WELLS FARGO
Investment Institute

Asset Allocation Strategy

December 16, 2024

Forecast changes
Pages 4, 5, 14.

2025 Outlook: Charting the economy's next chapter

The centerpiece of our 2025 global economic outlook is a U.S. growth acceleration that leads the world economy, which we believe will grow more slowly. Our outlook for investment returns looks solid. Equity markets seem to have embraced the soft-landing scenario since mid-2023, but bond market performance (as indicated by the Bloomberg Aggregate U.S. Bond Index) appears set for another difficult year. Investors seeking income have gravitated toward money market funds and short-term instruments, but we favor shifting those holdings into broadening equity-market opportunities and longer-term fixed income in 2025.

Beyond the economy, the incoming administration and congressional leaders want a fast start. The likeliest policy priorities include extending tax benefits (set to expire next year) and deregulation, plus new tariffs and tighter border control. We believe these policies should match well with the economic trends we foresee. Likewise, we also see long-term themes that we believe are investable today. U.S. industrialization combines infrastructure rebuilding and manufacturing reshoring from China with strong spending on new technology in areas like robotics and artificial intelligence (AI).

Throughout the year, we will keep our focus on an economic soft landing and the path of interest rates and inflation while we watch for policy-related opportunities from Washington and prospects beyond 2025. Our *2025 Outlook* report presents our highest-conviction ideas for the coming year.[1]

Economy

We expect more balanced growth across the U.S. economy's sectors, and that greater balance and some acceleration should modestly lift inflation by year-end 2025. We anticipate Consumer Price Index (CPI) inflation will rise to a 3.3% annual pace by year-end. We think the U.S. economy is well-positioned as a world growth leader in 2025, which should reinforce the U.S. dollar's relative strength against other global currencies. Not only do we anticipate a U.S. recovery next year, but structural advantages — such as comparatively stronger fiscal stimulus, a vibrant technology sector, and less dependence on exports — should continue to benefit the U.S.

Our bias remains for moderate U.S. dollar upside, particularly in the back half of 2025, supported by interest-rate and economic growth differentials that favor the dollar. We also expect the dollar to find support from potential further U.S. tariffs against China and possibly other countries. A global economic recovery in the second half of the year with clear-cut U.S. growth leadership and a lackluster European rebound may hamper the move of capital away from the U.S. Our expectation for U.S. economic leadership and a relatively stronger U.S. dollar underscores our preference for domestic assets.

Equity

We believe accelerating economic growth will drive company sales while deregulation, continued cost control, and loosening credit conditions should support expanding profit margins in 2025. We expect equity prices to continue to march higher, driven primarily by earnings growth that should broaden to more cyclically oriented areas of the market. In today's environment, we prefer U.S. Large Cap Equities (favorable) over U.S. Mid Cap Equities (neutral) and U.S. Small Cap Equities (neutral) as well as Developed Market ex-U.S. Equities (neutral) over Emerging Market Equities (unfavorable). Sector-wise, a mix of secular earnings drivers and attractive price-to-earnings (P/E) multiples lead us to favor the Communication Services, Energy, Financials, and Industrials sectors of the S&P 500 Index. As markets evolve through the year, we expect opportunities to upgrade these and other sectors whose business models have performed well under long-term growth and the improving economic cycle. Conversely, we rate the defensive Consumer Staples and Utilities sectors as unfavorable, and these ratings are more likely to toggle between unfavorable and neutral throughout the year.

1. See Wells Fargo Investment Institute's *2025 Outlook: Charting the economy's next chapter* for the full report.

(Continued on the next page.)

2025 Outlook: Charting the economy's next chapter (continued)

Overseas, Developed Market ex-U.S. Equities offer investors access to quality companies outside the U.S. at relatively inexpensive valuations. For now, we are comfortable at a full allocation though a resilient U.S. dollar could mute their return potential. Emerging Market Equities, on the other hand, face headwinds that keep us unfavorable.

Fixed income

We believe the Federal Reserve (Fed) has flexibility to cut interest rates further while inflation permits, but we think policymakers will proceed cautiously based on how quickly the economy and inflation rebound. Investment-grade corporate issuers enter 2025 with strong credit metrics and largely supportive outlooks from the major rating agencies. A resilient economy should continue to support credit-oriented asset classes and sectors.

Ultimately, we see an opportunity for fixed-income investors to remain active and implement defensive and growth-oriented strategies concurrently. We believe that maintaining overweight exposure in U.S. Intermediate Term Taxable Fixed Income will provide investors with the best relative yield while considering potential interest-rate risk. Overall, municipal-credit fundamentals remain favorable; however, credit pressure may emerge among lower-quality credits in certain sectors following the drawdown of stimulus funds.

Overseas, we retain neutral ratings on Developed Market ex-U.S. Fixed Income and Emerging Market Fixed Income denominated in dollars.

Real assets

Throughout history, commodity prices have moved together through long-term bull and bear cycles known as "super-cycles." In our view, the commodity bull super-cycle that commenced in March 2020 remains intact. From the perspective of supply and demand, we view current commodity prices as an attractive entry point for investment portfolios looking to gain commodity exposure.

Although we remain neutral on REITs (real estate investment trusts) as an equity sector, certain components of the broader REIT sector have continued to improve following the Fed's pivot to interest-rate cuts. The Fed could buoy Real Estate with further rate cuts in 2025. We believe equity REITs within the subset of our favorably rated REIT sub-sectors are well-positioned to capitalize on several long-term trends; these include increased demand for data-center usage driven by AI, the continued rollout of fifth-generation (5G) wireless network technology, and continued growth in e-commerce sales volume. Additionally, we believe self-storage REITs are positioned to benefit from potential increases in home-sale and home-improvement activity.

Alternative investments

Our alternative investment guidance is making a multistep shift toward exposure to strategies that might benefit from our expectations for lower short-term interest rates, a rise in equity prices, and a gradual recovery in the economy. Yet, as we begin this transition, we maintain our favorable guidance on select counter-cyclical opportunities as well. Elevated inflation and interest rates since 2022 have created a divergence for companies. In alternative investments, we favor transitioning to strategies that have the potential to benefit from accelerating economic growth.

In Private Capital, we maintain our favorable guidance on Growth Equity and Small-Mid Buyout strategies as deal activity continues to highlight preferences for quality growth and less debt. Should economic growth accelerate in 2025 as we expect, we favor allocating to strategies with the flexibility to adjust to shifting market conditions, such as Equity Hedge – Directional, Relative Value – Long/Short Credit, and Macro – Discretionary.

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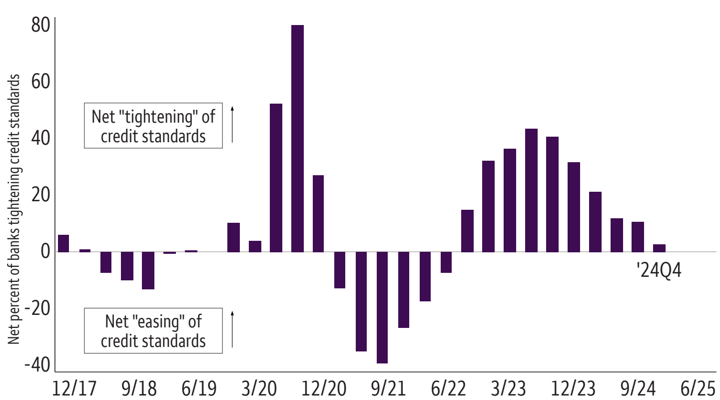
Global economic summary

United States

The U.S. economy showed solid but moderating growth heading into the final stretch of 2024. Dominant service-sector activity lost a step in November, while improved business confidence outweighed tariff-related uncertainties in helping to stabilize the beleaguered manufacturing sector. The housing market is another soft spot as still-elevated mortgage rates pressure affordability and restrain demand. Company reports of strong holiday sales through early December bode well for solid, consumer-led economic growth into 2025. Importantly, the drivers of consumer spending are improving. Wage gains continue to outpace inflation, tempering the impact of a softening labor market. Post-election policy clarity is lifting consumer confidence. Upper-income household wealth and spending are being boosted by recent gains in stocks and other financial assets. And banks' credit standards are tightening at the slowest pace in over two years — a potential tailwind for small businesses and lower-income households more reliant on borrowing. Additionally, November capital expenditure plans increased to an August 2022 high, with confidence bolstered by improved credit conditions, post-election clarity, and a focus on some pro-growth aspects of president-elect Donald Trump's economic policies.

Stalled progress against inflation looms as a potential headwind to a more robust economic recovery next year. Broad-based stickiness lifted the 12-month CPI to 2.7% in November. Food-price inflation accelerated just as energy-price deflation has ended. Meanwhile, core CPI (excluding food and energy) stalled at 3.3% year over year for a fourth straight month. Resilient economic growth has slowed core goods deflation and spurred a reacceleration in travel and entertainment costs, offsetting some disinflation progress in rental and other services inflation.

Commercial banks' tightening credit standards at a second-quarter 2022 low



Sources: Wells Fargo Investment Institute, Federal Reserve Board, and Federal Reserve Bank of St. Louis. Data as of November 12, 2024. Q4 = fourth quarter.

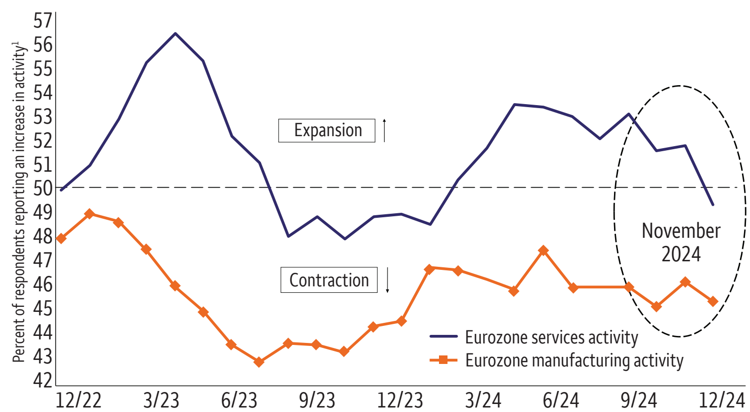
Europe

European economic activity slowed for the second month in three, capped by a deepening slowdown in manufacturing and the first decline in services activity since January 2024. The eurozone has been hurt by sluggish world trade aggravated by the drift toward increased protectionism, political uncertainties, fiscal restraint, and a recent rise in natural gas prices. A second straight increase in 12-month eurozone CPI inflation — to a four-month high of 2.3% in November — also poses a threat to inflation-adjusted incomes and spending while limiting interest-rate cuts by the European Central Bank (ECB). The worst of the news continues to center on France, where a budget impasse has left the government near collapse, along with Germany and other trade-sensitive industrial economies in the north. Less trade- and manufacturing-sensitive Spain and other southern European economies have been better insulated from a challenging international environment and several other growth restraints.

Asia

Asia's trade-sensitive economy firmed in November to a pace barely above stall speed. The region is confronted with the threat of tariff increases and the deflationary impact of a strong U.S. dollar outweighing support from improved competitiveness in the important U.S. market. China's manufacturing recovery was offset by slippage in services activity, signaling more economic stimulus is needed to return the economy to satisfactory growth. In Japan, by contrast, improved services activity more than outweighed a deepening slowdown in factory activity to nudge growth slightly higher. Elsewhere, manufacturing in export- and tech-oriented Taiwan and South Korea improved while very modest growth in Southeast Asia was paced by the Philippines. India remained the broader region's star performer as strengthening growth left the economy near boom-like territory.

The eurozone's economic slowdown broadens to include services activity



Sources: Wells Fargo Investment Institute and S&P Global, Inc. Data as of November 22, 2024.
[1]Based on purchasing managers' activity indexes.

Key economic statistics

Global growth rates[1]	3Q24	2Q24	1Q24
U.S. real economic growth (%)	2.8	3.0	1.6
Eurozone real economic growth (%)	1.6	0.8	1.2
Japanese real economic growth (%)	1.2	2.2	-2.4
Chinese real economic growth (%)	3.6	2.0	6.1

U.S. economic data	11/24	10/24	11/23
Unemployment rate (%)	4.2	4.1	3.7
ISM Manufacturing PMI	48.4	46.5	46.6
ISM Services PMI	52.1	56.0	52.5
Retail sales (%)	–	0.4	0.3
Consumer confidence (1985 = 100)	111.7	109.6	101.0
Housing starts (millions; annualized)	–	1.31	1.51
U.S. Dollar Index[2]	105.7	104.0	103.5
U.S. Consumer Price Index (CPI) (%)	2.7	2.6	3.1
U.S. core CPI (%)	3.3	3.3	4.0
Personal consumption expenditures (PCE) deflator (%)	–	2.3	2.7

Sources: Bloomberg, Wells Fargo Investment Institute, December 11, 2024. [1]Annualized gross domestic product quarter-to-quarter percent change. [2]End of period. An index is unmanaged and not available for direct investment. 1Q = first quarter. 2Q = second quarter. 3Q = third 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 recently nudged up our 2025 full-year U.S. economic growth target to 2.5% from 2.3%. Post-election supports from greater policy clarity, increased household and business confidence, along with wealth increases tied to the latest financial-market rally should limit an already mild growth slowdown we anticipate at the turn of the year. However, the economy risks becoming a victim of its own success later in 2025 through a growth-sapping rise in inflation.

Beyond its inflation threat, "rebalancing" could become an overriding theme shaping the economy's performance in 2025. First, policy expectations viewed by investors as growth friendly — from deregulation and tax-cut extensions to manufacturing reshoring — could be upended by front-loaded wage-price inflation tied to tighter immigration control and tariff increases, risking higher interest rates, market volatility, and increased financial stress. Second, greater policy clarity and less restrictive bank credit conditions appear poised to lift small-business confidence, hiring, and investment. Lower-income households also should be supported by less restrictive credit conditions and by wage increases in lower-paying industries more dependent on immigrant workers. Third, increased factory investment, ahead of future reshoring tied to tariff increases, could foreshadow rebalancing between manufacturing and services. Less likely is rebalancing between U.S. economic strength and weakness abroad, the latter hurt by policy restraints, structural weaknesses, and deflation tied to a strong U.S. dollar.

CPI inflation: Likely front-loaded tariffs and tighter immigration controls add to our already guarded outlook for inflation in 2025, prompting an increase in our year-over-year CPI inflation target to 3.3% in December 2025 from our earlier 3.0% target. One-time increases from higher tariffs could build on elevated price levels that topped the list of issues shaping the election outcome. The headline CPI is up nearly 22% since the start of the pandemic almost five years ago, equal to the cumulative increase in the preceding 11 years.

For tariffs, the impact on inflation would likely be more enduring than the one-time increase in the levies themselves. First, protected markets often lose their competitive edge over time, leaving them vulnerable to cost-driven inflation by discouraging innovation and productivity gains spurred by AI, digitalization, and the effects of an aging workforce on labor supply. Tariff-protected markets also risk greater cost-driven inflation by encouraging entry by less-efficient firms to a protected market better able to accommodate higher costs.

Labor market conditions: We expect the jobless rate to remain near a historically low level through 2025, related to the economy's late-cycle strength and the incoming administration's plans for tighter immigration policy. Mass deportations of more than nine million migrant workers would have the potential for a magnitude of labor-market disruption approaching that seen at the onset of the pandemic, when more than eight million workers were lost during the economic shutdowns. Reduced labor supply from deportations may be more drawn out than they were in 2020 but still sizable enough to sustain labor shortages and boost wages. Industry exposure to a potential squeeze on undocumented workers varies considerably. Most vulnerable are construction and agriculture, where migrants account for nearly 14% and 13% of the industry workforce, respectively. Those shares drop down to little more than 7% and 6.5%, respectively, for leisure and hospitality and for maintenance and other unskilled general services.

Global economy

	Latest (%)[1]	2025 target (%)[1]
U.S. GDP growth	2.9 (Q3)	▲ 2.5
U.S. inflation[2]	2.7 (Nov.)	▲ 3.3 (Dec.)
U.S. unemployment rate[3]	4.1 (Nov.)	4.8 (Dec.)
Global GDP growth[4]	3.4 (Q3)	2.6
Global inflation[4]	5.9 (Q3)	▲ 3.3
Developed-market GDP growth[5]	1.7 (Q3)	▲ 1.7
Developed-market inflation[5]	4.1 (Q3)	▲ 2.4
Emerging market GDP growth	4.7 (Q3)	3.3
Emerging market inflation	7.2 (Q3)	3.8
Eurozone GDP growth	0.5 (Q3)	1.1
Eurozone inflation[2]	2.3 (Nov.)	2.0 (Dec.)

Sources: Bloomberg, Wells Fargo Investment Institute (WFII). All latest numbers from Bloomberg as of December 11, 2024. Targets are based on forecasts by Wells Fargo Investment Institute as of December 16, 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. Q2 = second quarter. Q3 = third quarter notation. ▲/▼: recent change.

[1]Average percent change in the latest four quarters from the same year-ago period, unless otherwise noted. [2]Latest month percent change from a year ago. [3]Three-month average as of the date indicated, percent of labor force. [4]Weighted average of developed country and emerging-market forecasts. [5]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: The Fed is a dual-mandate bank focused on both price stability (inflation) and full employment. Recent CPI readings have bolstered the Fed's confidence that inflation is trending lower toward its stated goal of 2%, but progress has slowed in recent months. Recent employment data, however, has shown some weakness, which prompted the Fed to begin a new interest-rate cutting cycle in September.

Our year-end 2025 federal funds target rate stands between 4.00% and 4.25%. We see two additional 25-basis-point (0.25%) rate cuts before the end of 2025. We expect short-term U.S. Treasury rates to move lower in tandem with the decline in the Fed's policy interest rate. Although we believe that the near-term path of long-term interest rates is highly dependent on the state of the economy, our expectations for stronger economic growth and the potential for higher inflation through 2025 makes us anticipate higher longer-term interest rates. Our year-end 2025 10-year target is between 4.5% and 5.0%, and our year-end 2025 30-year target is between 4.75% and 5.25%.

Equities: We would view periods of near-term weakness in equity markets as potential opportunities given our 2025 outlook, which forecasts a broad-based recovery that supports improved revenue growth and expanding margins.

Our view is that the incipient earnings recovery we have seen this year will accelerate in 2025, and we have revised our 2025 year-end targets to reflect this. We expect S&P 500 Index earnings per share (EPS) to go from $245 in 2024 to $275 in 2025, as opposed to our previous target of $270. We continue to believe that an accelerating earnings recovery in 2025 will allow stocks to rally without further multiple expansion. We now forecast for the S&P 500 Index to end 2025 between 6500–6700 as opposed to our old target of 6200–6400. 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 (favorable) over Mid Cap (neutral) and Small Cap Equities (neutral) as well as Developed Market Ex.-U.S. (neutral) over Emerging Market Equities (unfavorable).

Commodities: Commodities underperformed U.S. equities and U.S. bonds last month as the Bloomberg Commodity Total Return Index (BCOMTR) ended November with a -0.4% total return. We expect positive economic growth, tight global supply, and Fed interest-rate cuts to support higher commodity prices over the tactical horizon. Our year-end 2025 targets are 250–270 for the BCOMTR, $2,800–$2,900 per troy ounce for gold, $85–$95 per barrel for West Texas Intermediate (WTI) and $90–$100 per barrel for Brent crude.

Global fixed income (%)	Latest	2025 YE target
10-year U.S. Treasury yield	4.17	▲ 4.50–5.00
30-year U.S. Treasury yield	4.36	▲ 4.75–5.25
Fed funds rate	4.50–4.75	▲ 4.00–4.25

Currencies	Latest	2025 YE target
Dollar/euro exchange rate	$1.06	▼ $0.98–$1.02
Yen/dollar exchange rate	¥150	▲ ¥158–¥162
ICE U.S. Dollar Index	106	▲ 108–112

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. Additional sources and as-of dates provided under Global real assets table. ▲/▼: recent change.

Global equities	Latest	2025 YE target
S&P 500 Index	6032	▲ 6500–6700
S&P 500 earnings per share	$243	▲ $275
Russell Midcap Index	3807	▲ 4100–4300
Russell Midcap earnings per share	$170	$195
Russell 2000 Index	2435	▲ 2700–2900
Russell 2000 earnings per share	$55	▼ $80
MSCI EAFE Index	2316	2400–2600
MSCI EAFE earnings per share	$156	$170
MSCI Emerging Markets (EM) Index	1079	1100–1300
MSCI EM earnings per share	$80	$85

Latest EPS (earnings per share) figures are Bloomberg consensus estimates for full-year 2024 EPS as of December 4, 2024. Additional sources and as-of dates provided under Global real assets table. ▲/▼: recent change.

Global real assets	Latest	2025 YE target
WTI crude oil price ($ per barrel)	$68	$85–$95
Brent crude oil price ($ per barrel)	$73	$90–$100
Gold price ($ per troy ounce)	$2,643	$2,800–$2,900
Commodities	236	250–270

Sources: Bloomberg, Wells Fargo Investment Institute, as of November 29, 2024. Targets are Wells Fargo Investment Institute forecasts, as of December 16, 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. See pages 27-32 for important definitions and disclosures. WTI is a grade of crude oil used as a benchmark in oil pricing.

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 November as yields declined slightly across the curve. U.S. long-term taxable fixed income (+2.0%) performed best during the month while preferred stock (-0.1%) underperformed other major U.S. fixed-income asset classes. Despite the decline of preferred stocks during the past two months, they remain one of the best-performing fixed-income asset classes year to date (+9.0% through November 30).

The latest interest-rate cutting cycle began with a bang on September 18 when the Fed delivered a 50-basis-point (0.50%) cut to its benchmark interest rate and an additional 25-basis-point (0.25%) cut on November 7. U.S. Treasury yields responded to the rate cuts by moving higher as the Fed's projections revealed a less aggressive cutting cycle than what was being priced by the market.[2] Several Fed speakers in the past few weeks have commented on the importance of the Fed maintaining policy optionality. The Fed continues to unwind its balance sheet and has already shed more than $1.5 trillion in securities.

U.S. fixed income: The U.S. Treasury yield curve began to steepen in the past couple of months, presumably a sign that fixed-income investors are anticipating that the Fed will deliver an economic soft landing; however, headwinds are surfacing ahead of potential policy changes from a new incoming administration.

Investor appetite for credit exposure resumed in November. U.S. investment-grade (IG) corporate fixed income (+1.3%) was on par with high-yield (HY) taxable fixed income (+1.2%). Credit spreads for both HY and IG were volatile during November but finished the month lower, aiding returns. Capital flows were also evident as investors continued seeking attractive yields. We maintain a favorable position on IG Corporate Securities, particularly for investors seeking income potential, and maintain neutral guidance on HY Taxable Fixed Income.

Municipal bond performance struggled in the aftermath of the election but managed to finish the month strong (+1.7%) as municipal bond yields declined across the curve over the month. We are now neutral on municipal bonds given attractive yield opportunities in other fixed-income sectors, but we believe municipal credit fundamentals remain favorable. For investors in higher effective tax brackets, we believe municipal securities still play an important role in fixed-income positioning. We also remain neutral on HY Municipal Bonds.

Developed markets (DM): Unhedged DM bond returns (+0.1%) were mostly flat in November as the yen appreciated against the dollar but the euro and the British pound continued to struggle. Hedged DM bonds performed well (+1.3%) as U.S. yields declined. Bonds from Denmark, the Netherlands, and Belgium performed well in local-currency terms while French bonds performed best in U.S.-dollar terms. Japanese bonds struggled in both local-currency and U.S.-dollar terms despite the stronger yen.

Emerging markets (EM): Weaker EM foreign exchange rates against the U.S. dollar in November impacted local-currency-denominated EM bonds (-0.6%). Dollar-denominated EM bonds also benefited from declining U.S. yields and ended the month positive (+1.2%). U.S. dollar EM bonds from Turkey, Saudi Arabia, and Mexico managed to recover from last month's decline. Meanwhile, Argentinian bonds continued to build on their year-to-date strength.

Wells Fargo Investment Institute perspective

We believe the U.S. central bank will tread cautiously in 2025 with the goal of accomplishing an economic soft landing. Our view is that the U.S. Treasury yield curve will continue to steepen as yields on the short end of the curve fall while intermediate- and long-term yields move higher from current levels by year-end 2025.

2. Source: Bloomberg, November 8, 2024.

Fixed income index total returns (%)

	MTD	QTD	YTD	1 year	3 year	5 year
U.S. Taxable Inv Grade Fixed Income	1.1	-1.4	2.9	6.9	-2.0	0.0
U.S. Short Term Taxable	0.3	-0.2	4.2	5.4	1.6	1.5
U.S. Intermediate Term Taxable	1.0	-1.6	3.2	6.5	-1.0	0.5
U.S. Long Term Taxable	2.0	-2.8	0.7	8.0	-8.2	-2.7
U.S. Treasury Bills	0.4	0.8	4.9	5.4	3.8	2.4
U.S. Inv Grade Corporate	1.3	-1.1	4.1	8.7	-1.7	0.8
U.S. Municipal Bonds	1.7	0.2	2.5	4.9	0.0	1.3
High Yield Taxable Fixed Income	1.2	0.6	8.7	12.7	3.7	4.7
DM Ex.-U.S. Fixed Income (Unhedged)	0.1	-5.1	-4.1	0.9	-8.2	-4.7
DM Ex.-U.S. Fixed Income (Hedged)	1.3	0.5	3.1	6.2	-1.2	-0.2
EM Fixed Income (U.S. dollar)	1.2	-0.6	7.3	12.5	0.2	1.0
EM Fixed Income (Local currency)[1]	-0.6	-5.2	-0.5	2.7	0.2	-0.7

Sources: Bloomberg, J.P. Morgan, Wells Fargo Investment Institute, November 29, 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. [1]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.

We have a neutral view on U.S. Long Term Taxable Fixed Income given the potential for yields to move in either direction, which is highly dependent on how the economy evolves. We also have a most unfavorable view on U.S. Short Term Taxable Fixed Income as we anticipate that further rate cuts will eventually diminish the attractiveness of yields in this sector. At this time, we believe that the intermediate-term section of the curve strikes the greatest balance for investors between yield generation and price volatility.

Europe appears to have exited a mild recession, but economic struggles and fiscal policy challenges are expected to persist in 2025 along with interest-rate differentials with the U.S., which may impact fixed-income returns. 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 build on its strength through year-end 2025. 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 DM ex-U.S. bonds.

We reiterate our view that EM sovereign bonds, both U.S.-dollar- and local-currency-denominated, should continue to display positive performance in 2025. However, it is important to point out that most of the support may come on the back of additional interest-rate cuts by the Fed. Still, the attractive yield differential of EM bonds provides greater currency resilience and a larger cushion against capital losses in the event that interest rates climb once again or credit spreads widen.

Fixed income tactical guidance*

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

Source: Wells Fargo Investment Institute, December 16, 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
Duration	Favorable	–	–
U.S. Government	Neutral	0.8	2.2
Treasury Securities	Neutral	0.8	2.2
Agencies	Neutral	0.6	3.7
Inflation-Linked Fixed Income	Neutral	0.5	3.5
Credit	Favorable	1.3	4.0
Corporate Securities	Favorable	1.3	4.1
Preferred Securities	Neutral	-0.1	9.0
Leveraged Loans	Unfavorable	0.8	8.3
Securitized	Favorable	1.3	3.1
Residential MBS	Favorable	1.3	2.9
Commercial MBS	Neutral	0.9	5.3
Asset Backed Securities	Favorable	0.7	5.1
U.S. Municipal Bonds	Neutral	1.7	2.5
Taxable Municipal	Neutral	1.7	4.1
State and Local General Obligation	Favorable	1.7	1.9
Essential Service Revenue	Favorable	1.8	2.8
Pre-refunded	Neutral	0.6	2.5
High Yield Municipal	Neutral	2.1	8.1

Sources: Total returns: Bloomberg as of November 29, 2024. Guidance: Wells Fargo Investment Institute, as of December 16, 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 (Favorable): We have a near-term favorable view of Duration as we favor the intermediate portion of the yield curve and are neutral on the long-term portion. We believe intermediate- and long-term yields will be highly dependent on the economic outlook, and new economic and fiscal policies from the incoming administration could create volatility. Yields could fall below current levels in the early months of 2025 if an economic slowdown materializes. However, if we see an earlier uptick on inflation or if economic growth surprises to the upside we will adjust our duration view, especially given that we expect higher interest rates by year-end 2025.

U.S. Government (Neutral): We remain neutral on the U.S. Government sector. We view holdings of Treasury securities as a high-credit-quality hedge during volatile economic environments, which we no longer expect in the coming quarters. We believe that investor appetite for credit risk will tend to flourish over securities perceived as safe havens, which may cause U.S. Treasuries to lag.

Investment-Grade Credit (Favorable): We have a favorable view of the IG Credit sector (and IG Corporate Securities). 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. Although IG credit spreads have compressed and are hovering below long-term averages, we believe that they will most likely remain near current levels for a while or, better yet, will compress further toward new cycle lows. Still, the higher yields available in these sectors relative to many other IG fixed-income options support our favorable guidance. We reiterate our bias toward selectivity.

Preferred Stock (Neutral): We maintain a neutral position on the Preferred Securities sub-sector. Income-oriented investors with a longer-term perspective could continue to accumulate preferred securities. 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 (Favorable): We are favorable on the Securitized sector given that a large portion of the sector is in the Residential Mortgage-Backed Securities (RMBS) sub-sector, on which we are also favorable. We believe that the Securitized sector may be positioned to offer value relative to other fixed-income sectors while still providing favorable credit quality and liquidity. Furthermore, we believe the advantage of RMBS over IG corporates remains visible in credit-spread differentials, although it is not as attractive as it was several months ago. We remain neutral on Commercial Mortgage-Backed Securities (CMBS). Although there is still distress in CMBS, we believe it should be less severe than previously feared. Still, we favor staying in the highest credit qualities that may potentially provide more reliable cash flows. We are also favorable on Asset-Backed Securities (ABS). Demand for ABS remains particularly strong, and although credit spreads have compressed in the past few months, we still believe they have room to tighten further.

U.S. Municipal Bonds (Neutral): We now have a neutral view of U.S. Municipal Bonds, especially with other fixed-income sectors displaying more attractive yield opportunities. Within the sector, we still favor both the Essential Service Revenue and State and Local General Obligation sub-sectors. Municipal markets moved higher in November as yields declined, mostly on the long end of the curve. In late November, municipal-to-Treasury yield ratios (MTYR) stood near 68% for 10-year issues and at 80% for 30-year bonds, lower than the previous 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 6- to 17-year maturity range, where investors can potentially pick up incremental yield, with a slight bias toward implementing a barbell approach by investing in the shorter and longer ends of this range. However, the belly of the municipal yield curve (intermediate term) has become more attractive as the curve continues to steepen. 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 are above 12-month lows due to improving supply but remain historically tight. We believe that an emphasis on quality and selectivity remains essential. Municipal investors should also undertake meticulous credit research or access professional management.

For more information, please request our most recent *Investment Strategy* report.

Equities

Market observations

U.S. equities: Stocks rallied in November with the S&P 500 Index hitting six new all-time highs in the month as clear election results, a stellar earnings season, a 25-basis-point (0.25%) rate cut from the Fed, and encouraging economic data boosted sentiment and returns. The rally was broad based and geared toward the riskier areas of the market as U.S. small caps (+11.0%) outperformed U.S. mid caps (+8.8%), which in turn outperformed U.S. large caps (+5.9%) last month.

All 11 of the S&P 500 sectors posted positive returns this month with Consumer Discretionary (+13.3%) and Financials (+10.3%) leading the way. The Materials (+1.6%) and Health Care (+0.3%) sectors lagged.

Broad participation in the rally was evident in the mid -and small-cap space as well, with all sectors within the Russell Midcap and Russell 2000 Indexes posting positive returns. The Energy (+13.3%) and Technology (+14.0%) sectors led within the Russell Midcap Index, while the Health Care (+3.4%) and Basic Materials (+2.5%) sectors lagged. The Industrials (+14.3%) and Technology (+14.6%) sectors were the best-performing sectors of the Russell 2000 Index while Health Care (+5.8%) and Real Estate (+5.2%) sectors posted the worst sector returns for November.

International equities[3]: U.S. dollar-denominated developed market (DM) equities (-0.6%) outperformed emerging market (EM) equities (-3.6%) last month. The currency conversion into U.S. dollars served as a headwind to both as the dollar broadly strengthened relative to other developed- and emerging-market currencies, driving dollar-denominated returns downward.

Within DM, the Pacific region (+1.4%), outperformed the Europe region (-1.7%). In the Pacific region, Singapore (+8.0%) and New Zealand (+4.2%) outperformed while Japan (+0.7%) and Hong Kong (-3.6%) were the biggest laggards. In Europe, Norway (+2.3%), and the United Kingdom (+1.4%) were significant outperformers and were the only two major markets in the region to post positive returns in November while France (-4.2%), Italy (-4.6%), and Finland (-5.6%) lagged.

Regarding EM, the Europe, Middle East, and Africa (-1.7%) region outperformed both the Asia (-3.7%) and Latin America (-5.5%) regions. In the Asia region, China (-4.4%), Taiwan (-4.5%), and South Korea (-5.7%) were significant drags while India (-0.4%) outperformed. In the Europe, Middle East, and Africa region, Turkey (+7.4%) was a notable outperformer while Saudi Arabia (-2.9%) and South Africa (-4.4%) underperformed. In the Latin America region, Brazil (-7.1%) was a notable underperformer, while Chile (-1.6%) and Columbia (0.4%) outperformed.

Wells Fargo Investment Institute perspective

Our solid economic growth forecast likely will flow directly to equities' top line and is a heavy consideration in our outlook. We also expect firms' ability to convert those sales into earnings to improve as we expect corporations to remain committed to cost cutting and increased efficiencies. To reflect this view, we have raised our 2025 year-end S&P 500 Index earnings target from $270 to $275. We also expect solid earnings growth to drive prices higher next year and have raised our 2025 S&P 500 Index year-end price target range from 6200 – 6400 to 6500 – 6700 to reflect this view.

We prefer U.S. Large Cap (favorable) over Mid Cap (neutral) and Small Cap Equities (neutral). 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 DM Ex-U.S. (neutral) over EM Equities (unfavorable).

Equity index total returns (%)

	MTD	QTD	YTD	1 year	3 year	5 year
U.S. Large Cap Equities	5.9	4.9	28.1	33.9	11.4	15.8
U.S. Large Cap (Growth)	6.5	6.1	32.2	38.0	10.9	19.5
U.S. Large Cap (Value)	6.4	5.2	22.8	29.6	10.4	10.8
U.S. Mid Cap Equities	8.8	8.2	24.1	33.7	7.8	12.0
U.S. Mid Cap (Growth)	13.3	15.3	30.2	40.1	6.4	13.2
U.S. Mid Cap (Value)	7.4	6.0	22.0	31.5	8.7	10.9
U.S. Small Cap Equities	11.0	9.4	21.6	36.4	5.0	9.9
U.S. Small Cap (Growth)	12.3	10.8	25.4	40.4	3.3	9.2
U.S. Small Cap (Value)	9.6	7.9	17.9	32.5	6.3	9.9
DM Equities Ex-U.S. (USD)	-0.6	-5.9	6.8	12.4	4.7	6.4
DM Equities Ex-U.S. (Local)[1]	0.6	-1.0	11.4	14.5	8.2	8.3
EM Equities (USD)	-3.6	-7.8	8.1	12.4	-0.8	3.6
EM Equities (Local)[1]	-2.7	-5.4	12.3	15.9	2.2	5.9

Sources: Bloomberg, Standard & Poor's, Russell Indexes, MSCI Inc., Wells Fargo Investment Institute, November 29, 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.[1] 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	Neutral
DM Equities Ex-U.S.	Neutral
EM Equities	Unfavorable

Source: Wells Fargo Investment Institute, December 16, 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	81	Neutral
Europe, Middle East, and Africa	12	Most unfavorable
Latin America	7	Neutral

Sources: Bloomberg, Wells Fargo Investment Institute (WFII). *Tactical horizon is 6-18 months. Weightings are as of November 29, 2024. WFII guidance is as of December 16, 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.

3. Regional and country returns are measured using the total U.S. dollar returns of their respective MSCI Index.
Please see the end of the report for the definitions of the representative indexes.

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	8.9	Favorable	3.1	5.1	35.4	41.9	9.1	14.2
Consumer Discretionary	10.7	Neutral	13.3	11.6	27.1	34.9	4.4	14.2
Consumer Staples	5.7	Unfavorable	4.7	1.8	20.9	24.1	10.0	10.2
Energy	3.4	Most Favorable	6.9	7.8	16.8	16.8	25.3	15.7
Financials	13.9	Favorable	10.3	13.2	38.1	45.5	12.7	13.6
Health Care	10.6	Neutral	0.3	-4.4	9.4	14.1	6.1	10.2
Industrials	8.6	Favorable	7.5	6.2	27.6	36.6	14.5	13.9
Information Technology	31.3	Neutral	4.7	3.6	35.0	40.2	16.5	25.4
Materials	2.1	Neutral	1.6	-1.9	12.0	17.1	5.9	11.9
Real Estate	2.2	Neutral	4.1	0.7	15.1	25.1	1.7	6.7
Utilities	2.5	Unfavorable	3.7	2.6	34.1	36.6	11.5	9.1
Total	100.0							

Sources: S&P 500 Index weight and total returns: Bloomberg, as of November 29, 2024. Guidance: Wells Fargo Investment Institute, as of December 16, 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 (Favorable): The Communication Services sector has multiple secular earnings drivers: search, social media, delivery of live and at-home content, and most recently, the development of AI. With the sector trading at a below-market price-to-earnings multiple, we believe the sector warrants a favorable rating.

Consumer Discretionary (Neutral): Fed easing is likely to benefit the Consumer Discretionary sector as it sparks a modest economic rebound next year and pressures ease on a re-energized consumer. Our ranking framework and our views of the risk-reward balance suggest neutral is the appropriate rating for Consumer Discretionary.

Consumer Staples (Unfavorable): We expect this defensive and rate-sensitive sector to struggle as the economy stages a modest rebound while long-term interest rates stay elevated. Stubborn input cost inflation and a lack of pricing power should be headwinds.

Energy (Most Favorable): The fundamental case for the sector is attractive as oil supply remains tight, and OPEC+[4] 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. We believe valuations are attractive, and oil prices moving into our targets should provide a sizeable tailwind.

Financials (Favorable): Tailwinds include the start of the Fed easing cycle and the 2025 economic upturn we expect, which should coincide with improved confidence, loan growth, and activity. Increased efficiencies and a potentially more favorable than feared regulatory environment should also benefit the sector.

Health Care (Neutral): This typically defensive sector is likely to struggle should the economy stage a modest rebound through year-end 2025 and the more cyclical areas of the market benefit, as we expect. On the other hand, the sector does enjoy cyclical and secular tailwinds such as the increased use and effectiveness of weight loss drugs and an aging population that could generate investor interest, especially during a slowdown.

Industrials (Favorable): Tailwinds for the sector include multiple stimulus programs, the energy transition, reshoring, data-center expansion, easing input-cost pressures, and continued supply-chain normalization.

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 (Neutral): Our bullish commodity outlook could be a mixed bag for the sector as higher natural gas prices increase costs for the chemicals industry while higher metals prices benefit metals and mining companies. Our ranking framework has deteriorated for the sector while our forecast for a strong dollar is a headwind, yet a cyclical reacceleration would likely be a tailwind. Considering the balance of factors, we believe a neutral rating is appropriate.

Real Estate (Neutral): While we do not envision sustained outperformance over a tactical timeframe from the typically defensive sector as the economy stages a modest rebound next year, we also see little catalyst for significant underperformance as Real Estate sentiment seemingly has passed its nadir.

Utilities (Unfavorable): The recent Utilities rally, driven by AI power demand optimism and a response to deeply oversold levels, is likely to prove fleeting, in our view. Further, our expectation for elevated interest rates likely poses multiple headwinds, including heightened competition for yield flows from fixed income investments as well as elevated interest costs for the highly levered sector.

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 most favorable rating on the Energy sector, a favorable rating on the Financials, Industrials, and Communication Services sectors, and an unfavorable rating on the Consumer Staples and Utilities sectors).

4. Organization of the Petroleum Exporting Countries and their allies.

For more information, please request our most recent *Investment Strategy* report.

Equities

Equity sector and sub-sector preferences

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

Source: Wells Fargo Investment Institute; favored sub-sectors by Global Securities Research (GSR) group and favored sectors by Global Investment Strategy. As of December 16, 2024.
REITs = real estate investment trusts.

*Tactical horizon is 6-18 months.

**Multi-industrials includes the Industrial Conglomerates, Electrical Components & Equipment, Industrial Machinery & Supplies & Components, and Trading Companies & Distributors sub-industries.

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 November, with a 14.6% total return (as measured by the Alerian MLP Index) versus a 5.9% return for the S&P 500 Index. WTI crude oil prices fell 1.8% 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 largely attribute the outperformance of MLPs in November to investor enthusiasm around the presidential election result, as MLPs would potentially stand to benefit from deregulation of the domestic energy industry and higher oil and natural gas production volumes. MLPs have generally become more disciplined on capital expenditures, and many high-quality MLPs now have stronger balance sheets and the potential for sustainable payouts, in our view.

Wells Fargo Investment Institute perspective

We prefer high-quality midstream energy companies that 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 typically have stronger corporate governance and a wider institutional investor base relative to midstream companies structured as MLPs.

Real assets index total returns (%)

	MTD	QTD	YTD	1 year	3 year	5 year
Public Real Estate	2.4	-2.7	9.6	20.2	-0.8	1.5
U.S. REITs	3.6	-0.2	14.0	24.2	1.5	5.2
International REITs	-1.1	-9.7	-1.9	7.2	-6.2	-3.5
Master Limited Partnerships	14.6	13.1	34.0	31.1	32.0	19.2
Global Infrastructure	3.4	2.1	20.5	25.6	11.1	7.2
Commodities (BCOMTR)	0.4	-1.5	4.3	1.5	4.9	7.6
Agriculture	1.9	-2.3	-5.0	-9.3	2.8	10.3
Energy	3.7	-0.9	-5.0	-10.7	1.4	-1.1
Industrial Metals	-1.2	-4.9	6.8	11.1	0.2	8.1
Precious Metals	-3.8	0.1	28.1	27.5	13.1	11.5
Commodities (S&P GSCI)	0.1	0.5	5.8	2.3	11.1	7.9
Commodities (RICI)	0.1	-1.1	4.6	2.5	8.4	10.4

Sources: Bloomberg, Wells Fargo Investment Institute, November 29, 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.

Commodities

Market observations

Energy: The Bloomberg Commodity Energy Subindex's performance was up by 3.7% in November, outperforming the BCOMTR. Brent crude and WTI prices fell by 0.3% and 1.8%, respectively. Sector performance was largely driven by a 24.2% rise in natural gas prices.

Concerns over China's economy and OPEC+'s plan to unwind a portion of its production cuts have weighed on performance this year. We believe a gradual unwinding of OPEC+'s production cuts in addition to capital discipline among non-OPEC producers will limit global supply growth in 2025. On the demand front, we expect the positive effects of rate cuts by the Fed and improved economic conditions in 2025 to further support a favorable supply and demand balance. These factors should help support prices and underscore why we remain favorable on the Energy sector.

Metals: Precious metals underperformed the BCOMTR with a -3.8% return in November as gold prices fell by 3.4%. Looking ahead, we expect robust purchases from central banks, consumer demand, and geopolitical tensions to continue supporting higher demand. Adding to the support of strong existing fundamentals, Fed interest-rate cuts should also continue to support prices.

Industrial metals were down by 1.2% in November, underperforming the BCOMTR. Despite negative performance, prices have climbed back from lows earlier this year as the Fed began a new monetary easing cycle and China has implemented new stimulus measures to address weakness in its economy. While we believe the economic environment for the Industrial Metals sector is improving, we remain neutral. In our view, China's economy still faces a fragile property sector along with weak manufacturing activity, which will likely pose headwinds for sustained outperformance.

Agriculture: Agricultural commodity prices rose by 1.9% in November, outperforming the BCOMTR, but there was still a wide dispersion in individual performance. Coffee was the top performer (+30.8%), while hard red winter (HRW) wheat (-8.5%) was the worst. Looking ahead, we caution that adequate supply growth and an easing of supply-chain disruptions appear to be strong headwinds for prices.

Wells Fargo Investment Institute perspective

Overall, commodities (measured by the BCOMTR) were up by 0.4% in November. Over the past 12 months, many individual commodities have seen significant corrections, driven by concerns of weak economic conditions. We view recent weakness as an opportunity for investors, as we expect many of these headwinds to revert in 2025. Therefore, we remain favorable on a broad basket of commodities as we believe long-term supply imbalances and a commodity bull super-cycle will drive positive performance.[5]

Private Real Estate: While headwinds remain for Private Real Estate, the light at the end of the tunnel may come in the form of lower interest rates that spur a broad economic recovery in the second half of 2025. Credit conditions remain tight for many property types, posing challenges across the property sector. While the multi-family sector continues to digest new construction coming online, particularly across the Sun Belt region, the demand for apartments remains strong as single-family housing affordability continues to register lows. The Office market remains challenged as companies continue to reassess their future needs while the return-to-office movement stalls. The NCREIF Office Property Index fell by another 1.1% during the third quarter of 2024. 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 the accompanying need for warehouse space, higher valuations and more supply coming online have tempered our outlook in the near term.

Real asset tactical guidance*

Guidance

Commodities	Favorable
Energy	Favorable
Precious Metals	Favorable
Agriculture	Neutral
Industrial Metals	Neutral

Private Real Estate	Neutral
Core	Neutral
Value-Add	Neutral
Opportunistic	Neutral

Source: Wells Fargo Investment Institute, December 16, 2024. *Tactical horizon is 6-18 months.

5. 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.

Alternative investments*

Market observations

The result of the U.S. election was a major market driver for the month and underpinned the strength of U.S. equities and the U.S. dollar over international stocks and currencies. Within equities, U.S. small caps led their larger-cap peers, and Consumer Discretionary and Financials were the top-performing sectors. However, international stocks and the Health Care sector recorded flat-to-low single-digit losses. Fixed income posted 0% – 2% returns on the back of largely unchanged interest rates. In Commodities, the BCOMTR registered a modest 0.4% gain for November. Agricultural commodities and energy commodities generated low single-digit gains, whereas precious and industrial metals retreated by 1% – 6%.

Relative Value strategies registered a gain of 1.0% for the month, with positive contributions from Structured Credit, Long/Short Credit, and Arbitrage strategies. Elevated security dispersion as well as tightening credit spreads continued to benefit many Relative Value managers. As compared to Equity Hedge and Event Driven strategies, Relative Value strategies recorded more modest returns owing to their defensive characteristics.

Macro strategies posted a positive return of 1.9% in November. Systematic strategies returned 2.3% for the month, driven by positions across currencies, equities, and agricultural commodities. The rally in U.S. equities and the U.S. dollar following the presidential election underpinned gains across these markets. The strategies saw further accretive performance in the long agricultural commodity positions. However, the reversal of the recent downtrends in energy commodities, especially natural gas, weighed on the strategy's short positions. During the month, the strategies maintained long holdings in equities and the U.S. dollar. Systematic strategies also scaled back long precious-metal holdings, as well as short positions in energy commodities and fixed income. For the month, Discretionary strategies posted a mild gain of 0.1%.

Event Driven recorded a 3.3% gain for the month. U.S. equity-market rallies underpinned Activist's gain of 4.8%, and Merger Arbitrage also saw gains driven by positive regulatory developments and the prospect of a more supportive regulatory environment. For Distressed Credit, we continue to expect elevated levels of distressed situations as businesses with overleveraged balance sheets become increasingly stressed under the weight of higher debt-service levels and slower growth.

Equity Hedge strategies posted a 3.4% gain in November and performed similarly to the MSCI All Country World Index. The accretive return was primarily driven by broad equity-market exposure. Throughout the month, the strategies pared back exposures in China and rotated into Europe and Japan. Equity Hedge strategies also rebalanced into Consumer Discretionary companies from the Information Technology and Communication Services sectors. Equity Market Neutral strategies registered a gain of 1.4% for the month. As dispersion among stocks stays elevated and market sentiment grows, we expect the environment for Directional Equity strategies to remain constructive.

Wells Fargo Investment Institute perspective

Relative Value (Neutral): We favor Long/Short Credit strategies that have the potential to capitalize on market volatility and improving credits in a gradual economic recovery. Given Arbitrage strategies' more defensive, absolute-return oriented positioning, we prefer other strategies that may have the potential to benefit from an improving economic landscape.

Alternative investments index/strategy total returns (%)

	MTD	QTD	YTD	1 year	3 year	5 year
Global Hedge Funds	2.6	2.0	10.4	13.9	5.0	7.5
Relative Value	1.0	1.7	8.4	9.8	4.9	5.4
Arbitrage	2.0	2.5	7.9	9.1	4.4	5.7
Long/Short Credit	0.7	1.4	9.5	11.6	4.4	5.7
Struct. Credit/Asset-Backed	0.9	1.7	9.1	10.2	5.6	4.7
Macro	1.9	0.1	4.9	5.8	4.7	5.4
Systematic	2.3	-0.2	4.9	5.5	4.6	4.6
Discretionary	0.1	-0.3	6.3	8.1	4.8	6.3
Event Driven	3.3	3.0	10.8	15.4	5.6	7.8
Activist	4.8	3.3	11.5	19.7	4.2	7.9
Distressed Credit	3.1	2.4	11.0	15.7	6.0	8.1
Merger Arbitrage	1.4	1.5	5.3	8.1	4.7	6.0
Equity Hedge	3.4	2.8	13.4	18.5	4.9	8.9
Directional Equity	3.5	2.8	13.7	19.2	4.7	9.2
Equity Market Neutral	1.4	2.2	10.2	11.6	6.1	4.9

Source: Hedge Fund Research, Inc. (HFR), November 29, 2024. (Preliminary numbers released by HFR on December 6, 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.

Macro (Favorable): We continue to favor Macro Discretionary strategies given their ability to capitalize on geopolitical uncertainty and market trends driven by macroeconomics and policy shifts. Yet, we have downgraded Macro Systematic strategies as these diversifying strategies may underperform directional strategies in a market-recovery scenario.

Event Driven (Favorable): We have upgraded our guidance for Event Driven to favorable given an improving outlook for Activist (Neutral) and Merger Arbitrage (neutral) strategies. In addition, we continue to favor the Distressed Credit subcategory. As elevated interest rates flow through the economy, we believe higher debt-service levels and slower growth will meaningfully impact many small- and mid-sized businesses.

Equity Hedge (Neutral): We favor Equity Hedge Directional strategies that can benefit from an improving environment for equities as the strategies generally have the flexibility to increase their market sensitivity in rising markets. For Equity Market Neutral, the low-return, low-volatility strategy may underperform in a rising equity market and during a gradual economic recovery.

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 of a headwind. We believe that opportunities do exist — especially in secondaries, middle market, growth equity, and infrastructure investments.

Private Debt (Neutral): We maintain a favorable view on Distressed/Special Situations. The number of distressed opportunities is expected to remain elevated as the effects of elevated interest rates, slower economic growth, and tight lending standards continue to weigh on small- and middle-market businesses. We maintain our neutral rating on Direct Lending strategies as the growing promise of an economic recovery is offset by many lower-quality borrowers that continue to face higher debt-service costs and elevated inflationary pressures.

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Alternative investments*

Private placements

Alternative investment strategies outlook*

Private placements	Tactical guidance**
Relative Value	Neutral
Arbitrage	Unfavorable
Long/Short Credit	Favorable
Structured Credit/Asset-Backed	Neutral
Macro	Favorable
Systematic	Neutral
Discretionary	Favorable
Event Driven	Favorable
Activist	Neutral
Distressed Credit	Favorable
Merger Arbitrage	Neutral
Equity Hedge	Neutral
Directional	Favorable
Equity Market Neutral	Unfavorable
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, December 16, 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.

For more information, please request our most recent *Investment Strategy* report.

Currency guidance

The U.S. dollar versus developed market currencies

Market observations and outlook

The dollar continued to move higher in November, with the U.S. Dollar Index (DXY) rising by 1.7% to end the month at 105.7. U.S. Treasury yields were volatile throughout the month as expectations of additional Fed rate cuts continued to fall while U.S. economic growth remained strong. Fed policy actions (more so than those from other major central banks) over the next few months coupled with potential political risks both in the U.S and abroad will likely remain key factors for the dollar's near-term levels. Overall, most DM currencies fell versus the dollar on the back of rate action and economic data, with the euro falling by 2.8% versus the dollar and ending the month slightly below the 1.06 level. The yen strengthened by 1.5% over the month on speculation related to potential rate hikes from the Bank of Japan combined with falling rate-hike expectations from the Fed. The pound ended the month lower, down by 1.3%.

We expect the dollar to see continued strength through year-end 2025, supported by still-elevated U.S. interest rates and a resilient U.S. economy in comparison to Europe. Current U.S. dollar valuations remain moderately high compared to longer-term historical averages. The dollar may experience continued support as we anticipate the ECB to be more likely to cut rates than the Fed, which would keep interest-rate differentials between the two central banks relatively high. We expect this trend of dollar strength relative to historical values to continue into 2025. For year-end 2025, we see ranges of $0.98 – $1.02 per euro and 158 – 162 yen per dollar.

Year-end currency targets

	Latest	YE25 targets
Dollars per euro	$1.06	▼ $0.98–$1.02
Yen per dollar	¥150	▲¥158–¥162
ICE U.S. Dollar Index	106	▲108–112

Source: Bloomberg, as of November 29, 2024. Targets are Wells Fargo Investment Institute forecasts, as of December 16, 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 November was negative for 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 down by 0.9%. Among Asian currencies, the Chinese yuan fell the most, by 1.8%, but was in line with other major Asian currencies except the yen. The Thai baht continued to struggle as the perceived benefit of falling U.S. interest rates dissipated. The Brazilian real also continued to fall despite the expectation for further rate hikes from the Central Bank of Brazil. The Mexican peso fell to an almost two-year low, continuing its downward trend since April 2024. We believe that sustained stronger performance in EM currencies may not materialize until we move past the current period of dollar strength, which we are forecasting 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 Ex-U.S. Fixed Income 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 investors with exposure to these bonds, we have revised our hedging guidance from "hedge" to "no hedge"; because 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, December 16, 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

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
U.S. Short Term Taxable Fixed Income		Cash Alternatives Developed Market Ex.-U.S. Fixed Income Emerging Market Fixed Income High Yield Taxable Fixed Income U.S. Long Term Taxable Fixed Income	U.S. Intermediate Term Taxable Fixed Income	

Equities

Most Unfavorable	Unfavorable	Neutral	Favorable	Most Favorable
	Emerging Market Equities	Developed Market Ex.-U.S. Equities U.S. Mid Cap Equities U.S. Small 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–Relative Value Private Debt Private Equity	Hedge Funds–Event Driven Hedge Funds–Macro	

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Tactical guidance*

Tactical guidance summary

FIXED INCOME	U.S. Short Term Taxable	Most Unfavorable	We believe that the Fed's interest-rate cutting cycle has initiated a new downtrend for short-term interest rates. For this reason, we favor reallocating from this asset class into intermediate- and long-term fixed income, which we expect will provide an opportunity to lock in attractive yields for a longer period.
	U.S. Intermediate Term Taxable	Favorable	Intermediate-term fixed income currently provides an attractive yield and is less rate sensitive should interest rates increase further above the upper range of our target. Intermediate-term fixed income can provide investors with opportunities to outperform cash, cash alternatives, and short-term fixed income in the near term.
	U.S. Long Term Taxable	Neutral	Longer-term yields (10+ years) have been moving rapidly in the past few months as fixed-income investors digest expected Fed rate cuts, additional disinflation, and slower job growth. In early August, we took advantage of the fast decline in long yields and moved to an unfavorable view of long-term fixed income. In mid-October, long yields managed to reverse the previous decline, climbing above 4% and giving us the opportunity to extend maturities once again and to align long-term fixed-income allocations within strategic levels.
	High Yield Taxable	Neutral	From a valuation perspective, we acknowledge that HY bonds still appear expensive, but yields are attractive. We remain neutral on HY given our expectation that credit spreads and interest rates will remain mostly flat from current levels. We see potential for positive single-digit HY returns over our tactical timeframe. Differences are beginning to surface among HY sectors and credit ratings, so selectivity remains important.
	Developed Market Ex-U.S.	Neutral	Currency losses are still weighing on returns while political risks add further pressure on yields despite the move from the ECB to cut rates, with more expected over the coming months. We remain 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 it is 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 asset class, with strong company balance sheets compared to other equity classes. We believe the equity asset class is well positioned to withstand potential volatility as the cycle matures.
	U.S. Mid Cap	Neutral	The U.S. Mid Cap Equities asset class offers 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	Neutral	The U.S. Small Cap Equities asset class has underperformed considerably since 2021. Given that the most extreme operating difficulties are likely behind small caps, the era of significant underperformance is likely behind as well.
	Developed Market (DM) Ex.-U.S.	Neutral	The export-sensitive region is constrained by tepid global trade, fiscal restraint, and elevated fuel costs, but we suspect sentiment has passed its nadir and that the upturn should support higher valuations.
	Emerging Market	Unfavorable	Ongoing political risks from Chinese regulatory reform, U.S.-China diplomatic and economic strains, China's shift to emphasize domestic consumption, and our desire for quality keep us unfavorable on EM equities.
REAL ASSETS	Commodities	Favorable	We expect commodity performance to improve through 2025 as demand strengthens from an improved outlook, a recovery in economic growth, and Fed interest-rate cuts. 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 elevated 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 likely remains.
ALTERNATIVE INVESTMENTS*	Hedge Funds–Relative Value*	Neutral	We remain favorable on Long/Short Credit strategies that have the potential to capitalize on market volatility and improving credit conditions in a gradual economic recovery.
	Hedge Funds–Macro*	Favorable	We continue to favor Macro Discretionary strategies given their ability to capitalize on geopolitical uncertainty and markets driven by central banks. Yet, we have downgraded Macro Systematic strategies as these diversifying strategies may underperform other directional strategies in a market-recovery scenario.
	Hedge Funds–Event Driven*	Favorable	As the economy recovers, an improving outlook for equity-oriented Activist strategies (neutral) and Merger Arbitrage strategies (neutral) have led us to upgrade the overall category. In addition, we continue to favor the Distressed Credit subcategory as many small- and mid-sized businesses remain burdened by higher debt-service costs.
	Hedge Funds–Equity Hedge*	Neutral	We favor Equity Hedge Directional strategies — we expect them to benefit from an improving environment for equities as the strategies generally have the flexibility to increase their market sensitivity in rising markets.
	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 anticipated economic recovery starts and valuations reach a bottom, we expect that the opportunity to invest new money will improve.
	Private Debt*	Neutral	We maintain a favorable view on Distressed/Special Situations in an effort to capitalize on our expectations for credit-market stress and dislocations. We remain neutral on Direct Lending considering the risks in lower-quality middle-market borrowers.

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Capital market assumptions

Fixed income, equities, real assets, and alternative investments

Annual update; as of July 2024

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	6.8	9.0	6.8	-7.0
	U.S. Tax Exempt Investment Grade Fixed Income	3.4	3.3	4.3	3.3	-3.5
	U.S. Short Term Tax Exempt Fixed Income	2.7	2.6	1.8	2.6	-0.2
	U.S. Intermediate Term Tax Exempt Fixed Income	3.4	3.3	4.0	3.3	-3.1
	U.S. 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	9.5	6.5	-7.9
	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	8.3	7.0	17.0	2.9	-17.2
	Emerging Market Equities	9.7	7.8	21.0	2.7	-21.1
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	6.2	6.0	6.3	0.0	-3.9
	Hedge Funds – Relative Value	6.5	6.3	7.0	0.0	-4.6
	Hedge Funds – Macro	5.5	5.2	8.0	0.0	-7.1
	Hedge Funds – Event Driven	6.9	6.7	7.5	0.0	-4.9
	Hedge Funds – Equity Hedge	6.6	6.2	8.5	0.0	-6.8
	Global Liquid Alternatives	3.5	3.4	4.0	0.0	-3.0
	Private Equity	14.2	12.6	19.0	0.0	-14.2
	Private Debt	9.3	8.7	11.5	7.0	-8.5

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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.

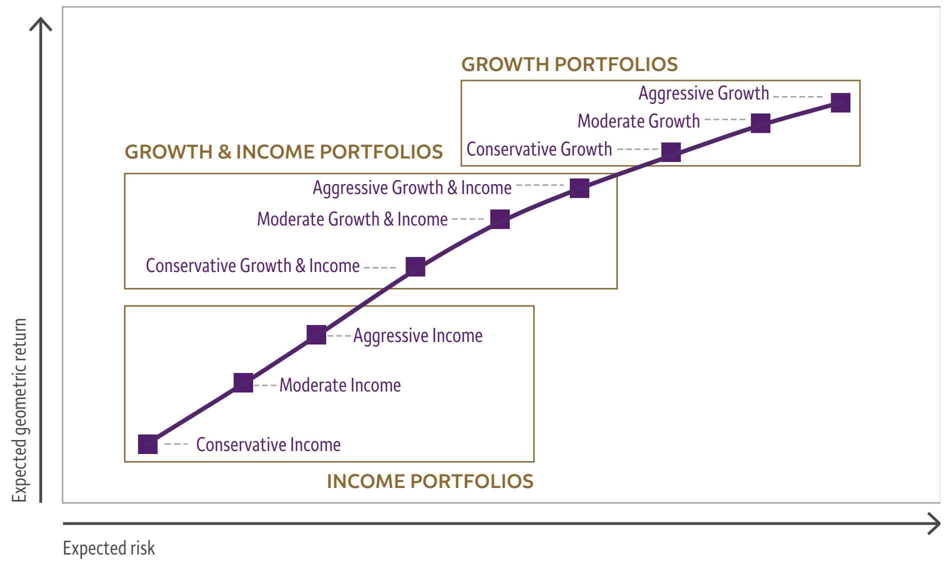


Chart is conceptual and is not meant to reflect any actual returns or represent any specific asset classifications.

Source: Wells Fargo Investment Institute, July 2024

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	80.0	-2.0	69.0	68.0	-1.0	61.0	59.0	-2.0
	U.S. Taxable Investment Grade Fixed Income	76.0	74.0	-2.0	60.0	59.0	-1.0	47.0	45.0	-2.0
	Short Term Taxable*	17.0	12.0	-5.0	13.0	9.0	-4.0	11.0	6.0	-5.0
	Intermediate Term Taxable*	45.0	48.0	3.0	36.0	39.0	3.0	27.0	30.0	3.0
	Long Term Taxable*	14.0	14.0	0.0	11.0	11.0	0.0	9.0	9.0	0.0
	High Yield Taxable Fixed Income	3.0	3.0	0.0	4.0	4.0	0.0	6.0	6.0	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	3.0	3.0	0.0	5.0	5.0	0.0	8.0	8.0	0.0
	TOTAL GLOBAL EQUITIES	14.0	14.0	0.0	27.0	27.0	0.0	35.0	35.0	0.0
	U.S. Large Cap Equities	12.0	12.0	0.0	18.0	18.0	0.0	21.0	21.0	0.0
	U.S. Mid Cap Equities	2.0	2.0	0.0	5.0	5.0	0.0	7.0	7.0	0.0
	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	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	48.0	-2.0	41.0	38.0	-3.0	33.0	30.0	-3.0
	U.S. Taxable Investment Grade Fixed Income	39.0	37.0	-2.0	30.0	27.0	-3.0	20.0	17.0	-3.0
	Short Term Taxable*	9.0	4.0	-5.0	7.0	1.0	-6.0	4.0	0.0	-4.0
	Intermediate Term Taxable*	23.0	26.0	3.0	17.0	20.0	3.0	12.0	15.0	3.0
	Long Term Taxable*	7.0	7.0	0.0	6.0	6.0	0.0	4.0	2.0	-2.0
	High Yield Taxable Fixed Income	6.0	6.0	0.0	6.0	6.0	0.0	7.0	7.0	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	5.0	5.0	0.0	5.0	5.0	0.0	6.0	6.0	0.0
	TOTAL GLOBAL EQUITIES	44.0	44.0	0.0	53.0	53.0	0.0	61.0	62.0	1.0
	U.S. Large Cap Equities	23.0	28.0	5.0	27.0	31.0	4.0	31.0	36.0	5.0
	U.S. Mid Cap Equities	8.0	7.0	-1.0	10.0	11.0	1.0	12.0	12.0	0.0
	U.S. Small Cap Equities	2.0	2.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
	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	17.0	-2.0	11.0	9.0	-2.0	0.0	0.0	0.0
	U.S. Taxable Investment Grade Fixed Income	16.0	14.0	-2.0	8.0	6.0	-2.0	0.0	0.0	0.0
	Short Term Taxable*	4.0	0.0	-4.0	2.0	0.0	-2.0	0.0	0.0	0.0
	Intermediate Term Taxable*	9.0	12.0	3.0	6.0	6.0	0.0	0.0	0.0	0.0
	Long Term Taxable*	3.0	2.0	-1.0	0.0	0.0	0.0	0.0	0.0	0.0
	High Yield Taxable Fixed Income	3.0	3.0	0.0	3.0	3.0	0.0	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	74.0	0.0	82.0	82.0	0.0	93.0	91.0	-2.0
	U.S. Large Cap Equities	33.0	37.0	4.0	35.0	39.0	4.0	37.0	41.0	4.0
	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	5.0	5.0	0.0	6.0	6.0	0.0	7.0	7.0	0.0
	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

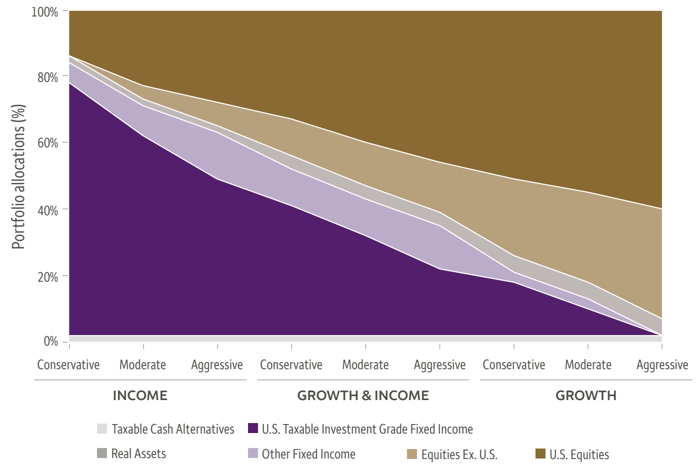
Strategic allocations are updated annually; last update was July 16, 2024. Tactical allocations are updated periodically; last update was October 21, 2024.
The U.S. Taxable Investment Grade Fixed Income encompasses the allocations to Short Term, Intermediate Term, and Long Term. *Wells Fargo Advisors only.
See next page for Portfolio allocations across the efficient frontier, strategic and tactical.

Strategic and tactical asset allocation: Liquid

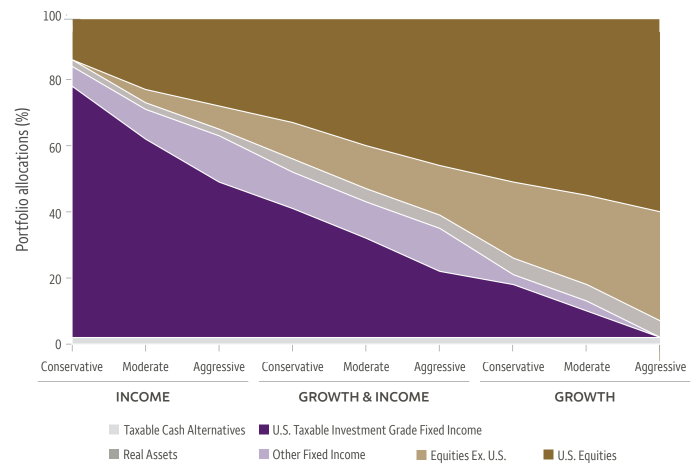
May include fixed income, equities, and real assets (continued)

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 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



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 (%)
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	68.0	66.0	-2.0	55.0	53.0	-2.0	47.0	45.0	-2.0
	U.S. Taxable Investment Grade Fixed Income	63.0	61.0	-2.0	48.0	46.0	-2.0	35.0	33.0	-2.0
	Short Term Taxable*	14.0	9.0	-5.0	11.0	6.0	-5.0	8.0	3.0	-5.0
	Intermediate Term Taxable*	37.0	40.0	3.0	28.0	31.0	3.0	21.0	24.0	3.0
	Long Term Taxable*	12.0	12.0	0.0	9.0	9.0	0.0	6.0	6.0	0.0
	High Yield Taxable Fixed Income	2.0	2.0	0.0	2.0	2.0	0.0	4.0	4.0	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	3.0	3.0	0.0	5.0	5.0	0.0	8.0	8.0	0.0
	TOTAL GLOBAL EQUITIES	8.0	8.0	0.0	20.0	20.0	0.0	25.0	25.0	0.0
	U.S. Large Cap Equities	8.0	8.0	0.0	12.0	12.0	0.0	15.0	15.0	0.0
	U.S. Mid Cap Equities	0.0	0.0	0.0	4.0	4.0	0.0	6.0	6.0	0.0
	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
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	36.0	34.0	-2.0	27.0	25.0	-2.0	21.0	19.0	-2.0
	U.S. Taxable Investment Grade Fixed Income	29.0	27.0	-2.0	19.0	17.0	-2.0	12.0	10.0	-2.0
	Short Term Taxable*	7.0	2.0	-5.0	4.0	0.0	-4.0	3.0	0.0	-3.0
	Intermediate Term Taxable*	17.0	20.0	3.0	11.0	13.0	2.0	7.0	10.0	3.0
	Long Term Taxable*	5.0	5.0	0.0	4.0	4.0	0.0	2.0	0.0	-2.0
	High Yield Taxable Fixed Income	4.0	4.0	0.0	4.0	4.0	0.0	3.0	3.0	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	3.0	3.0	0.0	4.0	4.0	0.0	6.0	6.0	0.0
	TOTAL GLOBAL EQUITIES	32.0	32.0	0.0	38.0	38.0	0.0	46.0	46.0	0.0
	U.S. Large Cap Equities	18.0	21.0	3.0	20.0	24.0	4.0	24.0	26.0	2.0
	U.S. Mid Cap Equities	6.0	6.0	0.0	8.0	8.0	0.0	8.0	8.0	0.0
	U.S. Small Cap Equities	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0
	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**	21.0	21.0	0.0	23.0	23.0	0.0	21.0	21.0	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	8.0	8.0	0.0	10.0	10.0	0.0	11.0	11.0	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 16, 2024. Tactical allocations are updated periodically; last update was October 21, 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.
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See next page for Growth data and Portfolio allocations across the efficient frontier, strategic and tactical.

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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 (%)
GROWTH	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	10.0	8.0	-2.0	4.0	4.0	0.0	0.0	0.0	0.0
	U.S. Taxable Investment Grade Fixed Income	7.0	5.0	-2.0	2.0	2.0	0.0	0.0	0.0	0.0
	Short Term Taxable*	2.0	0.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0
	Intermediate Term Taxable*	5.0	5.0	0.0	2.0	2.0	0.0	0.0	0.0	0.0
	Long Term Taxable*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	High Yield Taxable Fixed Income	3.0	3.0	0.0	2.0	2.0	0.0	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	56.0	0.0	66.0	64.0	-2.0	74.0	72.0	-2.0
	U.S. Large Cap Equities	26.0	29.0	3.0	26.0	29.0	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	15.0	0.0
	U.S. Small Cap Equities	3.0	3.0	0.0	4.0	4.0	0.0	6.0	6.0	0.0
	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	7.0	9.0	2.0
	Private Real Estate**	5.0	5.0	0.0	5.0	5.0	0.0	2.0	2.0	0.0
	Commodities	5.0	7.0	2.0	5.0	7.0	2.0	5.0	7.0	2.0
	TOTAL ALTERNATIVE INVESTMENTS**	23.0	23.0	0.0	19.0	19.0	0.0	18.0	18.0	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	13.0	13.0	0.0	14.0	14.0	0.0	18.0	18.0	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 16, 2024. Tactical allocations are updated periodically; last update was October 21, 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.
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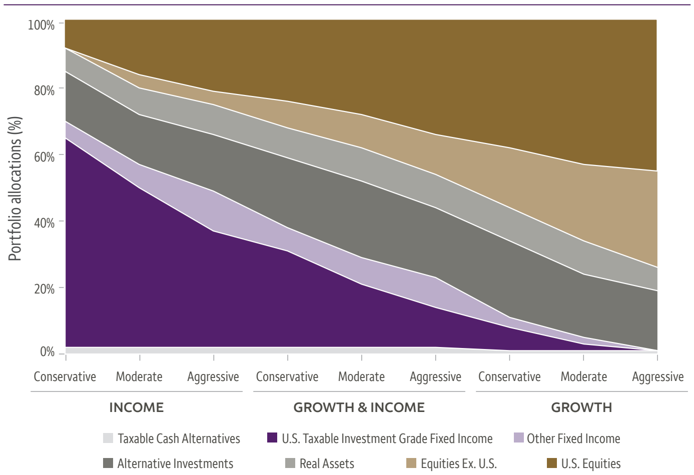
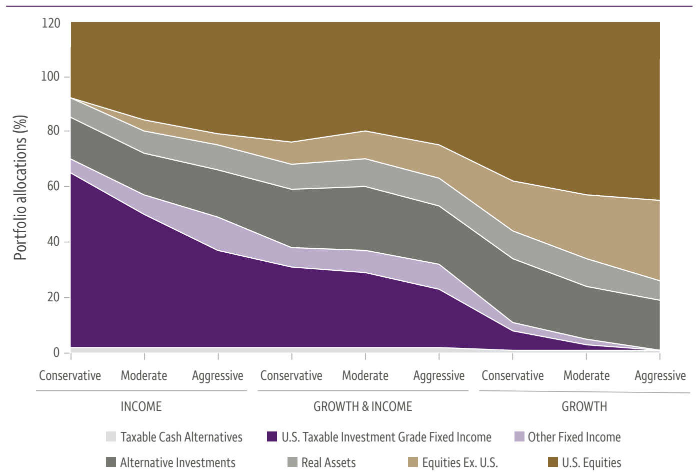
These allocations span the set of investments available to investors, utilizing broad diversification to help manage portfolio risk. Special issues such as liquidity, cash flow, and taxability would be taken into consideration in the choice of investment vehicles for certain asset classes. Depending 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



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Strategic asset allocation: Tax-efficient illiquid

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

		CONSERVATIVE Strategic (%)	MODERATE Strategic (%)	AGGRESSIVE 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*	10.0	7.0	5.0
	Intermediate Term Tax Exempt*	54.0	39.0	29.0
	Long Term Tax Exempt*	16.0	12.0	9.0
	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*	5.0	4.0	3.0
	Intermediate Term Tax Exempt*	25.0	20.0	15.0
	Long Term Tax Exempt*	8.0	6.0	5.0
	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	34.0	42.0	49.0
	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	2.0	2.0	2.0
	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**	12.0	15.0	14.0
	Global Hedge Funds	4.0	4.0	0.0
	Private Equity	8.0	11.0	14.0
	Private Debt	0.0	0.0	0.0

Tax-efficient strategic allocations are updated annually; last update was July 16, 2024. 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.

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Strategic asset allocation: Tax-efficient illiquid

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

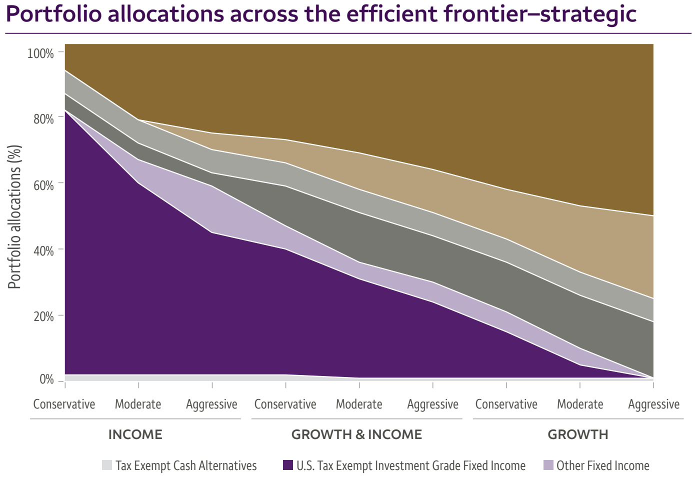
		CONSERVATIVE	MODERATE	AGGRESSIVE
		Strategic (%)	Strategic (%)	Strategic (%)
GROWTH	TAX EXEMPT CASH ALTERNATIVES	1.0	1.0	1.0
	TOTAL GLOBAL FIXED INCOME	20.0	9.0	0.0
	U.S. Tax Exempt Investment Grade FI	14.0	4.0	0.0
	Short Term Tax Exempt*	2.0	0.0	0.0
	Intermediate Term Tax Exempt*	9.0	4.0	0.0
	Long Term Tax Exempt*	3.0	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	57.0	67.0	75.0
	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	3.0	4.0	4.0
	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**	15.0	16.0	17.0
	Global Hedge Funds	0.0	0.0	0.0
	Private Equity	15.0	16.0	17.0
	Private Debt	0.0	0.0	0.0

Tax-efficient strategic allocations are updated annually; last update was July 16, 2024. 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 Strategic (%)	MODERATE Strategic (%)	AGGRESSIVE 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*	11.0	8.0	6.0
	Intermediate Term Tax Exempt*	62.0	47.0	34.0
	Long Term Tax Exempt*	18.0	13.0	10.0
	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*	6.0	4.0	3.0
	Intermediate Term Tax Exempt*	30.0	24.0	17.0
	Long Term Tax Exempt*	9.0	7.0	5.0
	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	21.0	26.0	30.0
	U.S. Mid Cap Equities	10.0	12.0	14.0
	U.S. Small Cap Equities	2.0	3.0	3.0
	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 16, 2024. 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.

*Wells Fargo Advisors only.

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 Strategic (%)	MODERATE Strategic (%)	AGGRESSIVE Strategic (%)
GROWTH	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*	2.0	0.0	0.0
	Intermediate Term Tax Exempt*	12.0	8.0	5.0
	Long Term Tax Exempt*	4.0	3.0	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	34.0	36.0	33.0
	U.S. Mid Cap Equities	15.0	16.0	18.0
	U.S. Small Cap Equities	5.0	6.0	8.0
	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 16, 2024. 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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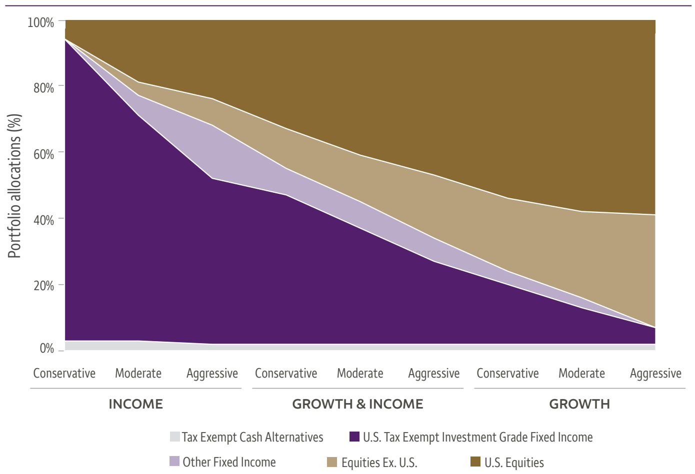
These allocations span the set of liquid investments available to investors, utilizing broad diversification to help manage portfolio risk. Special consideration is given to the taxable implications of investing in various asset classes. Taxability may also be taken into consideration in determining 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



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. 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. 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

Disclosures *(continued)*

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 materialized 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.

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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 (USDX, 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. **The Burgiss Private Equity Index** is based on the pool of private equity funds sourced by Burgiss and is asset weighted. The index is calculated using cash flow and valuation histories of the underlying funds within Burgiss manager universe. The underlying funds are classified by Burgiss private capital classification system and the cash flow data is sourced from institutional investors around the world.

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 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.

Disclosures *(continued)*

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 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

Disclosures *(continued)*

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. **Russell 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.

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.

Disclosures *(continued)*

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

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

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

MSCI Columbia Index is a capitalization-weighted stock index designed to measure the performance of the large and mid cap segments of the Columbia 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 France Index is a capitalization-weighted stock index designed to measure the performance of the large and mid cap segments of the France 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 India Index is a capitalization-weighted stock index designed to measure the performance of the large and mid cap segments of the India 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 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 Norway Index is a capitalization-weighted stock index designed to measure the performance of the large and mid cap segments of the Norway market.

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

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 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.

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

MSCI United Kingdom Index is a capitalization-weighted stock index designed to measure the performance of the large and mid cap segments of the United Kingdom 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 (BCOMTR). Bloomberg Commodity Total Return Index (BCOMTR) is composed of future contracts and reflects the returns on a fully collateralized investment in the BCOM. This combines the returns of the BCOM with the returns on cash collateral invested in 13 week (3 month) U.S. Treasury Bills. **Bloomberg Commodity Index (BCOM)** 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.

Disclosures *(continued)*

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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