors eventually recalibrate their expectations. Thus, for long-term investors, we are maintaining quality-oriented preferences for portfolio allocations.

At present, we are making no guidance changes; below we review our modified targets and outlook.

**Economy**

We are raising our 2024 economic growth targets, as the economy remains buoyed by unusually accommodative financial conditions, principally in financial markets. We underestimated the durability of these supportive conditions in 2023; their endurance is a principal reason for our 2024 economic upgrade. Unfortunately, these accommodative conditions do not generally extend beyond the financial markets. Lower-income households and small businesses, which depend more on bank credit and less on asset prices, find credit much more difficult to obtain at reasonable prices. This divergence is why we see resilience in financial markets even as the broader economy slows.

One salient point for 2024 and 2025 is that slower economic growth and renewed expectations for disinflation should allow the Fed to cut interest rates. Yet, without a recession a strong recovery is unlikely. Recessions typically generate bankruptcies, postpone consumer demand, and reduce inventories. When a recovery finally comes, there is typically new credit and a surge in pent-up spending and associated inventory restocking. In this instance, the absence of a recession does not create the reset or cleansing that historically have driven sharp recoveries. A slow start to 2025 also implies that disinflation may linger early in the year. However, as the Fed continues to cut interest rates, both economic activity and inflation should gain momentum throughout the year. In our view, one outlay that may lead to higher year-end inflation is rental inflation, which comprises nearly one third of the Consumer Price Index (CPI).

Overseas, we expect that a U.S.-led recovery will spill over into other developed countries and outweigh a loss of emerging-market momentum largely due to China’s lackluster economy. Developed economies may still trail the U.S., however, restrained by the impediments of a reduction in fiscal support, a sluggish world-trade recovery, a smaller technology sector index weighting, alongside demographic and broader structural restraints.

Our revised economic forecast for stronger U.S. economic growth reinforces a stronger dollar against major, developed-market currencies, while other factors should continue to favor the greenback or have a marginal effect.

**Equities**

Our 2025 equity earnings and price targets coupled with our revised 2024 targets reflect our modestly improved economic outlook. After the earnings recession of 2022 and 2023 we expect the S&P 500 Index earnings-per-share (EPS) to rise from \$240 in 2024 to \$260 in 2025. This same rationale extends across equity asset classes, based on our forecast for broadly improving economic growth and commitment among companies to contain costs — and is reflected in our higher price targets for 2024.

1. See Wells Fargo Investment Institute’s *Institute Alert*, April 15, 2024, for full details.

(Continued on the next page.)

**Investment and Insurance Products: ► NOT FDIC Insured ► NO Bank Guarantee ► MAY Lose Value**

## Modest adjustments to our targets and outlook (continued)

We expect that equity markets have priced in much of the 2024 optimism. Markets may struggle to advance meaningfully past recent highs, while uncertainties surrounding the path of inflation and the timing and magnitude of Fed rate cuts persist. Still, we would view any periods of equity market weakness as opportunities to add exposure, since our outlook through 2025 anticipates improved revenue growth and expanding margins.

A point of emphasis is that these year-end targets still allow for potential market fluctuations in the track of inflation and Fed policy interest rates. Thus, we believe it is too early to tilt toward a broad-based rally and continue to prefer a quality-based approach, viewing U.S. Large Cap Equities as the highest quality major equity class. Our preference for quality extends to our guidance on international equities where we prefer Developed Market ex U.S. (neutral) over Emerging Market equities (unfavorable).

### Fixed Income

We look for the Fed to begin cutting rates by mid-year and continue doing so through the first half of 2025. By then, we expect inflation to tick higher, offering the Fed fewer chances to reduce rates. With that in mind, we are adjusting our year-end 2024 federal funds target rate to 4.75%–5.00%, with one additional rate cut likely in 2025, finishing the year between 4.50%–4.75%.

We expect short-term U.S. Treasury rates to decline in tandem with the Fed's policy interest rate. However, longer-term interest rates may settle near current levels. Our economic growth and inflation forecasts over the next two years imply that long-term rates will tend to stay above 4%. With this outlook, we are keeping our year-end 2024 10-year and 30-year U.S. Treasury yield targets unchanged, yet we do envision slightly lower long-term yields next year as the Fed continues to lower rates.

### Real Assets

Gold prices rose sharply in the first quarter of 2024, reaching record highs and outperforming the broad-based Bloomberg Commodity Index (BCOM). Looking ahead, our expectations for the Fed to begin cutting rates this year supports higher prices. Ongoing tailwinds should persist, such as global central bank buying and strong price action, with gold prices recently hitting new all-time highs.

In addition to our updated gold targets, we are slightly lowering our price targets on Brent and West Texas Intermediate (WTI) crude oil, by \$5 per barrel. We are still expecting higher oil prices in 2024, but the revisions reflect two emerging risks: (1) the potential for OPEC<sup>+</sup> to end its 18-month long supply-cutting strategy as the global economy begins to improve, and (2) the potential for U.S. oil producers to aggressively ramp-up production, should oil prices continue to trend higher, approaching the \$90–\$100 per barrel level. For 2025, we expect economic conditions to continue improving, leading to stronger demand for most commodities and, in turn, higher prices. For this reason, we are raising our 2025 BCOM target to 250–270. We are also raising our Brent and WTI oil price targets to \$85–\$95 and \$90–\$100, respectively.

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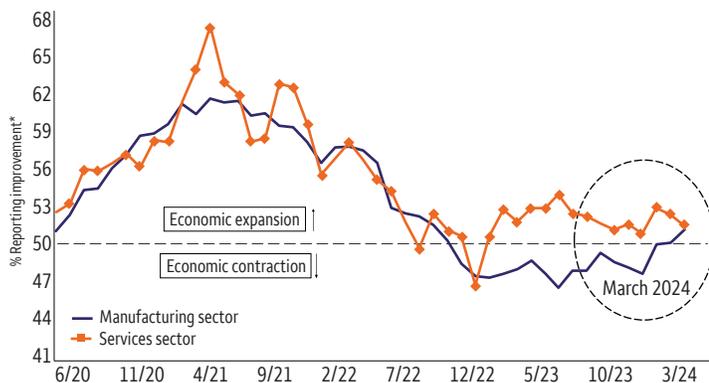
# Global economic summary

## United States

March capped a mixed quarter for the U.S. economy, in which it shifted to a more sustainable pace of growth following a rebound from an early-year soft patch. Lower mortgage rates from a mid-February peak stabilized home sales, while business investment was steadied by commercial construction — led by manufacturing — overshadowing weakness in office-building construction. March business surveys from S&P Global showed a rotation of leadership from services to manufacturing activity for the first time since the start of 2023, perhaps anticipating a similar shift in consumer spending following services-led growth in household demand during the start of 2024. Hopes for better times ahead were reinforced in February by the first increase in the Conference Board’s U.S. Leading Economic Index in two years.

A late-March bounce in the University of Michigan’s Consumer Sentiment Index to a July 2021 high, confirmed consumers’ leading-edge role in economic growth. Maintaining this support likely will prove difficult, however, as lower- and middle-income households grapple with a historically low and declining savings rate, alongside increasing financial strains propelling auto and credit-card delinquency rates to a decade high. Further, disinflation has gone into reverse, with back-to-back increases in the 12-month CPI, which climbed to a September 2023 high of 3.5% in March. That has cut inflation-adjusted wage increases to a 10-month low, creating a headwind for consumer-led growth moving forward. Countering this is support coming to household incomes from strong job growth. Non-farm payrolls increased 303,000 in March, the most since May and holding well above its long-term average.

### Toward better-balanced economic growth between manufacturing and services



Sources: Wells Fargo Investment Institute, S&P Global, Inc., and the Institute for Supply Management (ISM). Data as of April 3, 2024. \*Average of S&P Global, Inc. and the Institute for Supply Management’s (ISM) purchasing managers’ indexes.

## Europe

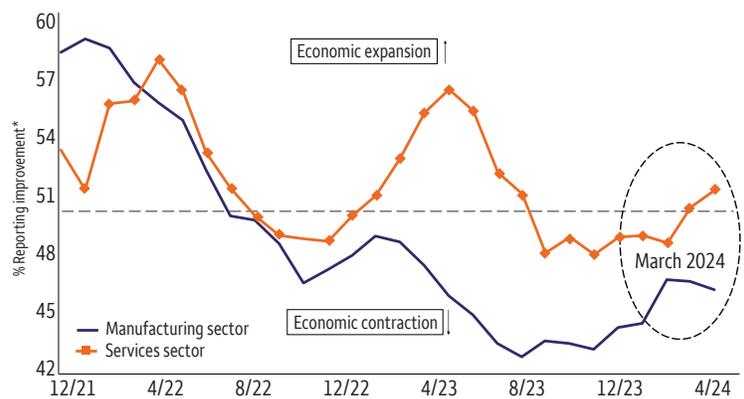
A manufacturing slump in Europe’s two largest economies, Germany and France, dragged down the broader region in March. The factory-led downturn persisted as a world trade recovery remains slowed by a struggling Chinese economy. Among the eurozone’s added headwinds are sizeable budget deficits limiting fiscal stimulus, tight credit conditions, elevated fuel costs, and geopolitical strains. Still, S&P Global’s Composite Purchasing Managers’ Index (PMI) survey for March came within striking distance of expansionary territory for the first time in 10 months, as stronger services growth offset deterioration in the manufacturing sector. The other piece of good news was that overall eurozone sentiment continued to improve through March, reinforced by inflation near enough to the European Central Bank’s (ECB) 2% target to bolster the case for a June rate cut.

12-month eurozone CPI inflation eased more than anticipated in March to 2.4%, versus the prior month’s 2.6% pace.

## Asia

Business surveys showing a March revival in China’s business activity included the first increase in manufacturing output since September and the strongest service-industry growth in nine months. We question the recovery’s staying power in the face of deep-rooted weaknesses ranging from ongoing property-market turmoil, inadequate government stimulus, a high debt burden, and related financial sector strains to a weak global trade environment, deflation, and poor consumer sentiment. Tepid demand from China and other key export markets stymied a manufacturing rebound in northern Asia last month, while March manufacturing growth in Southeast Asia was confined to Indonesia, the Philippines, and Singapore. In Japan, service-sector growth hit a May 2023 high as a weak yen bolstered the country’s tourism industry.

### Europe’s service-sector rebound offsets manufacturing slump



Sources: Wells Fargo Investment Institute and S&P Global, Inc. Data as of April 3, 2024.

### Key economic statistics

Global growth rates <sup>1</sup>	4Q23	3Q23	2Q23
U.S. real economic growth	3.4	4.9	2.1
Eurozone real economic growth	0.0	-0.4	0.4
Japanese real economic growth	-	-3.2	4.2
Chinese real economic growth	4.1	6.1	2.4

U.S. economic data	3/24	2/24	3/23
Unemployment rate (%)	3.8%	3.9%	3.5%
ISM Manufacturing PMI	50.3	47.8	46.5
ISM Services PMI	51.4	52.6	51.2
Retail sales (%)	-	0.6%	-1.3%
Consumer confidence (1985 = 100)	104.7	104.8	104.0
Housing starts (millions; annualized)	-	1.52	1.38
U.S. Dollar Index <sup>2</sup>	104.5	104.2	102.5
U.S. Consumer Price Index (CPI) (%)	3.5	3.2	5
U.S. core CPI (%)	3.8	3.8	5.6
Personal consumption expenditures (PCE) deflator (%)	-	2.5	4.4

Sources: Bloomberg, Wells Fargo Investment Institute, April 10, 2024. <sup>1</sup>Annualized gross domestic product quarter-to-quarter percent change. <sup>2</sup>End of period. An index is unmanaged and not available for direct investment. 2Q = second quarter. 3Q = third quarter. 4Q = fourth quarter. **Past performance is no guarantee of future results.** See pages 27-32 for important definitions and disclosures.

## Wells Fargo Investment Institute forecasts

**Gross domestic product (GDP) growth:** We now expect an economic slowdown in 2024 to be shallower than anticipated, lifting full-year growth forecasts to 2.5% in 2024 and to 2.1% in 2025. The economy's resilience is coming from solid job gains underpinning household purchasing power coupled with unusually accommodative financial conditions for an economic cycle's late stages, tethered, for now, to restrained interest rates cushioning housing and other credit-sensitive sectors of the economy. Overseas, industrial activity in China, and elsewhere, is stirring, but has yet to achieve a self-sustaining pace due to limited economic stimulus and a lingering global slowdown. Non-manufacturing industries are on a firmer footing, but we believe lack sufficient momentum to move the global economy beyond a modest growth recovery in later in 2024 and into 2025.

We expect a window of disinflation to provide an added cushion to spending power in coming months, even if job growth moderates. Strengths outweigh an emerging shift toward mild budget restraints and pockets of financial stress. More balanced growth between manufacturing and services is adding to the economy's resilience against unforeseen shocks. That support is overshadowing unevenness in household income growth and wealth, credit quality, small versus larger business financial conditions, and across commercial real estate markets.

**Inflation (CPI):** An unexpectedly mild economic slowdown this year poses risks for higher inflation in goods and other economically sensitive prices. We expect 12-month consumer-price inflation to hold near 3% at the end of both 2024 and 2025, responding to a modest growth recovery supporting a recent rebound from core-goods deflation, fuel-price increases lifted by tight supply and firming demand, and to rental inflation (30% of the CPI) propelled by slowing apartment construction and accelerating home-price increases in recent months. Lastly, we believe that an aging population, a tight labor market, and the increased risk of natural disasters will adversely impact medical care and insurance costs through next year. More fundamentally, we expect longer-term structural changes to have more noticeable effects on inflation, including less efficient reglobalization, labor's increased bargaining power, and higher entry barriers for foreign firms navigating more restrictive U.S. trade policies.

**Labor market conditions:** Tight labor-market conditions this year will likely cap the unemployment rate near 4% in this year's fourth quarter, in our view, shifting attention to the implications for wages and labor-intensive services inflation. We expect finely balanced labor supply and demand to keep real (inflation-adjusted) wage increases slightly above their long-term average well into 2024, cushioning any slowdown in consumer spending. An aging workforce is adding to restraints on labor supply. That is making productivity growth a central issue in both the near- and longer-term outlook for increases in unit labor costs — wage and benefits increases adjusted for gains in labor productivity — a more accurate measure of pressure on profit margins and retail-price inflation.

Solid productivity growth, tied to operational innovations and substitution of high-tech and other capital for scarce labor, already is helping to rein in unit labor costs, even as wage and benefit increases have accelerated, at times, with rapid economic growth. Among the central issues in the inflation outlook next year and beyond will be the extent to which labor productivity and the ability to contain labor costs, will be supported further by successful integration of artificial intelligence (AI), digitalization, and other labor-saving capital into the economy.

### Global economy

	Latest (%) <sup>1</sup>	2024 target (%) <sup>1</sup>	2025 target (%) <sup>1</sup>
U.S. GDP growth	2.6 (Q4)	▲ 2.5	2.1
U.S. inflation <sup>2</sup>	3.5 (Mar.)	▲ 3.0 (Dec.)	3.0
U.S. unemployment rate <sup>3</sup>	3.8 (Mar.)	▼ 4.1 (Dec.)	4.0
Global GDP growth <sup>4</sup>	3.5 (Q4)	▲ 2.5	2.6
Global inflation <sup>4</sup>	4.5 (Q4)	3.3	3.3
Developed-market GDP growth <sup>5</sup>	1.9 (Q4)	▲ 1.5	1.9
Developed-market inflation <sup>5</sup>	5.5 (Q4)	▲ 2.5	2.6
Emerging market GDP growth	4.6 (Q4)	3.3	3.1
Emerging market inflation	3.7 (Q4)	4.0	3.8
Eurozone GDP growth	0.5 (Q4)	0.6	2.2
Eurozone inflation <sup>2</sup>	2.4 (Mar.)	▲ 2.3 (Dec.)	2.0

Sources: Bloomberg, Wells Fargo Investment Institute (WFII). All latest numbers from Bloomberg as of April 10, 2024. Targets are based on forecasts by Wells Fargo Investment Institute as of April 15, 2024 and provide a forecast direction over a tactical horizon. The closer the current date is to the year-end, the more WFII guidance focuses on the following year's target. Q4 = fourth quarter. ▲/▼: recent change.

<sup>1</sup>Average % change in the latest four quarters from the same year-ago period, unless otherwise noted. <sup>2</sup>Latest month percent change from a year ago. <sup>3</sup>Three-month average as of the date indicated, percent of labor force. <sup>4</sup>Weighted average of developed country and emerging-market forecasts. <sup>5</sup>Weighted average of U.S. and other developed-country forecasts.

Forecasts are not guaranteed and based on certain assumptions and on views of market and economic conditions which are subject to change.

## Wells Fargo Investment Institute forecasts (continued)

**Interest rates:** We expect the Fed to remain vigilant through this year and into 2025 carefully calibrating monetary policy to avoid tilting the economy into a recession by being overly restrictive. As a result, we are adjusting our Fed interest rate cuts forecast slightly, moving down to two cuts in 2024 from three but incorporating an additional rate cut in 2025.

Also, we believe that the near-term path of long-term interest rates is highly dependent on the state of the economy and the subsequent actions from the Fed. We expect short-term U.S. Treasury rates to move lower in tandem with the decline in the Fed's policy interest rate. However, longer-term interest rates may remain on hold near current levels absent an economic slowdown. Given our expected economic growth and inflation levels over the next two years, we find it difficult for long-term rates to fall below 4% levels. With this outlook, we are keeping our year-end 2024 10-year and 30-year U.S. Treasury yield targets unchanged, but we do envision slightly lower long-term yields next year as the Fed continues to cut rates. Our 10-year U.S. Treasury yield target moves down to 4.00%–4.50% and the 30-year U.S. Treasury yield target moves down to 4.25%–4.75% by year-end 2025.

**Equities:** We have introduced our 2025 equity earnings and price targets. We simultaneously raised some of our 2024 targets in response to our improved economic outlook. Our expectation is that equity markets may struggle to advance meaningfully past recent highs in the near term as uncertainty surrounding the path of inflation and the timing and magnitude of Fed rate cuts persist. We would view any periods of near-term weakness in equity markets as opportunities since our 2025 outlook forecasts a broad-based recovery that supports improved revenue growth and expanding margins.

Our view is that the incipient earnings recovery we expect this year will accelerate in 2025. After the earnings recession between 2022 and 2023, recovery is a welcome development. Specifically, we expect S&P 500 Index EPS to go from \$240 in 2024 to \$260 in 2025.

We believe the accelerating earnings recovery in 2025 will allow the stock rally to continue without further multiple expansion. Our forecast is for the S&P 500 Index to end 2024 between 5100–5300 before resuming the trend higher to end 2025 between 5600–5800. The table to the right details our earnings and price targets for the remaining equity asset classes.

We remain tilted toward high-quality assets and believe investors should continue to favor U.S. Large Cap Equities over Mid Cap (neutral) and Small Cap Equities (most unfavorable) as well as Developed Market ex. U.S. (neutral) over EM (unfavorable).

**Commodities:** Commodities outperformed U.S. equities and U.S. bonds, as the BCOM ended March with a 3.3% total return. We expect positive economic growth, along with interest rate cuts by the Fed to support higher commodity prices over the tactical horizon. We revised our gold targets higher for both 2024 and 2025, as gold prices continue to show impressive technical strength, and will likely benefit from rate cuts by the Fed. Despite our positive outlook on economic conditions, we cautiously lowered our 2024 crude oil targets by \$5 per barrel to account for emerging supply risks, such as an eventual unwinding of OPEC's<sup>3</sup> restrictive production quotas, and the potential for additional U.S. supply growth in response to high prices. Our year-end 2024 targets are \$2,300–\$2,400 per troy ounce for gold, \$80–\$90 per barrel for WTI, and \$85–\$95 per barrel for Brent crude. We also introduced our 2025 targets, which are higher to reflect our expectation for stronger demand as positive economic growth carries over into 2025. For 2025, our year-end targets are 250–270 for the BCOM, \$2,400–\$2,500 for gold, \$85–\$95 per barrel for WTI, and \$90–\$100 per barrel for Brent crude.

Global fixed income (%)	Latest	2024 YE target	2025 YE target
10-year U.S. Treasury yield	4.20	4.25–4.75	4.00–4.50
30-year U.S. Treasury yield	4.34	4.50–5.00	4.25–4.75
Fed funds rate	5.25–5.50	▲ 4.75–5.00	4.50–4.75

Currencies	Latest	2024 YE target	2025 YE target
Dollar/euro exchange rate	\$1.08	▼ \$1.06–\$1.10	\$1.03–\$1.07
Yen/dollar exchange rate	¥151.35	▲ ¥156–¥160	¥152–¥156
ICE U.S. Dollar Index	104.5	▲ 102–106	103–107

The Intercontinental Exchange (ICE) U.S. Dollar Index is a weighted average of the value of the U.S. dollar relative to a basket of U.S. trade partner currencies, comprised of the euro, Japanese yen, pound sterling, Canadian dollar, Swedish krona, and Swiss franc. A higher index value indicates dollar appreciation.

Global equities	Latest	2024 YE target	2025 YE target
S&P 500 Index	5254	▲ 5100–5300	5600–5800
S&P 500 earnings per share	\$225	▲ \$240	\$260
Russell Midcap Index	3366	▲ 3300–3500	3700–3900
Russell Midcap earnings per share	\$145	▲ \$165	\$190
Russell 2000 Index	2125	▲ 2100–2300	2500–2700
Russell 2000 earnings per share	\$59	▲ \$70	\$90
MSCI EAFE Index	2349	2200–2400	2400–2600
MSCI EAFE earnings per share	\$157	\$160	\$170
MSCI Emerging Markets (EM) Index	1043	950–1150	1100–1300
MSCI EM earnings per share	\$71	\$75	\$85

Latest EPS (earnings per share) figures are 2023 year-end consensus estimates as of April 8, 2024.

Global real assets	Latest	2024 YE target	2025 YE target
WTI crude oil price (\$ per barrel)	\$83	▼ \$80–\$90	\$85–\$95
Brent crude oil price (\$ per barrel)	\$87	▼ \$85–\$95	\$90–\$100
Gold price (\$ per troy ounce)	\$2,230	▲ \$2,300–\$2,400	\$2,400–\$2,500
Commodities	\$231	235–255	250–270

Sources: Bloomberg, Wells Fargo Investment Institute, as of March 31, 2024. Targets are Wells Fargo Investment Institute forecasts, as of April 15, 2024 and provide a forecast direction over a tactical horizon. The closer the current date is to the year-end, the more WFII guidance focuses on the following year's target. YE = year end. An index is unmanaged and not available for direct investment. Forecasts are based on certain assumptions and on our views of market and economic conditions, which are subject to change. See pages 27–32 for important definitions and disclosures. WTI is a grade of crude oil used as a benchmark in oil pricing. ▲/▼: recent change.

**Forecasts, targets, and estimates are not guaranteed and are based on certain assumptions and on our views of market and economic conditions which are subject to change.**

## Fixed income

### Market observations

Most major U.S. fixed-income asset class indexes displayed positive returns in March as yields fell, primarily on the longer end of the curve. Long term taxable fixed income (+1.5%) outperformed other major U.S. fixed income asset classes, while U.S. municipal bonds underperformed the most (0.0%). International bond markets performance recovered in March. EM (emerging market) bonds in U.S. dollar terms was the best performing fixed-income asset class.

The Fed remained on pause during its March meeting, and the Fed's expectations of rate cuts for 2024 remained unchanged at three, despite its own estimates of higher inflation and growth. However, the number of rate cuts priced in by the market for this year has now fallen to below three as incoming data continues to signal a resilient economy. Also, the Fed continues unwinding its balance sheet at almost \$95 billion per month, shedding nearly \$1.5 trillion in securities over the past year and a half. The Fed announced that the pace of quantitative tightening would slow at some point in the future but gave little indication on timing or magnitude.

**U.S. fixed income:** Investor optimism toward Fed rate cuts diminished slightly during the month, however that did not disrupt U.S. Treasury yields' decline, especially on the long end of the curve. Economic news showed continued resilience, but the Fed maintained their openness to cutting rates in spite of a stronger economic environment. The U.S. Treasury yield curve remains inverted and has already reached the longest continuous period of inversion since the early 1970s.

Investor appetite for credit exposure was moderate in March. U.S. investment-grade (IG) corporate fixed income (+1.3%) slightly outperformed high yield (HY) taxable fixed income (+1.2%). Credit spreads for both IG and HY fell during the month. Both spreads continued to trade below long-term averages. We recommend maintaining a neutral position to IG corporates, particularly for investors seeking income potential; however, we remain unfavorable on HY.

Municipal bond yield movements were mixed as yields in the short and long end of the curve increased while yields inside the 10 to 19 years maturity declined. Still, overall municipal bond performance was flat (+0.0%) during March. The municipal yield curve remains inverted (10-year minus 1-year) following the inversion of the U.S. Treasury yield curve with no signs of un-inverting in the near term. We remain favorable on municipal bonds, especially as they have historically been resilient during periods of economic uncertainty. For investors in higher effective tax brackets, we believe municipal securities are an important part of fixed-income positioning.

**Developed markets:** Unhedged developed market (DM) bond returns (+0.3%) rose even as the yen and euro depreciated against the U.S. dollar in March. Hedged DM bonds performed well (+1.0%) with the dollar's rise. The decline in long-term U.S. yields benefited most international bonds. Bonds from the United Kingdom, Australia, and Italy rose the most.

**Emerging markets:** Weak EM foreign exchange rates against the U.S. dollar impacted local-currency-denominated EM bonds, which were flat in March. Dollar-denominated EM bonds benefited from a drop in long-term U.S. Treasury yields and ended up higher by 1.9% for the month. Performance was generally positive across several of the largest EM countries, with Argentina, Mexico, and Saudi Arabia being the key contributors.

### Wells Fargo Investment Institute perspective

We believe the U.S. central bank is aiming to pivot away from tightening monetary policy in 2024 but will likely do so cautiously.

### Fixed income index total returns (%)

	MTD	QTD	YTD	1 year	3 year	5 year
U.S. Taxable Inv Grade Fixed Income	0.9	-0.8	-0.8	1.7	-2.5	0.4
U.S. Short Term Taxable	0.4	0.5	0.5	3.6	0.3	1.3
U.S. Intermediate Term Taxable	0.9	-0.5	-0.5	2.1	-1.9	0.6
U.S. Long Term Taxable	1.5	-2.4	-2.4	-1.7	-6.3	-0.8
U.S. Treasury Bills	0.5	1.3	1.3	5.4	2.7	2.0
U.S. Municipal Bonds	0.0	-0.4	-0.4	3.1	-0.4	1.6
High Yield Taxable Fixed Income	1.2	1.5	1.5	11.2	2.2	4.2
DM Ex.-U.S. Fixed Income (Unhedged)	0.3	-4.4	-4.4	-3.7	-9.1	-4.2
DM Ex.-U.S. Fixed Income (Hedged)	1.0	0.1	0.1	4.2	-1.7	0.3
EM Fixed Income (U.S. dollar)	1.9	1.4	1.4	9.5	-1.1	0.9
EM Fixed Income (Local currency) <sup>1</sup>	0.0	-2.1	-2.1	4.9	-1.6	0.1

Sources: Bloomberg, J.P. Morgan, Wells Fargo Investment Institute, March 31, 2024. MTD = month to date. QTD = quarter to date. YTD = year to date. Inv Grade indicates Investment Grade; DM indicates Developed Market; EM indicates Emerging Market. Returns over one year are annualized. <sup>1</sup>Returns are converted to dollars for U.S. investors. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** See pages 27-32 for important definitions and disclosures.

Without an imminent threat of a recession or shock to the economy, the Fed has time on its side and can afford to wait for more clarity before deciding to change the direction of interest rates. Therefore, we still recommend exposure in short-term fixed income and in municipal bonds and are neutral on intermediate and long-term taxable fixed income. We believe these sectors have the potential to offer investors sustainable yield, which we view as a key driver of fixed-income performance.

We believe the eurozone will struggle with an economic slowdown and persistent fiscal policy challenges, while Japanese yields should remain relatively low despite the recent change in policy from the Bank of Japan. Furthermore, we expect the U.S. dollar should remain strong through year-end 2024. With yields generally below those available in the U.S., and currency returns seen as negative, we continue to have no strategic or tactical allocations to developed-market ex-U.S. bonds.

We reiterate our view that emerging market (EM) sovereign bonds, both U.S.-dollar- and local-currency-denominated, should continue to display positive performance in 2024. However, it is important to point out that most of the support may come on the back of interest rate cuts by the Fed and to a lesser extent due to some weakening of the U.S. dollar relative to key EM currencies. Still, the relatively attractive yield differential of EM bonds provides greater currency resilience and a larger cushion against capital losses if interest rates were to rise further or if credit spreads widen.

### Fixed income tactical guidance\*

	Guidance
Cash Alternatives	Neutral
U.S. Taxable Investment Grade Fixed Income	Favorable
U.S. Short Term Taxable	Most Favorable
U.S. Intermediate Term Taxable	Neutral
U.S. Long Term Taxable	Neutral
High Yield Taxable Fixed Income	Unfavorable
DM Ex.-U.S. Fixed Income	Neutral
EM Fixed Income	Neutral

Source: Wells Fargo Investment Institute, April 15, 2024. \*Tactical horizon is 6-18 months.

## Fixed income

### Sector strategy: U.S. investment-grade securities

#### Sector tactical guidance\* and total returns (%)

Sector	Guidance	1 month	Year to date
<b>Duration</b>	Neutral	-	-
U.S. Government	Favorable	0.6	-0.9
Treasury Securities	Favorable	0.6	-1.0
Agencies	Neutral	0.5	0.1
Inflation-Linked Fixed Income	Neutral	0.8	-0.1
Credit	Neutral	1.2	-0.4
Corporate Securities	Neutral	1.3	-0.4
Preferred Securities	Neutral	0.9	4.5
Leveraged Loans	Unfavorable	0.9	2.4
Securitized	Neutral	1.0	-0.9
Residential MBS	Neutral	1.1	-1.0
Commercial MBS	Unfavorable	0.9	0.8
Asset Backed Securities	Neutral	0.5	0.7
U.S. Municipal Bonds	Favorable	0.0	-0.4
Taxable Municipal	Neutral	1.3	0.1
State and Local General Obligation	Favorable	-0.2	-0.7
Essential Service Revenue	Neutral	0.1	-0.3
Pre-refunded	Neutral	-0.2	-0.1
High Yield Municipal	Unfavorable	1.2	1.5

Sources: Total returns: Bloomberg as of March 31, 2024. Guidance: Wells Fargo Investment Institute, as of April 15, 2024. \*Tactical horizon is 6-18 months. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** MBS = mortgage-backed securities. Duration is a measure of a bond's interest rate sensitivity. See pages 27-32 for important definitions and disclosures.

**Duration (Neutral):** We believe long-term rates have already peaked for this cycle in line with historical patterns as long-term rates have tended to peak before the end of a Fed's tightening cycle. We also believe that the terminal policy rate for this cycle has been reached and that the Fed has signaled its likeliness to cut rates in 2024. Our duration guidance is now neutral for both taxable and tax-exempt (municipal) bond sectors. We believe interest rates have the potential to move higher toward year-end 2024 under a soft-landing scenario that fuels inflation higher or if the economic slowdown ends and a recovery takes hold into the end of the year. Given our interest rate outlook for 2024, we also believe now may be a good opportunity to reduce duration exposure and return to a neutral stance.

**U.S. Government (Favorable):** We remain favorable on government securities, as they historically have tended to be more resilient than other fixed-income asset classes during economic slowdowns. We view holdings of Treasury securities as a high-credit-quality hedge during questionable economic environments, which we still expect in the coming quarters. We believe that as economic questions mount, investor appetite for credit risk will tend to diminish in lieu of securities considered perceived safe havens, supporting our view that U.S. Treasuries may have the potential to benefit.

**Investment-Grade Credit (Neutral):** We have a neutral view of IG credit (and IG corporate bonds). High-quality IG credit may allow portfolios to generate excess yield (also known as carry) through spread premium that is meant to compensate investors for perceived issuer credit risk. IG credit spreads remain relatively narrow, and the attractiveness of IG corporates has diminished; we believe widening may occur as economic concerns arise. Still, the higher yields available in these sectors relative to many other IG fixed income options support our neutral guidance. We reiterate our bias toward selectivity.

**Preferred Stock (Neutral):** We maintain a neutral position on preferred securities, especially as we expect a questionable economic environment. A neutral allocation still implies a full allocation to preferred securities. Income-oriented investors with a longer-term perspective could continue to accumulate preferred securities as prices decline. The current market highlights that preferred securities come with heightened risks relative to high-quality, traditional fixed-income sectors. More specifically, given that preferred securities have an innate long-dated (perpetual) nature, issues with low coupons can experience greater losses than those with higher coupons during a relatively high interest rate environment. Investors participating in this income-oriented sector should understand the risks and complexities inherent in many preferred securities.

**Investment-Grade Securitized (Neutral):** We remain neutral on the securitized sector given that a large portion of the securitized sector is in the residential mortgage-backed securities (RMBS) sub-sector, and we also remain neutral on RMBS. We believe that the securitized sector may be positioned to offer value relative to other fixed-income asset classes as they provide better credit quality and liquidity especially as we move through an economic downturn.

On the other hand, we remain unfavorable on commercial mortgage-backed securities (CMBS). The prospects of an uncertain economic environment increase risks for commercially leased space. Sentiment also remains largely negative, especially on concerns on how smaller regional banks will handle struggling debt. We believe credit spreads on CMBS could remain around current levels or could move higher, especially while interest rates remain elevated.

**U.S. Municipal Bonds (Favorable):** Municipal markets were flat in March, with yields mixed across the curve. Still, we maintain a favorable view of municipal bonds and believe that investors view this asset class as a perceived safe haven of general credit stability. In late March, municipal-to-Treasury yield ratios (MTYR) stood near 60% for 10-year issues and at 86% for 30-year bonds, relatively flat from earlier in the month. From a historical valuation perspective using MTYR, both 10-year and 30-year municipal bonds still appear to be somewhat rich as they are both below long-term averages.

We currently favor the 11- to 15-year maturity range where investors can potentially pick up incremental yield, with a bias toward the longer end of this range. We favor a premium coupon structure and find value in the additional spread pickup offered in 4% coupons over 5% coupons. Bonds with lower coupon structures will have longer duration, and the yield-spread pickup is reflective of that. Municipal credit spreads have been relatively tight due to limited supply and are currently at their 12-month lows. We believe that an emphasis on quality and selectivity remains essential. Municipal investors should also undertake meticulous credit research or access professional management.

## Equities

### Market observations

**U.S. equities:** The good times kept rolling for equity markets in March as the S&P 500 Index posted eight new all-time closing highs. Fed Chair Powell’s dovish post-meeting comments certainly were a tailwind and highlighted market expectations for continued economic growth and disinflation. An earnings season that significantly beat expectations also helped drive performance last month. The March rally was broad as U.S. small caps (+3.6%), mid caps (+4.3%), and large caps (+3.2%) all posted strong monthly returns. The three main themes of 2023 — AI, the Fed, and the economy — will likely continue to be dominant return drivers in 2024.

All S&P 500 Index sectors posted positive monthly returns in March, with Energy (+10.6%), Utilities (+6.6%), and Materials (+6.5%) having the strongest performance. The Consumer Discretionary (+0.1%) and the beleaguered Real Estate sector (+1.8%) underperformed.

Only one Russell Midcap Index sector — Telecommunications (-3.4%) — posted a negative March return, while only two Russell 2000 Index sectors — Telecommunications (-2.1%) and Health Care (-1.4%) — did the same. Energy was the best performing sector in both the mid-cap (+9.6%) and small-cap (+9.8%) benchmarks. Basic Materials and Utilities rounded out the top three sectors last month in both the Russell Midcap Index — with a +6.1% and +6.5% monthly return, respectively — and the Russell 2000 Index — with a +6.4% and +6.1% return, respectively.

**International equities<sup>4</sup>:** U.S. dollar-denominated DM equities (+3.4%) outperformed EM equities (+2.5%) last month. The currency conversion into U.S. dollars was a slight drag on returns for both asset classes as the U.S. dollar modestly strengthened.

Regarding March DM performance, the Pacific region (+2.6%) underperformed the Europe region (+3.9%). In the Pacific, Singapore (+3.8%) and Japan (+3.2%) outperformed, while New Zealand (-0.5%) and Hong Kong (-6.5%) underperformed last month. In Europe, Spain (+11.3%) and Italy (+7.2%) outperformed, while Finland (+0.7%) and Sweden (+1.1%) underperformed in March.

Within EM, Asia (+3.1%) far outperformed both the Europe, Middle East, and Africa (+0.2%) and Latin America regions (+1.1%) last month. Strong returns in Taiwan (+7.9%) and South Korea (+5.3%) largely drove Asia regional outperformance for March, while Mexico (+5.4%) and South Africa (+4.8) were also notable EM outperformers.

### Wells Fargo Investment Institute perspective

What has been missing in the recent equity rally has been follow-through from earnings. We expect that to change this year and next. Our increased — and robust — economic growth forecast likely will flow directly to equities’ top line and is a heavy consideration in our improved outlook. We also expect firms’ ability to convert those sales into earnings to improve as corporations remain committed to cost cutting and improved efficiencies. This should allow the equity rally to continue next year, after near term range trading, without further multiple expansion.

We prefer U.S. Large Cap (favorable) over Mid Cap (neutral) and Small Cap Equities (most unfavorable). We view U.S. Large Cap Equities as the highest quality major equity class, with strong company balance sheets compared to other equity classes, durable pricing power, and resilient growth potential. We believe the equity asset class is well positioned to withstand further downside volatility while our 2025 outlook suggests attractive upside potential. Our preference for

quality extends to our view of international equities where we prefer Developed Market ex U.S. (neutral) over Emerging Market equities (unfavorable).

### Equity index total returns (%)

	MTD	QTD	YTD	1 year	3 year	5 year
U.S. Large Cap Equities	3.2	10.6	10.6	29.9	11.5	15.0
U.S. Large Cap (Growth)	1.8	11.4	11.4	39.0	12.5	18.5
U.S. Large Cap (Value)	5.0	9.0	9.0	20.3	8.1	10.3
U.S. Mid Cap Equities	4.3	8.6	8.6	22.3	6.1	11.1
U.S. Mid Cap (Growth)	2.4	9.5	9.5	26.3	4.6	11.8
U.S. Mid Cap (Value)	5.2	8.2	8.2	20.4	6.8	9.9
U.S. Small Cap Equities	3.6	5.2	5.2	19.7	-0.1	8.1
U.S. Small Cap (Growth)	2.8	7.6	7.6	20.3	-2.7	7.4
U.S. Small Cap (Value)	4.4	2.9	2.9	18.8	2.2	8.2
DM Equities Ex-U.S. (USD)	3.4	5.9	5.9	15.9	5.3	7.9
DM Equities Ex-U.S. (Local) <sup>1</sup>	4.1	10.1	10.1	19.4	10.0	9.9
EM Equities (USD)	2.5	2.4	2.4	8.6	-4.7	2.6
EM Equities (Local) <sup>1</sup>	3.1	4.6	4.6	11.1	-2.0	4.8

Sources: Bloomberg, Standard & Poor’s, Russell Indexes, MSCI Inc., Wells Fargo Investment Institute, March 31, 2024. MTD = month to date. QTD = quarter to date. YTD = year to date. DM indicates Developed Market; EM indicates Emerging Market; USD indicates U.S. dollar. Returns over one year are annualized.<sup>1</sup> Returns are in local currencies as experienced by local investors. U.S. investors would experience gains or losses on currency conversion. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** See pages 27-32 for important definitions and disclosures.

### Equity tactical guidance\*

	Guidance
U.S. Large Cap Equities	Favorable
U.S. Mid Cap Equities	Neutral
U.S. Small Cap Equities	Most unfavorable
DM Equities Ex-U.S.	Neutral
EM Equities	Unfavorable

Source: Wells Fargo Investment Institute, April 15, 2024. \*Tactical horizon is 6-18 months.

### International equity tactical guidance\* by region

Region	Benchmark weight (%)**	Guidance
DM Equities Ex.-U.S.		Neutral
Europe	66	Neutral
Pacific	34	Favorable
EM Equities		Unfavorable
Asia	79	Neutral
Europe, Middle East, and Africa	13	Most unfavorable
Latin America	9	Neutral

Sources: Bloomberg, Wells Fargo Investment Institute (WFII). \*Tactical horizon is 6-18 months. Weightings are as of March 31, 2024. WFII guidance is as of April 15, 2024.

\*\*Benchmarks are MSCI EAFE Index for DM and MSCI Emerging Markets Index for EM.

Weightings may not add to 100% due to rounding. An index is unmanaged and not available for direct investment.

## Equities

### U.S. equity sector strategy

#### S&P 500 Index sector tactical guidance\* and total returns (%)

Sector	S&P 500 Index weight (%)**	Guidance***	MTD	QTD	YTD	1 year	3 year	5 year
Communication Services	9.0	Neutral	4.3	15.8	15.8	49.8	6.9	13.7
Consumer Discretionary	10.3	Unfavorable	0.1	5.0	5.0	28.7	4.3	11.5
Consumer Staples	6.0	Neutral	3.5	7.5	7.5	7.2	8.0	10.0
Energy	3.9	Favorable	10.6	13.7	13.7	17.7	30.0	12.9
Financials	13.2	Unfavorable	4.8	12.5	12.5	33.5	9.5	12.8
Health Care	12.4	Favorable	2.4	8.9	8.9	16.1	10.0	12.1
Industrials	8.8	Favorable	4.4	11.0	11.0	26.7	10.4	13.0
Information Technology	29.6	Neutral	2.0	12.7	12.7	46.0	19.0	25.4
Materials	2.4	Favorable	6.5	8.9	8.9	17.6	7.9	13.3
Real Estate	2.3	Unfavorable	1.8	-0.5	-0.5	9.6	3.4	5.3
Utilities	2.2	Neutral	6.6	4.6	4.6	0.4	4.1	5.9
Total	100.0							

Sources: S&P 500 Index weight and total returns: Bloomberg, as of March 31, 2024. Guidance: Wells Fargo Investment Institute, as of April 15, 2024. \*Tactical horizon is 6-18 months. MTD = month to date. QTD = quarter to date. YTD = year to date. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.**

\*\*Sector weightings may not add to 100% due to rounding.

\*\*\*To reposition allocations for consistency with our guidance, add two percentage points of exposure to market weight for favorables, subtract two for unfavorables, and hold market weight for neutrals.

**Communication Services (Neutral):** Although we believe several long-term trends remain largely intact, including cord-cutting, 5G network buildout, social media usage, and now AI, headwinds have emerged across the sector. Ad-tracking and privacy changes have disrupted advertising platforms, while secular changes within the cable, wireless, and broadband industries have forced investors to reassess growth expectations.

**Consumer Discretionary (Unfavorable):** AI optimism has been a near-term tailwind, which we believe has stretched valuations and left the sector more vulnerable to disappointment.

**Consumer Staples (Neutral):** We expect defensive characteristics, such as relatively predictable sales and earnings growth, as well as its attractive return on equity, to potentially provide support.

**Energy (Favorable):** The fundamental case for the sector is attractive as oil supply remains tight, OPEC+ seemingly is committed to keeping it that way, while U.S. oil producers' capital discipline and preference for shareholder returns versus production growth is likely to aid in that mission. Valuations are attractive and oil prices moving into our targets should provide a sizeable tailwind.

**Financials (Unfavorable):** We believe the previous Financials rally caused prices to get ahead of fundamentals. Valuations remain un compelling, and the sector screens poorly on common quality metrics as well. Throwing in a heightened regulatory environment on top of the aforementioned headwinds paints a dim picture for the sector.

**Health Care (Favorable):** We believe that the sector fits nicely into our quality theme. The sector's fundamentals appear solid, notably as we believe strong pent-up demand and stable earnings likely will support prices.

**Industrials (Favorable):** Tailwinds for the sector include multiple stimulus programs, the energy transition, re-shoring, data center expansion, easing input cost pressures, and continued supply chain normalization. Sector valuations are fair in our view, and the underperformance during the growth rally provided an attractive opportunity to upgrade Industrials to favorable.

**Information Technology (Neutral):** We still believe that Information Technology's quality characteristics should serve it well. However, the sector's AI-driven outperformance has lifted valuations to levels that we find unattractive at present.

**Materials (Favorable):** Outside of the Energy sector, Materials is the most levered sector to the overarching trends that we expect, including higher commodity prices and China's ongoing reopening.

**Real Estate (Unfavorable):** Higher for longer interest rates suggest that the interest rate sensitive Real Estate sector will face headwinds over the tactical time horizon. Tight credit conditions after the mini banking crisis should continue to weigh on this credit-hungry sector as well, supporting our unfavorable rating.

**Utilities (Neutral):** The potential for more defensive market posturing is supportive for the sector, however, elevated debt levels as well as high fixed costs along with limited pricing power are headwinds.

**Growth versus Value (Balanced):** In our view, the value-growth descriptors are too blunt and broad, and instead we prefer to pick sectors in an effort to enhance equity returns. There is not a straightforward way to sort sector preferences into growth or value styles, but our current sector preferences tilt toward value (we hold a favorable rating on the Energy, Industrials, Materials, and Health Care sectors, and an unfavorable rating on Consumer Discretionary, Financials, and Real Estate sectors).

## Equities

### Equity sector and sub-sector preferences

Sector	Sector tactical guidance*	Favorable sub-sectors	Unfavorable sub-sectors
Energy	<b>Favorable</b>	Integrated Oil; Midstream Energy	Refining
Health Care		Life Sciences Tools & Services; Managed Health Care; Health Care Equipment & Supplies	Health Care Services
Industrials		Aerospace & Defense; Commercial & Professional Services; Multi-Industrials**; Rail Transportation	Passenger Airlines
Materials		Construction Materials; Industrial Gases; Specialty Chemicals	Containers & Packaging
Communication Services	<b>Neutral</b>	Interactive Home Entertainment; Interactive Media & Services	Alternative Carriers; Publishing
Consumer Staples		Beverages; Consumer Staples Merchandise Retail; Household Products	Tobacco
Information Technology		IT Services; Communications Equipment; Semiconductor Materials & Equipment; Software	Electronic Equipment & Instruments
Utilities		Electric Utilities; Multi-Utilities; Renewable Electricity	Independent Power Producers & Energy Traders
Consumer Discretionary	<b>Unfavorable</b>	Broadline Retail; Hotels, Restaurants & Leisure; Specialty Retail	Leisure Products
Financials		Asset Management & Custody Banks; Diversified Banks; Insurance Brokers; Property & Casualty Insurance; Transaction & Payment Processing Services	Business Development Companies; Consumer Finance; Life & Health Insurance; Mortgage Real Estate Investment Trusts (REITs)
Real Estate		Data Center REITs; Industrial REITs; Self-Storage REITs; Telecommunications REITs	Diversified REITs; Lodging/Resort REITs; Office REITs; Specialty REITs; Timberland REITs

Source: Wells Fargo Investment Institute; favored sub-sectors by Global Securities Research (GSR) group and favored sectors by Global Investment Strategy. As of April 15, 2024.

REITs = real estate investment trust.

\*Tactical horizon is 6-18 months.

\*\*Multi-industrials includes conglomerates, electrical equipment, industrial machinery, and trading companies and distributors.

**For more information, please request our most recent *Equity Recommendations* report.**

## Real assets

### Master limited partnerships (MLPs)

#### Market observations

MLPs outperformed the broader market in March, with a 4.5% total return (as measured by the Alerian MLP Index) versus a 3.2% return for the S&P 500 Index. WTI crude oil prices gained 6.3% during the month. We note that MLPs typically have low direct business exposure to energy commodity prices as business models are primarily fee-based.

We believe investor sentiment toward MLPs has significantly improved as recent geopolitical events have emphasized the importance of energy security (which in turn has improved the perceived value of energy infrastructure), and an evolving domestic energy industry has opened up growth opportunities in select verticals. MLPs have generally become more disciplined on capital expenditures, and many high-quality MLPs now have stronger balance sheets and potential for sustainable payouts, in our view.

#### Wells Fargo Investment Institute perspective

We prefer high-quality midstream energy companies which have had stable operating results and solid distribution coverage. These companies tend to be relatively large and well diversified. We also believe that midstream C-corporations<sup>5</sup> typically have stronger corporate governance and a wider institutional investor base relative to midstream companies structured as MLPs.

### Commodities

#### Market observations

**Energy:** The Bloomberg Commodity Energy Subindex was up 2.4% in March, slightly underperforming the BCOM. WTI and Brent crude prices both strengthened and were up 6.3% and 4.6%, respectively.

Looking ahead, we expect global supply to remain tight, as demand strengthens on improving economic conditions. With that said, we cautiously lowered our 2024 targets by \$5 per barrel to account for two emerging risks. The first risk being the possibility for OPEC to begin unwinding its restrictive production policy as economic conditions improve. There is no indication that OPEC will unwind its quotas anytime soon, but it is a risk in 2024. The second risk is the possibility for additional U.S. supply growth in response to high oil prices — akin to 2023. Heading into 2025, though, we raised our targets, as we suspect that positive economic growth will drive higher demand and energy performance.

**Metals:** Precious metals outperformed the BCOM with an 8.6% return in March, as gold prices achieved record highs and ended the month up 9.1%. Central bank demand remains strong, especially in China, and we suspect this will continue to support prices. Domestically, we expect rate cuts by the Fed to also support higher prices. Therefore, we raised our year-end 2024 gold target to \$2,300–\$2,400 per troy ounce and \$2,400–\$2,500 for year-end 2025.

Industrial metals underperformed the BCOM, with a 1.8% return in March. Aluminum was the top performer (+5.0%), while nickel was the worst performer (-6.3%). We suspect the sector will continue to face headwinds as China continues to struggle with weak manufacturing activity and a fragile property sector. If the slowdown is shallower than expected, we believe industrial metals could revert and become strong performers.

**Agriculture:** Agricultural commodity prices were up 2.5% in March, underperforming the BCOM, but there was still a wide dispersion in individual performance. Soybean oil was the top performer (+7.4%), while coffee (-3.6%) and cotton (-10.0%) were the worst. Though some agricultural commodities showed strong performance, we caution that

5. A C-corporation is a legal structure for a corporation in which the owners, or shareholders, are taxed separately from the entity.

6. If you look at commodity prices over the very long term (hundreds of years), it becomes evident that they tend to move in overall bull and bear cycles, some lasting decades. These are super-cycles.

#### Real assets index total returns (%)

	MTD	QTD	YTD	1 year	3 year	5 year
Public Real Estate	3.6	-1.0	-1.0	8.6	-0.2	0.7
U.S. REITs	1.8	-1.3	-1.3	8.0	2.5	4.0
International REITs	6.6	-1.9	-1.9	6.6	-5.2	-2.7
Master Limited Partnerships	4.5	13.9	13.9	38.5	29.4	11.5
Global Infrastructure	4.6	1.3	1.3	4.1	5.5	4.9
Commodities (BCOM)	3.3	2.2	2.2	-0.6	9.1	6.4
Agriculture	2.5	-3.0	-3.0	-7.3	8.3	10.7
Energy	2.4	4.8	4.8	1.0	13.2	-1.2
Industrial Metals	1.8	-0.7	-0.7	-7.9	2.2	4.8
Precious Metals	8.6	6.6	6.6	9.9	6.6	10.0
Commodities (S&P GSCI)	4.7	10.4	10.4	11.1	18.1	7.8
Commodities (RICI)	4.1	5.4	5.4	5.4	15.2	9.9

Sources: Bloomberg, Wells Fargo Investment Institute, March 31, 2024. MTD = month to date. QTD = quarter to date. YTD = year to date. REITs = real estate investment trusts. Returns over one year are annualized. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** See pages 27-32 for important definitions and disclosures.

adequate supply growth and an easing of supply chain disruptions appear to be strong headwinds for prices across the agricultural complex.

#### Wells Fargo Investment Institute perspective

Overall, commodities (measured by the BCOM) were up 3.3% in March, primarily driven by stronger energy and precious metal performance. Over recent months, most individual commodities have seen significant corrections, driven by concerns of weak economic conditions. We view recent weakness as a potential opportunity for investors. Therefore, we remain favorable on a broad basket of commodities, as we believe long-term supply imbalances and a commodity bull super-cycle<sup>6</sup> will continue to support positive long-term performance.

**Private Real Estate:** Private Real Estate continues to face headwinds. Higher interest rates, an economic slowdown, and tighter credit conditions pose challenges across most property types. Market signals remain mixed in the single and multifamily residential sectors, yet housing affordability recently reached multi-decade lows amid the elevated interest rate environment. The office sector remains weak as a tight labor market creates a headwind for the return-to-office movement — returns fell by 5.4% during the fourth quarter of 2023 according to the NCREIF Office Property Index. Since the 2023 banking crisis, lending standards in the commercial real estate market have remained tight. Although longer-term trends in the Industrials sector remain positive given the shift to online retail and accompanying need for distribution centers and delivery services, the uncertainties in interest rate policy and the economy have tempered our outlook in the near term.

#### Real asset tactical guidance\*

##### Guidance

Commodities	Favorable	Private Real Estate	Neutral
Energy	Favorable	Core	Neutral
Precious Metals	Favorable	Value-Add	Neutral
Agriculture	Neutral	Opportunistic	Neutral
Industrial Metals	Neutral		

Source: Wells Fargo Investment Institute, April 15, 2024. \*Tactical horizon is 6-18 months.

## Alternative investments\*

### Market observations

In March, global stock markets continued to rise on the back of strong labor markets and investors' optimism in AI. Major equity indexes registered low-to-mid single digit gains, with Energy, Materials, and Utilities sectors leading the way. Interest rates were relatively volatile, but largely unchanged, particularly after major central banks indicated the willingness to continue current policy while waiting for more data. This, along with narrowing credit spreads, underpinned the 1%-2% returns across global fixed income asset classes. The BCOM returned a 3.3% gain for the month, driven primarily by crude oil, silver, and gold.

**Relative Value** strategies registered a gain of 1.0% for the month, with positive contributions from Long/Short (L/S) Credit, Structured Credit, and Arbitrage strategies. Declining credit and structured credit spreads were constructive for many Relative Value managers. As compared to Equity Hedge and Macro strategies, Relative Value strategies recorded more modest returns owing to their defensive characteristics.

**Macro** strategies marched up by 3.9% in March. Systematic strategies generated a 4.3% return for the month, benefiting from trends established in commodity, equity, and currency markets. Long positions in global stocks were additive to returns, as major U.S., European, and Japanese stock indexes rallied to new highs. Further, the spike in cocoa price fueled by poor harvests and the rise in crude oil prices owing to production cuts and geopolitical conflicts benefited commodity positions. Additional profits attributable to currency positions were largely driven by long U.S. dollar, Mexican peso holdings against Japanese yen and Swiss franc currencies. During the month, the strategies increased long holdings in energy and U.S. dollar. Systematic strategies also maintained the long positions in equities, and short positions in agricultural commodities and fixed income. For the month, Discretionary strategies gained 3.2%.

**Event Driven** registered a 2.2% return for March. All strategies, including Activist, Distressed Credit, and Merger Arbitrage, recorded gains. Merger Arbitrage return was boosted by successful deal completions, narrowing spreads, and a stable supply of new deals, as deal environment continued to recover. For Distressed Credit, we expect an elevated occurrence of distressed situations as businesses with over-leveraged balance sheets become more stressed under the weight of higher debt-service levels and slower growth.

**Equity Hedge** strategies posted a 2.4% gain in March but trailed the MSCI All Country World Index. The positive return was driven by both equity market and security selection impacts. Throughout the month, the strategies increased exposures across major global markets, especially Europe, and rebalanced into defensive sectors at the expense of technology-related and cyclical stocks. Equity Market Neutral strategies registered a return of 1.9%. As dispersion among stocks remains elevated and market sentiment grows, we expect the environment for Directional Equity strategies to turn more constructive.

### Wells Fargo Investment Institute perspective

**Relative Value (Favorable):** We believe L/S Credit and Arbitrage strategies should likely benefit from their defensive characteristics during economic slowdowns and market drawdowns. Moreover, we expect credit dispersion to increase as the economy slows, which we believe should bode well for Relative Value strategies.

**Macro (Favorable):** We consider stronger, more stable trends in commodities and currencies, as well as elevated cross-asset

### Alternative investments index/strategy total returns (%)

	MTD	QTD	YTD	1 year	3 year	5 year
Global Hedge Funds	2.5	4.9	4.9	12.1	4.3	7.0
Relative Value	1.0	2.5	2.5	8.1	4.1	4.6
Arbitrage	1.2	2.3	2.3	6.9	3.6	4.8
Long/Short Credit	0.8	2.9	2.9	9.4	2.8	4.9
Struct. Credit/Asset-Backed	0.9	2.6	2.6	9.1	4.8	4.2
Macro	3.9	6.9	6.9	9.2	6.3	6.5
Systematic	4.3	8.7	8.7	10.6	6.4	6.3
Discretionary	3.2	2.7	2.7	8.0	2.8	5.9
Event Driven	2.2	2.8	2.8	12.0	4.2	6.5
Activist	2.2	5.2	5.2	17.0	3.5	7.5
Distressed Credit	3.1	4.0	4.0	13.5	5.0	7.0
Merger Arbitrage	0.6	-0.3	-0.3	6.7	4.5	5.5
Equity Hedge	2.4	5.5	5.5	14.6	3.4	8.0
Directional Equity	2.5	5.6	5.6	15.1	3.1	8.4
Equity Market Neutral	1.9	4.6	4.6	10.0	5.6	3.9

Source: Hedge Fund Research, Inc., March 31, 2024. (Preliminary numbers released by HFR on April 5, 2024.) MTD = month to date. QTD = quarter to date. YTD = year to date. Returns over one year are annualized. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.**

See pages 27-32 for important definitions and disclosures.

volatility, to be tailwinds for Macro strategies. Additionally, Macro strategies have historically been the least correlated to global risk assets, which we believe can be additive to portfolios as the cycle matures.

**Event Driven (Neutral):** We maintain our neutral guidance in Event Driven and continue our favorable view in the Distressed Credit subcategory. As higher interest rates flow through the economy, we believe higher debt-service levels and slower growth will meaningfully impact many small and mid-sized businesses. We expect the opportunity set to expand as the cycle matures, and distressed strategies will likely benefit as businesses recapitalize, restructure, and reemerge to a more favorable market.

**Equity Hedge (Neutral):** We expect muted, but potentially improving, returns from Equity Hedge strategies compared with recent years. As managers shift from a defensive bias, we expect the performance to improve during upward trending equity markets.

**Private Equity (Neutral):** While we are neutral on Private Equity, we have high conviction in certain strategies and geographies where we believe valuations are more attractive and capital-market funding is less a headwind. We believe that opportunities do exist — especially in secondaries, middle market, growth equity, and infrastructure investments.

**Private Debt (Neutral):** We upgraded our guidance on Distressed and Special Situations from neutral to favorable in June 2023. The number of distressed opportunities is expected to expand as the effects of elevated interest rates, slower economic growth, and tighter lending standards continue to weigh on small- and middle-market businesses. We maintain our neutral rating on Direct Lending based on growing risks for middle-market lending and an ongoing recalibration of private equity valuations.

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## Alternative investments\*

### Private placements

#### Alternative investment strategies outlook\*

Private placements	Tactical guidance**
Relative Value	Favorable
Arbitrage	Favorable
Long/Short Credit	Favorable
Structured Credit/Asset-Backed	Neutral
Macro	Favorable
Systematic	Favorable
Discretionary	Favorable
Event Driven	Neutral
Activist	Unfavorable
Distressed Credit	Favorable
Merger Arbitrage	Unfavorable
Equity Hedge	Neutral
Directional	Neutral
Equity Market Neutral	Neutral
Private Equity	Neutral
Large Cap Buyout	Neutral
Small / Mid Cap Buyout	Favorable
Growth Equity	Favorable
Venture	Neutral
Private Debt	Neutral
Direct Lending	Neutral
Distressed / Special Situations	Favorable

Sources: Wells Fargo Investment Institute, April 15, 2024.

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\*\*Tactical horizon is 6-18 months.

#### Notes on alternative investment structures

The core differences between our guidance for private placements versus liquid alternative mutual funds centers on the expected illiquidity premium and the expected complexity premium often associated with private placements. The illiquidity premium refers to the potential for incremental return or yield generated by owning securities that cannot be sold quickly without affecting the price. Certain securities may be illiquid for one month, quarter, several years or longer. This illiquidity may provide investment managers enhanced flexibility which may result in higher long-term returns. Illiquidity may be experienced in public and private credit securities that can include loans, securitized credit, and stressed and distressed corporate credit. However, equity strategies may also be illiquid for periods of time, especially after a corporate restructuring when debt is converted to equity or within strategies that require significant equity ownership such as Activism. A complexity premium may also be associated with illiquid securities as they often require specialized origination, underwriting and investing strategies. Because private placements do not offer daily liquidity to their investors, they potentially provide greater flexibility to invest in securities that may offer an illiquidity premium. Furthermore, private placements can have a larger concentration in illiquid securities.

The complexity premium potentially offered with private placements results from several structural limitations associated with mutual funds, including provisions of the Investment Company Act of 1940, as amended (1940 Act), that apply at the fund level and not the individual strategy level. The 1940 Act requires, among others, the following:

- Regular liquidity — Redemptions must be paid within seven calendar days
- Regular transparency
- Limits on leverage — 300% asset coverage limits leverage to 33%; making loans; or investing in real estate or commodities
- Limits on concentration — 75% of the value of its total assets cannot be invested more than 5% in any one issuer, 25% in one industry or 10% of the outstanding voting securities of the issuer
- Limits on illiquidity — No more than 15% can be invested in illiquid assets

In addition, under the Investment Advisers Act of 1940, performance-based fees must be symmetric.

As a result of the illiquidity and complexity premiums, performance returns and characteristics are expected to vary between liquid alternative mutual funds and private placements.

In our view, when implementing liquid alternatives in a diversified portfolio, they should not be considered a one-to-one substitute for traditional hedge funds. Our new guidance will reflect these differences in product types.

It is important to remember that only “accredited investors” or “qualified purchasers” within the meaning of U.S. securities laws can invest in private placements. This means investors must have a minimum level of income, assets, or net worth to be eligible. They may also need to meet other qualification requirements. Like all mutual funds, liquid alternative funds are regulated under the 1940 Act, and are open to all investors. As such, they are regulated in their use of leverage and have required levels of liquidity and diversification. Mutual funds must value their portfolios and price their securities daily using fair value guidelines. Hedge funds, on the other hand, face less regulation and are not required to provide investors with periodic pricing or valuation. This allows them a great deal of flexibility but may increase the risks for investors.

**Because of the illiquid and complex nature of private placement hedge funds, Wells Fargo Investment Institute will no longer provide tactical percentage guidance for these asset classes. We will instead provide guidance that may be incorporated into portfolios over a longer period of time.**

## Currency guidance

### The U.S. dollar versus developed market currencies

#### Market observations and outlook

The dollar moved higher in March with the U.S. Dollar Index (DXY) increasing by 0.3% to end the month at 104.5. Expectations of a rapid Fed pivot toward interest rate cuts in 2024 declined significantly over the quarter, which kept the dollar at higher levels as expected interest rate differentials between the U.S. and other developed countries remained high. Fed policy actions, in comparison to other major central banks over the next few months, will likely remain a key point for the dollar's near-term levels. DM currencies fell versus the dollar on the back of central bank actions, with the euro falling by 0.1% versus the dollar and ending the month slightly below the 1.08 level. The yen similarly fell by 0.9% for the month. The pound was flat in March.

We expect the dollar to trade in a range, or to rise slightly, through the end of 2024 and into 2025, supported by still-elevated U.S. interest rates and a somewhat resilient economy in comparison to Europe. We believe market expectations on the speed and severity of Fed rate cuts have become more realistic, but the dollar may experience continued support as expectations for the number of cuts from the Fed may continue to drop relative to those from the ECB. We believe that higher U.S. rates will continue to reinforce the dollar's strength, especially if the ECB moves to cut rates more aggressively than the Fed. We expect this trend of dollar strength to continue into 2025. For year-end 2024, we see ranges of \$1.06–\$1.10 per euro and 156–160 yen per dollar. For year-end 2025, we see ranges of \$1.03–\$1.07 per euro and 152–156 yen per dollar.

#### Year-end currency targets

	Latest	YE24 targets	YE25 targets
Dollars per euro	\$1.08	▼ \$1.06–\$1.10	\$1.03–\$1.07
Yen per dollar	¥151.35	▲ ¥156–¥160	¥152–¥156
ICE U.S. Dollar Index	104.5	▲ 102–106	103–107

Source: Bloomberg, as of March 31, 2024. Targets are Wells Fargo Investment Institute forecasts, as of April 15, 2024 and provide a forecast direction over a tactical horizon. The closer the current date is to the year-end, the more WFII guidance focuses on the following year's target. YE = year end. ▲/▼: recent change.

The ICE U.S. Dollar Index is a weighted average of the value of the U.S. dollar relative to a basket of U.S. trade partner currencies, comprised of the euro, Japanese yen, pound sterling, Canadian dollar, Swedish krona, and Swiss franc. A higher index value indicates dollar appreciation.

Forecasts are based on certain assumptions and on our views of market and economic conditions, which are subject to change. See pages 27–32 for important definitions and disclosures.

### The U.S. dollar versus emerging market currencies

#### Market observations and outlook

The dollar's strength in March was also detrimental to EM currencies, with the MSCI Emerging Markets Currency Index (an index of currencies mirroring the weighting of the more manufacturing-based MSCI Emerging Markets Index, heavily weighted toward Asia) ending the month slightly down by 0.2%.

The Chinese yuan continued its fall, following months of concerns surrounding a still-lagging Chinese economic recovery. Most other major Asian currencies fell, with the Malaysian ringgit being an exception. The Mexican peso was the best performer over the month as overall interest rates in Mexico remain elevated relative to the U.S. The Colombian peso and Peruvian sol were also key positive performers during March. The Argentine peso continued its fall following the election of Javier Milei in November, who campaigned on a promise of dollarizing Argentina, but was outpaced by losses in other EM currencies like the Turkish lira. We believe that sustained stronger performance in EM currencies may not be seen until we move past our current period of dollar strength driven by elevated U.S. interest rates forecasted through year-end 2025.

#### Currency hedging

Based on our views on the direction of the U.S. dollar, we provide our currency-hedging guidance in the matrix below. We have revised our view on DM bonds from unfavorable to neutral, but, because we no longer recommend strategic allocations to DM fixed income in local currency, we still do not favor taking tactical positions at this time. For those investors with exposure to these bonds we have revised our hedging guidance from “hedge” to “no hedge,” since we see limited dollar upside from current levels through year-end 2025, we do not expect large currency losses to be a long-term drag on returns. For EM fixed income, the strategic benchmark consists exclusively of dollar-denominated sovereign EM bonds, so we currently believe hedging is unnecessary.

#### Hedging matrix

Asset class	Strategic benchmark	Currency advice
Developed Market Ex-U.S. Fixed Income	Local currency*	No hedge
Developed Market Ex-U.S. Equities	Local currency	No hedge
Emerging Market Fixed Income	U.S. dollar	N/A
Emerging Market Equities	Local currency	No hedge

Source: Wells Fargo Investment Institute, April 15, 2024. The table above provides guidance for investors who want and are able to hedge against currency losses, or to take advantage of the dollar's move in either direction. Please note that implementation may vary according to the hedging instruments available to investors.

\*We no longer recommend strategic allocations and do not favor tactical allocations at this time to Developed Market Ex-U.S. Fixed Income. Hedging guidance applies to those who wish to hold these assets.

We do not favor hedging currency risk for equities at this time. We think the hurdle to hedging currency risk is higher for equities than for bonds because, in equity markets, currency movements have had a smaller influence on total return than for fixed income. Further, the cost and complexity of currency hedging for equities may be greater. It is important to consider that many actively managed mutual funds already may incorporate an element of currency hedging. In addition, the cost of hedging against losses from EM currencies is far higher than for those of DMs, and the availability of efficient hedging instruments is limited.

## Tactical guidance

### Recommended tactical guidance

#### **No changes this month.**

The strategic (neutral) asset allocations are based on long-term strategies. However, capital markets tend to move in cycles, and there may be short-term opportunities to enhance the risk/return relationship within a portfolio by temporarily adjusting the strategic allocations. The tactical asset allocation adjustments are designed to provide guidance on shorter-term (6–18 months) weightings in the portfolio. The minimum position of any asset class is zero, meaning that no short selling is permitted. The maximum position of all asset classes together is 100%, meaning that no leverage is permitted. The actual extent of the recommended tactical adjustments is a judgment call. It should be enough to make a difference without crowding out other assets or creating a vacuum. Also, all the tactical recommendations have to be considered together. It would not be mathematically possible to underallocate two asset groups while maintaining over-allocations in the other two. Adjustments must be made to bring all the broad asset classes into a proper relationship. These are guidelines to be used prudently for investors with temperaments that agree with a more aggressive, tactical investment style.

#### **Additional asset class guidance**

**Consider L/S equity strategies:** These strategies can provide diversification in an equity portfolio by utilizing both long and short exposures to the asset class. While they can provide diversification, investors should expect higher tracking error (extent to which the strategy's returns have differed from its benchmark) to traditional benchmarks from these strategies. Prudent use through controlled allocations is recommended.

#### Cash Alternatives and Fixed Income

Most Unfavorable	Unfavorable	Neutral	Favorable	Most Favorable
	High Yield Taxable Fixed Income	Cash Alternatives Developed Market Ex.-U.S. Fixed Income Emerging Market Fixed Income U.S. Long Term Taxable Fixed Income U.S. Intermediate Term Taxable Fixed Income	U.S. Taxable Investment Grade Fixed Income	U.S. Short Term Taxable Fixed Income

#### Equities

Most Unfavorable	Unfavorable	Neutral	Favorable	Most Favorable
U.S. Small Cap Equities	Emerging Market Equities	Developed Market Ex.-U.S. Equities U.S. Mid Cap Equities	U.S. Large Cap Equities	

#### Real Assets

Most Unfavorable	Unfavorable	Neutral	Favorable	Most Favorable
		Private Real Estate	Commodities	

#### Alternative Investments\*

Most Unfavorable	Unfavorable	Neutral	Favorable	Most Favorable
		Hedge Funds–Equity Hedge Hedge Funds–Event Driven Private Debt Private Equity	Hedge Funds–Macro Hedge Funds–Relative Value	

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# Tactical guidance\*

## Tactical guidance summary

FIXED INCOME	U.S. Taxable Investment Grade	Favorable	A questionable economic environment coupled with still-elevated inflation levels is expected in the near term. We favor a more balanced approach between risk-oriented asset classes (equities) and U.S. Taxable IG Fixed Income. As we move capital between short-, intermediate-, and long-term fixed income, we believe a favorable view of U.S. Taxable IG Fixed Income is warranted.
	U.S. Short Term Taxable	Most favorable	Short-term fixed income should provide investors an attractive yield even if the Fed begins to cut rates in 2024 as we anticipate. Additionally, we believe short-term fixed income remains attractive given its low volatility and potential capacity to hold stable in most macro environments.
	U.S. Intermediate Term Taxable	Neutral	We reallocated from long-term fixed income into intermediate-term fixed income and upgraded the U.S. Intermediate Term Taxable Fixed Income to neutral. Intermediate-term fixed income also provides an attractive yield and is less rate sensitive should interest rates increase later this year toward our year-end 2024 targets.
	U.S. Long Term Taxable	Neutral	We believe long-term yields have peaked for this cycle. We are now neutral on longer duration bonds. We view the risk-return trade-off in long-term fixed income as neutral as we believe yields will remain mostly range-bound with a bias to the upside by year-end.
	High Yield Taxable	Unfavorable	While yields on these bonds should exceed those on more traditional fixed-income asset classes, the spreads on HY bonds historically have tended to widen; these bonds have typically underperformed IG bonds, once a slowdown approached and financial conditions tightened. Of course, past performance is not a guarantee of future results.
	Developed Market Ex-U.S.	Neutral	Currency losses are still weighing on returns while yields are closer to their peak as eurozone rates anticipate the end of the central bank's hiking cycle, so we are now neutral on this fixed-income class.
	Emerging Market	Neutral	Dollar-denominated debt is a small portion of sovereign borrowing and is insulated from EM currency volatility, although vulnerable to rises in U.S. yields, given its longer duration.
EQUITIES	U.S. Large Cap	Favorable	We view U.S. Large Cap Equities as the highest quality major equity class, with strong company balance sheets compared to other equity classes. We believe the equity class is well positioned to withstand potential volatility as the cycle matures.
	U.S. Mid Cap	Neutral	U.S. Mid Cap Equities offer investors higher quality compared to small-cap equities and a reasonable amount of exposure to many economically sensitive sectors that may allow investors to participate in cyclical rallies.
	U.S. Small Cap	Most unfavorable	The Russell 2000 Index (a benchmark for U.S. Small Cap Equities) has struggled with persistently elevated non-earning firms. If credit conditions remain tight and interest rates elevated, we believe these firms will find it challenging to maintain profitability and healthy cash positions.
	Developed Market (DM) Ex.-U.S.	Neutral	Europe still faces an uncertain energy future and likely recession, but we suspect sentiment has passed its nadir and the upturn should support higher valuations.
	Emerging Market	Unfavorable	Ongoing political risks from Chinese regulatory reform, U.S.-China diplomatic and economic strains, and China's shift to emphasize domestic consumption as well as our desire for quality keep us unfavorable on EM equities.
REAL ASSETS	Commodities	Favorable	We expect commodity performance to improve throughout 2024 and into 2025, as demand strengthens from improving economic conditions and interest rate cuts by the Fed. Over the past year, most individual commodities have seen significant corrections, driven by demand concerns of weak economic conditions. We view this weakness as an opportunity for investors, as we expect these headwinds to ease and revert. We remain favorable on commodities and believe the bull super-cycle is intact.
	Private Real Estate**	Neutral	We maintain our neutral guidance on Core, Value-Add, and Opportunistic due to higher rates and slower growth. In addition, we maintain a neutral view on Private Real Estate overall, remaining cautious as higher interest rates impact financing costs and further downside in valuations remains.
ALTERNATIVE INVESTMENTS**	Hedge Funds-Relative Value**	Favorable	We remain favorable on the L/S Credit and Arbitrage strategies given the defensive attributes, as we expect greater market volatility and a weakening economy in the near term.
	Hedge Funds-Macro**	Favorable	We maintain our favorable guidance on Macro strategies, as we anticipate longer-term macro trends driven largely by interest rates, commodities, and foreign exchange markets will likely reestablish.
	Hedge Funds-Event Driven**	Neutral	We continue to see early signals that the environment for distressed credit strategies is improving. Higher rates are impacting small- and middle-market businesses, as debt service levels grow, wage pressures persist, and consumer demand slows. Conversely, we maintain our unfavorable rating on Merger Arbitrage as deal activity slows and the time to closings lengthens.
	Hedge Funds-Equity Hedge**	Neutral	We remain neutral in Equity Hedge and may look to shift our guidance once the economy recovers, stock markets inflect, and the security selection environment improves.
	Private Equity**	Neutral	We maintain our neutral cyclical guidance for Private Equity. Valuations have declined from 2021 highs and deal activity has slowed. As the expected economic downturn evolves and valuations reach a bottom, we expect the opportunity to invest new money will improve.
	Private Debt**	Neutral	We upgraded Distressed and Special Situations to favorable in an effort to capitalize on our expectations for credit market stress and dislocations. We remain neutral on Direct Lending considering the growing risks in lower quality middle-market borrowers.

\*Tactical horizon is 6-18 months.

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## Capital market assumptions

### Fixed income, equities, real assets, and alternative investments

#### Annual update; as of July 2023

Capital market and asset class assumptions are estimates of how asset classes may perform over the long term, covering multiple economic and market cycles. For example, **downside risk** is based on our assumptions about average returns and the variability of returns. It represents the minimum return that would be statistically likely in 95% of annual returns. In other words, in 19 out of 20 years, performance would likely be better than this figure and in the twentieth year it would likely be worse. There is no guarantee that any particular 20-year period would follow this pattern. **Expected returns** represent our estimate of likely average returns over the next several market cycles. They do not represent the returns that an investor should expect in any particular year. **Geometric return** is the compounded annual growth rate of an investment (asset class or portfolio) over a specified period of time longer than one year. **Standard deviation** is a measure of volatility. It reflects the degree of variability surrounding the outcome of an investment decision; the higher the standard deviation, the greater the risk. **Yield** on a bond assumes constant maturity. **Dividend yield** on an equity or real-asset investment represents the projected dividend as a percentage of the purchase price. The assumptions are not designed to predict actual performance, and there are no assurances that any estimates used will be achieved. The information given has been provided as a guide to help with investment planning and does not represent the maximum loss a portfolio could experience.

#### Capital market assumptions (%)

	Asset class	Expected arithmetic return	Expected geometric return	Expected standard deviation or risk	Yield or dividend yield	Downside risk
	Inflation	2.5				
	Taxable Cash Alternatives	2.5	2.5	0.5	2.5	1.7
	Tax Exempt Cash Alternatives	2.1	2.1	0.5	2.1	1.3
FIXED INCOME	U.S. Taxable Investment Grade Fixed Income	3.9	3.9	3.8	3.9	-2.1
	U.S. Short Term Taxable Fixed Income	3.1	3.1	1.5	3.1	0.7
	U.S. Intermediate Term Taxable Fixed Income	3.9	3.9	3.5	3.9	-1.7
	U.S. Long Term Taxable Fixed Income	5.4	5.0	9.0	5.0	-8.7
	High Yield Taxable Fixed Income	7.2	6.7	9.5	6.7	-7.7
	U.S. Tax Exempt Investment Grade Fixed Income	3.4	3.3	4.3	3.3	-3.5
	Short Term Tax Exempt Fixed Income	2.7	2.6	1.8	2.6	-0.2
	Intermediate Term Tax Exempt Fixed Income	3.4	3.3	4.0	3.3	-3.1
	Long Term Tax Exempt Fixed Income	4.6	4.5	5.3	4.5	-3.8
	High Yield Tax Exempt Fixed Income	6.1	5.8	7.5	5.8	-5.8
	Developed Market ex-U.S. Fixed Income	3.0	2.7	8.0	2.7	-9.6
	Emerging Market Fixed Income	7.0	6.5	10.0	6.5	-8.7
	Inflation-Linked Fixed Income	3.8	3.5	7.5	3.5	-8.1
	Preferred Stock	5.1	4.4	11.5	4.4	-12.7
EQUITIES	U.S. Large Cap Equities	8.9	7.8	16.0	1.9	-15.2
	U.S. Mid Cap Equities	9.6	8.3	17.0	1.7	-16.0
	U.S. Small Cap Equities	9.8	8.0	20.0	1.4	-19.8
	Developed Market ex-U.S. Equities	8.2	6.9	17.0	2.9	-17.3
	Emerging Market Equities	9.9	8.0	21.0	2.7	-20.9
REAL ASSETS	Private Real Estate	8.9	8.1	13.0	5.0	-11.1
	Private Infrastructure	8.8	8.2	12.0	4.3	-9.7
	Master Limited Partnerships (MLPs)	10.0	8.5	18.0	7.5	-16.9
	Commodities	8.7	7.5	16.0	0.0	-15.5
ALTERNATIVE INVESTMENTS*	Global Hedge Funds	6.1	5.9	6.5	0.0	-4.2
	Hedge Funds – Relative Value	5.9	5.7	7.0	0.0	-5.2
	Hedge Funds – Macro	5.9	5.6	8.0	0.0	-6.8
	Hedge Funds – Event Driven	6.4	6.2	7.5	0.0	-5.5
	Hedge Funds – Equity Hedge	6.5	6.1	8.5	0.0	-6.9
	Global Liquid Alternatives	3.5	3.4	4.0	0.0	-3.0
	Private Equity	14.0	12.1	21.0	0.0	-17.0
	Private Debt	9.9	9.1	13.5	7.5	-10.8

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## Strategic asset allocation

Client goals	INCOME			GROWTH & INCOME			GROWTH		
Risk Tolerance	Conservative	Moderate	Aggressive	Conservative	Moderate	Aggressive	Conservative	Moderate	Aggressive

### Efficient frontier

An efficient frontier represents the theoretical set of diversified portfolios that attempt to maximize return given a specific level of risk.

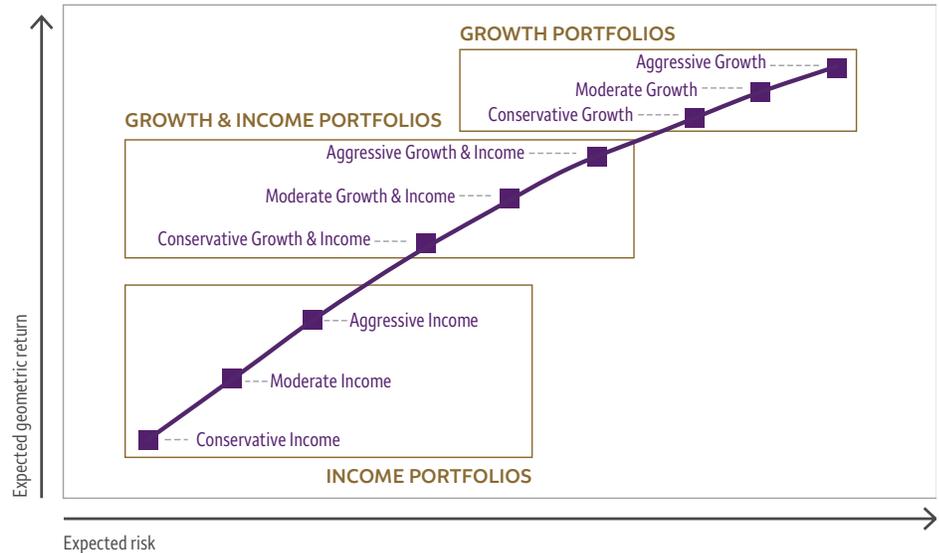


Chart is conceptual and is not meant to reflect any actual returns or represent any specific asset classifications.  
Source: Wells Fargo Investment Institute, July 2023

## Investment objectives definitions

### INCOME

Income portfolios emphasize current income with minimal consideration for capital appreciation and usually have less exposure to more volatile growth assets but can still experience losses.

**Conservative Income** investors generally assume lower risk, but may still experience losses or have lower expected income returns.

**Moderate Income** investors are willing to accept a modest level of risk that may result in increased losses in exchange for the potential to receive modest income returns.

**Aggressive Income** investors seek a higher level of returns and are willing to accept a higher level of risk that may result in greater losses.

### GROWTH & INCOME

Growth & Income portfolios emphasize a blend of current income and capital appreciation and usually have some exposure to more volatile growth assets.

**Conservative Growth & Income** investors generally assume a lower amount of risk, but may still experience losses or have lower expected returns.

**Moderate Growth & Income** investors are willing to accept a modest level of risk that may result in increased losses in exchange for the potential to receive modest returns.

**Aggressive Growth & Income** investors seek a higher level of returns and are willing to accept a higher level of risk that may result in greater losses.

### GROWTH

Growth portfolios emphasize capital appreciation with minimal consideration for current income and usually have significant exposure to more volatile growth assets.

**Conservative Growth** investors generally assume a lower amount of risk, but may still experience increased losses or have lower expected growth returns.

**Moderate Growth** investors are willing to accept a modest level of risk that may result in significant losses in exchange for the potential to receive higher returns.

**Aggressive Growth** investors seek a higher level of returns and are willing to accept a higher level of risk that may result in more significant losses.

# Strategic and tactical asset allocation: Liquid

## May include fixed income, equities, and real assets

	CONSERVATIVE			MODERATE			AGGRESSIVE			
	Strategic (%)	Tactical (%)	Difference (%)	Strategic (%)	Tactical (%)	Difference (%)	Strategic (%)	Tactical (%)	Difference (%)	
INCOME	TAXABLE CASH ALTERNATIVES	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
	TOTAL GLOBAL FIXED INCOME	82.0	86.0	4.0	69.0	72.0	3.0	61.0	64.0	3.0
	U.S. Taxable Investment Grade Fixed Income	76.0	83.0	7.0	60.0	67.0	7.0	47.0	54.0	7.0
	Short Term Taxable*	17.0	23.0	6.0	13.0	19.0	6.0	10.0	17.0	7.0
	Intermediate Term Taxable*	45.0	45.0	0.0	36.0	36.0	0.0	29.0	29.0	0.0
	Long Term Taxable*	14.0	15.0	1.0	11.0	12.0	1.0	8.0	8.0	0.0
	High Yield Taxable Fixed Income	3.0	0.0	-3.0	4.0	0.0	-4.0	6.0	2.0	-4.0
	Developed Market Ex-U.S. Fixed Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Emerging Market Fixed Income	3.0	3.0	0.0	5.0	5.0	0.0	8.0	8.0	0.0
	TOTAL GLOBAL EQUITIES	14.0	8.0	-6.0	27.0	23.0	-4.0	35.0	30.0	-5.0
	U.S. Large Cap Equities	12.0	8.0	-4.0	16.0	16.0	0.0	19.0	19.0	0.0
	U.S. Mid Cap Equities	2.0	0.0	-2.0	5.0	3.0	-2.0	7.0	4.0	-3.0
	U.S. Small Cap Equities	0.0	0.0	0.0	2.0	0.0	-2.0	2.0	0.0	-2.0
	Developed Market Ex-U.S. Equities	0.0	0.0	0.0	4.0	4.0	0.0	7.0	7.0	0.0
Emerging Market Equities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
TOTAL GLOBAL REAL ASSETS	2.0	4.0	2.0	2.0	3.0	1.0	2.0	4.0	2.0	
Commodities	2.0	4.0	2.0	2.0	3.0	1.0	2.0	4.0	2.0	
GROWTH AND INCOME	TAXABLE CASH ALTERNATIVES	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
	TOTAL GLOBAL FIXED INCOME	50.0	54.0	4.0	41.0	45.0	4.0	33.0	37.0	4.0
	U.S. Taxable Investment Grade Fixed Income	39.0	47.0	8.0	30.0	38.0	8.0	20.0	28.0	8.0
	Short Term Taxable*	9.0	16.0	7.0	7.0	14.0	7.0	4.0	11.0	7.0
	Intermediate Term Taxable*	23.0	23.0	0.0	18.0	18.0	0.0	12.0	12.0	0.0
	Long Term Taxable*	7.0	8.0	1.0	5.0	6.0	1.0	4.0	5.0	1.0
	High Yield Taxable Fixed Income	6.0	2.0	-4.0	6.0	2.0	-4.0	7.0	3.0	-4.0
	Developed Market Ex-U.S. Fixed Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Emerging Market Fixed Income	5.0	5.0	0.0	5.0	5.0	0.0	6.0	6.0	0.0
	TOTAL GLOBAL EQUITIES	44.0	38.0	-6.0	53.0	46.0	-7.0	61.0	55.0	-6.0
	U.S. Large Cap Equities	20.0	22.0	2.0	24.0	27.0	3.0	28.0	32.0	4.0
	U.S. Mid Cap Equities	8.0	9.0	1.0	10.0	11.0	1.0	12.0	12.0	0.0
	U.S. Small Cap Equities	5.0	0.0	-5.0	6.0	0.0	-6.0	6.0	0.0	-6.0
	Developed Market Ex-U.S. Equities	7.0	7.0	0.0	8.0	8.0	0.0	9.0	9.0	0.0
Emerging Market Equities	4.0	0.0	-4.0	5.0	0.0	-5.0	6.0	2.0	-4.0	
TOTAL GLOBAL REAL ASSETS	4.0	6.0	2.0	4.0	7.0	3.0	4.0	6.0	2.0	
Commodities	4.0	6.0	2.0	4.0	7.0	3.0	4.0	6.0	2.0	
GROWTH	TAXABLE CASH ALTERNATIVES	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
	TOTAL GLOBAL FIXED INCOME	19.0	25.0	6.0	11.0	16.0	5.0	0.0	8.0	8.0
	U.S. Taxable Investment Grade Fixed Income	16.0	25.0	9.0	8.0	16.0	8.0	0.0	8.0	8.0
	Short Term Taxable*	4.0	11.0	7.0	2.0	10.0	8.0	0.0	8.0	8.0
	Intermediate Term Taxable*	9.0	9.0	0.0	6.0	6.0	0.0	0.0	0.0	0.0
	Long Term Taxable*	3.0	5.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
	High Yield Taxable Fixed Income	3.0	0.0	-3.0	3.0	0.0	-3.0	0.0	0.0	0.0
	Developed Market Ex-U.S. Fixed Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Emerging Market Fixed Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL GLOBAL EQUITIES	74.0	66.0	-8.0	82.0	75.0	-7.0	93.0	83.0	-10.0
	U.S. Large Cap Equities	30.0	34.0	4.0	31.0	34.0	3.0	31.0	33.0	2.0
	U.S. Mid Cap Equities	13.0	13.0	0.0	14.0	14.0	0.0	16.0	16.0	0.0
	U.S. Small Cap Equities	8.0	0.0	-8.0	10.0	4.0	-6.0	13.0	7.0	-6.0
	Developed Market Ex-U.S. Equities	14.0	14.0	0.0	15.0	15.0	0.0	18.0	18.0	0.0
Emerging Market Equities	9.0	5.0	-4.0	12.0	8.0	-4.0	15.0	9.0	-6.0	
TOTAL GLOBAL REAL ASSETS	5.0	7.0	2.0	5.0	7.0	2.0	5.0	7.0	2.0	
Commodities	5.0	7.0	2.0	5.0	7.0	2.0	5.0	7.0	2.0	

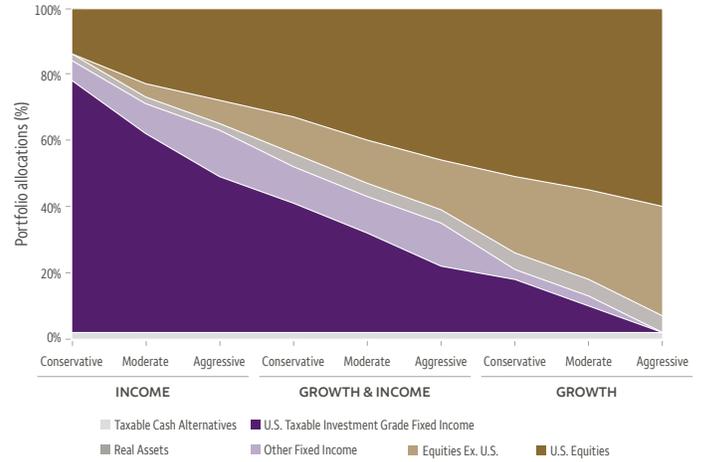
Strategic allocations are updated annually; last update was July 18, 2023. Tactical allocations are updated periodically; last update was January 10, 2024. The U.S. Taxable Investment Grade Fixed Income encompasses the allocations to Short Term, Intermediate Term, and Long Term. \*Wells Fargo Advisors only. See next page for Portfolio allocations across the efficient frontier, strategic and tactical.

## Strategic and tactical asset allocation: Liquid

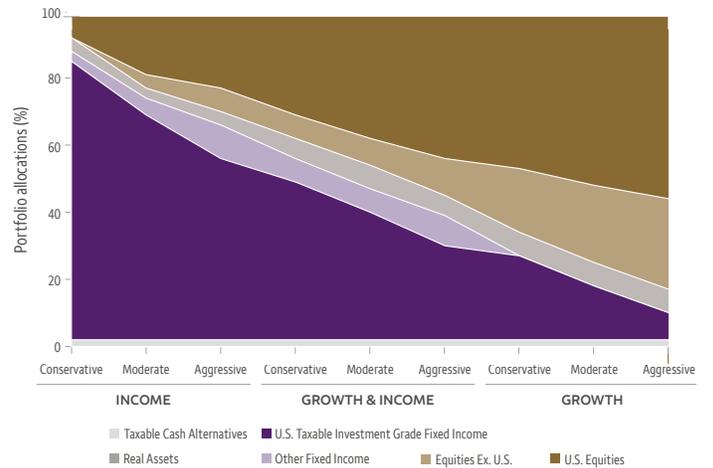
### May include fixed income, equities, and real assets (continued)

These allocations span the set of liquid investments available to investors, utilizing broad diversification to help manage portfolio risk. Special issues such as liquidity, cash flow, and taxability would be taken into consideration in the choice of investment vehicles for certain asset classes. Depending on their tax circumstances, investors may wish to utilize the tax-efficient asset allocation guidance. The tactical asset allocation overweightings and underweightings are designed to provide guidance on shorter-term (6–18 months) weightings in the portfolio.

Portfolio allocations across the efficient frontier—strategic



Portfolio allocations across the efficient frontier—tactical



## Strategic and tactical asset allocation: Illiquid

### May include fixed income, equities, real assets, and alternative investments

	CONSERVATIVE			MODERATE			AGGRESSIVE			
	Strategic (%)	Tactical (%)	Difference (%)	Strategic (%)	Tactical (%)	Difference (%)	Strategic (%)	Tactical (%)	Difference (%)	
<b>INCOME</b>	TAXABLE CASH ALTERNATIVES	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
	TOTAL GLOBAL FIXED INCOME	68.0	70.0	2.0	55.0	57.0	2.0	47.0	49.0	2.0
	U.S. Taxable Investment Grade Fixed Income	63.0	70.0	7.0	48.0	52.0	4.0	35.0	41.0	6.0
	Short Term Taxable*	14.0	22.0	8.0	11.0	15.0	4.0	8.0	13.0	5.0
	Intermediate Term Taxable*	38.0	37.0	-1.0	28.0	28.0	0.0	21.0	21.0	0.0
	Long Term Taxable*	11.0	11.0	0.0	9.0	9.0	0.0	6.0	7.0	1.0
	High Yield Taxable Fixed Income	2.0	0.0	-2.0	2.0	0.0	-2.0	4.0	0.0	-4.0
	Developed Market Ex-U.S. Fixed Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Emerging Market Fixed Income	3.0	0.0	-3.0	5.0	5.0	0.0	8.0	8.0	0.0
	TOTAL GLOBAL EQUITIES	8.0	4.0	-4.0	20.0	16.0	-4.0	25.0	21.0	-4.0
	U.S. Large Cap Equities	8.0	4.0	-4.0	12.0	10.0	-2.0	15.0	13.0	-2.0
	U.S. Mid Cap Equities	0.0	0.0	0.0	4.0	2.0	-2.0	6.0	4.0	-2.0
	U.S. Small Cap Equities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Developed Market Ex-U.S. Equities	0.0	0.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
	Emerging Market Equities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL GLOBAL REAL ASSETS	7.0	9.0	2.0	8.0	10.0	2.0	9.0	11.0	2.0
	Private Real Estate**	5.0	5.0	0.0	6.0	6.0	0.0	7.0	7.0	0.0
	Commodities	2.0	4.0	2.0	2.0	4.0	2.0	2.0	4.0	2.0
	TOTAL ALTERNATIVE INVESTMENTS**	15.0	15.0	0.0	15.0	15.0	0.0	17.0	17.0	0.0
	Global Hedge Funds	11.0	11.0	0.0	11.0	11.0	0.0	11.0	11.0	0.0
Private Equity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Private Debt	4.0	4.0	0.0	4.0	4.0	0.0	6.0	6.0	0.0	
<b>GROWTH AND INCOME</b>	TAXABLE CASH ALTERNATIVES	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
	TOTAL GLOBAL FIXED INCOME	38.0	41.0	3.0	29.0	32.0	3.0	23.0	26.0	3.0
	U.S. Taxable Investment Grade Fixed Income	31.0	38.0	7.0	21.0	28.0	7.0	14.0	20.0	6.0
	Short Term Taxable*	7.0	11.0	4.0	5.0	9.0	4.0	3.0	8.0	5.0
	Intermediate Term Taxable*	18.0	18.0	0.0	12.0	12.0	0.0	9.0	9.0	0.0
	Long Term Taxable*	6.0	9.0	3.0	4.0	7.0	3.0	2.0	3.0	1.0
	High Yield Taxable Fixed Income	4.0	0.0	-4.0	4.0	0.0	-4.0	3.0	0.0	-3.0
	Developed Market Ex-U.S. Fixed Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Emerging Market Fixed Income	3.0	3.0	0.0	4.0	4.0	0.0	6.0	6.0	0.0
	TOTAL GLOBAL EQUITIES	32.0	27.0	-5.0	39.0	34.0	-5.0	46.0	41.0	-5.0
	U.S. Large Cap Equities	16.0	17.0	1.0	18.0	20.0	2.0	22.0	25.0	3.0
	U.S. Mid Cap Equities	6.0	5.0	-1.0	8.0	8.0	0.0	8.0	6.0	-2.0
	U.S. Small Cap Equities	2.0	0.0	-2.0	3.0	0.0	-3.0	4.0	0.0	-4.0
	Developed Market Ex-U.S. Equities	5.0	5.0	0.0	6.0	6.0	0.0	7.0	7.0	0.0
	Emerging Market Equities	3.0	0.0	-3.0	4.0	0.0	-4.0	5.0	3.0	-2.0
	TOTAL GLOBAL REAL ASSETS	9.0	11.0	2.0	10.0	12.0	2.0	10.0	12.0	2.0
	Private Real Estate**	5.0	5.0	0.0	6.0	6.0	0.0	6.0	6.0	0.0
	Commodities	4.0	6.0	2.0	4.0	6.0	2.0	4.0	6.0	2.0
	TOTAL ALTERNATIVE INVESTMENTS**	19.0	19.0	0.0	20.0	20.0	0.0	19.0	19.0	0.0
	Global Hedge Funds	10.0	10.0	0.0	10.0	10.0	0.0	7.0	7.0	0.0
Private Equity	6.0	6.0	0.0	7.0	7.0	0.0	9.0	9.0	0.0	
Private Debt	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	

Strategic allocations are updated annually; last update was July 18, 2023. Tactical allocations are updated periodically; last update was January 10, 2024. The U.S. Taxable Investment Grade Fixed Income encompasses the allocations to Short Term, Intermediate Term, and Long Term. Hedge fund allocations are based on private hedge fund capital market assumptions.

\*Wells Fargo Advisors only.

See next page for Growth data and Portfolio allocations across the efficient frontier, strategic and tactical.

\*\*Alternative investments are not appropriate for all investors. They are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program. Please see pages 27-32 for important definitions and disclosures.

# Strategic and tactical asset allocation: Illiquid

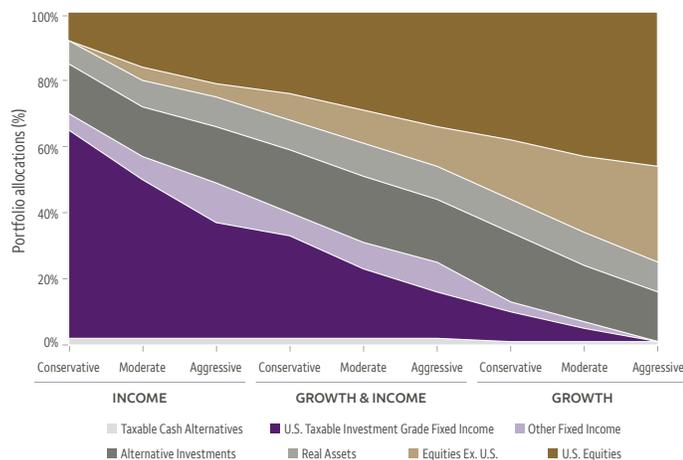
## May include fixed income, equities, real assets, and alternative investments (continued)

	CONSERVATIVE			MODERATE			AGGRESSIVE			
	Strategic (%)	Tactical (%)	Difference (%)	Strategic (%)	Tactical (%)	Difference (%)	Strategic (%)	Tactical (%)	Difference (%)	
<b>GROWTH</b>	TAXABLE CASH ALTERNATIVES	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
	TOTAL GLOBAL FIXED INCOME	12.0	17.0	5.0	6.0	12.0	6.0	0.0	6.0	6.0
	U.S. Taxable Investment Grade Fixed Income	9.0	17.0	8.0	4.0	12.0	8.0	0.0	6.0	6.0
	Short Term Taxable*	2.0	8.0	6.0	0.0	6.0	6.0	0.0	6.0	6.0
	Intermediate Term Taxable*	5.0	5.0	0.0	4.0	6.0	2.0	0.0	0.0	0.0
	Long Term Taxable*	2.0	4.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
	High Yield Taxable Fixed Income	3.0	0.0	-3.0	2.0	0.0	-2.0	0.0	0.0	0.0
	Developed Market Ex-U.S. Fixed Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Emerging Market Fixed Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL GLOBAL EQUITIES	56.0	49.0	-7.0	66.0	58.0	-8.0	75.0	67.0	-8.0
	U.S. Large Cap Equities	24.0	25.0	1.0	24.0	27.0	3.0	24.0	27.0	3.0
	U.S. Mid Cap Equities	9.0	10.0	1.0	13.0	13.0	0.0	15.0	13.0	-2.0
	U.S. Small Cap Equities	5.0	0.0	-5.0	6.0	0.0	-6.0	7.0	3.0	-4.0
	Developed Market Ex-U.S. Equities	12.0	12.0	0.0	14.0	13.0	-1.0	17.0	17.0	0.0
	Emerging Market Equities	6.0	2.0	-4.0	9.0	5.0	-4.0	12.0	7.0	-5.0
	TOTAL GLOBAL REAL ASSETS	10.0	12.0	2.0	10.0	12.0	2.0	9.0	11.0	2.0
	Private Real Estate**	5.0	5.0	0.0	5.0	5.0	0.0	4.0	4.0	0.0
	Commodities	5.0	7.0	2.0	5.0	7.0	2.0	5.0	7.0	2.0
	TOTAL ALTERNATIVE INVESTMENTS**	21.0	21.0	0.0	17.0	17.0	0.0	15.0	15.0	0.0
	Global Hedge Funds	7.0	7.0	0.0	2.0	2.0	0.0	0.0	0.0	0.0
	Private Equity	11.0	11.0	0.0	12.0	12.0	0.0	15.0	15.0	0.0
Private Debt	3.0	3.0	0.0	3.0	3.0	0.0	0.0	0.0	0.0	

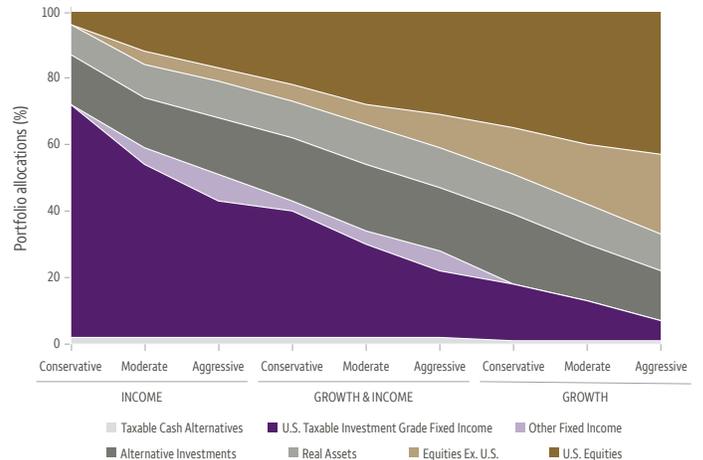
Strategic allocations are updated annually; last update was July 18, 2023. Tactical allocations are updated periodically; last update was January 10, 2024. The U.S. Taxable Investment Grade Fixed Income encompasses the allocations to Short Term, Intermediate Term, and Long Term. Hedge fund allocations are based on private hedge fund capital market assumptions.  
\*Wells Fargo Advisors only.

These allocations span the set of investments available to investors, utilizing broad diversification to help manage portfolio risk. Special issues such as liquidity, cash flow, and taxability would be taken into consideration in the choice of investment vehicles for certain asset classes. Depending on their tax circumstances, investors may wish to utilize the liquid tax-efficient asset allocation guidance. The tactical asset allocation overweights and underweights are designed to provide guidance on shorter-term (6–18 months) weightings in the portfolio.

Portfolio allocations across the efficient frontier—strategic



Portfolio allocations across the efficient frontier—tactical



\*\*Alternative investments are not appropriate for all investors. They are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program. Please see pages 27-32 for important definitions and disclosures.

## Strategic asset allocation: Tax-efficient illiquid

May include fixed income, equities, real assets, and alternative investments

		CONSERVATIVE	MODERATE	AGGRESSIVE
		Strategic (%)	Strategic (%)	Strategic (%)
INCOME	TAX EXEMPT CASH ALTERNATIVES	2.0	2.0	2.0
	TOTAL GLOBAL FIXED INCOME	80.0	65.0	57.0
	U.S. Tax Exempt Investment Grade FI	80.0	58.0	43.0
	Short Term Tax Exempt*	18.0	13.0	9.0
	Intermediate Term Tax Exempt*	48.0	35.0	26.0
	Long Term Tax Exempt*	14.0	10.0	8.0
	High Yield Tax Exempt Fixed Income	0.0	7.0	14.0
	Developed Market Ex-U.S. Fixed Income	0.0	0.0	0.0
	Emerging Market Fixed Income	0.0	0.0	0.0
	TOTAL GLOBAL EQUITIES	6.0	21.0	30.0
	U.S. Large Cap Equities	6.0	16.0	19.0
	U.S. Mid Cap Equities	0.0	5.0	6.0
	U.S. Small Cap Equities	0.0	0.0	0.0
	Developed Market Ex-U.S. Equities	0.0	0.0	5.0
	Emerging Market Equities	0.0	0.0	0.0
	TOTAL GLOBAL REAL ASSETS	7.0	7.0	7.0
	Private Real Estate**	7.0	7.0	7.0
Commodities	0.0	0.0	0.0	
TOTAL ALTERNATIVE INVESTMENTS**	5.0	5.0	4.0	
Global Hedge Funds	5.0	5.0	4.0	
Private Equity	0.0	0.0	0.0	
Private Debt	0.0	0.0	0.0	
GROWTH AND INCOME	TAX EXEMPT CASH ALTERNATIVES	2.0	1.0	1.0
	TOTAL GLOBAL FIXED INCOME	45.0	35.0	29.0
	U.S. Tax Exempt Investment Grade FI	38.0	30.0	23.0
	Short Term Tax Exempt*	8.0	7.0	5.0
	Intermediate Term Tax Exempt*	23.0	18.0	14.0
	Long Term Tax Exempt*	7.0	5.0	4.0
	High Yield Tax Exempt Fixed Income	7.0	5.0	6.0
	Developed Market Ex-U.S. Fixed Income	0.0	0.0	0.0
	Emerging Market Fixed Income	0.0	0.0	0.0
	TOTAL GLOBAL EQUITIES	35.0	43.0	51.0
	U.S. Large Cap Equities	19.0	22.0	25.0
	U.S. Mid Cap Equities	6.0	7.0	9.0
	U.S. Small Cap Equities	3.0	3.0	4.0
	Developed Market Ex-U.S. Equities	7.0	9.0	10.0
	Emerging Market Equities	0.0	2.0	3.0
	TOTAL GLOBAL REAL ASSETS	7.0	7.0	7.0
	Private Real Estate**	7.0	7.0	7.0
Commodities	0.0	0.0	0.0	
TOTAL ALTERNATIVE INVESTMENTS**	11.0	14.0	12.0	
Global Hedge Funds	4.0	4.0	0.0	
Private Equity	7.0	10.0	12.0	
Private Debt	0.0	0.0	0.0	

Tax-efficient strategic allocations are updated annually; last update was July 18, 2023. Tactical allocations are updated periodically. The U.S. Tax Exempt Investment Grade Fixed Income encompasses the allocations to Short Term, Intermediate Term, and Long Term. Hedge fund allocations are based on private hedge fund capital market assumptions.

\*Wells Fargo Advisors only.

See next page for Growth data and portfolio allocations across the efficient frontier, strategic.

\*\*Alternative investments are not appropriate for all investors. They are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program. Please see pages 27-32 for important definitions and disclosures.

## Strategic asset allocation: Tax-efficient illiquid

May include fixed income, equities, real assets, and alternative investments (continued)

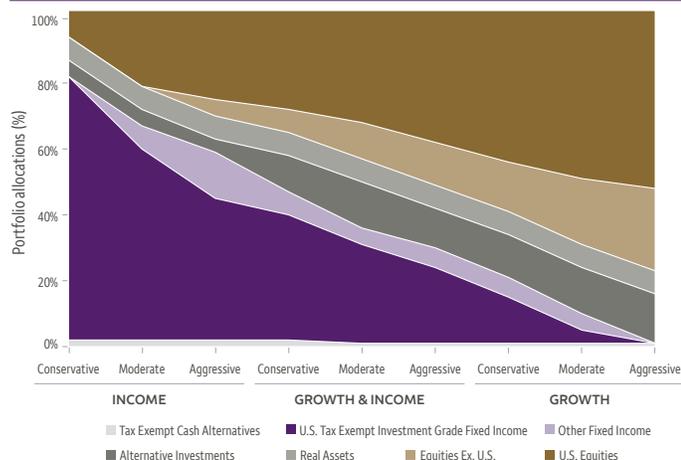
	CONSERVATIVE	MODERATE	AGGRESSIVE
	Strategic (%)	Strategic (%)	Strategic (%)
<b>GROWTH</b>			
TAX EXEMPT CASH ALTERNATIVES	1.0	1.0	1.0
TOTAL GLOBAL FIXED INCOME	20.0	9.0	0.0
U.S. Tax Exempt Investment Grade FI	14.0	4.0	0.0
Short Term Tax Exempt*	3.0	0.0	0.0
Intermediate Term Tax Exempt*	9.0	4.0	0.0
Long Term Tax Exempt*	2.0	0.0	0.0
High Yield Tax Exempt Fixed Income	6.0	5.0	0.0
Developed Market Ex-U.S. Fixed Income	0.0	0.0	0.0
Emerging Market Fixed Income	0.0	0.0	0.0
TOTAL GLOBAL EQUITIES	59.0	69.0	77.0
U.S. Large Cap Equities	28.0	32.0	33.0
U.S. Mid Cap Equities	11.0	11.0	13.0
U.S. Small Cap Equities	5.0	6.0	6.0
Developed Market Ex-U.S. Equities	11.0	12.0	12.0
Emerging Market Equities	4.0	8.0	13.0
TOTAL GLOBAL REAL ASSETS	7.0	7.0	7.0
Private Real Estate**	7.0	7.0	7.0
Commodities	0.0	0.0	0.0
TOTAL ALTERNATIVE INVESTMENTS**	13.0	14.0	15.0
Global Hedge Funds	0.0	0.0	0.0
Private Equity	13.0	14.0	15.0
Private Debt	0.0	0.0	0.0

Tax-efficient strategic allocations are updated annually; last update was July 18, 2023. Tactical allocations are updated periodically. The U.S. Tax Exempt Investment Grade Fixed Income encompasses the allocations to Short Term, Intermediate Term, and Long Term. Hedge fund allocations are based on private hedge fund capital market assumptions. The tactical asset allocation overweights and underweights are designed to provide guidance on shorter-term (6–18 months) weightings in the portfolio.

\*Wells Fargo Advisors only.

These allocations span the set of investments available to investors, utilizing broad diversification to help manage portfolio risk. Special consideration is given to the taxable implications of investing in various asset classes. Taxability may also be taken into consideration in determining the choice of investment vehicles for certain asset classes. Liquidity and cash flow preferences may also be reflected in the choice of investment vehicles for certain asset classes. We suggest that investors who are highly tax-sensitive generally should elect municipal bonds to implement their fixed income allocation. The tactical asset allocation overweights and underweights are designed to provide guidance on shorter-term (6–18 months) weightings in the portfolio and also take taxation into consideration, therefore, some tactical ideas may not be implemented in these allocations.

### Portfolio allocations across the efficient frontier—strategic



\*\*Alternative investments are not appropriate for all investors. They are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program. Please see pages 27-32 for important definitions and disclosures.

## Strategic asset allocation: Tax-efficient liquid

May include fixed income, equities, and real assets

	CONSERVATIVE	MODERATE	AGGRESSIVE	
	Strategic (%)	Strategic (%)	Strategic (%)	
INCOME	TAX EXEMPT CASH ALTERNATIVES	3.0	3.0	2.0
	TOTAL GLOBAL FIXED INCOME	91.0	74.0	66.0
	U.S. Tax Exempt Investment Grade FI	91.0	68.0	50.0
	Short Term Tax Exempt*	20.0	15.0	11.0
	Intermediate Term Tax Exempt*	55.0	41.0	30.0
	Long Term Tax Exempt*	16.0	12.0	9.0
	High Yield Tax Exempt Fixed Income	0.0	6.0	16.0
	Developed Market Ex-U.S. Fixed Income	0.0	0.0	0.0
	Emerging Market Fixed Income	0.0	0.0	0.0
	TOTAL GLOBAL EQUITIES	6.0	23.0	32.0
	U.S. Large Cap Equities	6.0	14.0	17.0
	U.S. Mid Cap Equities	0.0	5.0	7.0
	U.S. Small Cap Equities	0.0	0.0	0.0
	Developed Market Ex-U.S. Equities	0.0	4.0	8.0
Emerging Market Equities	0.0	0.0	0.0	
TOTAL GLOBAL REAL ASSETS	0.0	0.0	0.0	
Commodities	0.0	0.0	0.0	
GROWTH AND INCOME	TAX EXEMPT CASH ALTERNATIVES	2.0	2.0	2.0
	TOTAL GLOBAL FIXED INCOME	53.0	43.0	32.0
	U.S. Tax Exempt Investment Grade FI	45.0	35.0	25.0
	Short Term Tax Exempt*	10.0	8.0	6.0
	Intermediate Term Tax Exempt*	27.0	21.0	15.0
	Long Term Tax Exempt*	8.0	6.0	4.0
	High Yield Tax Exempt Fixed Income	8.0	8.0	7.0
	Developed Market Ex-U.S. Fixed Income	0.0	0.0	0.0
	Emerging Market Fixed Income	0.0	0.0	0.0
	TOTAL GLOBAL EQUITIES	45.0	55.0	66.0
	U.S. Large Cap Equities	17.0	23.0	27.0
	U.S. Mid Cap Equities	10.0	12.0	14.0
	U.S. Small Cap Equities	6.0	6.0	6.0
	Developed Market Ex-U.S. Equities	8.0	9.0	13.0
Emerging Market Equities	4.0	5.0	6.0	
TOTAL GLOBAL REAL ASSETS	0.0	0.0	0.0	
Commodities	0.0	0.0	0.0	

Tax-efficient strategic allocations are updated annually; last update was July 18, 2023. Tactical allocations are updated periodically. The U.S. Tax Exempt Investment Grade Fixed Income encompasses the allocations to Short Term, Intermediate Term, and Long Term.

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See next page for Growth data and portfolio allocations across the efficient frontier, strategic.

## Strategic asset allocation: Tax-efficient liquid

May include fixed income, equities, and real assets (continued)

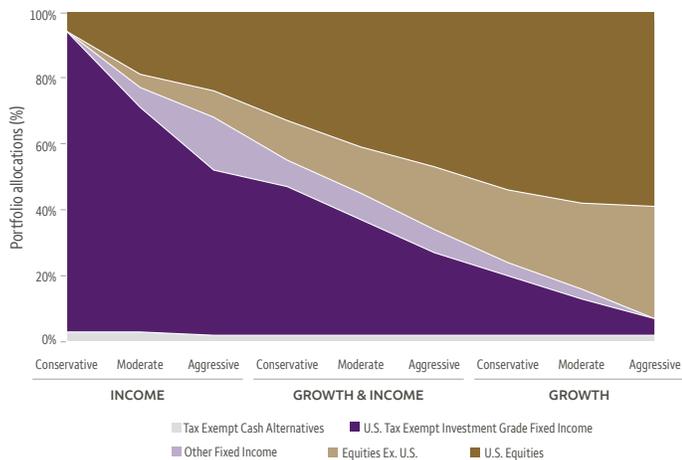
	CONSERVATIVE	MODERATE	AGGRESSIVE	
	Strategic (%)	Strategic (%)	Strategic (%)	
<b>GROWTH</b>	TAX EXEMPT CASH ALTERNATIVES	2.0	2.0	2.0
	TOTAL GLOBAL FIXED INCOME	22.0	14.0	5.0
	U.S. Tax Exempt Investment Grade FI	18.0	11.0	5.0
	Short Term Tax Exempt*	4.0	2.0	0.0
	Intermediate Term Tax Exempt*	11.0	7.0	5.0
	Long Term Tax Exempt*	3.0	2.0	0.0
	High Yield Tax Exempt Fixed Income	4.0	3.0	0.0
	Developed Market Ex-U.S. Fixed Income	0.0	0.0	0.0
	Emerging Market Fixed Income	0.0	0.0	0.0
	TOTAL GLOBAL EQUITIES	76.0	84.0	93.0
	U.S. Large Cap Equities	31.0	31.0	27.0
	U.S. Mid Cap Equities	15.0	16.0	18.0
	U.S. Small Cap Equities	8.0	11.0	14.0
	Developed Market Ex-U.S. Equities	14.0	13.0	18.0
Emerging Market Equities	8.0	13.0	16.0	
TOTAL GLOBAL REAL ASSETS	0.0	0.0	0.0	
Commodities	0.0	0.0	0.0	

Tax-efficient strategic allocations are updated annually; last update was July 18, 2023. Tactical allocations are updated periodically. The U.S. Tax Exempt Investment Grade Fixed Income encompasses the allocations to Short Term, Intermediate Term, and Long Term. The tactical asset allocation overweights and underweights are designed to provide guidance on shorter-term (6–18 months) weightings in the portfolio.

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### Portfolio allocations across the efficient frontier—strategic



## Disclosures

Forecasts, targets, and estimates are not guaranteed and are based on certain assumptions and on our views of market and economic conditions which are subject to change.

### Risk considerations

**Past performance does not indicate future results. The value or income associated with a security or an investment may fluctuate. There is always the potential for loss as well as gain. Investments discussed in this report may be inappropriate for some investors depending on their specific investment objectives and financial position.**

**Asset allocation and diversification** are investment methods used to manage risk. They do not assure or guarantee better performance and cannot eliminate the risk of investment losses. Your individual allocation may be different than the strategic long-term allocation above due to your unique individual circumstances, but is targeted to be in the allocation ranges detailed. The asset allocation reflected above may fluctuate based on asset values, portfolio decisions, and account needs.

Cash alternatives typically offer lower rates of return than longer-term equity or fixed-income securities and provide a level of liquidity and price stability generally not available to these investments. Some examples of cash alternatives include: Bank certificates of deposit; bank money market accounts; bankers' acceptances, federal agency short-term securities, money market mutual funds, Treasury bills, ultra-short bond mutual funds or exchange-traded funds and variable rate demand notes. Each type of cash alternatives has advantages and disadvantages which should be discussed with your financial advisor before investing.

**Alternative investments**, such as hedge funds, private capital funds, and private real estate funds, carry specific investor qualifications and involve the risk of investment loss, including the loss of the entire amount invested. While investors may potentially benefit from the ability of alternative investments to potentially improve the risk-reward profiles of their portfolios, the investments themselves can carry significant risks. Government regulation and monitoring of these types of investments may be minimal or nonexistent. There may be no secondary market for alternative investment interests and transferability may be limited or even prohibited.

**Private debt strategies** seek to actively improve the capital structure of a company often through debt restructuring and deleveraging measures. Such investments are subject to potential default, limited liquidity, the creditworthiness of the private company, and the infrequent availability of independent credit ratings for private companies.

**Private debt** refers to loans to companies which are not provided by banks or public markets, and instead are provided by private investors and private markets.

The use of **alternative investment strategies**, such as Equity Hedge, Event Driven, Macro and Relative Value, are speculative and involve a high degree of risk. These strategies may expose investors to risks such as short selling, leverage risk, counterparty risk, liquidity risk, volatility risk, the use of derivatives and other significant risks. Distressed credit strategies invest in, and might sell short, the securities of companies where the security's price has been, or is expected to be, affected by a distressed situation. This may involve reorganizations, bankruptcies, distressed sales, and other corporate restructurings. Investing in distressed companies is speculative and involves a high degree of risk. Because of their distressed situation, these securities may be illiquid, have low trading volumes, and be subject to substantial interest rate and credit risks. Structured credit strategies aim to generate returns via positions in the credit sensitive area of the fixed income markets. The strategy generally involves the purchase of corporate bonds with hedging of interest rate exposure. The use of alternative investment strategies may require a manager's skill in assessing corporate events, the anticipation of future movements in securities prices, interest rates, or other economic factors. No assurance can be given that a manager's view of the economy will be correct which may result in lower investment returns or higher return volatility. Long/short credit strategies seek to mitigate interest rate and credit risks regardless of market environment through investment in credit-related and structured debt vehicles. These strategies involve the use of market hedges and involve risks associated with the use of derivatives, fixed income, foreign investment, currency, hedging, leverage, liquidity, short sales, loss of principal and other material risks.

**Equity sector risks:** *Communication services* companies are vulnerable to their products and services becoming outdated because of technological advancement and the innovation of competitors. Companies in the communication services sector may also be affected by rapid technology changes, pricing competition, large equipment upgrades, substantial capital requirements, and government regulation and approval of products and services. In addition, companies within the industry may invest heavily in research and development which is not guaranteed to lead to successful implementation of the proposed product. Risks associated with the *Consumer Discretionary sector* include,

among others, apparel price deflation due to low-cost entries, high inventory levels and pressure from e-commerce players, reduction in traditional advertising dollars, and increasing household debt levels that could limit consumer appetite for discretionary purchases. *Consumer Staples industries* can be significantly affected by competitive pricing particularly with respect to the growth of low-cost emerging market production, government regulation, the performance of overall economy, interest rates, and consumer confidence. The *Energy sector* may be adversely affected by changes in worldwide energy prices, exploration, production spending, government regulation, and changes in exchange rates, depletion of natural resources, and risks that arise from extreme weather conditions. Investing in *Financial Services companies* will subject a portfolio to adverse economic or regulatory occurrences affecting the sector. Some of the risks associated with investment in the *Health Care sector* include competition on branded products, sales erosion due to cheaper alternatives, research & development risk, government regulations, and government approval of products anticipated to enter the market. Risks associated with investing in the *Industrials sector* include the possibility of a worsening in the global economy, acquisition integration risk, operational issues, failure to introduce to market new and innovative products, further weakening in the oil market, potential price wars due to any excesses industry capacity, and a sustained rise in the dollar relative to other currencies. *Materials industries* can be significantly affected by the volatility of commodity prices, the exchange rate between foreign currency and the dollar, export/import concerns, worldwide competition, procurement, and manufacturing and cost containment issues. *Technology and Internet-related stocks*, especially of smaller, less-seasoned companies, tend to be more volatile than the overall market. *Real estate* has special risks including the possible illiquidity of underlying properties, credit risk, interest rate fluctuations, and the impact of varied economic conditions. *Utilities* are sensitive to changes in interest rates and the securities within the sector can be volatile and may underperform in a slow economy.

Investing in **commodities** is not appropriate for all investors. Exposure to the commodities markets may subject an investment to greater share price volatility than an investment in traditional equity or debt securities. Investments in commodities may be affected by changes in overall market movements, commodity index volatility, changes in interest rates or factors affecting a particular industry or commodity. Products that invest in commodities may employ more complex strategies which may expose investors to additional risks.

Investments in **fixed-income securities** are subject to market, interest rate, credit/default, liquidity, inflation and other risks. Bond prices fluctuate inversely to changes in interest rates. Therefore, a general rise in interest rates can result in the decline in the bond's price. Credit risk is the risk that an issuer will default on payments of interest and principal. **High yield** fixed income securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment grade fixed income securities. **Municipal bonds** offer interest payments exempt from federal taxes, and potentially state and local income taxes. Municipal bonds are subject to credit risk and potentially the Alternative Minimum Tax (AMT). Municipal securities are also subject to legislative and regulatory risk which is the risk that a change in the tax code could affect the value of taxable or tax-exempt interest income. Although **Treasuries** are considered free from credit risk they are subject to other types of risks. These risks include interest rate risk, which may cause the underlying value of the bond to fluctuate.

**Leveraged loans** are generally below investment grade quality ("high-yield" securities or "junk" bonds). Investing in such securities should be viewed as speculative and investors should review their ability to assume the risks associated with investments which utilize such securities.

**Mortgage-related and asset-backed securities** are subject to the risks associated with investment in debt securities. In addition, they are subject to prepayment and call risks. Changes in prepayments may significantly affect yield, average life and expected maturity. If called prior to maturity, similar yielding investments may not be available for the Fund to purchase. These risks may be heightened for longer maturity and duration securities.

**Currency hedging** is a technique used to seek to reduce the risk arising from the change in price of one currency against another. The use of hedging to manage currency exchange rate movements may not be successful and could produce disproportionate gains or losses in a portfolio and may increase volatility and costs.

**Equity** securities are subject to market risk which means their value may fluctuate in response to general economic and market conditions and the perception of individual issuers. Investments in equity securities are generally more volatile than other types of securities.

There is no guarantee that **dividend-paying stocks** will return more than the overall stock market. Dividends are not guaranteed and are subject to change or elimination.

## Disclosures *(continued)*

There are no guarantees that **growth** or **value** stocks will increase in value or that their intrinsic values will eventually be recognized by the overall market. The return and principal value of stocks fluctuate with changes in market conditions. The growth and value type of investing tends to shift in and out of favor. The prices of **small and mid-size company** stocks are generally more volatile than large company stocks. They often involve higher risks because smaller companies may lack the management expertise, financial resources, product diversification and competitive strengths to endure adverse economic conditions.

Investing in **foreign securities** presents certain risks that may not be present in domestic securities. For example, investments in foreign, emerging and frontier markets present special risks, including currency fluctuation, the potential for diplomatic and potential instability, regulatory and liquidity risks, foreign taxation and differences in auditing and other financial standards.

Investing in **gold, silver** or other precious metals involves special risk considerations such as severe price fluctuations and adverse economic and regulatory developments affecting the sector or industry.

Investing in long/short strategies is not appropriate for all investors. **Short** selling involves sophisticated investment techniques that can add additional risk, and involves the risk of potentially unlimited increase in the market value of the security sold short, which could result in potentially unlimited loss for the Fund.

**Master Limited Partnerships (MLPs)** involves certain risks which differ from an investment in the securities of a corporation. MLPs may be sensitive to price changes in oil, natural gas, etc., regulatory risk, and rising interest rates. A change in the current tax law regarding MLPs could result in the MLP being treated as a corporation for federal income tax purposes which would reduce the amount of cash flows distributed by the MLP. Other risks include the volatility associated with the use of leverage; volatility of the commodities markets; market risks; supply and demand; natural and man-made catastrophes; competition; liquidity; market price discount from Net Asset Value and other material risks.

**Merger arbitrage** involves investing in event driven situations such as reorganizations, spin-offs, mergers, and bankruptcies, and involves the risks that the proposed opportunities in which the fund may invest may not materialize as planned or may be renegotiated or terminated which can result in losses to the fund.

There are special risks associated with investing in **preferred securities**. Preferred securities are subject to interest rate and credit risks and are generally subordinated to bonds or other debt instruments in an issuer's capital structure, subjecting them to a greater risk of non-payment than more senior securities. In addition, the issue may be callable which may negatively impact the return of the security. Preferred dividends are not guaranteed and are subject to deferral or elimination.

Investing in **real estate** involves special risks, including the possible illiquidity of the underlying property, credit risk, interest rate fluctuations and the impact of varied economic conditions. Other risks associated with investing in listed **REITs** include the use of leverage, unexpected reductions in common dividends, increases in property taxes, and the impact to listed REITs from new property development.

Privately offered **real estate** funds are speculative and involve a high degree of risk. Investments in real estate and real estate investments trusts have special risks, including the possible illiquidity of the underlying properties, credit risk, interest rate fluctuations, and the impact of varied economic conditions. There can be no assurance a secondary market will exist and there may be restrictions on transferring interests.

**Sovereign debt** are bonds issued by a national government in a foreign currency and are used to finance a country's growth. In addition to the risks associated with investing in international and emerging markets, sovereign debt involves the risk that the issuing entity may not be able or willing to repay principal and/or interest when due in accordance with the terms of the debt agreement.

**Treasury Inflation-Protected Securities (TIPS)** are subject to interest rate risk, especially when real interest rates rise. This may cause the underlying value of the bond to fluctuate more than other fixed income securities. TIPS have special tax consequences, generating phantom income on the "inflation compensation" component of the principal. A holder of TIPS may be required to report this income annually although no income related to "inflation compensation" is received until maturity.

### Economic index definitions

An index is unmanaged and not available for direct investment.

**Inflation** is the change in the **Consumer Price Index (CPI)**. The CPI measures the price of a fixed basket of goods and services purchased by an average consumer.

**Core inflation** is the change in the core **Consumer Price Index (CPI)**. The core CPI measures the price of a fixed basket of goods and services — excluding the volatile food and energy components — purchased by an average consumer.

**Consumer Confidence Index** measures and details consumer confidence, which is the degree of optimism or pessimism toward the state of the economy.

**JPMorgan Emerging Markets Currency Index** tracks the performance of emerging-market currencies relative to the U.S. dollar.

**MSCI Emerging Markets Currency Index** is an index of emerging market currencies versus the dollar, where the weight of each currency within the index matches the relevant country weight within the Morgan Stanley Capital International (MSCI) Emerging Markets Equity Index.

**MSCI All Country World Index (MSCI ACWI)** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of 23 developed and 26 emerging markets.

**Purchasing Managers' Index (PMI)** is an indicator of the economic health of the manufacturing sector. The PMI index is based on five major indicators: new orders, inventory levels, production, supplier deliveries and the employment environment.

**Institute of Supply Management (ISM) Purchasing Manager's Index** gauges internal demand for raw materials/goods that go into end-production.

An Index value over 50 indicates expansion; below 50 indicates contraction. The values for the index can be between 0 and 100.

**U.S. Dollar Index (USD, DXY)** is an index (or measure) of the value of the United States dollar relative to a basket of foreign currencies, often referred to as a basket of U.S. trade partners' currencies.

**Institute for Supply Management (ISM) Manufacturing Index** is based on surveys of more than 300 manufacturing firms by the Institute of Supply Management. The ISM Manufacturing Index monitors employment, production inventories, new orders and supplier deliveries.

**Institute of Supply Management (ISM) Non-manufacturing Index (ISM Services Survey)** measures the rate and direction of change in activity in the nonmanufacturing industries. An index with a score over 50 indicates that the industry is expanding, and a score below 50 shows a contraction. The values for the index can be between 0 and 100.

**Personal consumption expenditures (PCE)** is the primary measure of consumer spending on goods and services in the U.S. economy. It accounts for about two-thirds of domestic final spending, and thus it is the primary engine that drives future economic growth.

### Alternative investments — strategy definitions

**Private Equity. Cambridge Associates LLC U.S. Private Equity Index®** uses a horizon calculation based on data compiled from more than 1,400 institutional-quality buyout, growth equity, private equity energy, and subordinated capital funds formed between 1986 and 2017. The funds included in the index report their performance voluntarily and therefore the index may reflect a bias towards funds with records of success. Funds report unaudited quarterly data to Cambridge and Associates when calculating the index. The index is not transparent and cannot be independently verified because Cambridge Associates does not identify the funds included in the index. Because Cambridge Associates recalculates the index each time a new fund is added, the historical performance of the index is not fixed, can't be replicated and will differ over time from the day presented. The returns shown are net of fees, expenses and carried interest. Index returns do not represent fund performance.

**Global Hedge Funds. HFRI Fund Weighted Composite Index.** A global, equal-weighted index of over 2,000 single-manager funds that report to HFR Database. Constituent funds report monthly net-of-all-fees performance in U.S. Dollars and have a minimum of \$50 Million under management or a 12-month track record of active performance. The HFRI Fund Weighted Composite Index does not include Funds of Hedge Funds.

**Relative Value. HFRI Relative Value (Total) Index.** Strategy is predicated on realization of a valuation discrepancy in the relationship between multiple securities. Managers employ a variety of fundamental and quantitative techniques to establish investment theses, and security types range broadly across equity, fixed income, derivative or other security types. Fixed income strategies are typically quantitatively driven to measure the existing relationship between instruments and, in some cases, identify attractive positions in which the risk adjusted spread between these instruments represents an attractive opportunity for the investment manager. Relative Value (RV) position may be involved in

## Disclosures *(continued)*

corporate transactions also, but as opposed to Event Driven (ED) exposures, the investment thesis is predicated on realization of a pricing discrepancy between related securities, as opposed to the outcome of the corporate transaction.

**Arbitrage. HFRI RV: Multi-Strategy Index:** multi-strategies employ an investment thesis predicated on realization of a spread between related yield instruments in which one or multiple components of the spread contains a fixed income, derivative, equity, real estate, MLP or combination of these or other instruments. Strategies are typically quantitatively driven to measure the existing relationship between instruments and, in some cases, identify attractive positions in which the risk adjusted spread between these instruments represents an attractive opportunity for the investment manager.

**Long/Short Credit. HFRI RV: Fixed Income — Corporate Index.** Includes strategies predicated on realization of a spread between related instruments in which one or multiple components of the spread is a corporate fixed-income instrument. Strategies are designed to isolate attractive opportunities between a variety of fixed income instruments, typically realizing an attractive spread between multiple corporate bonds or between a corporate and risk free government bond. They typically involve arbitrage positions with little or no net credit market exposure, but are predicated on specific, anticipated idiosyncratic developments.

**Structured Credit/Asset Backed. HFRI RV: Fixed Income — Asset Backed Index.** Includes strategies predicated on realization of a spread between related instruments in which one or multiple components of the spread is a fixed-income instrument backed by physical collateral or other financial obligations (loans, credit cards) other than those of a specific corporation. Strategies are designed to isolate attractive opportunities between a variety of fixed income instruments specifically securitized by collateral commitments, which frequently include loans, pools and portfolios of loans, receivables, real estate, machinery or other tangible financial commitments. Investment thesis may be predicated on an attractive spread given the nature and quality of the collateral, the liquidity characteristics of the underlying instruments and on issuance and trends in collateralized fixed-income instruments, broadly speaking. In many cases, investment managers hedge, limit, or offset interest-rate exposure in the interest of isolating the risk of the position to strictly the disparity between the yield of the instrument and that of the lower-risk instruments.

**Macro. HFRI Macro (Total) Index.** Encompass a broad range of strategies predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard-currency, and commodity markets. Managers employ a variety of techniques, both discretionary and systematic analysis, combinations of top-down and bottom-up theses, quantitative and fundamental approaches and long- and short-term holding periods. Although some strategies employ RV techniques, Macro strategies are distinct from RV strategies in that the primary investment thesis is predicated on predicted or future movements in the underlying instruments rather than on realization of a valuation discrepancy between securities. In a similar way, while both Macro and equity hedge managers may hold equity securities, the overriding investment thesis is predicated on the impact movements in underlying macroeconomic variables may have on security prices, as opposed to Equity Hedge (EH), in which the fundamental characteristics on the company are the most significant are integral to investment thesis.

**Systematic Macro. HFRI Trend Following Directional Index** is a global, equal-weighted index of single-manager funds that report to the HFR Database. The HFRI Trend Following Directional Index is comprised of funds that employ trend following strategies such as Macro: Currency – Systematic, Macro: Systematic Diversified, certain Macro: Multi-Strategy funds and other Macro funds that utilize, to some degree, trend following.

**Discretionary Macro. HFRI Macro: Discretionary Thematic Index.** Strategies primarily rely on the evaluation of market data, relationships and influences, as interpreted by individuals who make decisions on portfolio positions; strategies employ an investment process most heavily influenced by top-down analysis of macroeconomic variables. Investment Managers may trade actively in developed and emerging markets, focusing on both absolute and relative levels on equity markets, interest rates/fixed income markets, currency and commodity markets; they frequently employ spread trades to isolate a differential between instrument identified by the Investment Manager as being inconsistent with expected value. Portfolio positions typically are predicated on the evolution of investment themes the Manager expects to develop over a relevant time frame, which in many cases contain contrarian or volatility-focused components.

**Event Driven. HFRI Event Driven (Total) Index.** Maintains positions in companies currently or prospectively involved in corporate transactions of a wide variety including mergers, restructurings, financial distress, tender offers, shareholder buybacks, debt exchanges, security issuance or other capital structure adjustments. Security types can

range from most senior in the capital structure to most junior or subordinated and frequently involve additional derivative securities. Exposure includes a combination of sensitivities to equity markets, credit markets and idiosyncratic, company-specific developments. Investment theses are typically predicated on fundamental (as opposed to quantitative) characteristics, with the realization of the thesis predicated on a specific development exogenous to the existing capital structure.

**Activist. HFRI ED: Activist Index.** Strategies may obtain or attempt to obtain representation on the company's board of directors in an effort to impact the firm's policies or strategic direction and in some cases may advocate activities such as division or asset sales, partial or complete corporate divestiture, dividends or share buybacks, and changes in management. Strategies employ an investment process primarily focused on opportunities in equity and equity-related instruments of companies that are currently or prospectively engaged in a corporate transaction, security issuance/repurchase, asset sales, division spin-off or other catalyst-oriented situation. These involve both announced transactions and situations in which no formal announcement is expected to occur. Activist strategies would expect to have greater than 50% of the portfolio in activist positions, as described.

**Distressed Credit. HFRI Event Driven Directional Index** is a global, equal-weighted index of single-manager funds that report to the HFR Database. The HFRI Event Driven Directional Index is comprised of Event Driven Funds that are classified as Special Situations, Credit Arbitrage and Distressed funds..

**Merger Arbitrage. HFRI ED: Merger Arbitrage Index.** Strategies primarily focus on opportunities in equity and equity-related instruments of companies that are currently engaged in a corporate transaction. Merger Arbitrage involves primarily announced transactions, typically with limited or no exposure to situations in which no formal announcement is expected to occur. Opportunities are frequently presented in cross-border, collared, and international transactions that incorporate multiple geographic regulatory institutions, typically with minimal exposure to corporate credits. Strategies typically have over 75% of positions in announced transactions over a given market cycle.

**Equity Hedge. HFRI Equity Hedge (Total) Index.** Equity Hedge: Investment Managers who maintain positions both long and short in primarily equity and equity derivative securities. A wide variety of investment processes can be employed to arrive at an investment decision, including both quantitative and fundamental techniques; strategies can be broadly diversified or narrowly focused on specific sectors and can range broadly in terms of levels of net exposure, leverage employed, holding period, concentrations of market capitalizations and valuation ranges of typical portfolios. EH managers would typically maintain at least 50% exposure to, and may in some cases be entirely invested in, equities, both long and short.

**Directional Equity. HFRI EH: Long/Short Directional Index** is a global, equal-weighted index of single-manager funds that report to the HFR Database. The HFRI EH: Long/Short Directional Index is comprised of Equity Hedge funds that are not considered Equity Market Neutral. The HFRI EH: Long/Short Directional Index includes funds that are classified as Fundamental Growth, Fundamental Value, Multi-Strategy, Quantitative Directional and sector-focused (i.e., Energy/Basic Materials, Healthcare and Technology).

**Equity Market Neutral. HFRI EH: Equity Market Neutral Index.** Strategies employ sophisticated quantitative techniques to analyze price data to ascertain information about future price movement and relationships between securities. These can include both Factor-based and Statistical Arbitrage/Trading strategies. Factor-based investment strategies include strategies predicated on the systematic analysis of common relationships between securities. In many cases, portfolios are constructed to be neutral to one or multiple variables, such as broader equity markets in dollar or beta terms, and leverage is frequently employed to enhance the return profile of the positions identified. Statistical Arbitrage/Trading strategies consist of strategies predicated on exploiting pricing anomalies which may occur as a function of expected mean reversion inherent in security prices; high-frequency techniques may be employed; trading strategies may also be based on technical analysis or designed opportunistically to exploit new information that the investment manager believes has not been fully, completely, or accurately discounted into current security prices. Strategies typically maintain characteristic net equity market exposure no greater than 10% long or short.

**Note:** While the HFRI Indices are frequently used, they have limitations (some of which are typical of other widely used indexes). These limitations include survivorship bias (the returns of the indexes may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indexes, and, therefore, the index may omit funds, the inclusion of which might significantly affect the performance shown. The HFRI Indices are based on information hedge fund

## Disclosures *(continued)*

managers decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indexes may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways. Returns of the underlying hedge funds are net of fees and are denominated in USD.

### Asset class index definitions

#### Fixed income representative indexes

*U.S. Taxable Investment Grade Fixed Income. Bloomberg U.S. Aggregate Bond Index* is a broad-based measure of the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market.

*Short Term Taxable Fixed Income. Bloomberg U.S. Aggregate 1-3 Year Bond Index* is the one to three year component of the Bloomberg U.S. Aggregate Bond Index, which represents fixed-income securities that are SEC-registered, taxable, dollar-denominated, and investment-grade.

*Intermediate Term Taxable Fixed Income. Bloomberg U.S. Aggregate 5-7 Year Bond Index* is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index, and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities with maturities of 5-7 years.

*Long Term Taxable Fixed Income. Bloomberg U.S. Aggregate 10+ Year Bond Index* is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index, and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities with maturities of 10 years or more.

*Cash Alternatives/Treasury Bills. Bloomberg U.S. Treasury Bills (1-3M) Index* is representative of money markets.

*U.S. Treasury. Bloomberg U.S. Treasury Index* includes public obligations of the U.S. Treasury with a remaining maturity of one year or more.

*U.S. Municipal Bond. Bloomberg Municipal Index* is considered representative of the broad market for investment grade, tax-exempt bonds with a maturity of at least one year.

*U.S. Commercial Mortgage Backed Securities. Bloomberg U.S. CMBS Index* measures the investment-grade market of US Agency and US Non-Agency conduit and fusion CMBS deals.

*U.S. Investment Grade Corporate Fixed Income. Bloomberg U.S. Corporate Bond Index* measures the investment grade, fixed-rate, taxable corporate bond market. It includes USD denominated securities publicly issued by US and non-US industrial, utility and financial issuers.

*U.S. TIPS. Bloomberg U.S. TIPS Index* represents Inflation-Protection securities issued by the U.S. Treasury.

*U.S. Government Agencies. Bloomberg U.S. Agency Index* includes native currency agency debentures from issuers such as Fannie Mae, Freddie Mac, and Federal Home Loan Bank.

*U.S. Government. Bloomberg U.S. Government Bond Index* includes U.S.-dollar-denominated, fixed-rate, nominal U.S. Treasury securities and U.S. agency debentures.

*Credit. Bloomberg U.S. Credit Index* includes investment-grade, U.S.-dollar-denominated, fixed-rate, taxable corporate- and government-related bonds.

*Securitized. Bloomberg U.S. Mortgage Backed Securities (MBS) Index* includes agency mortgage backed pass-through securities (both fixed-rate and hybrid ARM) guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC).

*High Yield Taxable Fixed Income. Bloomberg U.S. Corporate High-Yield Index* covers the universe of fixed-rate, non-investment-grade debt.

*Developed Market Ex-U.S. Fixed Income (Unhedged). J.P. Morgan GBI Global ex-U.S. Index (Unhedged)* in USD is an unmanaged index market representative of the total return performance in U.S. dollars on an unhedged basis of major non-U.S. bond markets.

*Developed Market Ex-U.S. Fixed Income (Hedged). J.P. Morgan Non-U.S. Global Government Bond Index (Hedged)* is an unmanaged market index

representative of the total return performance, on a hedged basis, of major non-U.S. bond markets. It is calculated in U.S. dollars.

*Emerging Market Fixed Income (U.S. dollar). J.P. Morgan Emerging Markets Bond Index (EMBI Global)* currently covers more than 60 emerging market countries. Included in the EMBI Global are U.S.-dollar-denominated Brady bonds, Eurobonds, traded loans, and local market debt instruments issued by sovereign and quasi-sovereign entities.

*Emerging Market Fixed Income (Local Currency). J.P. Morgan Government Bond Index-Emerging Markets Global Diversified* tracks the performance of bonds issued by emerging market governments and denominated in the local currency of the issuer.

*Preferred Stock. ICE BofA Fixed Rate Preferred Securities Index* tracks the performance of fixed rate US dollar denominated preferred securities issued in the U.S. domestic market.

*Leveraged Loans. S&P/LSTA Leveraged Loan Index* is a market value-weighted index designed to measure the performance of the U.S. leveraged loan market based upon market weightings, spreads and interest payments.

*Asset-Backed Securities. Bloomberg U.S. ABS Index* measures the investment-grade market of US Credit Card, Auto and Student Loan asset backed securities deals.

#### Equity representative indexes

*U.S. Large Cap Equities. S&P 500 Index* is a capitalization-weighted index calculated on a total return basis with dividends reinvested. The index includes 500 widely held U.S. market industrial, utility, transportation and financial companies.

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

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

*U.S. Mid Cap Equities. Midcap Index* measures the performance of the mid-cap segment of the U.S. equity universe.

*U.S. Mid Cap Equities (Growth). Russell Midcap Growth Index* measures the performance of the mid-cap growth segment of the U.S. equity universe. It includes those Russell Midcap Index companies with higher price-to-book ratios and higher forecasted growth values.

*U.S. Mid Cap Equities (Value). Russell Midcap Value Index* measures the performance of the mid-cap value segment of the U.S. equity universe. It includes those Russell Midcap Index companies with lower price-to-book ratios and lower forecasted growth values.

**Communication Services Index (Comm Svc):** The Communication Services Index comprises those companies included in the S&P 500 that are classified as members of the GICS® communication services sector.

**Consumer Discretionary Index (Cons Disc):** The Consumer Discretionary Index comprises those companies included in the index that are classified as members of the GICS® consumer discretionary sector.

**Consumer Staples Index (Cons Stap):** The Consumer Staples Index comprises those companies included in the index that are classified as members of the GICS® consumer staples sector.

**Energy Index:** The Energy Index comprises those companies included in the index that are classified as members of the GICS® energy sector.

**Financials Index (Fncls):** The Financials Index comprises those companies included in the index that are classified as members of the GICS® financials sector.

**Health Care Index (HC):** The Health Care Index comprises those companies included in the index that are classified as members of the GICS® health care sector.

**Industrials Index (Indust):** The Industrials Index comprises those companies included in the index that are classified as members of the GICS® industrials sector.

## Disclosures *(continued)*

**Information Technology Index (IT):** The Information Technology Index comprises those companies included in the index that are classified as members of the GICS® information technology sector.

**Materials Index (Matrls):** The Materials Index comprises those companies included in the index that are classified as members of the GICS® materials sector.

**Utilities Index (Utils):** The Utilities Index comprises those companies included in the index that are classified as members of the GICS® utilities sector.

**Real Estate Index:** The Real Estate Index comprises those companies included in the index that are classified as members of the GICS® real estate sector.

*U.S. Small Cap Equities. Russell 2000 Index* measures the performance of the 2,000 smallest companies in the Russell 3000® Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index.

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

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

*Developed Market Ex-U.S. Equities (U.S. dollar)/(Local). MSCI EAFE Index* is a free float-adjusted market capitalization index that is designed to measure the equity market performance of 21 developed markets, excluding the U.S. and Canada.

*Developed Market Small Cap Equity (U.S. Dollar). MSCI EAFE Small Cap Gross Total Return USD (M2EASC Index)* is an equity index which captures small cap representation across developed markets countries around the world, excluding the U.S. and Canada. With 2,358 constituents, the index covers approximately 14% of the free float-adjusted market capitalization in each country. Returns measured in U.S. Dollars.

*Developed Market Small Cap Equity (Local Currency). MSCI EAFE Small Cap Gross Total Return Local Index (GCLDEAFE Index)* is an equity index which captures small cap representation across developed markets countries around the world, excluding the U.S. and Canada. With 2,358 constituents, the index covers approximately 14% of the free float-adjusted market capitalization in each country. Priced in MSCI LCL Currency.

*Emerging Market Equities (U.S. dollar)/(Local). MSCI Emerging Markets Index* is a free float-adjusted market capitalization index that is designed to measure equity market performance of 23 emerging markets.

*Frontier Market Equities (U.S. dollar)/(Local). MSCI Frontier Markets Index* is a free float-adjusted market capitalization index that is designed to measure equity market performance of 24 frontier (least developed) markets.

**MSCI Singapore Index** is a capitalization-weighted stock index designed to measure the performance of the large and mid cap segments of the Singapore market.

**MSCI Japan Index** is a capitalization-weighted stock index designed to measure the performance of the large and mid cap segments of the Japan market.

**MSCI New Zealand Index** is a capitalization-weighted stock index designed to measure the performance of the large and mid cap segments of the New Zealand market.

**MSCI Hong Kong Index** is a capitalization-weighted stock index designed to measure the performance of the large and mid cap segments of the Hong Kong market.

**MSCI Spain Index** is a capitalization-weighted stock index designed to measure the performance of the large and mid cap segments of the Spain market.

**MSCI Italy Index** is a capitalization-weighted stock index designed to measure the performance of the large and mid cap segments of the Italy market.

**MSCI Finland Index** is a capitalization-weighted stock index designed to measure the performance of the large and mid cap segments of the Finland market.

**MSCI Sweden Index** is a capitalization-weighted stock index designed to measure the performance of the large and mid cap segments of the Sweden market.

**MSCI Taiwan Index** is a capitalization-weighted stock index designed to measure the performance of the large and mid cap segments of the Taiwan market.

**MSCI South Korea Index** is a capitalization-weighted stock index designed to measure the performance of the large and mid cap segments of the South Korea market.

**MSCI Mexico Index** is a capitalization-weighted stock index designed to measure the performance of the large and mid cap segments of the Mexico market.

**MSCI South Africa Index** is a capitalization-weighted stock index designed to measure the performance of the large and mid cap segments of the South Africa market.

### **Real assets representative indexes**

*Public Real Estate. FTSE EPRA/NAREIT Developed Index* is designed to track the performance of listed real-estate companies and REITs in developed countries worldwide.

*Private Real Estate. The NCREIF Property Index* is a quarterly time series composite total rate of return measure of investment performance of a very large pool of individual commercial real estate properties acquired in the private market for investment purposes only.

**NCREIF Office Property Index** is a sub-index of NCREIF Property Index. It only contains office properties.

*Domestic REITs. FTSE NAREIT U.S. All Equity REITs Index* is designed to track the performance of REITs representing equity interests in (as opposed to mortgages on) properties. It represents all tax-qualified REITs with more than 50% of total assets in qualifying real estate assets, other than mortgages secured by real property that also meet minimum size and liquidity criteria.

*International REITs. FTSE EPRA/NAREIT Developed ex U.S. Index* is designed to track the performance of listed real estate companies in developed countries worldwide other than the United States.

*Infrastructure. The S&P Global Infrastructure Index* is designed to track 75 companies from around the world chosen to represent the listed infrastructure industry while maintaining liquidity and tradability. To create diversified exposure, the index includes three distinct infrastructure clusters: energy, transportation, and utilities.

**MLPs. Alerian MLP Index** is a composite of the 50 most prominent energy Master Limited Partnerships (MLPs) that provides investors with an unbiased, comprehensive benchmark for this emerging asset class. The index, which is calculated using a float-adjusted, capitalization-weighted methodology, is disseminated real-time on a price-return basis and on a total-return basis.

*Commodities (BCOM). Bloomberg Commodity Index* is comprised of 23 exchange-traded futures on physical commodities weighted to account for economic significance and market liquidity.

*Bloomberg Agriculture Subindex* is a commodity group subindex of the Bloomberg Commodity Index. It is composed of futures contracts on coffee, corn, cotton, soybeans, soybean oil, soybean meal, sugar and wheat. It reflects the return of the underlying commodity futures and is quoted in USD.

*Bloomberg Energy Subindex* is a commodity group subindex of the Bloomberg Commodity Index. It is composed of futures contracts on crude oil, ultra-low sulfur diesel, unleaded gasoline, low sulphur gasoil, and natural gas. It reflects the return of the underlying commodity futures and is quoted in USD.

*Bloomberg Industrial Metals Subindex* is a commodity group subindex of the Bloomberg Commodity Index. It is composed of futures contracts on aluminum, copper, nickel and zinc. It reflects the return of the underlying commodity futures and is quoted in USD.

*Bloomberg Precious Metals Subindex* is a commodity group subindex of the Bloomberg Commodity Index. It is composed of futures contracts on gold and silver. It reflects the return of the underlying commodity futures and is quoted in USD.

*Commodities (S&P GSCI). S&P Goldman Sachs Commodity Index* serves as a benchmark for investment in the commodity markets and as a measure of commodity performance over time. It is a tradable index that is readily available to market participants of the Chicago Mercantile Exchange. The index was originally developed by Goldman Sachs.

*Commodities (RICI). Rogers International Commodity Index* is a U.S. dollar based index representing the value of a basket of commodities consumed in the global economy. Representing futures contracts on 37 physical commodities, it is designed to track prices of raw materials not just in the U.S. but around the world.

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