Asset Allocation Strategy

October 2, 2018

Equity sector changes.
See page 11.
Forecast changes.
See pages 7, 14, 17.
Guidance changes.
See pages 8, 9, 13, 19-20.
Tactical adjustment.
See pages 23-28.

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The longest bull market—what may lie ahead?

By some measures, the current U.S. equity bull market became the longest on record* on August 22, 2018. It is also nearly twice as long as the average bull market.

As the chart illustrates, during the current bull market, the S&P 500 Index has delivered a cumulative return of more than 320%, well above its average bull market return of 177%. As significant as this achievement may be, this isn't the most lucrative U.S. large-cap bull market (that title goes to the 1990s bull). Yet, fundamental factors lead us to believe that we still have room to run.

How did we get here?

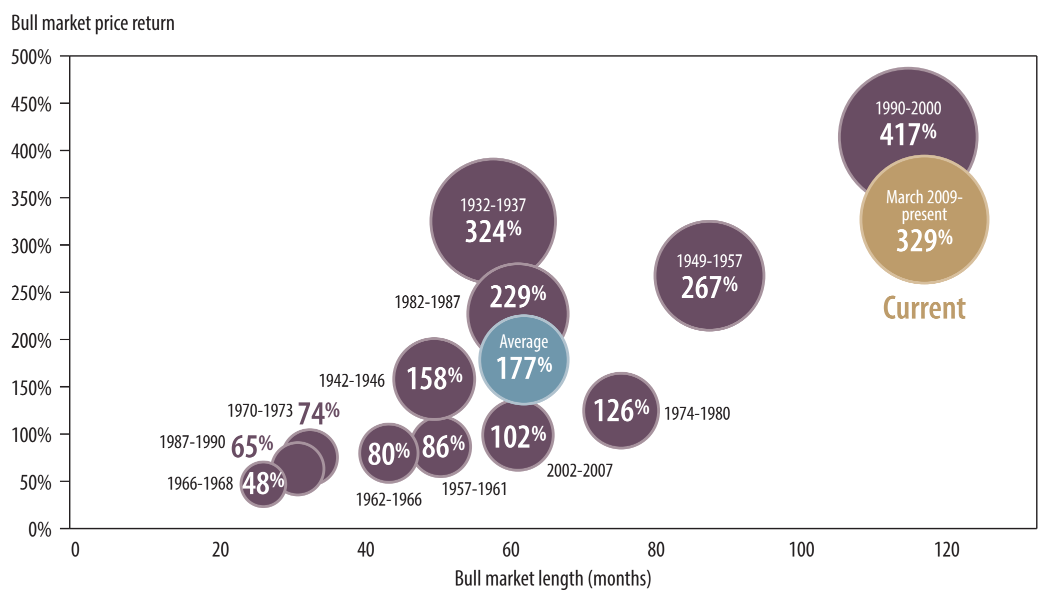
After the worst financial crisis since the Great Depression, investors were leery of risk. Yet U.S. equity markets did grind steadily higher, thanks to long-lasting Federal Reserve (Fed) stimulus, coupled with an economic recovery characterized by slow, ongoing, global growth and muted inflation. The federal tax cuts and capital-expenditure incentives passed late in 2017 helped to extend the earnings peak into 2018. Additionally, relatively low levels of market volatility in recent years, coupled with increased global central-bank transparency, have helped to build equity investors' confidence. From here, we anticipate year-over-year (YoY) earnings comparisons will become more challenging. Yet, we expect S&P 500 earnings growth to remain in a healthy range between 7% and 10% next year.

When will it end?

Historically, a bear market (the end of a bull market) has occurred about 6-8 months prior to the start of a recession. Typically, a recession is preceded by widening fixed-income spreads, investor complacency, stretched valuations,

(continued)

Current U.S. bull market produced nearly two times the average return and is the longest in history



Sources: Bloomberg, Wells Fargo Investment Institute, August 31, 2018. Chart reflects bull markets for the S&P 500 Index. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.**

*The bull market was the longest on record as measured by the number of days.

The longest bull market—what may lie ahead?

(continued)

> At this point in the economic cycle, we believe that most investors should "remain invested," with exposure to U.S. and international equities as part of a well-diversified portfolio.*

higher inflation, and an inverted yield curve. While the yield curve has flattened, it has not yet inverted. Additionally, the other factors have not moved into concerning territory. Recently strong U.S. economic data, such as consumer spending and business investment, suggests that a U.S. economic recession is not on the near-term horizon. While our macro outlook is for solid U.S. economic growth and only modestly higher inflation, we acknowledge that a misstep by the Fed, such as raising rates too quickly, could impede growth and trigger a bear market.

At this point in the economic cycle, we believe that most investors should "remain invested," with exposure to U.S. and international equities as part of a well-diversified portfolio. Along with our favorable view of the Health Care sector, we continue to favor cyclical sectors, such as Consumer Discretionary, Financials, and Industrials—as they are likely to benefit the most at this point in the cycle. We believe that international equities also should benefit from global economic improvement. While we continue to believe that diversified fixed-income exposure remains appropriate, we favor shorter-maturity issues, global diversification, defensive portfolio structures, and higher credit quality. We remain cautious toward high-yield debt, longer-term maturities, and developed market bonds. We expect continued, gradual, Fed rate hikes. We believe that investors should anticipate increased volatility going forward as rates rise and geopolitical headlines (from trade to elections) pressure markets.

*Diversification does not guarantee investment returns or eliminate risk of loss.

Investment Strategy Guidance Enhancements

In April, Wells Fargo Investment Institute announced several investment strategy guidance enhancements.

Five tiers of guidance recommendations (see pages 6, 8, 9, 11, 12, 13, 16, 19, and 20)

Wells Fargo Investment Institute (WFII) moved to five tiers of investment guidance from the previous set of three guidance levels. The five-tiered system highlights WFII's highest conviction positions more clearly. The new guidance categories also identify asset class (and sector) opportunities that, while meaningful, may not meet a strong conviction threshold.

WFII's new five-tiered guidance applies to all asset class and sector guidance that WFII provides. The new guidance naming conventions include the following:

Most favorable: WFII's highest conviction guidance that indicates a strong desire to overweight an asset class (or sector) within a portfolio. It also communicates that, over a tactical time frame, WFII views the asset class (or sector) as offering investors a very attractive risk/reward opportunity.

Favorable: Guidance that indicates a desire to overweight an asset class within a portfolio. It also communicates that, over a tactical time frame, WFII views the asset class (or sector) as providing investors with an attractive risk/reward opportunity.

Neutral: Guidance that indicates a desire to maintain an asset class near the long-term (strategic) allocation guidance within a portfolio. It also communicates that, over a tactical time frame, WFII views the asset class (or sector) as providing investors with an acceptable risk/reward opportunity.

Unfavorable: This WFII guidance level indicates a desire to underweight an asset class (or sector) within a portfolio. It also communicates that, over a tactical time frame, WFII does not view the asset class (or sector) as providing investors with an attractive risk/reward opportunity.

Most unfavorable: WFII's highest conviction guidance indicating a strong belief in underweighting an asset class within a portfolio. This also communicates that, over a tactical time frame, WFII views the asset class (or sector) as offering investors a very unattractive risk/reward opportunity.

Most unfavorable	Unfavorable	Neutral	Favorable	Most favorable
■	■	□	■	■

New 12 month forward-looking market targets (see pages 7, 10, 14, and 17)

WFII's recent target guidance has been communicated as calendar year-end targets. Year-end targets will continue to be created, communicated, and updated (should our opinion change). In addition to the current year-end targets, WFII now is releasing 12 month forward-looking targets, updated on a quarterly basis.

The new 12-month forward targets will give investors a clear picture of our target outlook beyond year-end. By releasing 12-month forward targets, we hope to regularly provide clear guidance to the midpoint of our tactical time frame of 6 to 18 months. By providing both year-end targets and the new 12 month forward-looking targets, WFII's target outlook will provide consistent 12-month views on a quarterly basis throughout the year.

WFII will be communicating both high- and low-conviction ranges around the 12 month forward-looking targets. This will illustrate where WFII sees upside potential or downside risk outside of its base case. This added level of detail will apply only to WFII's 12 month forward-looking targets.

WFII's new 12 month forward-looking return targets will be published in the monthly Asset Allocation Strategy Report (this report). The graphical representation of these targets will be included in each monthly report, and the 12-month forward update will be refreshed at the beginning of each quarter. WFII plans to refresh its 12 month forward-looking market target updates (including its new high and low conviction ranges) in the April, July, October, and January Asset Allocation Strategy Report releases.

Our enhanced investment guidance framework offers a clearer perspective

We are confident that these enhancements represent a step forward in WFII's strategy guidance. The five-level guidance framework provides more specific granularity of WFII's views, and communicates high conviction positions as well as more nuanced guidance. This enhanced investment guidance framework will increase the frequency of regular, periodic target guidance, and will allow communication of more refined levels of conviction and the opportunity to more clearly identify risks and opportunities.

For additional information, please request our *Asset Allocation Special Report: Enhancing Our Investment Strategy Guidance*.

Global Economic Summary

United States

The second look at second-quarter U.S. gross domestic product (GDP) increased to a 4.2% annualized, quarter-over-quarter (QoQ) expansion rate. Personal consumption declined slightly, to a 3.8% growth rate.

The nonfarm payroll report for August reflected the addition of 201,000 jobs to the U.S. economy. The unemployment rate held steady at 3.9%, yet the labor-force participation rate declined to 62.7%. Wage growth picked up to the fastest pace since 2009, with average hourly earnings up 2.9% on a year-over-year (YoY) basis.

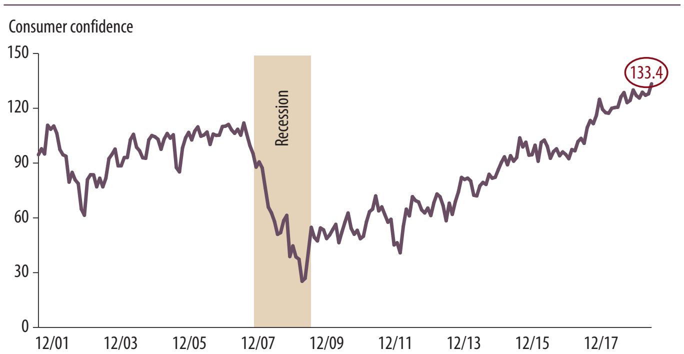
Headline inflation slowed in August. The Consumer Price Index (CPI) increased 0.2% for the month and 2.7% YoY. Excluding the more volatile food and energy components, the CPI increased 0.1% for the month and 2.2% YoY.

The Institute for Supply Management (ISM) manufacturing and services survey data both surprised to the upside in August. The manufacturing survey increased from 58.1 to 61.3, and the services survey rose from 55.7 to 58.5 (a reading above 50 indicates expansion).

Consumer confidence improved in August to 133.4, a 17-year high. Both the present-situation index and expectations for the future increased.

The housing market was mixed in July. Building permits and housing starts increased by 1.5% and 0.9%, respectively. Existing home sales decreased by -0.7%, to a seasonally-adjusted 5.34-million-unit annual pace. New home sales were down -1.7%, to a seasonally-adjusted annual rate of 627,000 units.

Consumer confidence reaches a 17-year high



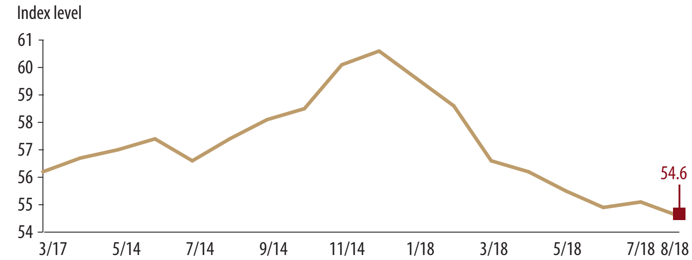
Sources: The Conference Board, Bloomberg, September 6, 2018.

Europe

Concerns about economic growth prospects plagued the European market outlook during the second quarter. Weaker data readings, such as manufacturing purchasing managers' indices (PMI) for European economies, pointed to softer (yet expansive) activity in the eurozone and U.K. after a slow first-quarter start. A final look at second-quarter GDP growth showed that the eurozone and U.K. economies expanded, despite concerns of slowing.

Broad international trade measures showed steady growth for eurozone exporters, indicative of positive second-quarter economic activity. U.K. and German retail sales growth also expanded in July, continuing a virtuous second-quarter trend. Consumer confidence recently has softened only mildly from historically high levels.

Softening eurozone manufacturing PMI readings



Sources: Markit, Bloomberg, September 6, 2018.

Asia

Growth concerns also dented Asia-Pacific market sentiment, particularly as tariff worries have grown in the trade-sensitive region. In a trend similar to that in Europe, firming quarterly data has been evident in the Asia-Pacific region. Japanese trade volume growth in July reflected a rebound from weakness at the start of the year. Published data suggest that trade volumes in emerging market economies gained pace in the second quarter after softening in the first quarter.

Business sentiment eased in the second quarter, yet June composite (combined services and manufacturing) PMI reports signaled stabilizing confidence in China and Japan. Consumer confidence in the region generally has remained buoyant, despite ongoing trade concerns. Japanese retail sales stabilized in July as labor-market conditions remained generally favorable, with employers continuing to hire new workers and real wages moving higher.

Key economic statistics

Global growth rates	Second quarter 2018	First quarter 2018	Fourth quarter 2017
U.S. real economic growth (GDP)[1]	4.2%	2.2%	2.3%
Eurozone real economic growth[2]	2.1%	2.7%	2.7%
Japanese real economic growth[1]	3.0%	0.9%	0.9%
Chinese real economic growth[2]	6.7%	6.8%	6.8%
Key U.S. economic data	**8/18**	**7/18**	**8/17**
Unemployment rate	3.9%	3.9%	4.4%
Leading economic index (LEI)	0.5%[a]	0.6%	0.4%
Durable goods orders	1.1%[a]	-1.7%	2.7%
ISM manufacturing	61.3	58.1	59.3
ISM service	58.5	55.7	55.2
Retail sales	0.4%[a]	0.5%	0.0%
Consumer confidence	133.4	127.9	120.4
New home sales (millions)	0.638[a]	0.627	0.558
Existing home sales (millions)	5.34[a]	5.34	5.42
U.S. Dollar Index	95.14	94.55	92.67
U.S. inflation	**8/18**	**7/18**	**YoY**
Consumer Price Index (CPI)	0.2%	0.2%	2.7%
Core CPI	0.1%	0.2%	2.2%
Producer Price Index (PPI)	-0.1%	0.0%	2.8%
Core PPI	-0.1%	0.1%	2.3%
Personal consumption expenditures (PCE)	N/A	0.1%	2.3%[b]
Core PCE	N/A	0.2%	2.0%[b]

Source: Bloomberg, FactSet, September 18, 2018. [1] Annualized QoQ % change; [2] Year-over-year % change; [a] Bloomberg survey estimate. [b] YoY references July 2018. See end of report for important definitions and disclosures.

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Global Economic Summary

Wells Fargo Investment Institute forecasts

GDP growth: Data continue to reflect broad advancement in the global economy. We believe that the U.S. economy is in the latter stages of recovery, but we do not expect a recession this year. Further, a contraction in 2019 seems unlikely at this point in time. Economic conditions in China have stabilized; yet we believe that regulators' efforts to curb excess lending will weigh on China's growth rate. The outlook for Europe continues to improve as trade, employment, and investment activity gain pace. While recently hitting a soft patch, Japan's economy still is likely to expand this year.

Inflation: We expect inflationary pressures to stabilize in developing economies and gain pace in advanced economies in 2018. U.S. inflation should continue to rise as labor-market conditions tighten. Stable commodity prices and a rebound in the credit cycle should help moderate inflationary pressures in emerging markets. Labor-market slack and weakness in wage growth are expected to be headwinds to inflation in international developed markets in 2018.

Unemployment rate: The strong labor market is slowly raising wages and producing job openings broadly across the U.S. economy. This trend has been reflected in the U.S. unemployment rate recently falling to multi-year lows. Similar developments are underway in Europe and Japan.

Global economy

	2018 year-end targets	2017	2016
Domestic GDP growth	2.9%	2.3%	1.5%
Domestic inflation	2.4%	2.1%	2.1%
Domestic unemployment rate	3.9%	4.1%	4.7%
Global GDP growth	3.7%	3.8%	3.2%
Developed-market GDP growth	2.3%	2.3%	1.7%
Developed-market inflation	2.0%	1.7%	1.3%
Emerging-market GDP growth	4.7%	4.8%	4.3%
Emerging-market inflation	4.3%	4.0%	5.7%
Eurozone GDP growth	2.0%	2.8%	1.8%
Eurozone inflation	1.6%	1.4%	1.1%

Sources: FactSet, Bloomberg, International Monetary Fund, and Wells Fargo Investment Institute; as of September 18, 2018. The 2018 year-end targets are Wells Fargo Investment Institute forecasts. Forecasts are based on certain assumptions and on our views of market and economic conditions, which are subject to change. GDP = gross domestic product. See end of report for important definitions and disclosures.

Fixed Income

Market summary

U.S. fixed-income markets had solid August returns, but international bonds faced headwinds. Yet, most classes were negative year to date (YTD)—as rising rates, firming growth, and currency developments generally have challenged markets. Several fixed-income classes delivered YTD gains, including high-yield (HY) debt (+2.0%), investment-grade corporates (+0.5%), short-term taxable securities (+0.5%), municipals (+0.3%), and Treasury Inflation Protected Securities, or TIPS (+0.2%). Preferred stock returned 3.0% YTD.

Market observations

U.S. fixed income: U.S. fixed income generally gained as investors diversified risk, emerging market (EM) currency declines fueled asset flows—and the Fed chairman's Jackson Hole remarks signaled continuing gradual rate hikes.

The yield curve flattened and expectations for a September Fed rate hike remained firm. We believe that the yield curve may continue to flatten, but we don't expect it to invert this year as economic growth remains healthy—and the Fed is likely to carefully weigh the consequences of a December rate hike.

Long-term (+0.8%) and intermediate taxable (+0.7%) issues outperformed shorter-term issues (+0.4%) last month. Treasury securities (+0.8%) benefited from the "risk-off" trade fueled by trade and currency headwinds abroad. TIPS (+0.7%) gained on rising inflation expectations.

Preferred stock (+1.2%), HY debt (+0.7%), and investment-grade (IG) corporates (+0.5%) gained as the economy firmed and investors sought yield.. We favor moving up in credit quality as we believe that the risks associated with HY debt outweigh return potential. We are neutral on IG corporates but see opportunities in higher-quality issues and Financials.

Municipals returned 0.3% in August and YTD. This outperformance, combined with a seasonal supply increase, may result in market pressure between now and year-end. We would view any municipal-market weakness as a buying opportunity for longer-term investors.

Developed markets: Hedged developed market (DM) debt (-0.2%) outperformed unhedged (-0.6%) bonds in August, but intra-month volatility was higher than in July. Yet, the dollar was broadly stronger in August, despite sharp reversals later on. The stronger dollar meant that DM bonds generally underperformed U.S. Treasury securities, although Canadian and Japanese government bonds performed relatively well in dollar terms. Italy underperformed as Italian sovereign bond yields moved back above 3% on political concerns.

Emerging markets: Volatility returned to EM bonds—with August declines of nearly 30% in both the Turkish lira and Argentine peso catalyzing outflows from markets in other major currencies such as the Brazilian real and South African rand. This fueled deeply negative returns for the local-currency EM bond sector: -6.4% in August, -10.7% YTD. August returns held up better in the dollar-denominated sector as sovereign bonds declined by 1.9%, not quite negating July's 2.1% return. Turkey and Argentina were weakest in both sectors, but China's economic and currency stabilization measures, and tentative NAFTA progress (North American Free Trade Agreement) meant that Asian markets and Mexico saw gains partially offsetting losses.

Wells Fargo Investment Institute perspective

We recommend that investors shorten duration (a measure of a bond's price sensitivity to interest-rate changes) while remaining broadly and globally diversified.

Fixed income index total returns

	MTD	QTD	YTD	1 year	3 year	5 year
U.S. Taxable Inv Grade Fixed Income	0.6%	0.7%	-1.0%	-1.0%	1.8%	2.5%
U.S. Short Term Taxable	0.4%	0.4%	0.5%	0.2%	0.9%	0.9%
U.S. Intermediate Term Taxable	0.7%	0.7%	-0.5%	-1.0%	1.4%	2.3%
U.S. Long Term Taxable	0.8%	1.1%	-3.9%	-2.1%	4.2%	5.3%
U.S. Treasury Bills	0.2%	0.3%	1.1%	1.4%	0.7%	0.4%
U.S. Municipal Bonds	0.3%	0.5%	0.3%	0.5%	2.7%	4.1%
High Yield Taxable Fixed Income	0.7%	1.8%	2.0%	3.4%	7.0%	5.6%
DM Ex.-U.S. Fixed Income (Unhedged)	-0.6%	-1.2%	-2.0%	-1.8%	3.0%	0.5%
DM Ex.-U.S. Fixed Income (Hedged)	-0.2%	-0.4%	1.3%	1.9%	3.5%	4.3%
EM Fixed Income (U.S. dollar)	-1.9%	0.1%	-5.1%	-4.6%	4.6%	4.8%
EM Fixed Income (Local currency)[1]	-6.4%	-4.0%	-10.7%	-11.0%	3.4%	-1.2%

Sources: Bloomberg Barclays, J.P. Morgan, August 31, 2018.
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 end of report for important definitions and disclosures.

Despite the August U.S.-yield decline, we expect rates to rise. We also believe that the longer part of the yield curve is the most vulnerable as the economy continues to strengthen and inflation and wage pressures rise. The shorter part of the curve typically offers somewhat lower yield potential, but a lower risk profile as well.

Aside from potential currency-appreciation gains, we see little prospect of strong DM-debt returns in 2018. Yields remain below Treasury yields and are likely to increase in 2018. We do expect some currency appreciation over the coming year, but given greater foreign-exchange uncertainty, this does not significantly outweigh limited prospects from income and changes in capital values. We have an unfavorable DM-debt view, since the higher foreign-exchange risk is insufficiently compensated by income or capital-gain prospects (the strategic index is unhedged in terms of currency exposure).

We are favorable on U.S.-dollar-denominated EM debt as we believe that the balance of risks has shifted toward the positive. Valuations have improved and index yields above 6.5% offer an added cushion against risks (in our view). Positive factors include a supportive global macroeconomic backdrop and strong fiscal and credit fundamentals in many major index constituents. Negative factors include the potential for rising underlying Treasury yields and risks to sovereign-credit ratings from domestic and international politics and trade.

Asset class guidance

	Guidance				
	Most unfavorable		Neutral		Most favorable
Cash Alternatives	□	□	■	□	□
U.S. Taxable Investment Grade Fixed Income	□	■	□	□	□
U.S. Short Term Taxable	□	□	□	■	□
U.S. Intermediate Term Taxable	□	□	■	□	□
U.S. Long Term Taxable	■	□	□	□	□
High Yield Taxable Fixed Income	□	■	□	□	□
DM Ex.-U.S. Fixed Income	□	■	□	□	□
EM Fixed Income	□	□	□	■	□

Source: Wells Fargo Investment Institute, September 18, 2018.

Fixed Income

Wells Fargo Investment Institute forecasts

Interest rates: We expect the Fed to continue increasing rates slowly and deliberately. We also continue to expect that short-term rates will remain below long-term rates, suggesting that more gas remains in the economic tank.

We increased our 2018 year-end fed funds rate target by 25 basis points from 2.00%–2.25% to 2.25%–2.50%. Our expectation of a fourth rate hike in 2018 is one additional rate increase from our previous target.

Global fixed income

	2018 year-end targets	2017	2016
10-year U.S. Treasury yield	2.75%-3.25%	2.4%	2.44%
30-year U.S. Treasury yield	3.25%-3.75%	2.7%	3.07%
▲ Fed funds rate	2.25%-2.50%	1.5%	0.75%

▲: recent change. Sources: FactSet, Bloomberg, International Monetary Fund, and Wells Fargo Investment Institute; as of October 1, 2018. The 2018 year-end targets are Wells Fargo Investment Institute forecasts. Forecasts are based on certain assumptions and on our views of market and economic conditions, which are subject to change. See end of report for important definitions and disclosures.

Rolling 12-month forecasts

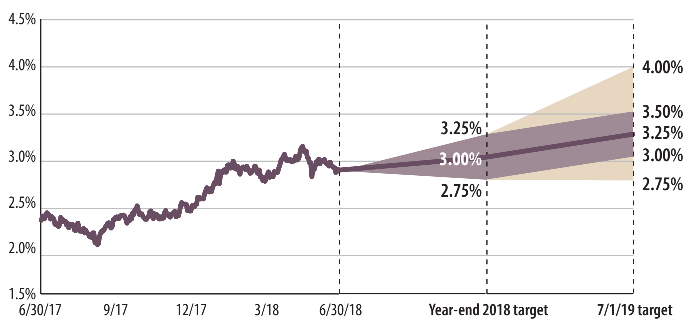
Conviction path definitions

Lower conviction range (upper): The upper range of the lower conviction path may occur if economic conditions surprise to the upside. Stronger-than-expected domestic growth occurs as a result of tax reform and fiscal stimulus drives confidence higher, leading to greater household spending and business investment. Global growth may exceed expectations, increasing trade and investment.

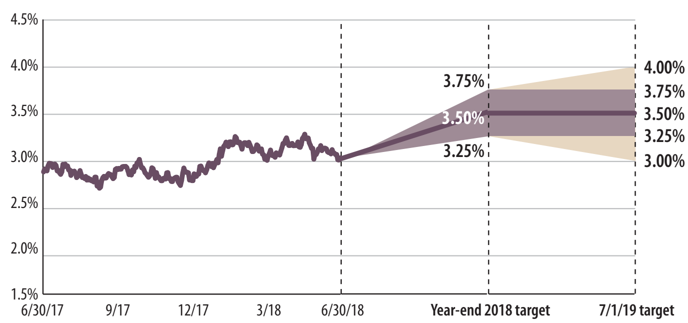
High conviction range The high conviction middle path factors in our base-case economic forecasts through 2018 and into 2019. Domestic growth continues to be strong, supported by tax reform and fiscal stimulus, with inflation increasing moderately. Higher growth and a slight pickup in inflation is also expected in developed and emerging markets.

Lower conviction range (lower): The lower range of the lower conviction path may occur if events detrimental to the global economy occur. Further escalation of tariff activity, an unexpected surge in inflation, or more aggressive central bank policy would be detrimental to global growth. Eurozone political uncertainty or unexpected military action would also dampen growth prospects.

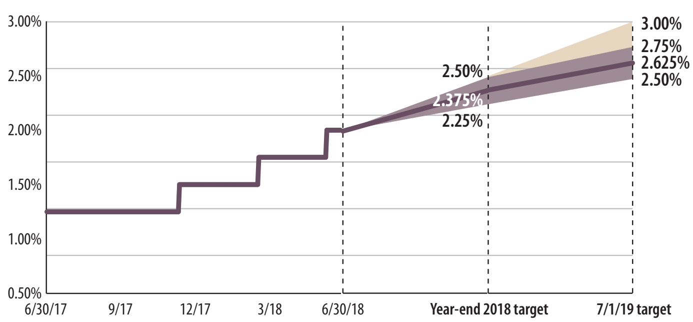
10-year Treasury yield



30-year Treasury yield



Fed funds rate



Past performance is no guarantee of future results.

Fixed Income

Sector strategy: U.S. investment-grade securities

Sector guidance

Sector	Guidance				
	Most unfavorable		Neutral		Most favorable
Duration	□	■	□	□	□
U.S. Government	□	■	□	□	□
Treasury Securities	□	□	■	□	□
Agencies	□	■	□	□	□
Inflation-Linked Fixed Income	□	□	■	□	□
Credit	□	□	■	□	□
Corporate Securities	□	□	■	□	□
Preferred Securities	□	□	□	■	□
Securitized	□	□	■	□	□
Residential MBS	□	□	■	□	□
Commercial MBS	□	■	□	□	□
Asset Backed Securities	□	□	■	□	□
U.S. Municipal Bonds	□	□	□	■	□
Taxable Municipal	□	□	□	■	□
State and Local General Obligation	□	□	■	□	□
Essential Service Revenue	□	□	□	■	□
▼ Pre-Refunded	□	□	□	■	□

▼: recent change. Source: Wells Fargo Investment Institute, September 18, 2018. See end of report for important definitions and disclosures.

Total sector returns

Sector	1 month	Year-to-date	12 months
U.S. Government	0.8%	-0.7%	-1.5%
Credit	0.5%	-1.8%	-1.0%
Securitized	0.6%	-0.5%	-0.5%
U.S. Municipal Bonds	0.3%	0.3%	0.5%

Source: FactSet, August 31, 2018.
Past performance is no guarantee of future results.

Duration (Unfavorable): Duration positioning is critical for fixed-income investors. Bonds with shorter duration tend to be less sensitive to changes in interest rates (assuming a parallel shift in the yield curve). Bond-market volatility recently has moderated back toward one-year lows after a strong spike in late January and early February. Interest-rate volatility can provide opportunities to adjust duration to capitalize upon any dislocation. Currently, we recommend that investors maintain duration at a level below that of their individually-selected benchmarks.

U.S. Government (Unfavorable): Growing Treasury issuance to fund federal tax cuts and the Fed's balance-sheet reduction introduce the potential for increased sector volatility. We recommend that investors hold government-security allocations for diversification, liquidity, and situations in which investors choose to de-risk portfolios. Government securities may offer a hedge for unexpected international events or an economic slowdown and generally benefit from risk-off market events.

Investment-Grade (IG) Credit (Neutral): High-quality IG credit can allow portfolios to generate excess yield through spread premium (also known as "carry") that is meant to compensate investors for perceived issuer credit risk. We believe that, at times, IG corporate debt offers investors better carry and liquidity per unit of risk than can be found in many other fixed-income credit offerings, such as HY or securitized investments. Yet, currently, this sector appears to be fully valued. We also recommend a bias toward higher quality in the current market.

Investment-Grade Securitized (Neutral): Yield is an important component of an investor's sector selection, and the securitized sector can offer investors income opportunities that cannot be found in many other highly-rated, fixed-income securities. This sector can provide diversification to a fixed-income portfolio and generally has lower correlation to other sectors.

U.S. Municipal Bonds (Favorable): Municipals delivered positive YTD performance across most points on the yield curve. Shorter-term issues outperformed YTD. YTD issuance is approximately 14% below issuance for the same period last year. Yet, new issuance is expected to rise in September, which would weaken the recent market-supportive seasonal dynamic.

Municipal-to-Treasury yield ratios improved across the curve in August. Yet, shorter-maturity municipal issues remain expensive relative to Treasury securities. As we enter the fall season and assuming the typical supply increase occurs from the summer lows, we expect municipals to follow the Treasury market more closely. That is, we expect less of the strong supply/demand imbalance that led to the recent low water marks for municipal-to-Treasury yield ratios.

The federal municipal tax exemption should remain valuable as several tax deductions have been eliminated or reduced. In-state bonds have become a higher priority for buyers in high-tax states, including California and New York—as the federal deduction for state income taxes has been capped. Although lower corporate tax rates have reduced corporate demand for municipals, we expect rising bank demand, as regulation changes now allow municipal bonds to be classified as high quality liquid assets. We favor selectivity, higher quality, and essential service revenue bonds with dedicated revenue streams today.

For more information, please request our most recent *Investment Strategy* report or our *Monthly Fixed Income Guidance* report.

Equities

Market summary

U.S. equities moved steadily higher in August as market participants appeared to assign a relatively low probability to the occurrence of an all-out trade war. While all U.S. equity classes were positive last month, international equity markets all declined on concerns that escalating trade tensions would hurt international markets more than U.S. markets. There also are lingering worries about the potential for slowing global growth, the possibility of a faster-than-expected Fed rate hike pace, and the potential for higher inflation.

YTD, the major U.S. equity classes outperformed international equities by a wide margin as major overseas markets recorded YTD losses.

Market observations

U.S. equities: U.S. equities delivered another month of considerable outperformance versus their international counterparts. The S&P 500 Index returned 3.3%. The cyclical Information Technology (+6.9%) and Consumer Discretionary (+5.1%) sectors led August returns, while Energy (-3.3%) and Materials (-0.5%) were the only monthly performance detractors.

Mid caps returned 3.1% in August. In stark contrast to large caps, the top-performing sector was the defensive Telecom Services (+11.1%) sector, while the Materials sector was the weakest mid-cap sector (-3.3%).

Small-cap equities led all U.S. equity classes last month (+4.3%) and YTD (+14.3%). Telecom Services (+11.0%) outperformed, while the Energy sector (-1.8%) was weakest.

Growth widely outperformed Value across market capitalizations last month; it also continues to lead YTD.

International equities: Dollar strength resumed in August, pushing returns for dollar-denominated DM equities lower (-1.9%) than those of their local-currency counterparts (-1.7%). The same was true for dollar-denominated EM equities (-2.7%) versus local-currency EM stocks (-0.5%).

Most DM countries saw negative equity-market returns, but Israel delivered a solid gain (+3.1% in U.S.-dollar terms) on a generally positive second-quarter earnings season. Italy was weakest (-9.5% in U.S.-dollar terms) on political concerns ahead of the September Italian budget talks and as investors focused on the impact of a potential review of state concessions and regulation for utilities.

Country performance was mixed for EM equities. Korea led August returns (+1.9% in U.S.-dollar terms), despite ongoing tariff-escalation concerns. Turkey was the month's worst performer once again (-29.0% in U.S.-dollar terms), as the Turkish lira fell by approximately 30% and negative sentiment mounted.

Wells Fargo Investment Institute perspective

We continue to expect tax reform and fiscal stimulus to help fuel U.S. economic growth and better corporate earnings in the balance of 2018. Based on our current year-end target range for the S&P 500 Index, stocks appear to be at (or just ahead of) fair value at this point in time. Our forward 12-month target through September 2019 suggests that the index has just over 5% upside from current levels. Our year-end 2018 target ranges for the S&P 500 Index and Russell Midcap Index are 2800–2900, and 2200–2300, respectively.

Our year-end 2018 target range for the Russell 2000 Index of small-cap equities remains 1650–1750, and we retain our neutral guidance position. YTD small-cap outperformance has reduced potential upside to our year-end target. Lower expected return potential and richer valuations suggest the current neutral guidance is appropriate.

We recently upgraded our guidance on EM equities to favorable from neutral. EM equities have underperformed YTD, but we believe that the selling has gone beyond what the forward-looking fundamentals suggest should be the case. We now see an opportunity for investors to move funds into EM equities. Among the positives, valuations are now modest; we expect dollar weakness over the next 12 months; and the 3–5 year consensus EM earnings growth expectation is higher than is expected for most U.S. large-cap sectors. EM economies are earlier in their cycles than the U.S. economy is, and we do expect further EM earnings growth.

We look for improved earnings to help fuel DM equity gains through year-end. Our year-end 2018 target range for the MSCI EAFE Index is 2050–2150. DM risks include higher global interest rates, trade concerns, unexpected central-bank policy changes, and any material Chinese economic setback.

Equity index total returns

	MTD	QTD	YTD	1 year	3 year	5 year
U.S. Large Cap Equities	3.3%	7.1%	9.9%	19.7%	16.1%	14.5%
U.S. Large Cap (Growth)	5.5%	8.6%	16.4%	27.2%	19.3%	17.5%
U.S. Large Cap (Value)	1.5%	5.5%	3.7%	12.5%	12.3%	11.2%
U.S. Mid Cap Equities	3.1%	5.7%	8.2%	17.9%	13.4%	12.8%
U.S. Mid Cap (Growth)	5.8%	8.0%	13.9%	25.1%	15.3%	14.2%
U.S. Mid Cap (Value)	1.4%	4.1%	4.0%	12.7%	12.1%	11.8%
U.S. Small Cap Equities	4.3%	6.1%	14.3%	25.4%	16.1%	13.0%
U.S. Small Cap (Growth)	6.2%	8.1%	18.5%	30.7%	16.4%	14.2%
U.S. Small Cap (Value)	2.4%	4.2%	9.9%	20.0%	15.7%	11.7%
DM Equities Ex-U.S. (USD)	-1.9%	0.5%	-1.9%	4.9%	7.6%	6.2%
DM Equities Ex-U.S. (Local)[1]	-1.7%	0.9%	0.4%	6.9%	7.6%	9.0%
DM Small Cap Equity (USD)	-0.8%	-0.1%	-1.2%	7.9%	11.8%	10.4%
DM Small Cap Equity (Local)[1]	-0.4%	0.5%	1.1%	10.3%	11.6%	13.3%
EM Equities (USD)	-2.7%	-0.5%	-6.9%	-0.3%	11.8%	5.4%
EM Equities (Local)[1]	-0.5%	1.3%	-1.4%	4.7%	12.4%	8.8%
FM Equities (USD)	-5.4%	-1.9%	-12.4%	-5.5%	4.9%	4.0%
FM Equities (Local)[1]	-5.2%	-1.6%	-11.5%	-4.5%	7.2%	7.2%

Sources: Standard & Poor's, Russell Indexes, MSCI Inc., August 31, 2018.
DM indicates Developed Market; EM indicates Emerging Market; FM indicates Frontier 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 end of report for important definitions and disclosures.

Asset class guidance	Most unfavorable		Neutral		Most favorable
U.S. Large Cap Equities	□	□	□	■	□
U.S. Mid Cap Equities	□	□	□	■	□
U.S. Small Cap Equities	□	□	■	□	□
DM Equities Ex-U.S.	□	□	■	□	□
▲ EM Equities	□	□	□	■	□

▲: recent change. Source: Wells Fargo Investment Institute, September 18, 2018.

Equities

Wells Fargo Investment Institute forecasts

U.S. equities: Since early in 2018, investors have had numerous opportunities to put sidelined funds to work in the U.S. equity market. While the market action has been to the upside in recent weeks, we believe that volatility is likely to continue, offering buying opportunities in the intermediate term. We see positives in the new U.S. tax code and faster economic growth. For the S&P 500 Index, we forecast $152 in 2018 earnings (including tax-reform benefits), which could be a conservative estimate, given first- and second-quarter earnings results. Our official 2018 earnings forecast represents a 16.1% increase over 2017 earnings per share. Our year-end 2018 S&P 500 Index target range remains 2800–2900. For the Russell Midcap Index, our year-end 2018 target range stands at 2200–2300. We foresee mid-cap earnings of $110 this year. Our year-end 2018 target range for the Russell 2000 Index (small caps) is 1650–1750.

Foreign equities: International stocks underperformed YTD as slowing growth and trade concerns have appeared to pressure valuations. We recently upgraded our EM equity guidance to favorable, because we believe the selling has gone beyond what forward-looking fundamentals warrant. Valuations are now modest; we expect dollar weakness over the next 12 months; and we expect further EM earnings growth. While we generally have a more favorable view of U.S. equity markets than those abroad, we expect positive earnings revisions and steady economic data to support many international markets. For the MSCI EAFE Index, our 2018 earnings target is $130 and our year-end 2018 target range is 2050–2150. For the MSCI Emerging Markets Index, our year-end 2018 target range remains 1160–1240, and our 2018 earnings target is $88 per share. The biggest risks are from trade issues, the potential for rising global interest rates, any unexpected change in central-bank policies, and any material setback to China's economy.

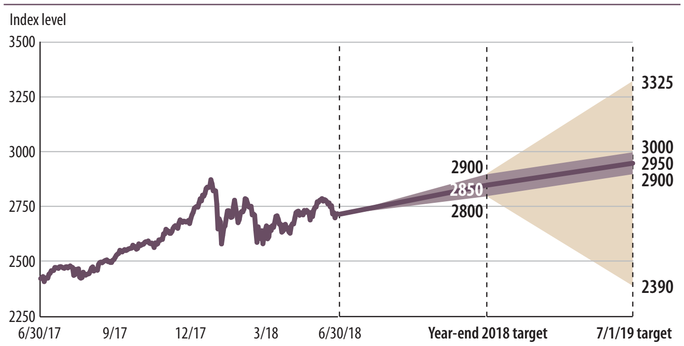
Global equities

	2018 year-end targets	2017	2016
S&P 500 Index	2800-2900	2674	2239
S&P 500 operating earnings per share	$152	$131	$117
Russell Midcap® Index	2200-2300	2078	1784
Russell 2000 Index	1650-1750	1536	1357
MSCI EAFE Index	2050-2150	2051	1684
MSCI Emerging Markets (EM) Index	1160-1240	1158	862

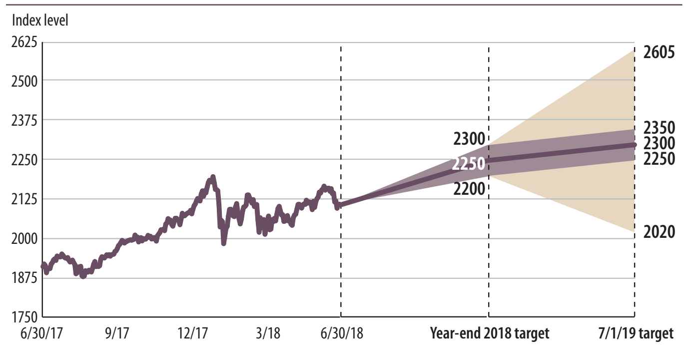
Sources: FactSet, Bloomberg, International Monetary Fund, and Wells Fargo Investment Institute; as of September 18, 2018. The 2018 year-end targets are Wells Fargo Investment Institute forecasts. Forecasts are based on certain assumptions and on our views of market and economic conditions, which are subject to change. See end of report for important definitions and disclosures.

Rolling 12-month forecasts

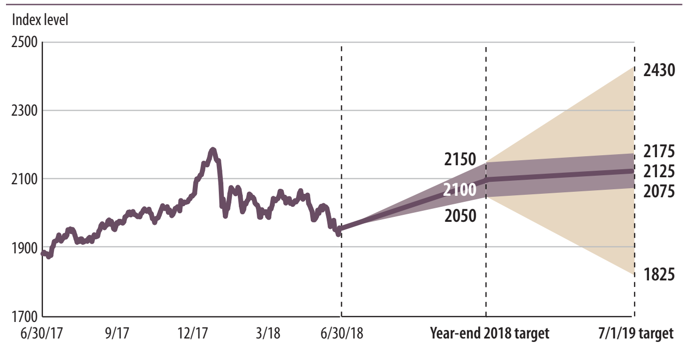
S&P 500 Index



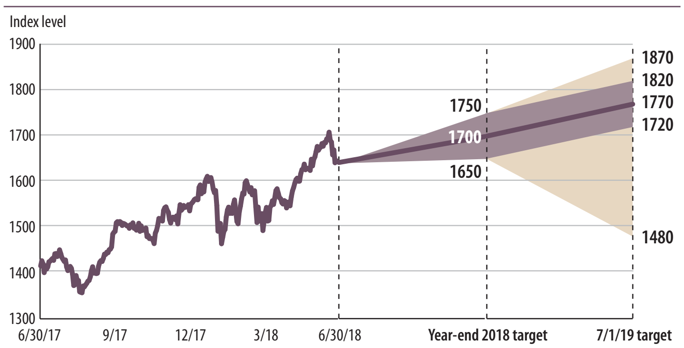
Russell Midcap Index



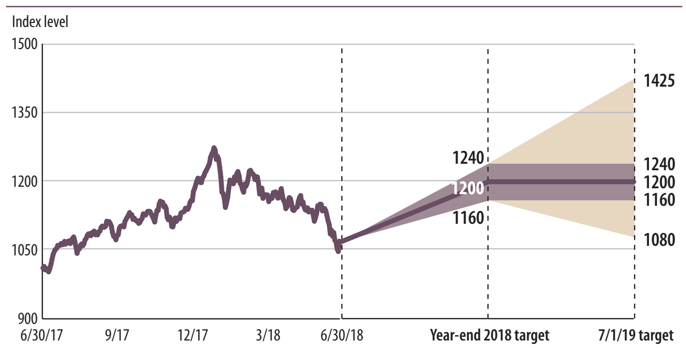
MSCI EAFE Index



Russell 2000 Index



MSCI Emerging Markets Index



Past performance is no guarantee of future results. Conviction range definitions are on page 7.

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Equities

U.S. equity sector strategy

Sector guidance

Sector	S&P 500 Index weight*	Rec. weight	Guidance: Most unfavorable		Neutral		Most favorable
Communication Services	9.9%	7.3%	□	■	□	□	□
Consumer Discretionary	10.2%	13.2%	□	□	□	■	□
▲ Consumer Staples	6.7%	6.7%	□	□	■	□	□
Energy	6.1%	3.5%	□	■	□	□	□
▲ Financials	13.7%	16.0%	□	□	□	□	■
Health Care	14.9%	17.6%	□	□	□	■	□
▲ Industrials	9.7%	12.7%	□	□	□	□	■
Information Technology	20.8%	20.5%	□	□	■	□	□
Materials	2.5%	2.5%	□	□	■	□	□
▼ Real Estate	2.6%	0.0%	□	■	□	□	□
Utilities	2.8%	0.0%	■	□	□	□	□
Total	100.0%	100.0%					

▲/▼: recent change. Sources: Bloomberg, Wells Fargo Investment Institute. Weightings are as of September 25, 2018. WFII guidance is as of September 28, 2018. *Sector weightings may not add to 100% due to rounding.

Total returns: S&P 500 Index sectors

Sector	1 month	Year to date	12 months
S&P 500 Index	3.3%	9.9%	19.7%
Consumer Discretionary	5.1%	19.4%	32.3%
Consumer Staples	0.5%	-4.3%	1.0%
Energy	-3.3%	4.8%	22.1%
Financials	1.4%	2.4%	16.9%
Health Care	4.4%	13.3%	16.1%
Industrials	0.3%	2.6%	13.2%
Information Technology	6.9%	21.0%	32.8%
Materials	-0.5%	-0.7%	10.0%
Real Estate	2.5%	4.4%	6.3%
Telecom Services	3.0%	-3.4%	3.6%
Utilities	1.1%	3.3%	0.7%
WFII weighted guidance	3.5%	11.0%	21.3%

Source: FactSet, August 31, 2018.
An index is unmanaged and not available for direct investment
Past performance is no guarantee of future results.

Communication Services (Unfavorable): We are initiating guidance on this sector with an unfavorable rating. Unlike the top-rated Financials sector, this newly launched sector rates the lowest for its combined payout from dividends and share buybacks. Analyst forecast dispersion is high, indicating low conviction in the average analyst forecast. Return on equity is subpar relative to most of the sectors we favor.

Consumer Discretionary (Favorable): Consumer Discretionary has significantly outperformed YTD. Tax reform, robust consumer confidence, rising home values, and a strengthening labor market should continue to fuel consumer spending this year.

Consumer Staples (Neutral): We have upgraded this sector to neutral from most unfavorable. Consumer Staples recently has underperformed, but valuation indicators such as the trailing 12-month price/earnings (P/E) and price-to-free-cash-flow ratios have improved. Our sector quality rankings outpace those of all other sectors. Debt levels, earnings dispersion, and return on equity all signal attractive sector opportunities that are in sharp contrast to those of recent years.

Energy (Unfavorable): Our analysis suggests that Energy-sector valuations are not inexpensive. Even with elevated oil prices, this sector has underperformed YTD. Our concern is global oil supply versus demand. We expect lower oil prices by year-end. Lower energy prices likely would lead to lower Energy-sector equity prices.

Financials (Most Favorable): We have upgraded Financials to most favorable from favorable. Our valuation work shows that this sector rates best among the 11 sectors; it is the only GICS sector with a trailing P/E ratio below 19x. This sector has benefited from the new tax code. We expect rising interest rates, strong economic growth, and better loan demand ahead, which should help Financials.

Health Care (Favorable): We believe that demographic trends and relative valuations remain attractive for this sector. Health Care has outperformed YTD with a strong double-digit return. Political uncertainty is a headwind; repeal of the health-care mandate (effective in 2019) could prompt Congress to revisit Affordable Care Act repeal.

Industrials (Most Favorable): We have upgraded Industrials to most favorable from favorable. Our most favorable position reflects our expectation for better global economic growth and increased business capital expenditures (capex). This sector historically has performed well late in the cycle. Lower federal taxes have been supportive. A trade war would be negative for Industrials.

Information Technology (Neutral): Information Technology (IT) has delivered a double-digit YTD gain and significantly outperformed. We expect better global growth to continue benefiting IT. A capex increase should boost revenue and support earnings. IT remains the most heavily-weighted S&P 500 Index sector, at just over 20%.

Materials (Neutral): Materials has delivered a negative YTD return as commodities have declined. We recently upgraded our guidance on commodities. We expect modestly improving global growth.

Real Estate (Unfavorable): We have downgraded the Real Estate equity sector to unfavorable from neutral. Real Estate was in the bottom half of all equity sectors based on our value and growth pillars; it is at the bottom based on our quality indicators. Price-to-free-cash-flow is high, while total yield is low. We expect interest rates to rise; we see that as a sector headwind. Historically, the combination of rising rates and an aging economic cycle frequently has led to sector underperformance.

Utilities (Most unfavorable): This sector has an above-average dividend yield, but the defensive Utility sector significantly underperformed YTD. Further interest-rate increases are a likely headwind.

Growth versus Value (Neutral): The IT and Consumer Discretionary sectors contain a heavy allotment of growth companies and have led the market higher over the past two years. When most cycles reach their final stages, Growth usually outperforms Value. Yet, for now, we remain neutral.

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

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Equities

International equity market strategy

Developed Market Ex.-U.S. Equities

Europe region (Neutral). Our conviction on the region has softened recently; yet we maintain our neutral rating on European equities.

Economic: Economic surprises edged higher in August after a disappointing start to the year. Backward-looking data confirms that the European economy remains in expansion mode, and recent forward-looking reports suggest a continuation of this trend.

Market valuations: On the whole, valuations are balanced this month as the European stock rally eased in August. Earnings growth nevertheless remains positive on a YoY basis.

Market internals: Our market internals work is biased toward unfavorable market conditions and our technicals have remained largely bearish on U.K. equities.

Pacific region (Favorable). Our favorable Pacific-region rating remains unchanged. Valuations have improved over the past month and data suggests that the regional economy is steadying.

Economic: Recent measures of long-term economic growth reflect softer, yet positive, activity for Australia and Japan (when compared with longer-term trends). Economic data recently has broadly surprised to the upside.

Market valuations: Continued market volatility in August, coupled with rising earnings growth, has supported the region's attractive valuations. While economic indicators have come off this year's highs, positive earnings-growth momentum nevertheless appears intact.

Market internals: Internals and sentiment measures reflect generally balanced market conditions after a bout of heightened market volatility during the second quarter. Longer-term technical work supports upward price momentum in Pacific-region stocks (versus the broad stock benchmark).

Emerging Market Equities

Emerging Asia (Neutral). Emerging Asia equity markets appear to be trending back toward favorable conditions, yet we maintain our neutral regional rating as economic conditions recently have moderated.

Economic: A mix of positive and negative economic surprises, coupled with a more neutral bias in China's long-term growth dynamics, suggests that economic growth momentum, while positive, may be leveling off.

Market valuations: Equity markets in Emerging Asia generally are more attractively valued as prices eased last month and corporate earnings continued to grow. We expect an ongoing regional earnings recovery to support more favorable valuations going forward. Trade-related concerns are likely to keep volatility elevated in the region's markets.

Market internals: Market internals recently have eased, with a slightly negative bias. Excessive trading volumes have contributed to weaker market internals, while technical indicators continue to favor the region.

Emerging Europe, Middle East and Africa (EMEA) region (Neutral). Improvement in the EMEA region's economic, earnings, and market environment continue to underpin our neutral rating. We expect that ongoing geopolitical concerns and commodity-price volatility may challenge investment sentiment in the region.

Economic: Strengthening growth trends, and higher incidences of positive data-release surprises, continue to characterize the generally improving regional economic environment. We believe that this trend could persist in the remainder of 2018, but it is likely to face policy-related headwinds, particularly in Russia.

Market valuations: Valuations have evened out from generally favorable conditions in August. Earnings growth accelerated in 2017 and has remained positive to date in 2018.

Market internals: Internals and market sentiment indicators are generally positive this month. This balances against our technical work, which reflects an unfavorable rating when measured against the broader EM benchmark over a longer time period.

Latin America region (Neutral). Our neutral guidance for Latin America largely reflects improvement in economic and earnings fundamentals, yet we maintain a cautious near-term outlook on the region's markets. We expect heightened levels of equity-market volatility in the region, given ongoing political uncertainties.

Economic: Growth measures have shown that Brazil's economy continues to exhibit signs of improvement. Long-term measures of economic activity in Mexico were more favorable last month, despite pressures from trade-policy uncertainties and a weaker peso.

Market valuations: Valuations for Latin American equities are once again attractively priced as stocks sold off in August. Earnings growth remains positive for the region as a whole.

Market internals: Market internals are balanced this month. Long-term technicals suggest that Latin American equities may continue to face headwinds in the coming months.

International equity guidance by region

Region	Benchmark weight*	Regional guidance: Most unfavorable		Neutral		Most favorable
Developed Market Ex.-U.S. Equities		□	□	■	□	□
Europe	61%	□	□	■	□	□
Pacific	39%	□	□	□	■	□
▲ **Emerging Market Equities**		□	□	□	■	□
EM Asia	75%	□	□	■	□	□
EM Europe, Middle East and Africa	13%	□	□	■	□	□
Latin America	12%	□	□	■	□	□

▲: recent change. Source: Wells Fargo Investment Institute, September 18, 2018.
* Benchmarks are MSCI EAFE for DM and MSCI Emerging Markets for EM.

We provide additional context for the regional guidance in our *International Strategy* reports.

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Real Assets

Market summary

Trade-war fears continued to weigh on commodity prices in August (-1.8%). Public real estate and MLPs performed well last month (+1% and +1.6%, respectively) as long-term interest rates declined and oil prices held strong.

REITs and MLPs

Market observations

Real estate investment trusts (REITs): The FTSE EPRA/ NAREIT Developed Index (which encompasses both U.S. and international REITs) continues to make new all-time highs, fueled by benign interest rates, a strong economy, resilient property prices, and decent fundamentals. The rampant fear of runaway interest rates that disrupted REITs in February has faded in the rearview mirror, but the risk of higher interest rates remains. The stronger dollar (and U.S. economy) helped U.S. REITs to outperform international REITs in August. REIT valuations are less compelling than they were earlier this year, but we believe that public real estate fundamentals will remain sound. Yet, we expect that the trend in interest rates will be higher. These developments may make it difficult for REITs to outperform. We hold a neutral rating on public real estate.

Master limited partnerships (MLPs): Following MLPs' strong 6% July return, this asset class saw a "tale of two halves" in August. In the month's first half, MLPs were up nearly 6%. Yet, they weakened later in August, which may have offered a healthy breather. The fundamental story for MLPs continues to strengthen after a dismal past few years. MLPs have lost more than 30% since their 2014 peak, even after accounting for dividends. Due to this prolonged underperformance, MLPs are relatively cheap when compared with most other asset classes. Yet, cheapness alone is not an adequate reason to turn favorable on an asset class. MLP relative strength has improved recently, which may prompt us to adopt a more constructive view on the class in the future. We retain our neutral position on MLPs today.

Wells Fargo Investment Institute perspective

REITs and MLPs typically can provide income opportunities for investors, but the main drivers for these two classes differ. For REITs, higher interest rates are a headwind, while fundamentals remain generally sound. As noted, we hold a neutral view on public real estate. For MLPs, we believe that investors' search for yield and relative valuation are positives. We are neutral on MLPs and recommend that investors considering the asset class look at high-quality, midstream MLPs that are large and liquid.

Commodities

Market observations

Most commodity sectors had negative returns in August. The Energy sector was the only commodity sector to post a positive return. At this point in the bear super-cycle, we expect the divergence in individual commodity prices to widen.

Energy: Oil prices rallied in the second half of August as the dollar weakened and global supplies tightened. Production cuts by Saudi Arabia and Russia—and falling inventories in the U.S.—have supported prices. Additionally, demand has improved, especially for refined products. Uncertainties surrounding trade tensions and some geopolitical-related supply disruptions may contribute to greater oil-price volatility in the near term. Natural-gas prices also rose as inventories have risen more slowly than is typical for this time of year. Demand has been strong, but it could start to slip as we exit the cooling season.

Metals: Precious-metals prices declined last month. Global trade tensions have not led to an increase in demand for gold as a perceived safe haven, and higher interest rates have pressured metals prices lower. Base metals also have suffered despite signs of stronger demand. Investors continue to show concern over the impact of tariffs and trade disputes on global economic growth and industrial-metals demand.

Agriculture: The agriculture sector weakened in August due to uncertainty surrounding demand, especially for soybeans. Some underlying fundamentals remain unfavorable for agricultural commodities' prices overall, as weather conditions and crop progress remain good. In fact, expectations are for record corn and soybean global production. Yet, further weakening in the dollar and potential easing of trade tensions could benefit agricultural commodities, since global demand remains healthy.

Wells Fargo Investment Institute perspective

We believe that most commodity prices continue to suffer headwinds from general oversupply and higher interest rates. However, a healthy global economy, increased inflation expectations, and geopolitical concerns could support certain commodities' performance. Furthermore, some dollar weakness through year-end and potential easing in trade tensions could provide additional support for the commodity asset class. We hold a favorable view of commodities, as there may be some upside in the tactical time horizon.

Real assets index total returns

	MTD	QTD	YTD	1 year	3 year	5 year
Public Real Estate	1.0%	1.9%	2.8%	6.5%	8.3%	8.0%
U.S. REITs	2.4%	3.0%	4.3%	6.1%	10.6%	10.9%
International REITs	-0.9%	0.3%	0.3%	6.0%	7.4%	5.8%
Master Limited Partnerships	1.6%	8.3%	7.6%	7.3%	-0.7%	-2.0%
Global Infrastructure	-2.4%	-0.7%	-3.7%	-3.7%	7.4%	7.7%
Commodities (BCOM)	-1.8%	-3.9%	-3.9%	0.5%	-1.9%	-8.0%
Agriculture	-6.0%	-3.4%	-9.0%	-10.9%	-6.2%	-10.0%
Energy	3.8%	-0.8%	11.8%	26.1%	-4.7%	-14.4%
Industrial Metals	-4.3%	-8.8%	-13.7%	-8.0%	6.6%	-1.5%
Precious Metals	-3.1%	-5.7%	-10.4%	-11.6%	0.7%	-5.2%

Sources: Public Real Estate: FTSE EPRA/NAREIT Developed Index. Domestic REITs: FTSE NAREIT All Equity REITs Index. International REITs: FTSE EPRA/NAREIT Developed ex-U.S. Index. MLPs: Alerian MLP Index, Bloomberg, August 31, 2018. 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 end of report for important definitions and disclosures.

Asset class guidance	Most unfavorable		Neutral		Most favorable
Public Real Estate	☐	☐	■	☐	☐
Private Real Estate	☐	☐	■	☐	☐
▲ Commodities	☐	☐	☐	■	☐

▲: recent change. Source: Wells Fargo Investment Institute, September 18, 2018.

Real Assets

Wells Fargo Investment Institute forecasts

Commodities: We have increased our year-end 2018 West Texas Intermediate (WTI) crude-oil price target range by $5 to $55-$65 a barrel. We still expect oil prices to weaken through year-end, but supply and demand have balanced more quickly than was expected. Gold-price volatility could rise as interest rate, dollar, and geopolitical uncertainties persist. Investor sentiment could weaken, but our expectations for a weaker dollar through year-end could provide some gold-price support. We expect gold prices to end 2018 between $1,250 and $1,350 per troy ounce.

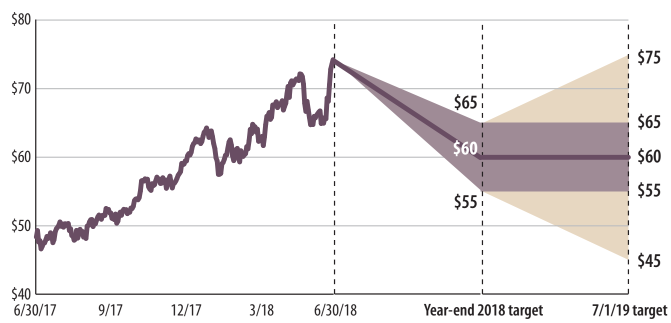
Global real assets

	2018 year-end targets	2017	2016
▲ West Texas Intermediate crude oil price ($ per barrel)	$55-$65	$60	$54
▲ Brent crude oil price ($ per barrel)	$60-$70	$67	$57
Gold price ($ per troy ounce)	$1,250-$1,350	$1,309	$1,152

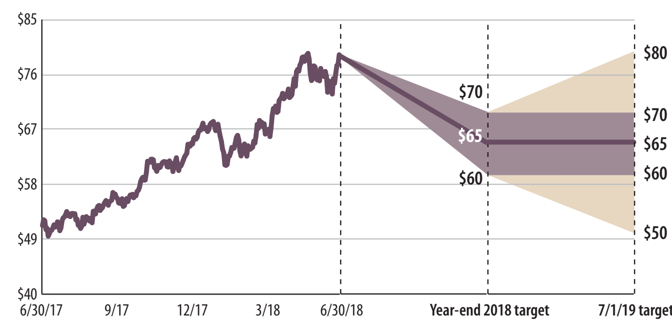
▲: recent change. Sources: FactSet, Bloomberg, International Monetary Fund, and Wells Fargo Investment Institute; as of September 18, 2018. The 2018 year-end targets are Wells Fargo Investment Institute forecasts. Forecasts are based on certain assumptions and on our views of market and economic conditions, which are subject to change. See end of report for important definitions and disclosures.

Rolling 12-month forecasts

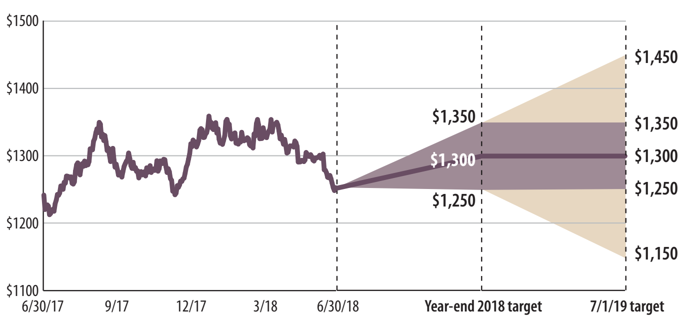
West Texas Intermediate crude oil



Brent crude oil



Gold



Past performance is no guarantee of future results. Conviction range definitions are on page 7.

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

Alternative Investments*

Market summary

Early estimates from Hedge Fund Research, Inc. (HFR) indicate a 0.7% August return for hedge funds. Relative Value strategies were flat overall; yet the Fixed Income Arbitrage strategy had a difficult month. Systematic Macro strategies benefited as geopolitical tensions drove price trends in commodity markets. Event-Driven managers' results were fueled by positive developments in certain merger and acquisition (M&A) deals. Equity Hedge rose as stock correlations dropped to near historic lows.

Relative Value: Long/Short Credit managers continue to seek "fallen angel" opportunities via short exposure to longer duration IG bonds. (Fallen angels are companies that experience ratings downgrades that move their debt from investment grade to high yield.) This global market has nearly doubled in size over the past decade. Rising rates could fuel downgrades, given high leverage levels relative to earnings growth.

Macro: Systematic Macro managers benefited from sustained commodity trends and volatility, driven by geopolitical tensions. Tensions between the U.S. and China drove declines in base-metal prices on fears over weakened economic growth, particularly in China.

Event Driven: Trade-war concerns remain a headwind; however, M&A activity provided Merger Arbitrage managers with trading opportunities. Deals involving increased offer prices and competing bids drove returns, along with a complex deal in which a large Activist investor ended resistance to an acquisition, which drove appreciation in the target company's equity price and a merger-spread collapse.

Equity Hedge: The growth-oriented Energy, Consumer Discretionary, and Information Technology sectors drove August returns for Equity Hedge managers (along with strong return dispersion across regions).

Alternative investments index/strategy total returns

	MTD	QTD	YTD	1 year	3 year	5 year
Global Hedge Funds	0.7%	1.2%	2.0%	5.3%	5.1%	4.6%
Relative Value	0.0%	1.0%	2.7%	4.2%	4.7%	4.5%
Arbitrage	-2.3%	-1.4%	1.2%	0.6%	3.9%	3.1%
Long/Short Credit	-0.5%	0.4%	1.4%	4.0%	5.8%	4.5%
Struct Credit/Asset-Backed	0.1%	0.5%	3.9%	5.8%	5.3%	6.3%
Macro	0.9%	0.7%	-1.1%	0.4%	0.6%	1.6%
Systematic	2.3%	1.7%	-2.4%	0.1%	-0.6%	1.7%
Discretionary	-1.3%	-1.4%	-0.5%	-1.2%	-0.4%	0.2%
Event Driven	0.2%	0.6%	2.6%	5.3%	5.9%	4.6%
Activist	1.0%	1.0%	2.6%	4.4%	6.4%	6.6%
Distressed Credit	0.2%	1.4%	4.3%	6.6%	6.6%	4.1%
Merger Arbitrage	0.6%	0.2%	2.9%	3.6%	3.9%	3.6%
Equity Hedge	0.8%	1.5%	2.6%	7.6%	7.0%	5.9%
Directional Equity	1.5%	1.5%	3.3%	6.1%	5.5%	5.6%
Equity Market Neutral	0.6%	0.7%	1.6%	4.1%	3.7%	3.8%

Source: Hedge Fund Research, Inc., August 31, 2018.
Returns over one year are annualized.
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See end of report for important definitions and disclosures.

Market observations

Stock correlations declined sharply, continuing a downward trend, which boded well for certain managers' stock selection (along with material sector and regional return dispersion). Drivers included competition in the banking/finance sector. EM equities declined as U.S. stock markets appreciated, driven by a strong U.S. dollar and EM-contagion fears stemming from volatility experienced in Turkey, Brazil, and Russia. In credit markets, EM stress led to EM sovereign debt trading at a wider spread than U.S. HY debt for the first time since 2005, creating headwinds for Fixed Income Arbitrage managers.

Wells Fargo Investment Institute perspective

Relative Value: We have a favorable view on Relative Value, and recommend combining Structured Credit with Long/Short Credit strategies. Structured Credit historically has low interest-rate sensitivity; it relies more on the U.S. consumer and economic growth. Long/Short Credit strategies can provide downside protection if the corporate credit market deteriorates, especially with possible episodic inflation and interest-rate fears.

Macro: While our overall view on the Macro strategy is neutral, we continue to expect Discretionary Macro strategies to navigate sudden sentiment reversals (due to a volatile geopolitical environment) with faster speed than Systematic Macro/Trend Following strategies.

Event Driven: Defaults remain near historically low levels, but expectations are for "localized" stresses to rise in certain sectors or industries which could provide opportunities for Distressed managers. The spike in global deal volume and more complex deals is providing near-term Merger Arbitrage opportunities, but as credit conditions weaken, we anticipate a shift in favor of Distressed strategies.

Equity Hedge: Escalating tariff-war concerns and rising rates have led to increased stock dispersion at the sector and geographic levels, providing opportunities for long and short alpha.

Private Equity: While we remain neutral on Private Equity, we have a high level of conviction in certain niche strategies and geographies in which valuations are more attractive and capital-market funding is tighter. Smaller market buyout funds have the potential to generate strong returns through a less competitive marketplace and with the generally higher growth potential of smaller firms.

Private Debt: We remain constructive on Private Debt funds, due to their historical ability to capitalize on illiquidity to deliver expected cash yields and total returns at a premium to those available in public or broadly syndicated debt markets. Additionally, several Private Debt strategies have benefited from rising rates, due to their issuance of floating-rate debt.

Private Real Estate: We remain neutral on Private Real Estate, which continues to be supported by economic expansion, with increases for all property types during the second quarter. However, further interest-rate increases will affect the cost of capital required to purchase, finance, and develop properties, and further price appreciation could encounter headwinds.

*Alternative investments are not suitable for all investors. They are speculative and involve a high degree of risk that is suitable 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 end of this report for important definitions and disclosures.

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Alternative Investments*

Private placements and liquid alternatives

Alternative investment strategies outlook*

Private placements	Guidance: Most unfavorable		Neutral	Most favorable	
Relative Value	□	□	□	■	□
Arbitrage	□	□	■	□	□
Long/Short Credit	□	□	□	■	□
Structured Credit/Asset-Backed	□	□	□	■	□
Macro	□	□	■	□	□
Systematic	□	■	□	□	□
Discretionary	□	□	□	■	□
Event Driven	□	□	■	□	□
Activist	□	□	■	□	□
Distressed Credit	□	□	□	■	□
Merger Arbitrage	□	□	■	□	□
Equity Hedge	□	□	□	□	■
Directional	□	□	□	□	■
Equity Market Neutral	□	□	■	□	□
Private Equity	□	□	■	□	□

Liquid alternatives	Guidance: Most unfavorable		Neutral	Most favorable	
Relative Value	□	□	■	□	□
Macro	□	□	■	□	□
Event Driven	□	□	■	□	□
Equity Hedge	□	□	□	■	□

Sources: Wells Fargo Investment Institute, Wilshire Liquid Alternative Index family, September 18, 2018.

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. It is also important to note that liquid alternative mutual funds typically have higher fees than traditional mutual funds but their fees are lower than those of private placement hedge funds.

Liquid alternatives are designed to provide retail investors access to strategies utilized by hedge funds and provide investors an "alternative" way to add returns less correlated to traditional assets such as stock, bonds and cash and improve diversification. Relative to broad, long-only traditional asset class mutual funds, liquid alternatives may employ more complex strategies including hedging and leveraging through short selling and derivatives and might invest in assets such as global real estate, commodities, leveraged loans, start-up companies and unlisted securities. Although liquid alternatives may seek to mimic hedge fund strategies, these funds cannot fully duplicate the broad hedge fund industry. Moreover, the regulatory structure under which liquid alternatives are governed may affect their return potential. As noted above, among other things, their use of leverage, investments in illiquid securities and concentration limits are curtailed and thus they are not able to employ hedge fund strategies as fully as private placement vehicles.

Investors should fully understand the strategies and risks of any liquid alternative mutual fund they are considering and keep in mind that many of them have limited performance histories so it is not known how they might perform in a down market. Please see the end of this report for other risks associated with these funds and for a description of the hedge fund and liquid alternative hedge fund replication strategies.

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.

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For more information, please request our most recent *Global Alternatives Outlook* or our *Investment Strategy* report.

Currency Hedging Guidance

The U.S. dollar versus developed-market currencies

Market observations and outlook

Although the U.S. Dollar Index (DXY) saw a sharp reversal from August highs of almost 97.00 after mid-month, month-end levels just over 95.00 were still 0.6% higher than July's close. The euro ended the month some 0.8% weaker, at approximately 1.16, but it was sharply off lows of almost 1.13, after President Trump suggested that China and the eurozone were manipulating their currencies. Yet overall, DM currencies saw less volatility than those of EMs—and they mostly reversed July's moves. This meant that the Australian and New Zealand dollars were weaker, and the yen was some 0.7% stronger. The British pound weakened further in the first half of August on continued fears of an economically damaging Brexit outcome, before partially reversing course later. We have amended our year-end 2018 forecast from 1.18-1.26 to 1.12-1.20 dollars per euro and slightly weakened our yen forecast from 102-112 to 104-114 yen per dollar. On a one-year horizon, we now anticipate a euro range of 1.16-1.24 and a yen range of 102-112. The DXY levels implied by the midpoints of these ranges are around 95.00 for year-end 2018, falling back to 92-93 by the middle of 2019, indicating that we still expect a profile of moderate dollar depreciation.

Year-end 2018 currency targets

	August 31, 2018	Year-end 2018 forecasts	Expected return versus U.S. dollar
▼ Dollars per euro	$1.16	$1.12-$1.20	0.0%
▲ Yen per dollar	¥111	¥104-¥114	1.9%

▲/▼: recent change.
Source: Wells Fargo Investment Institute, September 18, 2018.

The U.S. dollar versus emerging-market currencies

Market observations and outlook

August saw worsening volatility in EM currencies, with both the Turkish lira and the Argentine peso seeing falls of around 30%. Although both economies suffered from a relatively idiosyncratic mix of external vulnerability and policy challenges, selling spilled over into markets for other major currencies, such as the South African rand and the Brazilian real. Overall, the JP Morgan Emerging Markets Currency Index (EMCI) fell by 6.4% last month. However, it is worth noting that Asian currencies performed much better overall, due to more resilient economies and to Chinese measures to stabilize the yuan. An index of currencies mirroring the weighting of the MSCI Emerging Markets Index (of equities) dropped by only 2.0%. Just as we anticipate that the U.S. dollar eventually will resume its decline against DM currencies, we believe that the EM currency sell-off likely has been overdone. Political risks and ongoing trade confrontations may keep pressure on in the near term. Yet, we do expect a resilient global economy to provide a supportive backdrop for EM currency stabilization and modest EM currency appreciation over the coming year.

Currency hedging

Based on our views on the direction of the dollar, we provide our currency-hedging guidance in the matrix below. For DM fixed income, we do not recommend hedging any portion of DM bond holdings, since our outlook for DM currencies over the coming year is for further appreciation against the dollar. While we acknowledge that wide currency swings are possible, our strategic benchmark is unhedged (that is, taking the exposure to DM currencies), so we would require greater conviction that the U.S. dollar would appreciate strongly before suggesting hedging some of this currency risk.

For EM fixed income, the strategic benchmark consists exclusively of dollar-denominated sovereign EM bonds—so our favorable stance on this debt class and our relatively neutral view on the dollar versus EM local currencies suggest that 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	No hedge
Emerging Market Equities	Local currency	No hedge

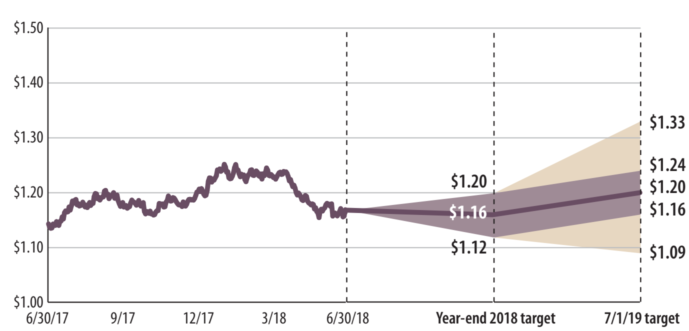
Source: Wells Fargo Investment Institute, September 18, 2018.

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.

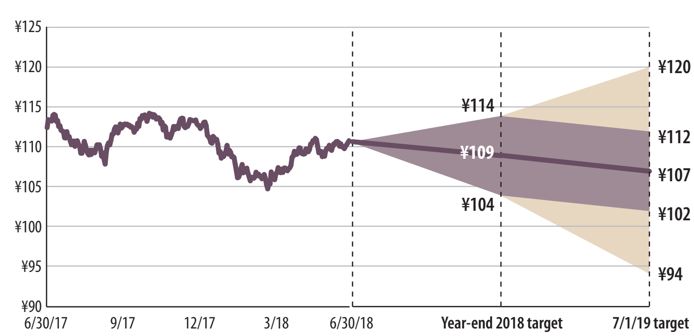
We do not favor hedging currency risk for equities at this time. The hurdle to hedging currency risk is higher for equities than for bonds because, in equity markets, currency movements have had a smaller influence on total return than for fixed income. Further, the cost and complexity of currency hedging 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.

Rolling 12-month forecasts

Dollar/Euro exchange rate



Yen/Dollar exchange rate



Past performance is no guarantee of future results. Conviction range definitions are on page 7.

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Investment Themes and Actions for 2018

Theme	Trends	Strategic (long-term investments)	Tactical (short-term opportunities)
Balancing risk and reward	Investing involves seeking compensation for taking calculated risks. Today, there are asset classes for which risks may outweigh potential rewards. Many asset classes appear fully-priced to overpriced, and prices could keep moving higher.	In this environment, we believe that investors should maintain a diversified portfolio based on their investment objectives, time horizon, and risk tolerance. We recommend rebalancing portfolios regularly to account for shifts in sentiment and asset values.	We believe that investors should utilize tactical asset allocation and active management in certain asset classes. Investors should remain flexible and seek to capitalize on asset mispricing. We recommend employing active management in international equities and hedge funds (for qualified investors) to seek to enhance return potential and mitigate downside risk. We have a favorable view of U.S. large- and mid-cap equities. Meanwhile, high-yield corporate and high-yield municipal bonds appear overvalued.
Investing late in a bull market	The current equity bull market (as measured by the S&P 500 Index) turned nine years old on March 9, 2018. To date, this is the second longest bull market on record, with the third highest return. We believe that this upcycle is closer to the end than the beginning, but we are not calling for it to be over in 2018.	We believe that investors should maintain equity exposure, since the final years of a bull market have tended to be strong. We also believe that it is important to invest globally, because international markets are likely earlier in their economic cycles than the U.S. We recommend bonds for income and to counterbalance volatility. Diversifying portfolios and regularly rebalancing back to strategic targets can help to prepare a portfolio for a correction.	We recommend a mix of active and passive strategies appropriate for current market trends and investor situations. We believe that investors should hold appropriate levels of cash alternatives. At this point in the cycle, we have a favorable outlook for cyclical sectors such as Consumer Discretionary, Financials, and Industrials (as opposed to defensive sectors). Due to lower relative yields, we hold an unfavorable outlook for Developed Market ex-U.S. Fixed Income.
Tomorrow's technology	A dazzling array of technological advancements continues to amaze us. These include machine learning, robotics, and automation. Yet, technology advancements come with tradeoffs, such as cyberattacks or data breaches. Consumer convenience may be offset by disruptions to industries and to productivity.	We have seen mounting investor interest (indicated by rising market caps) in the Information Technology sector, and we expect this trend to continue. Investment opportunities may exist in companies and sectors outside of technology that can effectively deal with cyberattacks or use technology to help improve productivity growth.	We currently maintain a neutral position in Information Technology. Improving global growth rates should continue to benefit this sector.
The new approach to retirement	Traditionally, retirement generally meant leaving behind a 9-to-5 job and spending time with family, volunteering, or traveling. But that may be changing. As Baby Boomers approach retirement, many wonder if they can afford it. For some, a job may be necessary; for others, working part-time helps them to stay engaged, and postpone dipping into savings. We believe that today's retirees should plan for a long retirement, as many could risk outliving their savings.	We believe that developing the habit of saving for retirement in the early years may make achieving a retirement savings goal more attainable. We suggest a strategic asset allocation that includes fixed income, equities, real assets, and alternative investments (for qualified investors), based on long-term objectives. In our opinion, younger workers should take advantage of time and start saving for retirement today.	We believe that equities are vital for most retirement accounts. Investors may want to consider owning a mix of dividend-paying value-tilted stocks for potential income, along with growth stocks for capital appreciation potential and to offset inflation. Workers nearing retirement age may be able to take advantage of annual "catch up" contributions in defined contribution plans. The IRS allows workers age 50 and older to make additional tax-deferred contributions.

Tactical Guidance

Recommended tactical guidance

Emerging Market Equities upgraded to favorable (from neutral).
Commodities upgraded to favorable (from unfavorable).

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 long/short equity strategies: These strategies provide diversification in an equity portfolio by utilizing both long and short exposures to the asset class. While they provide diversification, investors should expect higher tracking error to traditional benchmarks from these strategies. Prudent use through controlled allocations is recommended.

Most unfavorable	Unfavorable	Neutral	Favorable	Most favorable
		Cash and fixed income		
U.S. Long Term Taxable Fixed Income	U.S. Taxable Investment Grade Fixed Income High Yield Taxable Fixed Income Developed Market Ex.-U.S. Fixed Income	Cash Alternatives U.S. Intermediate Term Taxable Fixed Income	U.S. Short Term Taxable Fixed Income Emerging Market Fixed Income	
		Equities		
		U.S. Small Cap Equities Developed Market Ex.-U.S. Equities	U.S. Large Cap Equities U.S. Mid Cap Equities Emerging Market Equities**	
		Real assets		
		Public Real Estate Private Real Estate	Commodities**	
		Alternative investments*		
		Hedge Funds–Macro Hedge Funds–Event Driven Private Equity	Hedge Funds–Relative Value	Hedge Funds–Equity Hedge

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**Changed this month.

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Tactical Guidance

Tactical guidance summary

	Asset class	Guidance: Most unfavorable		Neutral	Most favorable		Rationale and further detail
FIXED INCOME	U.S. Taxable Investment Grade Fixed Income	□	■	□	□	□	Stronger U.S. economic data should put upward pressure on yields. High-quality bond yields have risen as second-quarter GDP growth exceeded 4%. We believe that taxable total return expectations should be tempered, given rising yields. We also believe that price risk should be relatively muted by gradual Fed rate hikes, modest inflation expectations, and low global rates overall.
FIXED INCOME	U.S. Short Term Taxable	□	□	□	■	□	Short-term rates have risen since the end of 2017, flattening the yield curve and improving the interest-rate profile for this class. Investing in short-term securities can offer lower risk than longer-term issues, which can help mitigate the impact of unexpected rate increases. The Fed's measured rate-hike pace has created roll-down opportunities on the short end of the curve.
FIXED INCOME	U.S. Intermediate Term Taxable	□	□	■	□	□	We expect the Fed to continue following a measured rate-hike pace this year. Yields on intermediate-maturity bonds remain above 2017 year-end levels, and appear moderately attractive. We favor maintaining some exposure to intermediate bond issues.
FIXED INCOME	U.S. Long Term Taxable	■	□	□	□	□	Increasing uncertainty over Fed rate increases, higher inflation potential, and fiscal and trade policy ambiguity present this class with a wide range of potential outcomes. Our most unfavorable rating reflects our concern over rising yield risks for long-term issues.
FIXED INCOME	High Yield Taxable Fixed Income	□	■	□	□	□	Despite generally deteriorating fundamentals and higher leverage, the yield spread is near historically low levels. We believe that HY debt investors face an asymmetric risk/return tradeoff. Given current valuations, we view upside as limited. We believe that any market swing to "risk-off" positioning would push HY spreads higher, resulting in underperformance.
FIXED INCOME	Developed Market Ex-U.S. Fixed Income	□	■	□	□	□	Sovereign yields (outside the U.S.) should remain low relative to Treasury yields and should rise only gradually. Our view on the dollar is moderately negative, so we do not recommend currency hedging DM bond holdings (page 17).
FIXED INCOME	Emerging Market Fixed Income	□	□	□	■	□	We expect higher yields and a still-firm macro environment to support EM debt. We prefer a 100% dollar-denominated strategy as potentially higher returns on local-currency debt come with higher currency risk in the event of adverse shocks.
EQUITIES	U.S. Large Cap Equities	□	□	□	■	□	Investors are concerned about trade, wage pressure, inflation, and Fed rate hikes. Tax reform is the main boost to our 2018 earnings forecast. First-half earnings have been stronger-than-expected. Our $152 2018 earnings estimate likely is conservative.
EQUITIES	U.S. Mid Cap Equities	□	□	□	■	□	A solid economic backdrop bodes well for top-line sales growth. We look for mid caps to perform largely in line with large caps in 2018. Yet, we expect higher volatility relative to large caps.
EQUITIES	U.S. Small Cap Equities	□	□	■	□	□	Small caps have outperformed U.S. large caps YTD. While tax reform should benefit smaller firms (which tend to face higher tax rates than larger firms do), valuations are not cheap. We believe consensus earnings expectations are too high.
EQUITIES	Developed Market Ex.-U.S. Equities	□	□	■	□	□	Our fundamental outlook is positive overall. Earnings continue to improve, but growth has slowed. The euro has been volatile and has given back some gains from earlier in the year. The U.K. economy is seeing some softness on Brexit-related uncertainty.
EQUITIES	▲ Emerging Market Equities	□	□	□	■	□	We have upgraded our guidance for EM equities to favorable from neutral. We believe that EM equities have been oversold relative to our fundamental outlook. Valuations appear attractive, and consensus 3-5 year earnings growth estimates for EM sectors are more robust than for many U.S. large-cap sectors. EMs are earlier in their cycles than the U.S. economy is.
REAL ASSETS	▲ Commodities	□	□	□	■	□	We expect commodities to enter a long-term consolidation phase while global supply and demand balance, but there may be some upside in the tactical time horizon. Improving global economic growth and some U.S.-dollar weakness could allow commodities to recover from current levels.
REAL ASSETS	Public Real Estate	□	□	■	□	□	REIT fundamentals remain decent as a robust economy supports a fairly balanced supply/demand environment. Late-cycle dynamics and higher interest rates remain headwinds.
REAL ASSETS	Private Real Estate*	□	□	■	□	□	We see opportunities across a variety of private real estate themes, including those focused on income generation, value-add multi-family properties, and opportunistic investing in the office, multi-family, and industrial sectors.
ALTERNATIVE INVESTMENTS*	Hedge Funds–Relative Value*	□	□	□	■	□	We favor the less-directional nature of Relative Value at a time when we see duration risk and credit risk increasing.
ALTERNATIVE INVESTMENTS*	Hedge Funds–Macro*	□	□	■	□	□	We maintain a neutral view on Macro strategies. Over a full market cycle, we believe that investors will benefit from the strategy's low correlation to traditional long-only stock and bond investments. Discretionary Managers' more tactical, nimble approach has been additive in recent months.
ALTERNATIVE INVESTMENTS*	Hedge Funds–Event Driven*	□	□	■	□	□	We maintain a neutral view on Event Driven strategies. The opportunity set for Event Driven strategies continues to be robust, with high global M&A volume and more complex deals. Merger spreads recently have declined from their high second-quarter levels.
ALTERNATIVE INVESTMENTS*	Hedge Funds–Equity Hedge*	□	□	□	□	■	We maintain our most favorable view of Equity Hedge, as the characteristics of a maturing economy—rising rates, inflation, and volatility—should benefit equity security selection and active management.
ALTERNATIVE INVESTMENTS*	Private Equity*	□	□	■	□	□	We maintain a neutral view of Private Equity and of both Buyout and Venture/Growth strategies. However, we see opportunities within niche strategies such as secondaries and smaller buyout funds.

*Alternative investments are not suitable for all investors. They are speculative and involve a high degree of risk that is suitable 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 end of this report for important definitions and disclosures.

Capital Market Assumptions

Fixed income, equities, real assets and alternative investments

Annual update; as of July 2018

Capital market and asset class assumptions are estimates of how asset classes may respond during various market environments. 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. **Hypothetical 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	Hypothetical arithmetic return	Hypothetical geometric return	Hypothetical standard deviation or risk	Yield or dividend yield	Downside risk
	Inflation	2.5%	2.5%			
	Cash Alternatives	2.5%	2.5%	1.0%	2.5%	0.9%
FIXED INCOME	U.S. Short Term Taxable Fixed Income	2.7%	2.7%	1.8%	2.7%	-0.1%
FIXED INCOME	U.S. Intermediate Term Taxable Fixed Income	3.2%	3.1%	4.5%	3.1%	-4.0%
FIXED INCOME	U.S. Long Term Taxable Fixed Income	3.8%	3.2%	10.5%	3.2%	-12.5%
FIXED INCOME	High Yield Taxable Fixed Income	6.8%	6.1%	12.0%	6.1%	-11.7%
FIXED INCOME	Short Term Tax Exempt Fixed Income	2.2%	2.2%	1.8%	2.2%	-0.7%
FIXED INCOME	Intermediate Term Tax Exempt Fixed Income	2.6%	2.5%	4.5%	2.5%	-4.7%
FIXED INCOME	Long Term Tax Exempt Fixed Income	3.0%	2.6%	9.0%	2.6%	-11.1%
FIXED INCOME	High Yield Tax Exempt Fixed Income	5.4%	4.8%	12.0%	4.8%	-13.1%
FIXED INCOME	Developed Market ex.-U.S. Fixed Income	3.2%	2.9%	8.3%	2.9%	-9.7%
FIXED INCOME	Emerging Market Fixed Income	6.8%	6.1%	12.0%	6.1%	-11.7%
FIXED INCOME	Inflation-Linked Fixed Income	3.3%	3.1%	6.0%	3.1%	-6.3%
FIXED INCOME	Preferred Stock	5.1%	4.4%	12.0%	4.4%	-13.4%
EQUITIES	U.S. Large Cap Equities	8.9%	7.8%	16.0%	2.1%	-15.2%
EQUITIES	U.S. Mid Cap Equities	9.8%	8.4%	17.8%	1.8%	-16.8%
EQUITIES	U.S. Small Cap Equities	10.3%	8.5%	20.0%	1.3%	-19.2%
EQUITIES	Developed Market ex.-U.S. Equities	8.9%	7.5%	17.5%	3.0%	-17.4%
EQUITIES	Developed Market ex.-U.S. Small Cap Equities	9.8%	8.0%	20.0%	2.0%	-19.8%
EQUITIES	Emerging Market Equities	11.5%	9.2%	23.0%	2.3%	-22.0%
EQUITIES	Frontier Market Equities	11.1%	8.2%	26.0%	3.5%	-26.0%
REAL ASSETS	Public Real Estate	8.7%	7.2%	18.0%	4.1%	-18.2%
REAL ASSETS	Private Real Estate*	8.7%	7.7%	15.0%	6.0%	-14.1%
REAL ASSETS	Infrastructure	8.7%	7.5%	16.0%	4.0%	-15.5%
REAL ASSETS	Master Limited Partnerships	8.9%	7.6%	17.0%	6.0%	-16.7%
REAL ASSETS	Timberland	7.5%	6.8%	12.3%	5.0%	-11.4%
REAL ASSETS	Commodities	5.5%	4.4%	15.0%	0.0%	-17.3%
ALTERNATIVE INVESTMENTS*	Hedge Funds–Relative Value	5.3%	5.1%	5.8%	0.0%	-3.9%
ALTERNATIVE INVESTMENTS*	Hedge Funds–Macro	5.1%	4.9%	6.3%	0.0%	-4.9%
ALTERNATIVE INVESTMENTS*	Hedge Funds–Event Driven	5.5%	5.3%	7.0%	0.0%	-5.6%
ALTERNATIVE INVESTMENTS*	Hedge Funds–Equity Hedge	6.1%	5.7%	8.8%	0.0%	-7.7%
ALTERNATIVE INVESTMENTS*	Private Equity	13.0%	10.9%	22.0%	0.0%	-19.3%
ALTERNATIVE INVESTMENTS*	Private Debt	9.3%	8.1%	16.0%	6.8%	-14.9%

*Alternative investments are not suitable for all investors. They are speculative and involve a high degree of risk that is suitable 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 end of this report for important definitions and disclosures.

Strategic 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.

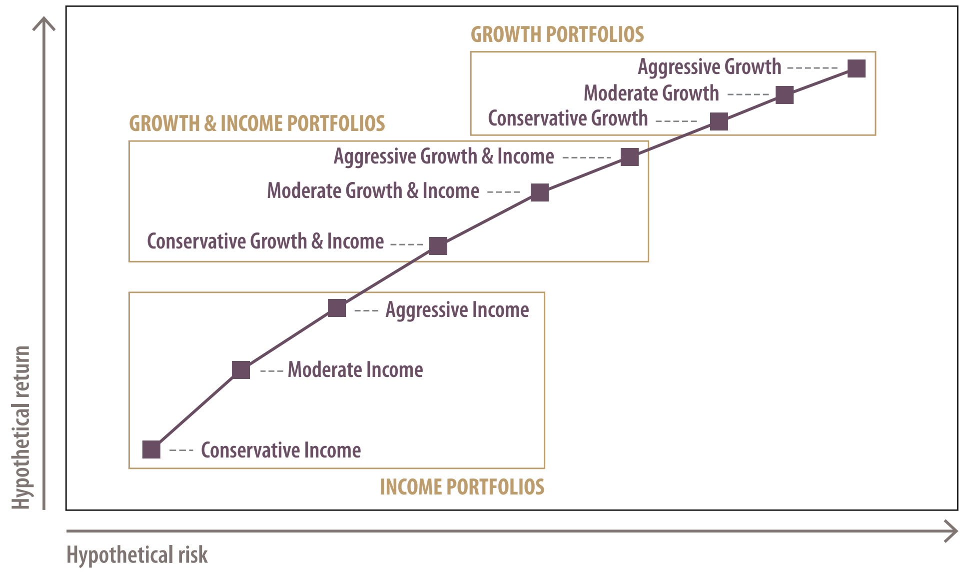


Chart is conceptual and is not meant to reflect any actual returns or represent any specific asset classifications.

Source: Wells Fargo Investment Institute, July 2018

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,

Three asset groups: fixed income, equities, real assets

		CONSERVATIVE			MODERATE			AGGRESSIVE		
		Strategic	Tactical	Difference	Strategic	Tactical	Difference	Strategic	Tactical	Difference
INCOME	CASH ALTERNATIVES	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
	TOTAL FIXED INCOME	85.0%	85.0%	0.0%	72.0%	72.0%	0.0%	64.0%	64.0%	0.0%
	U.S. Taxable Investment Grade Fixed Income	71.0%	73.0%	2.0%	56.0%	56.0%	0.0%	43.0%	43.0%	0.0%
	U.S. Short Term Taxable	28.0%	31.0%	3.0%	19.0%	23.0%	4.0%	8.0%	13.0%	5.0%
	U.S. Intermediate Term Taxable	38.0%	40.0%	2.0%	30.0%	30.0%	0.0%	25.0%	25.0%	0.0%
	U.S. Long Term Taxable	5.0%	2.0%	-3.0%	7.0%	3.0%	-4.0%	10.0%	5.0%	-5.0%
	High Yield Taxable Fixed Income	5.0%	3.0%	-2.0%	6.0%	4.0%	-2.0%	8.0%	6.0%	-2.0%
	Developed Market Ex-U.S. Fixed Income	6.0%	3.0%	-3.0%	5.0%	2.0%	-3.0%	5.0%	2.0%	-3.0%
	Emerging Market Fixed Income	3.0%	6.0%	3.0%	5.0%	10.0%	5.0%	8.0%	13.0%	5.0%
	TOTAL EQUITIES	8.0%	8.0%	0.0%	20.0%	20.0%	0.0%	28.0%	28.0%	0.0%
	U.S. Large Cap Equities	4.0%	4.0%	0.0%	12.0%	12.0%	0.0%	15.0%	15.0%	0.0%
	U.S. Mid Cap Equities	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	4.0%	4.0%	0.0%
	U.S. Small Cap Equities	0.0%	0.0%	0.0%	2.0%	2.0%	0.0%	4.0%	4.0%	0.0%
	Developed Market Ex-U.S. Equities	2.0%	2.0%	0.0%	4.0%	4.0%	0.0%	5.0%	5.0%	0.0%
	Emerging Market Equities	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TOTAL REAL ASSETS	4.0%	4.0%	0.0%	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%
	Public Real Estate	4.0%	4.0%	0.0%	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%
	Commodities	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
GROWTH & INCOME	CASH ALTERNATIVES	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
	TOTAL FIXED INCOME	51.0%	48.0%	-3.0%	41.0%	37.0%	-4.0%	33.0%	29.0%	-4.0%
	U.S. Taxable Investment Grade Fixed Income	37.0%	36.0%	-1.0%	27.0%	25.0%	-2.0%	17.0%	15.0%	-2.0%
	U.S. Short Term Taxable	7.0%	12.0%	5.0%	4.0%	8.0%	4.0%	2.0%	4.0%	2.0%
	U.S. Intermediate Term Taxable	20.0%	20.0%	0.0%	16.0%	14.0%	-2.0%	11.0%	11.0%	0.0%
	U.S. Long Term Taxable	10.0%	4.0%	-6.0%	7.0%	3.0%	-4.0%	4.0%	0.0%	-4.0%
	High Yield Taxable Fixed Income	6.0%	4.0%	-2.0%	6.0%	3.0%	-3.0%	7.0%	3.0%	-4.0%
	Developed Market Ex-U.S. Fixed Income	3.0%	0.0%	-3.0%	3.0%	0.0%	-3.0%	3.0%	0.0%	-3.0%
	Emerging Market Fixed Income	5.0%	8.0%	3.0%	5.0%	9.0%	4.0%	6.0%	11.0%	5.0%
	TOTAL EQUITIES	39.0%	42.0%	3.0%	49.0%	53.0%	4.0%	57.0%	61.0%	4.0%
	U.S. Large Cap Equities	17.0%	17.0%	0.0%	21.0%	21.0%	0.0%	25.0%	25.0%	0.0%
	U.S. Mid Cap Equities	7.0%	7.0%	0.0%	9.0%	9.0%	0.0%	11.0%	11.0%	0.0%
	U.S. Small Cap Equities	6.0%	6.0%	0.0%	8.0%	8.0%	0.0%	8.0%	8.0%	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	4.0%	7.0%	3.0%	5.0%	9.0%	4.0%	6.0%	10.0%	4.0%
	TOTAL REAL ASSETS	7.0%	7.0%	0.0%	7.0%	7.0%	0.0%	7.0%	7.0%	0.0%
	Public Real Estate	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%
	Commodities	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%

Strategic allocations are updated annually; last update was July 17, 2018. Tactical allocations are updated periodically; last update was September 7, 2018.

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

Strategic and Tactical Asset Allocation

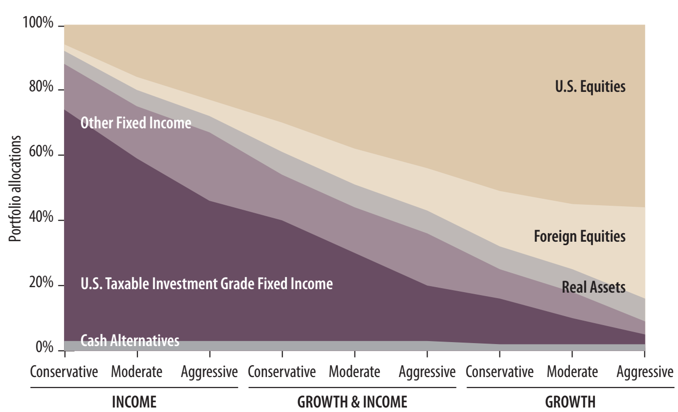
Three asset groups: fixed income, equities, real assets (continued)

		CONSERVATIVE			MODERATE			AGGRESSIVE		
		Strategic	Tactical	Difference	Strategic	Tactical	Difference	Strategic	Tactical	Difference
GROWTH	CASH ALTERNATIVES	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%
	TOTAL FIXED INCOME	23.0%	19.0%	-4.0%	16.0%	12.0%	-4.0%	7.0%	2.0%	-5.0%
	U.S. Taxable Investment Grade Fixed Income	14.0%	10.0%	-4.0%	8.0%	6.0%	-2.0%	3.0%	0.0%	-3.0%
	U.S. Short Term Taxable	4.0%	6.0%	2.0%	2.0%	3.0%	1.0%	0.0%	0.0%	0.0%
	U.S. Intermediate Term Taxable	6.0%	4.0%	-2.0%	3.0%	3.0%	0.0%	0.0%	0.0%	0.0%
	U.S. Long Term Taxable	4.0%	0.0%	-4.0%	3.0%	0.0%	-3.0%	3.0%	0.0%	-3.0%
	High Yield Taxable Fixed Income	4.0%	2.0%	-2.0%	3.0%	0.0%	-3.0%	2.0%	0.0%	-2.0%
	Developed Market Ex-U.S. Fixed Income	2.0%	0.0%	-2.0%	2.0%	0.0%	-2.0%	0.0%	0.0%	0.0%
	Emerging Market Fixed Income	3.0%	7.0%	4.0%	3.0%	6.0%	3.0%	2.0%	2.0%	0.0%
	TOTAL EQUITIES	68.0%	72.0%	4.0%	75.0%	79.0%	4.0%	84.0%	89.0%	5.0%
	U.S. Large Cap Equities	29.0%	29.0%	0.0%	29.0%	29.0%	0.0%	27.0%	27.0%	0.0%
	U.S. Mid Cap Equities	12.0%	12.0%	0.0%	13.0%	13.0%	0.0%	15.0%	15.0%	0.0%
	U.S. Small Cap Equities	10.0%	10.0%	0.0%	13.0%	13.0%	0.0%	14.0%	14.0%	0.0%
	Developed Market Ex-U.S. Equities	9.0%	9.0%	0.0%	10.0%	10.0%	0.0%	14.0%	14.0%	0.0%
	Emerging Market Equities	8.0%	12.0%	4.0%	10.0%	14.0%	4.0%	14.0%	19.0%	5.0%
	TOTAL REAL ASSETS	7.0%	7.0%	0.0%	7.0%	7.0%	0.0%	7.0%	7.0%	0.0%
	Public Real Estate	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%
	Commodities	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%

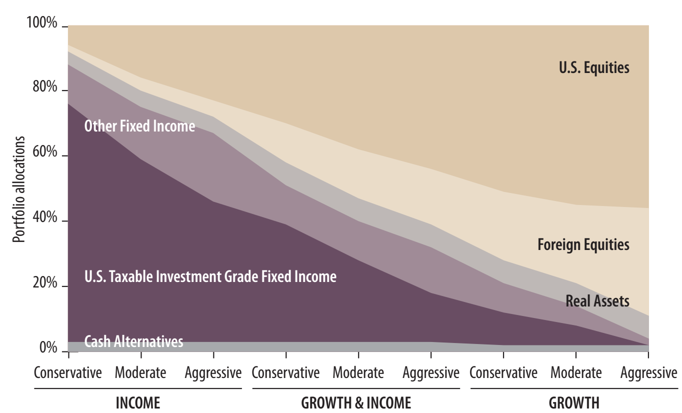
Strategic allocations are updated annually; last update was July 17, 2018. Tactical allocations are updated periodically; last update was September 7, 2018.

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 each asset class. Depending on their tax bracket and on market conditions, investors may elect taxable or municipal bonds to implement their fixed-income allocation.

Portfolio allocations across the efficient frontier–**strategic**



Portfolio allocations across the efficient frontier–**tactical**



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Strategic and Tactical Asset Allocation

Four asset groups: fixed income, equities, real assets, alternative investments (without Private Capital)

		CONSERVATIVE			MODERATE			AGGRESSIVE		
		Strategic	Tactical	Difference	Strategic	Tactical	Difference	Strategic	Tactical	Difference
INCOME	CASH ALTERNATIVES	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
	TOTAL FIXED INCOME	77.0%	77.0%	0.0%	64.0%	64.0%	0.0%	56.0%	56.0%	0.0%
	U.S. Taxable Investment Grade Fixed Income	61.0%	64.0%	3.0%	46.0%	47.0%	1.0%	35.0%	35.0%	0.0%
	U.S. Short Term Taxable	21.0%	24.0%	3.0%	14.0%	18.0%	4.0%	4.0%	9.0%	5.0%
	U.S. Intermediate Term Taxable	35.0%	38.0%	3.0%	25.0%	26.0%	1.0%	21.0%	21.0%	0.0%
	U.S. Long Term Taxable	5.0%	2.0%	-3.0%	7.0%	3.0%	-4.0%	10.0%	5.0%	-5.0%
	High Yield Taxable Fixed Income	5.0%	3.0%	-2.0%	7.0%	5.0%	-2.0%	8.0%	6.0%	-2.0%
	Developed Market Ex-U.S. Fixed Income	8.0%	4.0%	-4.0%	6.0%	2.0%	-4.0%	5.0%	2.0%	-3.0%
	Emerging Market Fixed Income	3.0%	6.0%	3.0%	5.0%	10.0%	5.0%	8.0%	13.0%	5.0%
	TOTAL EQUITIES	9.0%	9.0%	0.0%	16.0%	16.0%	0.0%	24.0%	24.0%	0.0%
	U.S. Large Cap Equities	5.0%	5.0%	0.0%	10.0%	10.0%	0.0%	11.0%	11.0%	0.0%
	U.S. Mid Cap Equities	2.0%	2.0%	0.0%	2.0%	2.0%	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%	3.0%	3.0%	0.0%
	Developed Market Ex-U.S. Equities	2.0%	2.0%	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 REAL ASSETS	2.0%	2.0%	0.0%	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%
	Public Real Estate	2.0%	2.0%	0.0%	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%
	Commodities	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TOTAL ALTERNATIVE INVESTMENTS*	9.0%	9.0%	0.0%	12.0%	12.0%	0.0%	12.0%	12.0%	0.0%
	Hedge Fund–Relative Value	6.0%	6.0%	0.0%	4.0%	4.0%	0.0%	4.0%	4.0%	0.0%
	Hedge Fund–Macro	3.0%	3.0%	0.0%	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%
	Hedge Fund–Event Driven	0.0%	0.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
	Hedge Fund–Equity Hedge	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
GROWTH AND INCOME	CASH ALTERNATIVES	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
	TOTAL FIXED INCOME	41.0%	38.0%	-3.0%	31.0%	28.0%	-3.0%	23.0%	20.0%	-3.0%
	U.S. Taxable Investment Grade Fixed Income	29.0%	28.0%	-1.0%	17.0%	16.0%	-1.0%	9.0%	7.0%	-2.0%
	U.S. Short Term Taxable	4.0%	9.0%	5.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%
	U.S. Intermediate Term Taxable	16.0%	16.0%	0.0%	11.0%	10.0%	-1.0%	4.0%	4.0%	0.0%
	U.S. Long Term Taxable	9.0%	3.0%	-6.0%	6.0%	3.0%	-3.0%	5.0%	0.0%	-5.0%
	High Yield Taxable Fixed Income	5.0%	3.0%	-2.0%	6.0%	3.0%	-3.0%	6.0%	2.0%	-4.0%
	Developed Market Ex-U.S. Fixed Income	3.0%	0.0%	-3.0%	3.0%	0.0%	-3.0%	2.0%	0.0%	-2.0%
	Emerging Market Fixed Income	4.0%	7.0%	3.0%	5.0%	9.0%	4.0%	6.0%	11.0%	5.0%
	TOTAL EQUITIES	35.0%	38.0%	3.0%	44.0%	47.0%	3.0%	52.0%	55.0%	3.0%
	U.S. Large Cap Equities	13.0%	13.0%	0.0%	20.0%	20.0%	0.0%	22.0%	22.0%	0.0%
	U.S. Mid Cap Equities	7.0%	7.0%	0.0%	8.0%	8.0%	0.0%	9.0%	9.0%	0.0%
	U.S. Small Cap Equities	6.0%	6.0%	0.0%	6.0%	6.0%	0.0%	8.0%	8.0%	0.0%
	Developed Market Ex-U.S. Equities	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%	7.0%	7.0%	0.0%
	Emerging Market Equities	4.0%	7.0%	3.0%	5.0%	8.0%	3.0%	6.0%	9.0%	3.0%
	TOTAL REAL ASSETS	7.0%	7.0%	0.0%	7.0%	7.0%	0.0%	7.0%	7.0%	0.0%
	Public Real Estate	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%
	Commodities	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%
	TOTAL ALTERNATIVE INVESTMENTS*	14.0%	14.0%	0.0%	15.0%	15.0%	0.0%	15.0%	15.0%	0.0%
	Hedge Fund–Relative Value	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
	Hedge Fund–Macro	6.0%	6.0%	0.0%	6.0%	6.0%	0.0%	6.0%	6.0%	0.0%
	Hedge Fund–Event Driven	3.0%	3.0%	0.0%	4.0%	4.0%	0.0%	4.0%	4.0%	0.0%
	Hedge Fund–Equity Hedge	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%

Strategic allocations are updated annually; last update was July 17, 2018. Tactical allocations are updated periodically; last update was September 7, 2018.

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

*Alternative investments are not suitable for all investors. They are speculative and involve a high degree of risk that is suitable 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 end of this report for important definitions and disclosures.

Strategic and Tactical Asset Allocation

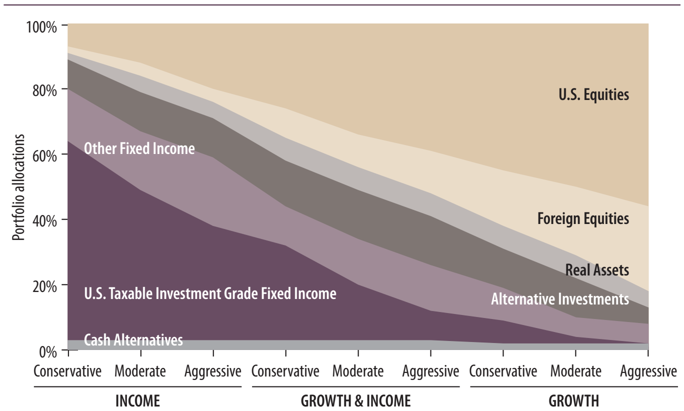
Four asset groups: fixed income, equities, real assets, alternative investments (without Private Capital) (continued)

		CONSERVATIVE			MODERATE			AGGRESSIVE		
		Strategic	Tactical	Difference	Strategic	Tactical	Difference	Strategic	Tactical	Difference
GROWTH	CASH ALTERNATIVES	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%
	TOTAL FIXED INCOME	17.0%	13.0%	-4.0%	8.0%	3.0%	-5.0%	6.0%	3.0%	-3.0%
	U.S. Taxable Investment Grade Fixed Income	7.0%	4.0%	-3.0%	2.0%	0.0%	-2.0%	0.0%	0.0%	0.0%
	U.S. Short Term Taxable	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	U.S. Intermediate Term Taxable	4.0%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	U.S. Long Term Taxable	3.0%	0.0%	-3.0%	2.0%	0.0%	-2.0%	0.0%	0.0%	0.0%
	High Yield Taxable Fixed Income	5.0%	0.0%	-5.0%	3.0%	0.0%	-3.0%	3.0%	0.0%	-3.0%
	Developed Market Ex-U.S. Fixed Income	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Emerging Market Fixed Income	5.0%	9.0%	4.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
	TOTAL EQUITIES	62.0%	66.0%	4.0%	71.0%	76.0%	5.0%	82.0%	87.0%	5.0%
	U.S. Large Cap Equities	24.0%	24.0%	0.0%	25.0%	25.0%	0.0%	25.0%	25.0%	0.0%
	U.S. Mid Cap Equities	11.0%	11.0%	0.0%	13.0%	13.0%	0.0%	16.0%	16.0%	0.0%
	U.S. Small Cap Equities	10.0%	10.0%	0.0%	12.0%	12.0%	0.0%	15.0%	15.0%	0.0%
	Developed Market Ex-U.S. Equities	9.0%	9.0%	0.0%	11.0%	11.0%	0.0%	13.0%	13.0%	0.0%
	Emerging Market Equities	8.0%	12.0%	4.0%	10.0%	15.0%	5.0%	13.0%	18.0%	5.0%
	TOTAL REAL ASSETS	7.0%	7.0%	0.0%	7.0%	7.0%	0.0%	5.0%	3.0%	-2.0%
	Public Real Estate	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%	5.0%	3.0%	-2.0%
	Commodities	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%
	TOTAL ALTERNATIVE INVESTMENTS*	12.0%	12.0%	0.0%	12.0%	12.0%	0.0%	5.0%	5.0%	0.0%
	Hedge Fund–Relative Value	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%
	Hedge Fund–Macro	6.0%	6.0%	0.0%	6.0%	6.0%	0.0%	3.0%	3.0%	0.0%
	Hedge Fund–Event Driven	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%
	Hedge Fund–Equity Hedge	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%

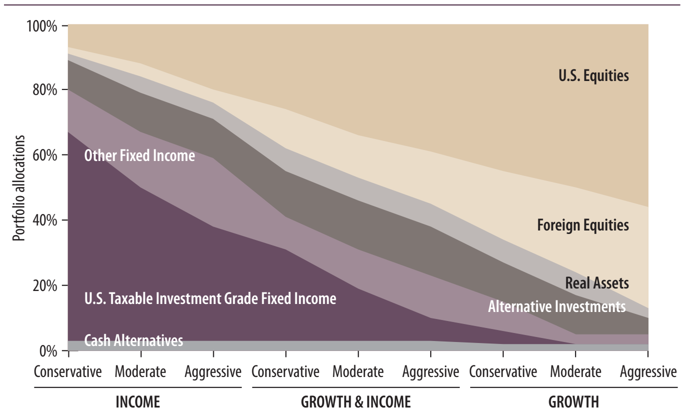
Strategic allocations are updated annually; last update was July 17, 2018. Tactical allocations are updated periodically; last update was September 7, 2018.

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 each asset class. Depending on their tax bracket and on market conditions, investors may elect taxable or 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.

Portfolio allocations across the efficient frontier–**strategic**



Portfolio allocations across the efficient frontier–**tactical**



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Strategic and Tactical Asset Allocation

Four asset groups: fixed income, equities, real assets, alternative investments

		CONSERVATIVE			MODERATE			AGGRESSIVE		
		Strategic	Tactical	Difference	Strategic	Tactical	Difference	Strategic	Tactical	Difference
INCOME	CASH ALTERNATIVES	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
	TOTAL FIXED INCOME	73.0%	73.0%	0.0%	60.0%	60.0%	0.0%	51.0%	51.0%	0.0%
	U.S. Taxable Investment Grade Fixed Income	56.0%	60.0%	4.0%	42.0%	44.0%	2.0%	30.0%	32.0%	2.0%
	U.S. Short Term Taxable	20.0%	25.0%	5.0%	12.0%	16.0%	4.0%	2.0%	7.0%	5.0%
	U.S. Intermediate Term Taxable	31.0%	33.0%	2.0%	23.0%	25.0%	2.0%	19.0%	21.0%	2.0%
	U.S. Long Term Taxable	5.0%	2.0%	-3.0%	7.0%	3.0%	-4.0%	9.0%	4.0%	-5.0%
	High Yield Taxable Fixed Income	6.0%	4.0%	-2.0%	7.0%	5.0%	-2.0%	8.0%	6.0%	-2.0%
	Developed Market Ex-U.S. Fixed Income	8.0%	4.0%	-4.0%	6.0%	2.0%	-4.0%	5.0%	0.0%	-5.0%
	Emerging Market Fixed Income	3.0%	5.0%	2.0%	5.0%	9.0%	4.0%	8.0%	13.0%	5.0%
	TOTAL EQUITIES	8.0%	8.0%	0.0%	20.0%	20.0%	0.0%	25.0%	25.0%	0.0%
	U.S. Large Cap Equities	4.0%	4.0%	0.0%	10.0%	10.0%	0.0%	11.0%	11.0%	0.0%
	U.S. Mid Cap Equities	2.0%	2.0%	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%	2.0%	2.0%	0.0%	4.0%	4.0%	0.0%
	Developed Market Ex-U.S. Equities	2.0%	2.0%	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 REAL ASSETS	5.0%	5.0%	0.0%	6.0%	6.0%	0.0%	10.0%	10.0%	0.0%
	Public Real Estate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%	3.0%	0.0%
	Private Real Estate*	5.0%	5.0%	0.0%	6.0%	6.0%	0.0%	7.0%	7.0%	0.0%
	Commodities	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TOTAL ALTERNATIVE INVESTMENTS*	11.0%	11.0%	0.0%	11.0%	11.0%	0.0%	11.0%	11.0%	0.0%
	Hedge Funds–Relative Value	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%
	Hedge Funds–Macro	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
	Hedge Funds–Event Driven	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
	Hedge Funds–Equity Hedge	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Private Equity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
GROWTH AND INCOME	CASH ALTERNATIVES	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
	TOTAL FIXED INCOME	39.0%	36.0%	-3.0%	29.0%	25.0%	-4.0%	21.0%	18.0%	-3.0%
	U.S. Taxable Investment Grade Fixed Income	25.0%	26.0%	1.0%	15.0%	15.0%	0.0%	7.0%	7.0%	0.0%
	U.S. Short Term Taxable	4.0%	9.0%	5.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%
	U.S. Intermediate Term Taxable	14.0%	14.0%	0.0%	10.0%	10.0%	0.0%	2.0%	2.0%	0.0%
	U.S. Long Term Taxable	7.0%	3.0%	-4.0%	5.0%	2.0%	-3.0%	5.0%	2.0%	-3.0%
	High Yield Taxable Fixed Income	6.0%	2.0%	-4.0%	6.0%	0.0%	-6.0%	6.0%	0.0%	-6.0%
	Developed Market Ex-U.S. Fixed Income	3.0%	0.0%	-3.0%	2.0%	0.0%	-2.0%	2.0%	0.0%	-2.0%
	Emerging Market Fixed Income	5.0%	8.0%	3.0%	6.0%	10.0%	4.0%	6.0%	11.0%	5.0%
	TOTAL EQUITIES	32.0%	35.0%	3.0%	40.0%	44.0%	4.0%	48.0%	51.0%	3.0%
	U.S. Large Cap Equities	14.0%	14.0%	0.0%	18.0%	18.0%	0.0%	22.0%	22.0%	0.0%
	U.S. Mid Cap Equities	6.0%	6.0%	0.0%	7.0%	7.0%	0.0%	8.0%	8.0%	0.0%
	U.S. Small Cap Equities	4.0%	4.0%	0.0%	5.0%	5.0%	0.0%	6.0%	6.0%	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%	6.0%	3.0%	4.0%	8.0%	4.0%	5.0%	8.0%	3.0%
	TOTAL REAL ASSETS	10.0%	10.0%	0.0%	11.0%	11.0%	0.0%	11.0%	11.0%	0.0%
	Public Real Estate	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
	Private Real Estate*	5.0%	5.0%	0.0%	6.0%	6.0%	0.0%	6.0%	6.0%	0.0%
	Commodities	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%
	TOTAL ALTERNATIVE INVESTMENTS*	16.0%	16.0%	0.0%	17.0%	17.0%	0.0%	17.0%	17.0%	0.0%
	Hedge Funds–Relative Value	4.0%	4.0%	0.0%	3.0%	3.0%	0.0%	2.0%	2.0%	0.0%
	Hedge Funds–Macro	4.0%	4.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
	Hedge Funds–Event Driven	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%
	Hedge Funds–Equity Hedge	0.0%	0.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%
	Private Equity	6.0%	6.0%	0.0%	7.0%	7.0%	0.0%	8.0%	8.0%	0.0%

Strategic allocations are updated annually; last update was July 17, 2018. Tactical allocations are updated periodically; last update was September 7, 2018.

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

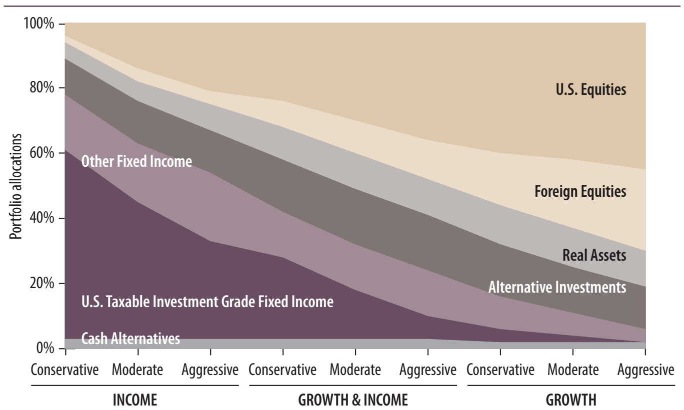
Four asset groups: fixed income, equities, real assets, alternative investments (continued)

		CONSERVATIVE			MODERATE			AGGRESSIVE		
		Strategic	Tactical	Difference	Strategic	Tactical	Difference	Strategic	Tactical	Difference
GROWTH	CASH ALTERNATIVES	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%
	TOTAL FIXED INCOME	14.0%	11.0%	-3.0%	9.0%	4.0%	-5.0%	4.0%	2.0%	-2.0%
	U.S. Taxable Investment Grade Fixed Income	4.0%	2.0%	-2.0%	2.0%	0.0%	-2.0%	0.0%	0.0%	0.0%
	U.S. Short Term Taxable	0.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	U.S. Intermediate Term Taxable	2.0%	0.0%	-2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	U.S. Long Term Taxable	2.0%	0.0%	-2.0%	2.0%	0.0%	-2.0%	0.0%	0.0%	0.0%
	High Yield Taxable Fixed Income	5.0%	0.0%	-5.0%	4.0%	0.0%	-4.0%	2.0%	0.0%	-2.0%
	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%	9.0%	4.0%	3.0%	4.0%	1.0%	2.0%	2.0%	0.0%
	TOTAL EQUITIES	56.0%	59.0%	3.0%	63.0%	68.0%	5.0%	70.0%	75.0%	5.0%
	U.S. Large Cap Equities	24.0%	24.0%	0.0%	24.0%	24.0%	0.0%	24.0%	24.0%	0.0%
	U.S. Mid Cap Equities	9.0%	9.0%	0.0%	10.0%	10.0%	0.0%	12.0%	12.0%	0.0%
	U.S. Small Cap Equities	7.0%	7.0%	0.0%	8.0%	8.0%	0.0%	9.0%	9.0%	0.0%
	Developed Market Ex-U.S. Equities	9.0%	9.0%	0.0%	11.0%	11.0%	0.0%	12.0%	12.0%	0.0%
	Emerging Market Equities	7.0%	10.0%	3.0%	10.0%	15.0%	5.0%	13.0%	18.0%	5.0%
	TOTAL REAL ASSETS	12.0%	12.0%	0.0%	12.0%	12.0%	0.0%	11.0%	8.0%	-3.0%
	Public Real Estate	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	0.0%	-3.0%
	Private Real Estate*	7.0%	7.0%	0.0%	7.0%	7.0%	0.0%	8.0%	8.0%	0.0%
	Commodities	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%
	TOTAL ALTERNATIVE INVESTMENTS*	16.0%	16.0%	0.0%	14.0%	14.0%	0.0%	13.0%	13.0%	0.0%
	Hedge Funds–Relative Value	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Hedge Funds–Macro	3.0%	3.0%	0.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%
	Hedge Funds–Event Driven	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Hedge Funds–Equity Hedge	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%
	Private Equity	9.0%	9.0%	0.0%	10.0%	10.0%	0.0%	11.0%	11.0%	0.0%

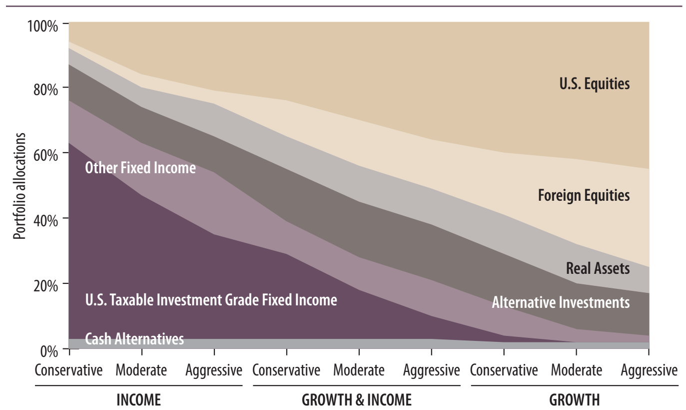
Strategic allocations are updated annually; last update was July 17, 2018. Tactical allocations are updated periodically; last update was September 7, 2018.

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 each asset class. Depending on their tax bracket and on market conditions, investors may elect taxable or 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.

Portfolio allocations across the efficient frontier–strategic



Portfolio allocations across the efficient frontier–tactical



*Alternative investments are not suitable for all investors. They are speculative and involve a high degree of risk that is suitable 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 end of this report for important definitions and disclosures.

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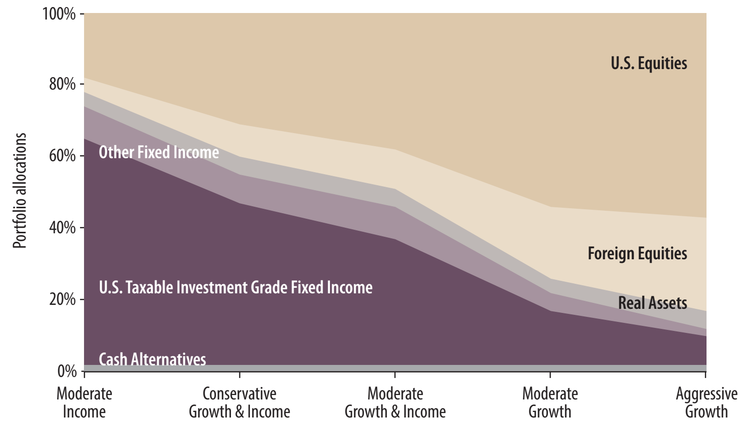
Cyclical Asset Allocation

Three asset groups: fixed income, equities, real assets

Quarterly update; as of July 2018

Our cyclical asset allocation process is based on a rolling three-year outlook—which means that the Global Investment Strategy Committee evaluates how the portfolios are expected to perform over the next 36 months based on asset valuations as well as economic and market outlooks. The cyclical approach is driven by fundamental valuations, which can lead to entering and exiting positions as opportunities arise. Over time, this approach may help avoid chasing unsustainable market swings driven by fear and greed near the end of cyclical declines or advances.

Portfolio allocations across the efficient frontier



Cyclical asset allocation mixes

		Moderate Income	Conservative Growth & Income	Moderate Growth & Income	Moderate Growth	Aggressive Growth
	Cash Alternatives	2%	2%	2%	2%	2%
FIXED INCOME	Total Fixed Income	72%	53%	44%	20%	10%
	U.S. Short Term Taxable Fixed Income	27%	15%	12%	10%	8%
	U.S. Intermediate Term Taxable Fixed Income	30%	20%	16%	3%	
	U.S. Long Term Taxable Fixed Income	6%	10%	7%	2%	
	High Yield Taxable Fixed Income	3%	3%	4%	2%	
	Developed Market Ex-U.S. Fixed Income					
	Emerging Market Fixed Income	6%	5%	5%	3%	2%
EQUITIES	Total Equities	22%	40%	49%	74%	83%
	U.S. Large Cap Equities	14%	19%	23%	30%	30%
	U.S. Mid Cap Equities	2%	7%	9%	13%	15%
	U.S. Small Cap Equities	2%	5%	6%	11%	12%
	Developed Market Ex-U.S. Equities	4%	5%	6%	10%	14%
	Emerging Market Equities		4%	5%	10%	12%
REAL ASSETS	Total Real Assets	4%	5%	5%	4%	5%
	Public Real Estate	4%	5%	5%	4%	5%
	Commodities					
Total Portfolio		100%	100%	100%	100%	100%

For more information, please request our most recent *Cyclical Asset Allocation Quarterly Report*.

Disclosures

Forecasts, targets, and estimates 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 unsuitable 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.

Liquid alternative mutual funds are subject to market and investment specific risks. Investment returns, volatility and risk vary widely among them. They employ aggressive techniques not employed by traditional stock and bond mutual funds, including the use of short sales, leverage and derivatives. Short sales involve leverage and theoretically unlimited loss potential since the market price of securities sold short may continuously increase. The use of leverage in a portfolio varies by investment strategy. The use of leverage can magnify any price movements resulting in high volatility and potentially significant loss of principal. Derivatives generally have implied leverage and entail risks such as market, interest rate, credit, counterparty and management risks. Some of the strategies employed by liquid alternative mutual funds include equity hedge, event driven, macro and relative value. These strategies may, at times, be out of market favor for considerable periods which can result in adverse consequences for the investor and the fund.

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.

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.

Equity sector risks: 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; 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 *Industrial 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 condition. Some of the risks associated with the *Telecom Services sector* include pressures to develop, upgrade and successfully launch and market new and innovative product; unpredictable customer demand and inability to compete against competitors. *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 suitable 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.

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 investing tends to shift in and out of favor.

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.

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.

Disclosures *(continued)*

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.

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.

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.

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.

Technology and internet-related stocks, especially of smaller, less-seasoned companies, tend to be more volatile than the overall market.

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.

There is no assurance that any of the target prices or other forward-looking statements mentioned will be attained.

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.

Conference Board's Leading Economic Index (LEI) is a composite average of ten leading indicators in the US. It one of the key elements in the Conference Board's analytic system, which is designed to signal peaks and troughs in the business cycle.

Consumer Confidence Index measures consumer confidence, which is defined as the degree of optimism on the state of the economy that consumers are expressing through their activities of savings and spending.

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.

The **Producer Price Index (PPI)** program measures the average change over time in the selling prices received by domestic producers for their output.

The 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.

The **US 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.

The 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

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. RV position may be involved in corporate transactions also, but as opposed to ED exposures, the investment thesis is predicated on realization of a pricing discrepancy between related securities, as opposed to the outcome of the corporate transaction.

Arbitrage. **HFRI RV: Fixed Income Sovereign Index.** Includes strategies predicated on realization of a spread between related instruments in which one or multiple components of the spread is a sovereign fixed income instrument. Strategies employ an investment process designed to isolate attractive opportunities between a variety of fixed income instruments, typically realizing an attractive spread between multiple sovereign bonds or between a corporate and risk free government bond. Fixed Income Sovereign typically employ multiple investment processes including both quantitative and fundamental discretionary approaches and relative to other Relative Value Arbitrage sub-strategies, these have the most significant top-down macro influences, relative to the more idiosyncratic fundamental approaches employed.

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 EH, in which the fundamental characteristics on the company are the most significant are integral to investment thesis.

Systematic Macro. **HFRI Macro: Systematic Diversified Index.** Diversified strategies employing mathematical, algorithmic and technical models, with little or no influence of individuals over the portfolio positioning. Strategies are designed to identify opportunities in markets exhibiting trending or momentum characteristics across individual instruments or asset classes.

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Disclosures *(continued)*

Strategies typically employ quantitative processes which focus on statistically robust or technical patterns in the return series of the asset, and they typically focus on highly liquid instruments and maintain shorter holding periods than either discretionary or mean-reverting strategies. Although some strategies seek to employ counter-trend models, strategies benefit most from an environment characterized by persistent, discernible trending behavior. Typically have no greater than 35% of portfolio in either dedicated currency or commodity exposures over a given market cycle.

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 ED: Distressed/Restructuring Index.** Strategies focus on corporate fixed-income instruments, primarily corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceedings or financial-market perception of near-term proceedings. Managers are typically actively involved with the management of these companies; they are frequently involved on creditors' committees in negotiating the exchange of securities for alternative obligations, either swaps of debt, equity or hybrid securities. Managers employ fundamental credit processes focused on valuation and asset coverage of securities of distressed firms; in most cases portfolio exposures are concentrated in instruments that are publicly traded, in some cases actively and in others under reduced liquidity but in general for which a reasonable public market exists. Strategies employ primarily debt (greater than 60%) but also may maintain related equity exposure.

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. **HFRX EH: Multi-Strategy Index.** Managers 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, holding period, concentrations of market capitalizations, and valuation ranges of typical portfolios. Managers typically do not maintain more than 50% exposure to any one Equity Hedge sub-strategy

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 indices). These limitations include survivorship bias (the returns of the indices 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 indices, 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 business are included in the index until the date that they cease operations. Therefore, these indices 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.

Liquid alternatives—index definitions

Liquid alternatives are represented by the **Wilshire Liquid Alternative Index.** The Wilshire Liquid Alternative Index measures the collective performance of the five Wilshire Liquid Alternative strategies that make up the Wilshire Liquid Alternative Universe. The Wilshire Liquid Alternative Index is designed to provide a broad measure of the liquid alternative market by combining the performance of the Wilshire Liquid Alternative Equity Hedge Index, Wilshire Liquid Alternative Global Macro Index, Wilshire Liquid Alternative Relative Value Index, Wilshire Liquid Alternative Multi-Strategy Index and the Wilshire Liquid Alternative Event Driven Index.

Wilshire Liquid Alternative Equity Hedge Index measures the performance of the equity hedge strategy component of the Wilshire Liquid Alternative Index. Equity hedge investment strategies predominantly invest in long and short equities.

Wilshire Liquid Alternative Event Driven Index measures the performance of the event driven strategy component of the Wilshire Liquid Alternative Index. Event driven strategies predominantly invest in companies involved in corporate transactions such as mergers, restructuring, distressed, buy backs, or other capital structure changes.

Wilshire Liquid Alternative Global Macro Index measures the performance of the global macro strategy component of the Wilshire Liquid Alternative Index. Global macro strategies predominantly invest in situations driven by the macro-economic environment across the capital structure as well as currencies and commodities.

Wilshire Liquid Alternative Relative Value Index measures the performance of the relative value strategy component of the Wilshire Liquid Alternative Index. Relative value strategies are focused on the valuation discrepancy in the relationships between markets or securities.

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Disclosures *(continued)*

Asset class index definitions

Fixed income representative indices

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

Intermediate Term Taxable Fixed Income. Bloomberg Barclays US Aggregate 5-7 Year Bond Index is composed of the Bloomberg Barclays US Government/Credit Index and the Bloomberg Barclays US 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 Barclays US Aggregate 10+ Year Bond Index is composed of the Bloomberg Barclays US Government/Credit Index and the Bloomberg Barclays US 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 Barclays US Treasury Bills (1-3M) Index is representative of money markets.

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

U.S. Municipal Bond. Bloomberg Barclays US 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. TIPS. Bloomberg Barclays US TIPS Index represents Inflation-Protection securities issued by the U.S. Treasury.

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

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

Securitized. Bloomberg Barclays US 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 Barclays US 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-US 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 (USD Unhedged) is a comprehensive global local emerging markets index, and consists of regularly traded, liquid fixed-rate, domestic currency government bonds.

U.S. Investment Grade Corporate Fixed Income. Bloomberg Barclays US 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.

Preferred Stock. ICE BofAML Fxd Rate Pref TR USD Index measures the performance of fixed rate US dollar denominated preferred securities issued in the US domestic market.

Equity representative indices

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.

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). The 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). The 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.

Real assets representative indices

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

Domestic REITs. FTSE NAREIT US 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 US Index is designed to track the performance of listed real estate companies in developed countries worldwide other than the United States.

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

Commodities (BCOM). Bloomberg Commodity Index is a broadly diversified index comprised of 22 exchange-traded futures on physical commodities and represents 20 commodities weighted to account for economic significance and market liquidity.

Disclosures *(continued)*

Bloomberg Commodity Indices are a family of financial benchmarks designed to provide liquid and diversified exposure to physical commodities via futures contracts. The index currently represents 20 commodities which are weighted to account for economic significance and market liquidity and 22 exchange traded futures contracts.

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