

2020 Outlook

A Call for Resilience

December 2019

A letter to investors from Darrell L. Cronk

December 2019



2019 was largely characterized by a tug-of-war between substantial geopolitical drags and offsetting global monetary policy easing. The third slowdown of this expansion took hold at midyear, once again creating concerns about the timing and cause of the next recession. Ironically, all equity asset classes, and even several fixed income asset classes, have delivered double-digit returns, despite these concerns.

These geopolitical drags have weighed heavily on business sentiment, producing a sharp deceleration in global capital spending and manufacturing output. However, this slowdown has remained largely contained as labor market strength and ever-lower borrowing rates have supported consumer spending and service-sector activity.

For now, we remain comfortable that the expansion can again weather this storm as the calendar turns into 2020, even while traditional late-cycle signals abound. A surge of global liquidity has kept U.S. rates near cycle lows and created a flood of negative-yielding international debt. These warnings and the 2019 inversion of the U.S. yield curve suggest that monetary policy stimulus struggled to keep pace as growth slowed. We believe the rising dispersion in credit spreads and anemic global earnings growth are also reliable signals of a mature expansion.

For the global economy to stay resilient, we anticipate three “C”s will be necessary: Consumer spending needs to remain solid; fixed-income credit spreads need to remain well behaved; and the China-U.S. trade dispute needs to de-escalate. The U.S.-China trade conflict will likely remain the greatest among the domestic and geopolitical wild cards this year. Investors appear willing to embrace risk as long as trade war rhetoric is stable or improving, even if real trade progress remains elusive. Not surprisingly, we expect elevated 2020 election rhetoric and have low expectations for major fiscal or legislative policy changes. Fortunately, a look at history shows that presidential election years have generally produced positive equity results. Since 1928, only 4 of the 23 presidential election years have experienced negative S&P 500 Index returns. Three of those four occurred during recession years. Elections matter, but the economy may predict them better than opinion polls do.

As investors, we cannot always accurately predict geopolitical outcomes or the exact dates when expansions end, but we can remain diligent and resilient. Investors can instill this resilience in their portfolios during this late part of the economic cycle by wisely positioning exposure to risk assets. Strong 2019 performance across equities, fixed income, and real assets affords investors a unique and timely opportunity to ensure that positioning and exposure reflect the right risk/reward opportunity for late-cycle investing. The sage advice of Warren Buffett rings true when he said, “Predicting rain doesn’t count; building arks does.” It is best to build the portfolio ark before it begins raining. I trust our 2020 Outlook will help you do just that.

On behalf of my Wells Fargo Investment Institute colleagues, I want to thank you for the trust you extend to us and wish you investment success in 2020.

A handwritten signature in black ink, appearing to read 'Darrell Cronk'. The signature is fluid and cursive, written over a white background.

Darrell L. Cronk, CFA
President, Wells Fargo Investment Institute
Chief Investment Officer, Wealth and Investment Management

*“Predicting rain doesn’t count;
building arks does.”*

—Warren Buffett

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

Global economypage 4

- We expect most developed economies to slow. Some emerging economies may rebound, but we anticipate little improvement in the global economy.
- The U.S. dollar may weaken moderately against the euro and yen, but the risk of exchange-rate volatility remains high.

Global equitiespage 7

- We believe all five major equity classes will post modest gains in 2020, with price returns in the low-to-mid single digit range.
- Slow world trade growth is likely to weigh on profit growth, but global consumer- and services-oriented companies should continue to benefit from consumer spending.

Global fixed income page 10

- Interest rates are likely to remain near historically low levels. While we do not anticipate negative yielding debt in the U.S., we expect negative-yielding debt levels globally to remain elevated.
- Slower, but still positive, growth should allow the Federal Reserve (Fed) to take a patient approach to policy.

Global real assets page 12

- We expect master limited partnerships (MLPs) to be among the best 2020 real asset performers, followed by commodities and global real estate investment trusts (REITs).
- We believe that gold will rally further in 2020, but performance is unlikely to be as strong as it was in 2019.

Global alternative investments page 14

- We anticipate slowing economic growth and a maturing credit cycle should lead to mispriced securities across global equities and fixed income.
- Despite growing risks, we expect attractive opportunities in Private Capital, due to secular changes and demographic trends.

Portfolio implementation page 16

Economic and market forecasts page 18

Risks to our forecasts page 19

2020 Focus themes page 20

Selected year-end 2020 forecasts

See page 18 for our complete economic and market forecasts

1.8%

U.S. GDP growth

2.2%

U.S. inflation
Consumer Price Index

3,200–3,300

S&P 500 Index

1.25%–1.50%

Federal funds rate

1.25%–1.75%

10-year U.S. Treasury
note yield

\$55–\$65

West Texas Intermediate
crude oil per barrel

Sources: Wells Fargo Investment Institute and Wells Fargo Securities Economics Group, December 2, 2019

Forecasts and targets are based on certain assumptions and on our current views of market and economic conditions, which are subject to change.

Slowing growth, geopolitical risks



Paul Christopher, CFA
Head of Global Market Strategy



Peter Wilson
Global Fixed Income Strategist



Sameer Samana, CFA
Senior Global Market Strategist

Another test of the global economy's resilience in 2020

We expect slow global economic growth again this year, but four trends could create crosscurrents that raise the risk of recession. Two of those trends involve China. First, China continues to prioritize services growth over construction and manufacturing. Second, the U.S.-China trade dispute likely will weigh on manufacturing and commodity consumption. These two trends have global implications, especially for Europe and Asia, where machinery and commodity exports are a relatively large part of local economies. Economic growth is expected to downshift in the U.S., Europe, and much of Asia.¹

As a third trend, employment growth in services should remain a steady and positive economic growth driver across Asia, Europe, and the U.S. In turn, more jobs and rising wages should continue to support stable consumer spending. We anticipate ongoing U.S. job expansion, albeit at a slower rate than in 2019. Rising average U.S. wages should continue attracting workers back into the labor force. As job seekers return, the U.S. unemployment rate should remain near multi-decade lows.

We believe subdued business spending growth and steady-to-lower commodity prices should contain global inflation near central bank target rates in the U.S., Europe, and Japan. Low inflation, slow economic growth, and political uncertainties may compel further interest rate cuts. But to what effect?

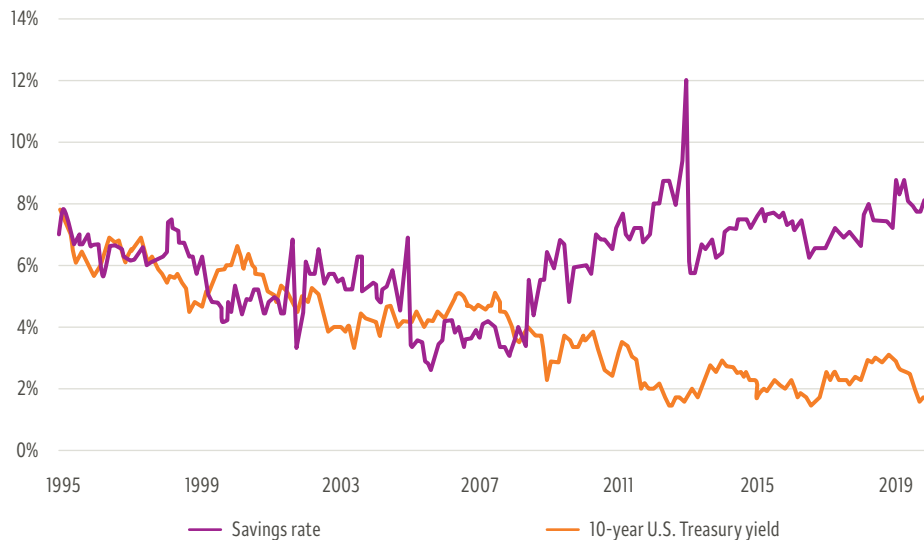
Our fourth expected trend addresses that question, as falling interest rates may not stimulate faster personal spending growth while the geopolitical risks loom large. Until the 2008 financial crisis, falling interest rates led to lower savings rates (see chart on page 5). After the financial crisis, interest rates fell further, but cautious households increased their saving.

These four trends underpin our forecasts for slowing economic growth and low inflation for the U.S. and the largest international economies. Our overall forecast for world economic growth is marginally below our 2019 estimate, although a few emerging economies (for example, Brazil, Mexico, and South Africa) are reaccelerating after weak periods. When we consider the world's largest markets, the dichotomy between solid consumer spending and slowing business spending implies that the global economy is still not firing on all cylinders.

¹ All economic forecasts in this report are provided by Wells Fargo Securities Economics Group.

Cautious households have saved more even as interest rates fall

Until the 2008 financial crisis, falling interest rates led to lower savings rates. After the financial crisis, households remained cautious and increased their saving despite lower interest rates.



Sources: Bloomberg and Wells Fargo Investment Institute, January 1995 through October 2019. The savings rate is the monthly U.S. personal savings as a percent of personal income after taxes. The 10-year U.S. Treasury yield is a monthly average of daily rates, in percent.

Risks to continued economic growth

We do not anticipate a U.S. economic recession, but the signs of an aging cycle are increasing (see sidebar). The likelihood of a U.S. recession depends upon whether (or how quickly) weak manufacturing cracks the economic expansion's foundation in job and wage growth and associated consumer confidence. The wide range of possible risks to our economic outlook may fuel more financial market volatility. Global growth remains slow enough that geopolitical disruptions could undercut consumer confidence. The main upside risk comes from potential policy stimulus. If geopolitical shocks subside, interest rate cuts eventually could give the global economy some traction. De-escalation of trade tensions or globally coordinated fiscal stimulus (either tax cuts or spending) would be positive but seem unlikely. We believe that Europe and the U.S. will be unable to deliver much fiscal stimulus. China could open the spending spigots on infrastructure projects, as it did in 2016, but its leaders seem unwilling to add significant new debt.

Risk levels of indicators that could signal an economic downturn

High

- Yield-curve inversion
- U.S. and international political disruption

Moderate

- High-yield corporate debt spreads
- Household and corporate debt levels
- Federal Reserve monetary policy
- The Conference Board Leading Economic Index®

Key takeaways:

- Wells Fargo Securities Economics Group forecasts slowing economic growth and low inflation for the U.S. and the largest international economies. Global growth may show little improvement in 2020.
- The U.S. dollar could depreciate moderately versus other emerging market and developed market currencies.

What it means for investors:

- The main risks are political and binary: trade-dispute escalation could incite recession, or receding trade disputes could make monetary stimulus more effective.
- The risk of a sharp move in the U.S. dollar or in global economic growth remains uncommonly elevated.

We expect that the U.S. dollar's supports will continue but may weaken in 2020.

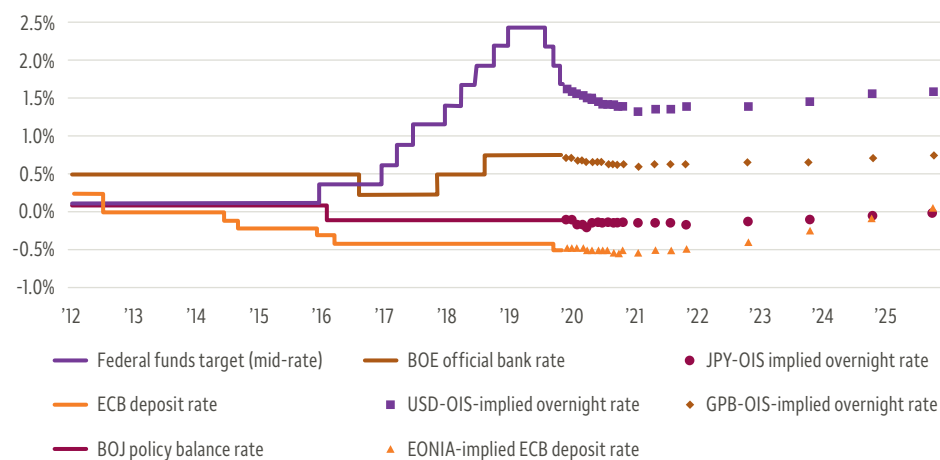
The major international currencies have traded in wide ranges against the U.S. dollar since 2015, but we believe the U.S. dollar is nearing a cyclical peak. We expect a growing supply of dollars to dominate the yield-seeking demand globally and to lead the dollar moderately lower.

The risks to this weaker dollar outlook include lower-probability possibilities for a larger move lower or even a new dollar rally. Broadening U.S. trade disputes or deepening domestic political divisions could damage the U.S. economy or encourage deeper Fed rate cuts and dollar depreciation. Global central bank action also is key. Should the Fed pause, while the European Central Bank (ECB) and Bank of Japan (BOJ) push rates to ever-more-negative levels, dollar strength could persist.

We foresee mixed trends for emerging market currencies. The environment is still challenging for the currencies of Pacific Rim economies, which have elevated political risks and are exposed to trade disputes. By contrast, we believe the economies now recovering after recessions, those making fiscal reforms, and those that have scope for positive political and institutional surprises (for example, Russia and Brazil) have the best chance to appreciate against the dollar.

Market expectations imply that the policy rate differential will narrow in 2020

If central bank policy rate differentials narrow in 2020, that would support our view that the dollar is nearing peak valuation relative to developed currencies.



Sources: Bloomberg and Wells Fargo Investment Institute, November 1, 2019. Policy-rate expectations are derived from the overnight index swaps (OIS) market. An overnight index swap is an interest rate swap involving the overnight rate being exchanged for a fixed interest rate. ECB = European Central Bank. BOJ = Bank of Japan. BOE = Bank of England. USD = U.S. dollar. EONIA = Euro overnight index average. JPY = Japanese yen. GBP = British pound sterling.

Solid fundamentals but greater uncertainty



Audrey Kaplan
Head of Global Equity Strategy

We expect resilient U.S. equities and favor U.S. large caps over U.S. small caps.

We remain comfortable that, overall, U.S. companies can weather the economic slowdown and increase their earnings again in 2020. For U.S. large-cap and mid-cap equities, we predict modest 5.9% and 3.0% earnings-per-share (EPS) growth rates, respectively. U.S. small caps may deliver 2020 earnings growth only slightly higher than that of large caps (6.3% versus 5.9%), not a premium that we believe compensates for their late-cycle risk.



Scott Wren
Senior Global Equity Strategist

The aging economic expansion clouds business decision making and leads to reduced business confidence and slower capital expenditures. Yet, three 2019 Fed interest rate cuts provide a late-cycle tailwind that, on balance, we believe will support slightly higher equity valuations in 2020, except in U.S. small-cap equities. We are projecting valuations—as measured by forward price/earnings (P/E)—at 18.3 times earnings for U.S. large caps and 17.9 times for mid caps. We foresee a small increase for our 2020 mid-cap valuation because mid caps show higher exposure than large caps to smaller manufacturers that often comprise global supply chains.



Ken Johnson, CFA
Investment Strategy Analyst

Small-cap equities should decline slightly. We project a P/E ratio of 23.3 times earnings, below the 2019 average, because we think some small-cap companies may have less ability to access capital and could face profit growth challenges as the U.S. economy slows. To prepare equity portfolios for 2020, we again favor the risk/reward balance in U.S. large- and mid-cap equities over small-cap equities.

We also favor high-quality equity classes and sectors over those of lower quality.

We favor equity sectors that have comparatively strong earnings and cash flows and attractive cash/debt positions. These quality and growth characteristics should help these sectors resist the worst of the market volatility we expect amid the uncertainty about the maturing economic cycle and geopolitical uncertainties. Thus, our favored sectors include Information Technology and Consumer Discretionary, based on their high quality and projected growth characteristics. We also favor the Financials sector, due to discounted valuations and the opportunity for yield. We have an unfavorable view on the Communication Services and Materials sectors, which exhibit low quality characteristics.

Favored international regions

- Developed Markets ex-U.S./ Pacific Region
- Emerging Markets/Europe, Middle East, and Africa Region

In international markets, we expect a wave of EPS downgrades and modest valuations

As we pointed out on page 4, China's programmed slowdown and the U.S.-China trade dispute are important trends that could affect manufacturing in 2020. These trends help explain a pattern of international EPS growth differences that we believe will continue. The chart below shows a snapshot of the trend. Countries where household spending on services is increasing rapidly (for example, Brazil, Italy, and China) have posted strong earnings growth, even while many countries that are major suppliers of industrial and technology goods struggled with earnings contraction (for example, Japan, Germany, and South Korea).

Policy and politics drive the widening international EPS divergence

Countries with strong services growth outperformed global suppliers of industrial products, while global suppliers' underperformance widened.



Sources: Wells Fargo Investment Institute and FactSet, as of November 4, 2019. Note: EPS for each country uses the MSCI All Country World Index (MSCI ACWI), except for the U.S., which uses the S&P 500 Index for EPS metrics.

We are neutral on most international regional guidance as we expect price returns in the low-to-mid single digits globally. However, despite poor profit growth in developed Asian equities (chart), attractive valuations and better-than-expected macro surprises have fueled a year-end market rally. And, 2020 may see a fiscal stimulus package in Japan for the first time since 2016. This MSCI Japan rally has momentum in our view as multiple valuation metrics support long-term opportunity.

A muted outlook for emerging market equities

The divergences in international EPS growth rates may create headwinds for emerging market equities heading into 2020. We project an overall modest increase in emerging market earnings (+4.8%), reflecting strong domestic growth muted by ongoing difficulties for companies sensitive to global manufacturing weakness. Meanwhile, emerging market equities are undervalued relative to U.S. equities, and we do not expect that this asset class will reflate. Using a forward P/E ratio of 12.4 times, which is consistent with the relatively depressed P/E ratio late in 2019, we retain a neutral rating consistent with a mid-single-digit price return for the MSCI Emerging Markets Index in 2020.

Developed market equities will be constrained by the slowdown in global trade

Developed markets currently show some attractive features, especially for investors looking for yield, but the previously discussed global divergence in earnings growth is likely to limit total returns to low single digits, consistent with a neutral rating. Germany, the U.K., and Hong Kong generated only 21.8%, 22.3%, and 45.0% of their revenue from domestic business, respectively. (The U.S. is comparatively more domestically oriented, with domestic revenue of 61.8%). We believe these vulnerabilities should drive a contraction of 3% in annual EPS for the MSCI EAFE Index. We expect low global yields to attract yield-oriented investors to the 3.5% dividend yield of the MSCI EAFE Index, a yield above many global bonds. We look for dividend yield to support a small P/E multiple expansion to 15.0 times earnings.

Key takeaways

- Our low-return outlook for U.S. equity markets indicates that the 10-year U.S. bull market is likely to remain intact but slow in 2020.
- We are neutral on U.S. and international equity classes, aside from our unfavorable view on U.S. small-cap equities.
- If geopolitical tensions ease, the valuations on international equity markets may rise and improve their outlook.

What it means for investors

- We see opportunities for attractive yields and modest price returns in most equity asset classes, and we favor opportunities to add quality and growth in our favored U.S. sectors.

Favored asset class

- High-quality U.S. Large Cap Equities

Favored equity sectors

- Information Technology
- Consumer Discretionary
- Financials

Finding opportunities amid historically low yields



Brian Rehling, CFA
Co-Head of Global Fixed
Income Strategy



George Rusnak, CFA
Co-Head of Global Fixed
Income Strategy



Luis Alvarado
Investment Strategy Analyst

Opportunities as the Fed ends its rate cuts

Slower, but still positive, growth should allow the Fed to take a patient approach to monetary policy in 2020. The Fed has been carefully cutting rates as part of its “mid-cycle adjustment.” We expect this current phase of Fed rate policy adjustment to end in 2020. While we expect a less active Fed in 2020, we remain convinced that rates across the yield curve will remain near historically low levels. Our 10-year and 30-year Treasury yield target ranges (1.25% to 1.75% and 1.75% to 2.25%, respectively) for year-end 2020 suggest modestly lower rates in longer maturities. Still, we anticipate a relatively flat Treasury yield curve in 2020.² The projected yield curve shape suggests that market risks remain elevated; we favor short-term and intermediate-term fixed income.

2. The Treasury yield curve was volatile in 2019—inverting for several months (with short-term interest rates above long-term rates).

The Treasury yield curve shape in late 2019 signaled potential issues ahead

In mid-2019, intermediate-term Treasury rates were lower than short-term Treasury rates, suggesting that investors foresaw higher future risk.



Sources: Bloomberg and Wells Fargo Investment Institute, as of November 1, 2019. Daily U.S. Treasury yield curve. Yields fluctuate as market conditions change. A yield curve is a curve on a graph in which the yield of fixed-interest securities is plotted against the length of time until maturity.

Nevertheless, even low U.S. interest rates we expect should remain significantly higher than those in other developed markets. Globally, the amount of negative-yielding debt outstanding³ increased over the past two years. Close to 70% of that negative-yielding debt has been from government bonds issued by Japan, France, and Germany. We remain unfavorable on developed market fixed income. The ECB and BOJ are likely to implement additional monetary easing measures. We currently favor a neutral stance on emerging market debt. We are concerned that this fixed-income class will struggle at times in 2020 as valuations and geopolitical uncertainty potentially increase risks.

Low yields complicate the search for income

The exceptionally low-yield environment may be leading some investors to take increased risks in the search for yield opportunities. We believe that it is important for investors to fully understand the risks associated with investments in lower-rated fixed-income securities. We remain unfavorable on the high-yield debt class, while current valuations are near historically expensive levels.

We acknowledge that a more defensive credit posture can challenge income-oriented investors, but we favor other ways to prepare portfolios for the year ahead. Instead of high-yield debt, we favor higher credit quality and, more generally, a diversified income approach across asset classes. In addition to investment-grade credit, we also continue to favor preferred securities, which were among the best fixed-income performers in 2019. While it is unlikely that this performance will persist (given what we view as full valuations in this sector), we do view the preferred security sector as attractive for investors focused on income generation.

Municipal bonds attractive for high-income investors

For investors in higher effective tax brackets, we believe municipal securities remain an important part of fixed-income positioning. We expect municipal demand to remain strong in high-tax states. Yet, with limited supply and valuation increases fueled by strong demand, investors must be selective in their purchases. 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. Several leading Democratic presidential candidates have proposed either rolling back the recently passed tax cuts or implementing new taxes (such as a wealth tax). If taxes were to rise, this could make municipal bonds' tax benefits even more attractive.

3. The U.S. dollar value of this debt ranged between \$10 trillion and \$17 trillion for most of 2019.

Key takeaways

- We expect the Fed to take a more wait-and-see approach to monetary policy in 2020.
- The low-yield environment may encourage income-oriented investors to take increased risks. We suggest that investors fully understand the risks associated with lower-rated fixed-income securities.

What it means for investors

- We expect U.S. rates to decline modestly from current levels and believe investors should consider shifting out on the maturity spectrum to add intermediate maturities.
- We prefer higher-quality fixed-income issues.

Favored asset classes

- U.S. Taxable Investment Grade Fixed Income
 - U.S. Short Term Taxable
 - U.S. Intermediate Term Taxable

Favored fixed-income sectors

- U.S. Investment Grade Credit
- Preferred Securities
- Residential Mortgage-Backed Securities

Bright spots amid a neutral overall outlook



John LaForge
Head of Real Asset Strategy



Austin Pickle, CFA
Investment Strategy Analyst

In 2020—it's the economy

We expect slow but positive global economic growth to be the prevailing factor influencing real assets in 2020 and therefore suspect that commodities will be neutral performers. There will be exceptions, of course. Oil may have some upside potential, as global geopolitical risk remains high and we suspect that U.S. crude-oil production growth may slow somewhat. In our view, global real estate investment trusts (REITs) will be challenged by slowing economic growth, and low interest rates may not be quite the tailwind they were in 2019. We expect master limited partnerships (MLPs) to perform well in 2020, generally outperforming both REITs and commodities.

Commodities seem set for a modest recovery

We expect commodity prices, in general, to rebound modestly in 2020, after mixed performance in 2019. Industrial metals (excluding nickel) and agriculture were hit the hardest in 2019 and should end 2020 near current levels. For precious metals to have a repeat of their strong 2019 performance, we likely would need to see a good deal more negative-yielding debt globally. Commodities generally may be most affected by some combination of a weaker U.S. dollar, the de-escalation of the China trade dispute, and lower long-term interest rates. Our 2020 year-end target for the Bloomberg Commodity Index (total return) is 175, and we hold a neutral rating on commodities. This suggests a mid-single-digit 2020 return for this asset class.

Geopolitical risk should support crude-oil prices

Crude oil, and its energy derivatives such as gasoline, could outperform other commodities in 2020. Our year-end 2020 target range for West Texas Intermediate (WTI) crude oil is \$55 to \$65 (with a \$60 midpoint). This is roughly 10% higher than the WTI price in the third quarter of 2019. We expect that the main driver for U.S. crude-oil production will be slower economic growth in the main oil-consuming countries. However, we expect additional price support from the volatile geopolitical backdrop in oil-producing countries.

A moderate outlook for gold

Our 2020 year-end target range for gold is \$1,500 to \$1,600, which suggests modest upside potential. Global gold production growth has declined somewhat in recent years, which could provide a trigger for an upside move. The most important factor, however, likely will be the continued global buildup of negative-yielding debt. With many developed market interest rates close to zero, or below it, investors could gravitate toward gold.

Neutral on REITs, but favorable on MLPs

We enter 2020 with a neutral position for global REITs. We expect global REITs to continue to benefit from low interest rates and bouts of market angst.

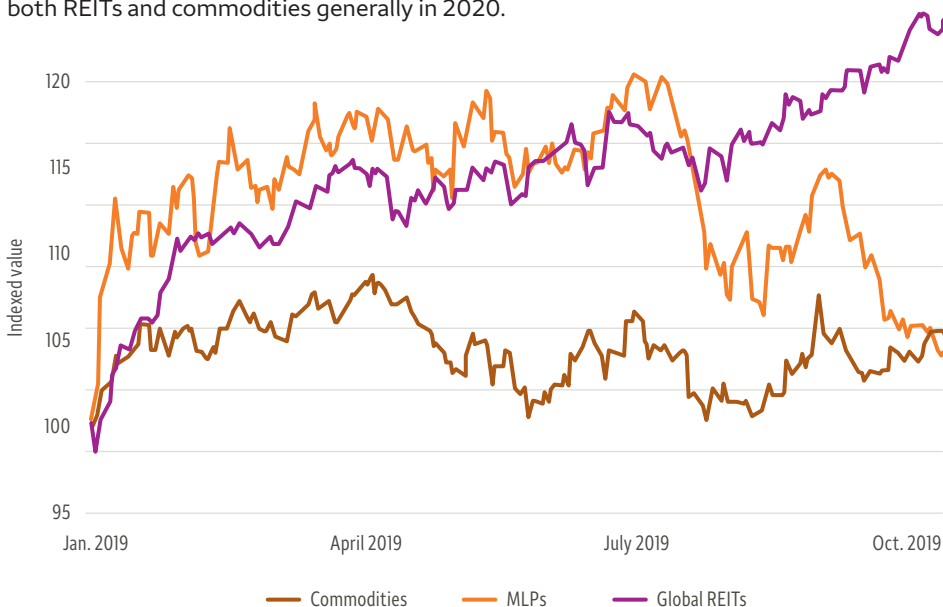
Currently, REIT fundamentals are slowly weakening, valuations are stretched, long-term interest rates are no longer in free fall, and the age of the economic expansion is a concern. These competing forces have led us to our neutral view.

In Private Real Estate, we anticipate further pricing pressure as economic growth weakens. We favor sectors that can benefit from demographic trends, including multi-family housing, senior living, and industrial. Public-to-private REIT transactions could potentially become a significant driver of positive returns.

By contrast, MLPs lost ground to REITs when oil prices declined in mid-2019 (see chart below), which we interpret as a potential opportunity. MLP fundamentals appear solid: Yields are quite attractive, and the U.S. energy boom continues. We believe that MLPs have finally turned the corner after a string of years with unfavorable returns prior to 2019. We favor those that are large, broadly diversified, and well capitalized.

MLP mid-2019 underperformance may offer an opportunity to add exposure

Although global REITs outperformed in 2019, we believe that MLPs likely will outperform both REITs and commodities generally in 2020.



Key takeaways

- Our 2020 forecast is for commodity prices to rebound slightly, after mixed performance in 2019.
- MLPs currently remain very cheap relative to other high-yielding categories, and fundamentals appear solid. REITs may face headwinds that leave us neutral.

What it means for investors

- We expect MLPs should be the best performer in real assets, followed by commodities in general, and global REITs. We believe that gold prices will rally but not as strongly as in 2019.
- We believe oil has approximately 10% upside as U.S. crude production growth slows and global geopolitics remain volatile.

Favored real assets

- MLPs
- Private Real Estate: Opportunistic

Sources: Bloomberg and Wells Fargo Investment Institute, daily data from January 1, 2019, to November 1, 2019.

Indexed to 100 as of start date. Commodities are represented by the Bloomberg Commodity Index. Master limited partnerships (MLPs) are represented by the Alerian MLP Index. Global REITs are represented by the FTSE EPRA/NAREIT Developed Index. Each index represents total returns.

Index returns do not represent investment performance or the results of actual trading. Index returns reflect general market results; assume the reinvestment of dividends and other distributions; and do not reflect deductions for fees, expenses, or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment.

Hypothetical and past performance is no guarantee of future results. Please see Notes at the end of this report for the composition of the portfolio, definitions of indices, and descriptions of asset-class risks.

Slower growth could put a spotlight on alternatives



Adam Taback
Head of Global Alternative Investments



James Sweetman
Senior Global Alternative Investment Strategist



Justin Lenarcic, CAIA
Global Alternative Investment Strategist



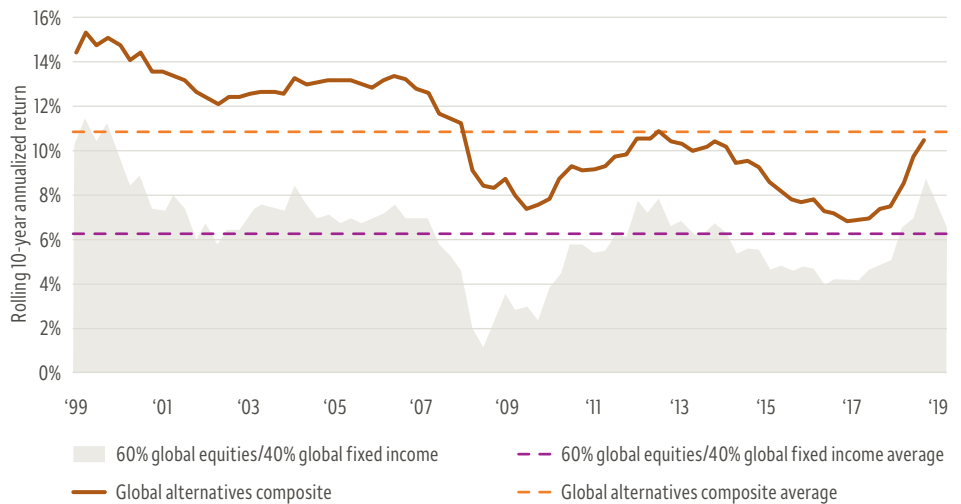
Yegin Chen, Ph.D.
Senior Global Alternative Investment Strategist

Global alternatives merit consideration in an aging economic expansion

We expect that many of the pro-risk drivers supporting asset prices will weaken in 2020. Our expectations for slowdown in developed market economic growth, muted returns for U.S. and developed market (ex-U.S.) equities, and exceptionally low fixed-income yields should hamper returns for traditional stock and bond portfolios. As a result, we expect that qualified investors will increasingly look to alternative investments to meet return objectives, especially considering their outperformance over the past three decades.

Meeting long-term objectives could become more difficult

In an environment of slowing economic growth and low yields, we believe that global alternative investments could continue their historical outperformance.



Sources: Bloomberg and Wells Fargo Investment Institute, as of September 30, 2019. Benchmarks for the 60% global equities/40% global fixed income portfolio are 60% MSCI World Total Return Index and 40% Bloomberg Barclays Global Aggregate Bond Index. The global alternatives composite is represented by 25% HFRI Fund Weighted Composite Index, 25% Cambridge Associates U.S. Private Equity Index, 25% NCREIF Property Index, and 25% ILPA Private Credit Index.

Index returns do not represent investment performance or the results of actual trading. Index returns reflect general market results; assume the reinvestment of dividends and other distributions; and do not reflect deductions for fees, expenses, or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Hypothetical and past performance is no guarantee of future results.** Please see Notes at the end of this report for the composition of the portfolio, definitions of indices, and descriptions of asset-class risks.

Alternative investments are not suitable for all investors and are only open to “accredited investors” or “qualified investors” within the meaning of the U.S. securities laws. They are speculative, highly illiquid, and designed for long-term investment and not as trading vehicles.

Hedge funds—we expect a good year for stock pickers

Given the prospect of slowing economic growth, we have reduced our cyclical view for Relative Value to neutral. As yield-hungry investors gravitated to Structured Credit, spreads tightened while risks increased. This led us to moderate our return expectations to be more in line with historical averages.

With that said, we anticipate that an allocation to Structured Credit strategies—especially if combined with Long/Short Credit strategies—can potentially benefit investors through diversification, income, and potential downside risk mitigation.

The Macro strategy has historically done well late in the cycle, and helped provide diversification during periods of heightened volatility. We are becoming more constructive on Systematic Macro strategies, especially those outside of the traditional Trend Following category; we have upgraded our view to neutral from unfavorable, as we expect to see a modest increase in volatility in 2020.

Deal-focused strategies, such as Merger Arbitrage and Activist, may face challenges as the election cycle and tariff negotiations could reduce corporate activity. However, based on our expectations for an increase in the volume of stressed and distressed bonds, as well as an eventual increase in the default rate, we maintain a favorable view for Event Driven strategies specializing in distressed debt. While it is possible that stock correlations will increase slightly as volatility increases, we think 2020 will be good for stock pickers and maintain our favorable view for Equity Hedge.

Private Capital—we favor the niche and opportunistic

Multiples remain higher than historical averages, currently reducing investors' illiquidity premium in many large private equity buyout strategies. Furthermore, exit activity, especially initial public offerings (IPOs), may slow in 2020, dampening index returns and potentially lead to more public-to-private transactions. However, we do see a broader opportunity for investors to raise their exposure to private equity, potentially deploying fresh capital into repriced markets. We also remain focused on geographic opportunities, primarily in Asia, as well as secondary funds for which both transaction volume and specialized opportunities we expect to continue to grow.

Direct lending and origination strategies should remain in focus, and Private Debt investors should consider navigating earnings adjustments and reduced creditor protections.⁴ We anticipate growing opportunities for Distressed Debt investing, especially in cyclical sectors such as Information Technology. Finally, we see continued opportunities to purchase assets from banks needing to adhere to regulatory guidelines to bolster their balance sheets.

4. Covenants placed on borrowers by lenders to mitigate risk of default.

Key takeaways

- We have reduced our cyclical view for Relative Value to neutral and upgraded our view of Trend Following Macro strategies to neutral.
- We prefer Private Capital strategies focused on Asia, secondary transactions, and direct lending and origination.

What it means for investors

- Several tailwinds supporting asset prices may be dissipating, which could underscore the importance of alternative investments in meeting long-term investment objectives.
- We prefer Hedge Fund strategies that do not rely on market direction, and we anticipate opportunities for several niche Private Capital strategies.

Favored hedge fund strategies

- Equity Hedge
- Event Driven: Distressed
- Macro: Discretionary

Favored private capital strategies

- Private Debt: Distressed
- Private Equity: Secondaries

Tilt away from higher-risk asset classes



Tracie McMillion, CFA
Head of Global
Asset Allocation Strategy



Chris Haverland, CFA
Global Asset Allocation Strategist



Mike Taylor, CFA
Investment Strategy Analyst



Michelle Wan, CFA
Investment Strategy Analyst



Charlotte Woodhams
Investment Strategy Analyst

Alternative investments are not suitable for all investors and are only open to “accredited investors” or “qualified investors” within the meaning of the U.S. securities laws. They are speculative, highly illiquid, and designed for long-term investment and not as trading vehicles.

1. Cash has a place in a portfolio

Keeping cash above long-term target allocations just because markets are volatile historically may have hindered many investors from achieving their long-term goals. However, we believe cash alternatives can have a place in an investment portfolio for rebalancing and tactical opportunities. If the pattern of resilient markets continues this year as we expect, investors should find opportunities to take profits when markets exceed our price or yield target ranges. There may also be chances to put cash back to work when political or other stresses push markets below our targets. By rebalancing in this way, cash can become a tactical tool that may enhance returns when market swings become more pronounced.

2. Focus on quality

When it comes to investing in an uncertain environment, we believe that quality matters at the asset-class and sector levels. For quality, we focus on U.S.-based large-cap companies with sizable cash positions, strong balance sheets, and growing dividends or share buybacks. Two equity sectors that currently share these characteristics are Information Technology and Consumer Discretionary. Within fixed income, we focus on reallocating from low-quality high yield to highly rated U.S. corporate bonds.

3. Go beyond traditional fixed income for potential yield

While today’s low-rate environment could persist, we do see several opportunities to pick up potential yield beyond low U.S. Treasury rates. We favor high-quality U.S. corporate bonds, residential mortgage-backed securities, and preferred securities. Outside of fixed income, investors can find relatively attractive yields among international equities, which on average have higher dividend yields today than U.S. equities, as well as in more defensive sectors such as Consumer Staples, Real Estate, and Utilities, where we favor market-weight exposures. In addition, we continue to favor MLPs, where we see reasonable valuations and solid fundamentals.

4. Defense can be a good offense

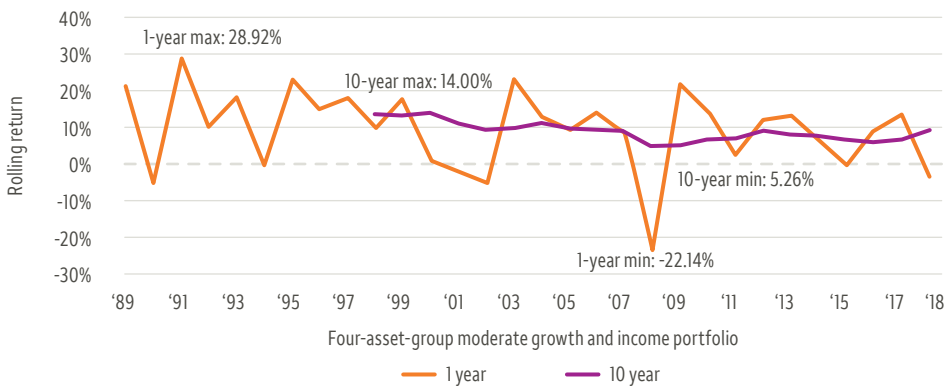
Hedge fund strategies that have the potential to profit in both up and down markets may provide a good alternative late in the economic expansion. Over the next few years, we favor Equity Hedge strategies. In addition, investors can play defense with their equity sector allocations. We are currently neutral on the defensive Consumer Staples, Real Estate, and Utilities sectors, and unfavorable on the Materials and Communications Services sectors, which we expect to underperform in a late-cycle economy.

5. Focus on longer-term diversification, as shorter periods are likely to be volatile

Given our expectation for economic, political, and monetary policy uncertainty in 2020, we favor positioning for heightened volatility. As painful as market downturns can be, they are a normal part of investing; historically, large-cap equities have experienced pullbacks of 5% or greater three to four times per year and corrections of 10% or more every year or so. Investors may reduce short-term volatility risk by using cash tactically, focusing on high-quality assets, and positioning into more defensive asset classes and sectors. We believe one of the best long-run approaches is to diversify across a combination of low-correlated assets and regularly rebalance back to strategic targets (see the chart below).

Yearly returns of a diversified portfolio have been more volatile than 10-year returns

The range of returns from year to year is from -22.1% to 29.0%, but on a rolling 10-year basis the range narrowed to 5.3% to 14.0%. This highlights the importance of a long-term perspective.



Sources: Morningstar Direct and Wells Fargo Investment Institute. Data from December 31, 1989, to December 31, 2018

Four-asset-group moderate growth and income portfolio: 3% Bloomberg Barclays U.S. Treasury Bills (1–3 Month) Index, 16% Bloomberg Barclays U.S. Aggregate 5–7 Year Bond Index, 6% Bloomberg Barclays U.S. Aggregate 10+ Year Bond Index, 6% Bloomberg Barclays U.S. Corporate High Yield Bond Index, 5% JPM EMBI Global Index, 20% S&P 500 Index, 10% Russell Mid Cap Index, 8% Russell 2000 Index, 6% MSCI EAFE Index, 5% MSCI Emerging Markets Index, 3% HFRI Relative Value Index, 6% HFRI Macro Index, 4% HFRI Event Driven Index, 2% HFRI Equity Hedge Index.

Performance results for the Moderate Growth and Income Four-Asset Group portfolio model are hypothetical and for illustrative purposes only. Index returns do not represent investment performance or the results of actual trading. Index returns reflect general market results; assume the reinvestment of dividends and other distributions; and do not reflect deductions for fees, expenses, or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment.

Hypothetical and past performance is no guarantee of future results. Please see the end of this report for the definitions of indices and descriptions of asset-class risks.

Economic and market forecasts

We expect a modest slowdown in U.S. economic growth and continued mild inflation.

We believe the 10-year U.S. bull market is likely to remain intact.

We continue to expect a low-yield environment in the year ahead.

We expect commodity prices to rebound modestly in 2020.

Global economy	2020 (year-end target)	2019 (year to date)	2018 (actuals)
U.S. GDP growth	1.8%	2.3% ¹	2.9%
U.S. inflation	2.2%	1.8% ²	2.5%
U.S. unemployment rate	3.6%	3.6% ²	3.9%
Global GDP growth	3.0%	3.6% ³	3.6%
Developed market GDP growth	1.6%	1.8% ³	1.8%
Developed market inflation	1.9%	1.6% ³	1.6%
Emerging market GDP growth	4.0%	4.9% ³	4.9%
Emerging market inflation	4.6%	6.9% ³	6.9%
Eurozone GDP growth	1.0%	0.8% ¹	1.9%
Eurozone inflation	1.3%	0.7% ²	1.5%
Dollar/euro exchange rate	\$1.11–\$1.19	\$1.10	\$1.15
Yen/dollar exchange rate	¥99–¥109	¥109	¥110

Global equities			
S&P 500 Index	3,200–3,300	3,087	2,507
Earnings per share	\$175	\$164	\$162
Russell Midcap Index	2,380–2,480	2,290	1,857
Earnings per share	\$131	\$115	\$124
Russell 2000 Index (small cap)	1,580–1,680	1,595	1,349
Earnings per share	\$67	\$52	\$62
MSCI EAFE Index	1,980–2,080	1,976	1,720
Earnings per share	\$129	\$125	\$132
MSCI Emerging Markets Index	1,080–1,180	1,053	966
Earnings per share	\$87	\$79	\$82

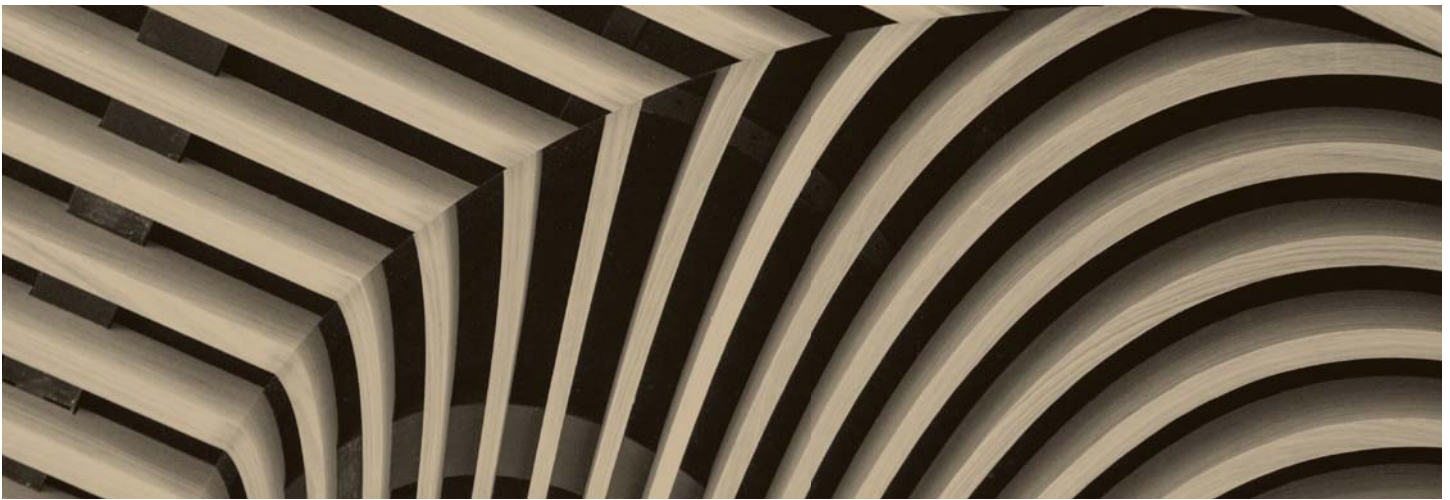
Global fixed income			
10-year U.S. Treasury yield	1.25%–1.75%	1.94%	2.68%
30-year U.S. Treasury yield	1.75%–2.25%	2.42%	3.01%
Federal funds rate	1.25%–1.50%	1.50%–1.75%	2.40%

Global real assets			
West Texas Intermediate crude price (barrel)	\$55–\$65	\$57	\$45
Brent crude price (barrel)	\$60–\$70	\$62	\$54
Gold price (troy ounce)	\$1,500–\$1,600	\$1,456	\$1,281
Bloomberg Commodity Index (total return)	170–180	168	160

Sources: Wells Fargo Securities Economics Group, Bloomberg, and Wells Fargo Investment Institute, December 2, 2019. Market pricing for 2019 as of November 11, 2019, unless noted. GDP = gross domestic product. Wells Fargo Investment Institute forecast and targets. Forecast and targets are based on certain assumptions and on our current views of market and economic conditions, which are subject to change.

1. As of September 30, 2019
2. As of October 31, 2019
3. As of December 31, 2018

Risks to our forecasts



Global economy

- The likelihood of a U.S. recession depends upon whether (or how quickly) weak manufacturing cracks the economic expansion's foundation in job and wage growth and associated consumer confidence.
- If geopolitical shocks do not derail the expansion first, interest rate cuts eventually could give the global economy some traction.

Global equities

- Investors could become unwilling to hold equities at reasonable valuations because they fear that: (1) monetary policy has become ineffective as the economic cycle extends or (2) global political uncertainties weigh more on consumer sentiment, and ultimately on earnings.
- Geopolitical uncertainty could cause waves of volatility even if equity prices trend higher.

Global fixed income

- We see risk to the downside in our rate forecasts; the likelihood of accelerating growth appears to be low, while the risks of a deeper slowdown remain elevated.
- Given the increased uncertainty, we recommend investors refrain from extending further into lower-quality issues as they search for yield.

Global real assets

- If the U.S. and global economies fall into a recession, broad commodity demand and prices would decline. Additionally, the price of WTI oil could drop and stay below \$50, which would likely renew investors' disdain for anything energy related.
- Global REIT performance is highly sensitive to long-term interest rates. As such, a major downside risk is if these rates spike higher.

Global alternative investments

- A significant and rapid improvement in global economic growth leading to a further extension of the bull market would negatively affect the relative performance of hedge funds compared with long-only benchmarks.
- A loosening of bank lending could prolong the inception of the default cycle, postponing the opportunity for distressed debt investors.

Alternative investments are not suitable for all investors and are only open to "accredited investors" or "qualified investors" within the meaning of the U.S. securities laws. They are speculative, highly illiquid, and designed for long-term investment and not as trading vehicles.

Environmental, social, and corporate governance (ESG) investing

Key questions we will address in this report

- What is ESG or “responsible” investing?
- How large is the ESG market today?
- What factors are driving demand for responsible investment strategies?
- How might a responsible investing approach affect a portfolio’s return potential?

This report will be available in Spring 2020.

ESG trends—investing with a purpose

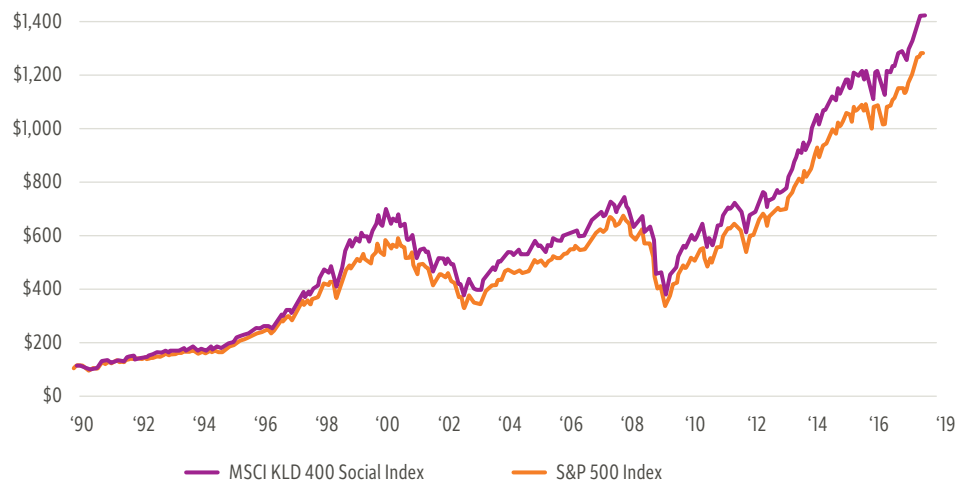
There is growing investor interest in aligning portfolios with personal values, also known as responsible investing. One way to potentially align investments with this goal is through an investment approach that uses environmental, social, and corporate governance criteria. An ESG approach may focus on issues such as climate change, pollution control, gender and diversity, human rights, or board composition. These issues are often interlinked, and it can be challenging to classify a single ESG-related concern as only environmental, social, or governance related.

There is a misconception that ESG and responsible investing impose hurdles on performance. To the contrary, studies suggest that, over the long term, ESG-driven and responsible investment strategies historically have met or exceeded the performance of comparable traditional investments on both an absolute and a risk-adjusted basis.⁵

Responsible investment strategies do come with certain risks. An investment’s social policy may prohibit exposure to certain industries, companies, sectors, or regions, which could impede performance compared to similar investments that allow such exposure. We expect that the responsible investment choices available will continue to expand. In our view, ESG factors could become standard investment strategy components, particularly for those investors who seek greater transparency.

5. *Journal of Banking and Finance*, 2005; *Journal of Banking and Finance*, 2011; and *Journal of Investing*, 2011.

Responsible and traditional investment strategies have performed similarly



For illustrative purposes only. Returns do not represent investment performance or the results of actual trading. Index returns reflect general market results; assume the reinvestment of dividends and other distributions; and do not reflect deductions for fees, expenses, or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Hypothetical and past performance is no guarantee of future results.** Please see Notes at the end of this report for the composition of the portfolio, definitions of indices, and descriptions of asset-class risks.

Source: Bloomberg, December 31, 2018. Monthly data from April 30, 1990, to September 30, 2019. Assumes \$100 was invested on April 30, 1990.

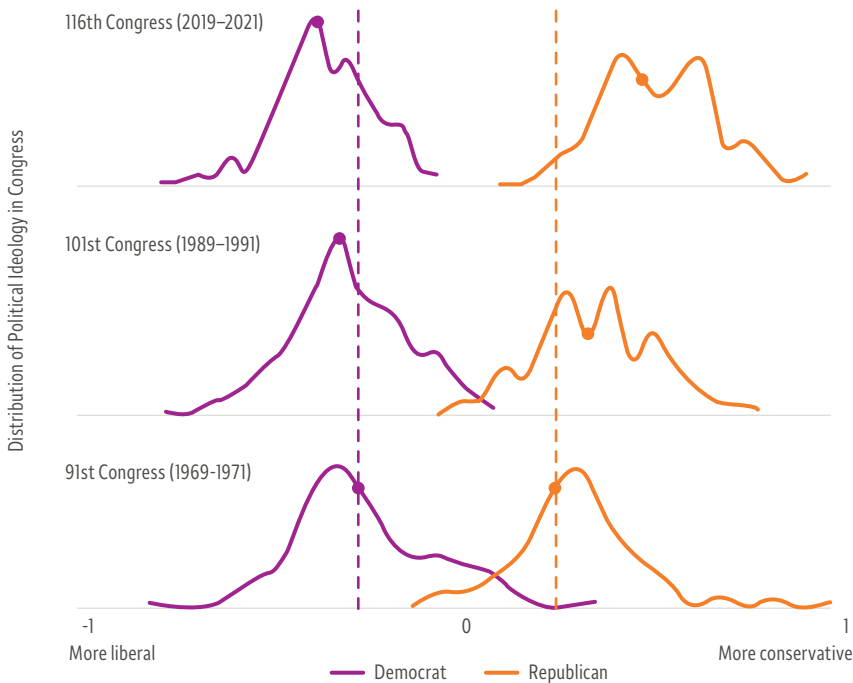
Guide to the 2020 elections

Important policy issues for the electorate this year include taxes and regulation, trade, energy and environment, fiscal and monetary, health care, and immigration. Policy solutions to these issues vary dramatically across party lines. Moreover, as the chasm between the parties widened, the percentage of voters who identify as political independents has risen significantly, especially during the past five years.⁶

6. "Party Affiliation," Gallup, November 11, 2019. The percentage of self-identified political independents has averaged 41% in Gallup polls since January 1, 2015, up five percentage points over the January 1, 2004–December 31, 2014, average.

Political polarization: Politics and populism

Ideological polarization has grown between Republicans and Democrats in the past 50 years.



Beyond the partisan divide, other issues also make the 2020 elections simultaneously difficult to predict and potentially significant. For example, the U.S. economy appears to be late in its economic expansion and an economic recession could follow a political shock, either during the campaign season or after the new government is seated. Finally, and not least, international relations are going through arguably their most significant adjustments since the end of the Cold War in the early 1990s. What the candidates say and what the new leaders do regarding foreign affairs could imply more than the usual amount of change in the economy and in market sentiment.

Key questions we will address in this series of reports

- What should investors pay attention to during the presidential debates?
- How might political parties' positions on the issues affect our asset-class and equity sector ratings?
- Should voters rely on opinion polls? What role might big data and social media play in determining polling results and voter turnout?
- Is a single party likely to dominate in races across the Senate, the House, and the White House?

A series of reports throughout the year will cover election insights and potential impacts.

Sources: Jeffrey B. Lewis, Keith Poole, Howard Rosenthal, Adam Bache, Aaron Rudkin, and Luke Sonne (2018). Voteview: Congressional Roll-Call Votes Database <https://voteview.com/>.

Note: Dashed line represents 91st Congress party median. Dot represents party median. For each time period shown, the distributions reflect the correlation between a congressional member's vote and the position of the member's party leadership, issue by issue and for all members of Congress that caucus with the Democrats and the Republicans.

Definitions

The **Alerian MLP Index** is a float-adjusted, capitalization-weighted index, whose constituents represent approximately 80% of total float-adjusted market capitalization, and is disseminated real-time on a price-return basis (AMZ) and on a total-return basis (AMZX).

The **Bloomberg Barclays 1-3 Month Treasury Bill Index** includes all publicly issued zero-coupon U.S. Treasury bills that have a remaining maturity of less than three months and more than one month, are rated investment grade, and have \$250 million or more of outstanding face value. In addition, the securities must be denominated in U.S. dollars and must be fixed rate and nonconvertible.

The **Bloomberg Barclays Global Aggregate Bond Index** provides a broad-based measure of the global investment grade fixed-rate debt markets. It is comprised of the U.S. Aggregate, Pan-European Aggregate, and the Asian-Pacific Aggregate Indexes. It also includes a wide range of standard and customized subindices by liquidity constraint, sector, quality and maturity.

The **Bloomberg Barclays U.S. Aggregate 5-7 Year Bond Index** is unmanaged and is composed of the Bloomberg Barclays U.S. Government/Credit Index and the U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities with maturities of five to seven years.

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

The **Bloomberg Barclays U.S. Corporate High Yield Bond Index** covers the universe of fixed-rate, non-investment-grade debt.

The **Bloomberg Commodity Index** is a broadly diversified index composed of 22 exchange-traded futures on physical commodities and represents 20 commodities weighted to account for economic significance and market liquidity.

The **Cambridge Associates LLC U.S. Private Equity Index** uses a horizon calculation based on data compiled from 1,334 U.S. private equity funds (buyout, growth equity, private equity, energy, and mezzanine funds), including fully liquidated partnerships, formed between 1986 and 2016.

The **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.

The **Consumer Price Index (CPI)** produces monthly data on changes in the prices paid by urban consumers for a representative basket of goods and services.

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

The **HFRI Equity Hedge Index** is managed by maintaining positions both long and short in primarily equity and equity derivative securities.

The **HFRI Event Driven Index** is managed by maintaining positions in companies currently or prospectively involved in corporate transactions of a wide variety including but not limited to mergers, restructurings, financial distress, tender offers, shareholder buybacks, debt exchanges, security issuance or other capital structure adjustments.

The **HFRI Fund Weighted Composite Index** is 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 US Dollar 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.

The **HFRI Macro Index** is managed by trading a broad range of strategies in which the investment process is 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.

The **HFRI Relative Value Index** is managed by maintaining positions in which the investment thesis 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.

The **ILPA (Institutional Limited Partners Association) Private Credit Fund Index** is a horizon calculation based on data compiled from 269 private credit funds (credit opportunities and subordinated capital funds), including fully liquidated partnerships, formed between 1986 and 2017.

The **J.P. Morgan Emerging Market Bond Index Global (EMBI Global)** currently covers 27 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.

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

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

The **MSCI Emerging Markets Index** is a free-float-adjusted market-capitalization-weighted index that is designed to measure equity market performance of emerging markets.

The **MSCI Japan Index** is designed to measure the performance of the large- and mid-cap segments of the Japanese market. With 321 constituents, the index covers about 85% of the free float-adjusted market capitalization in Japan.

The **MSCI KLD 400 Social Index** includes 400 companies with high ESG ratings relative to the constituents in the MSCI USA Investable Market Index, while maintaining sector weights similar to the MSCI USA Investable Market Index. The index excludes companies with significant business activities involving alcohol, tobacco, firearms, gambling, nuclear power, or military weapons.

The **MSCI World Total Return Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of 23 developed market countries including the United States. Total return is measured by assuming that all cash distributions are reinvested.

MSCI makes no express or implied warranties or representations and shall have no liability whatsoever with respect to any MSCI data contained herein. The MSCI data may not be further redistributed or used as a basis for other indices or any securities or financial products. This report is not approved, reviewed, or produced by MSCI.

The **NCREIF Property Index** provides a historical measurement of property-level returns to increase the understanding of, and lend credibility to, real estate as an institutional investment asset class. The NPI goes back to Fourth Quarter 1977 and is comprised exclusively of operating properties acquired, at least in part, on behalf of tax-exempt institutions and held in a fiduciary environment.

The **Russell Midcap Index** measures the performance of the 800 smallest companies in the Russell 1000 Index.

The **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.

The **S&P 500 Index** is an unmanaged index generally considered representative of the U.S. stock market.

Risk considerations

Forecast and targets are based on certain assumptions and on our current views of market and economic conditions, which are subject to change.

All investing involves risks, including the possible loss of principal. There can be no assurance that any investment strategy will be successful and meet its investment objectives. Investments fluctuate with changes in market and economic conditions and in different environments due to numerous factors, some of which may be unpredictable. Asset allocation and diversification do not guarantee investment returns or eliminate risk of loss. Each asset class has its own risks and return characteristics, which should be evaluated carefully before making any investment decision. The level of risk associated with a particular investment or asset class generally correlates with the level of return the investment or asset class might achieve. Some of the risks associated with the representative asset classes include:

General market risks

Stock markets, especially foreign markets, are volatile. A stock's value may fluctuate in response to general economic and market conditions, the prospects of individual companies, and industry sectors. International investing has additional risks including those associated with currency fluctuation, political and economic instability, and different accounting standards. This may result in greater share price volatility. These risks are heightened in emerging markets. Investing in small- and mid-cap companies involves additional risks, such as limited liquidity and greater volatility.

Investments in fixed-income securities, including municipal securities, are subject to market, interest rate, credit, liquidity, inflation, prepayment, extension, and other risks. Bond prices fluctuate inversely to changes in interest rates. Therefore, a general rise in interest rates can result in a decline in the bond's price. 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 securities may also be subject to the alternative minimum tax and 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. If sold prior to maturity, fixed-income securities are subject to market risk. All fixed-income investments may be worth less than their original cost upon redemption or maturity.

Similar to bonds, preferred securities are interest rate sensitive. Their dividends are not guaranteed and are subject to change. Some preferred securities include a call provision, which may negatively affect the return of the security. A prerefunded bond is a callable bond collateralized by high-quality securities, typically Treasury issues. U.S. government securities are backed by the full faith and credit of the federal government as to payment of principal and interest if held to maturity. Although free from credit risk, they are subject to interest rate risk. Mortgage-related and asset-backed securities are subject to prepayment and call risks in addition to the risks of investing in debt securities. Call risk is the risk that the issuer will redeem the issue prior to maturity. This may result in reinvestment risk, which means the proceeds will generally be reinvested in a less favorable environment. Changes in prepayments may significantly affect yield, average life, and expected maturity.

Sustainable investing focuses on companies that demonstrate adherence to environmental, social and governance principles, among other values. There is no assurance that social impact can be an effective strategy under all market conditions. Different investment styles tend to shift in and out of favor. In addition, a fund's social policy could cause it to forgo opportunities to gain exposure to certain industries, companies, sectors or regions of the economy which could cause it to underperform similar portfolios that do not have a social policy. In addition, there can be no guarantee that the companies invested in by a fund will exhibit positive or favorable ESG characteristics.

Sector investing

Sector investing can be more volatile than investments that are broadly diversified over numerous sectors of the economy and will increase a portfolio's vulnerability to any single economic, political, or regulatory development affecting the sector. This can result in greater price volatility. **Communication services** companies are vulnerable to their products and services becoming outdated because of technological advancement and the innovation of competitors. Companies in the communication services sector may also be affected by rapid technology changes; pricing competition, large equipment upgrades, substantial capital requirements and government regulation and approval of products and services. In addition, companies within the industry may invest heavily in research and development which is not guaranteed to lead to successful implementation of the proposed product. Risks associated with the **Consumer Discretionary** sector include, among others, apparel price deflation due to low-cost entries, high inventory levels and pressure from e-commerce players; reduction in traditional advertising dollars, increasing household debt levels that could limit consumer appetite for discretionary purchases, declining consumer acceptance of new product introductions, and geopolitical uncertainty that could affect consumer sentiment. **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 the 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 the **Financial services** companies will subject a investment 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 and development risk, government regulations and government approval of products anticipated to enter the market. There is increased risk investing in the **Industrials** sector. The industries within the sector can be significantly affected by general market and economic conditions, competition, technological innovation, legislation and government regulations, among other things, all of which can significantly affect a portfolio's performance. **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. **Real estate** investments have special risks, including possible illiquidity of the underlying properties, credit risk, interest rate fluctuations, and the impact of varied economic conditions. Risks associated with the **Technology** sector include increased competition from domestic and international companies, unexpected changes in demand, regulatory actions, technical problems with key products, and the departure of key members of management. Technology and Internet-related stocks smaller, less-seasoned companies, tend to be more volatile than the overall market. **Utilities** are sensitive to changes in interest rates, and the securities within the sector can be volatile and may underperform in a slow economy.

Alternative investments

Alternative investments, such as hedge funds, private equity/private debt, and private real estate funds, 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. They entail significant risks that can include losses due to leveraging or other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in a fund, potential lack of diversification, absence and/or delay of information regarding valuations and pricing, complex tax structures and delays in tax reporting, and less regulation and higher fees than mutual funds. Hedge fund, private equity, private debt, and private real estate fund investing involve other material risks, including capital loss and the loss of the entire amount invested. A fund's offering documents should be carefully reviewed prior to investing.

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. 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. Private capital investments are complex, speculative investment vehicles not suitable for all investors. They are not subject to the same regulatory requirements as registered investment products and engage in leverage and other aggressive investment practices. There is often limited (or even non-existent) liquidity and a lack of transparency regarding the underlying assets.

Hedge fund strategies, such as Arbitrage, Event Driven, Equity Hedge, Relative Value, Structured Credit, Long/Short Credit, and Discretionary Macro, may expose investors to the risks associated with the use of short selling, leverage, derivatives, and arbitrage methodologies. Short sales involve leverage and theoretically unlimited loss potential because the market price of securities sold short may continuously increase. The use of leverage in a portfolio varies by strategy. Leverage can significantly increase return potential but create greater risk of loss. Derivatives generally have implied leverage, which can magnify volatility and may entail other risks, such as market, interest rate, credit, counterparty, and management risks. Private capital investments are complex, speculative investment vehicles not suitable for all investors. They are not subject to the same regulatory requirements as registered investment products and engage in leverage and other aggressive investment practices. There is often limited (or even non-existent) liquidity and a lack of transparency regarding the underlying assets.

Real assets

Real assets are subject to the risks associated with real estate, commodities, MLPs, and other investments and may not be suitable for all investors.

The commodities markets, including investments in gold and other precious metals, are considered speculative, carry substantial risks, and have experienced periods of extreme volatility. Investing in a volatile and uncertain commodities market may cause a portfolio to rapidly increase or decrease in value, which may result in greater share price volatility. 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. Investment in securities of MLPs involves certain risks that 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. In addition, there are certain tax risks associated with an investment in MLP units, and conflicts of interest may exist between common unitholders and the general partner, including those arising from incentive distribution payments. 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. Investment in real estate securities includes risks, such as the possible illiquidity of the underlying properties, credit risk, interest rate fluctuations, and the impact of varied economic conditions.

Investment expertise and advice to help you succeed financially

Wells Fargo Investment Institute is home to more than 120 investment professionals focused on investment strategy, asset allocation, portfolio management, manager reviews, and alternative investments. Its mission is to deliver timely, actionable advice that can help investors achieve their financial goals.

For assistance with your investment planning or to discuss the points in this report, please talk to your investment professional.

Brokerage products and services offered through Wells Fargo Clearing Services, LLC, a registered broker-dealer and nonbank affiliate of Wells Fargo & Company. Bank products are offered through Wells Fargo Bank, N.A.

Global Investment Strategy (GIS) is a division of Wells Fargo Investment Institute, Inc. (WFII). WFII is a registered investment adviser and wholly owned subsidiary of Wells Fargo Bank, N.A., a bank affiliate of Wells Fargo & Company.

The information in this report was prepared by the Global Investment Strategy (GIS) division of WFII. Opinions represent GIS' opinion as of the date of this report; are for general informational purposes only; and are not intended to predict or guarantee the future performance of any individual security, market sector, or the markets generally. GIS does not undertake to advise you of any change in its opinions or the information contained in this report. Wells Fargo & Company affiliates may issue reports or have opinions that are inconsistent with, and reach different conclusions from, this report.

The information contained herein constitutes general information and is not directed to, designed for, or individually tailored to any particular investor or potential investor. This report is not intended to be a client-specific suitability analysis or recommendation; an offer to participate in any investment; or a recommendation to buy, hold, or sell securities. Do not use this report as the sole basis for investment decisions. Do not select an asset class or investment product based on performance alone. Consider all relevant information, including your existing portfolio, investment objectives, risk tolerance, liquidity needs, and investment time horizon.

Wells Fargo Wealth and Investment Management, a division within the Wells Fargo & Company enterprise, provides financial products and services through bank and brokerage affiliates of Wells Fargo & Company. Brokerage products and services offered through Wells Fargo Clearing Services, LLC, a registered broker-dealer and non-bank affiliate of Wells Fargo & Company. Bank products are offered through Wells Fargo Bank, N.A.

Wells Fargo Advisors is registered with the U.S. Securities and Exchange Commission and the Financial Industry Regulatory Authority but is not licensed or registered with any financial services regulatory authority outside of the U.S. Non-U.S. residents who maintain U.S.-based financial services accounts with Wells Fargo Advisors may not be afforded certain protections conferred by legislation and regulations in their country of residence in respect of any investments, investment transactions, or communications made with Wells Fargo Advisors.

Wells Fargo Advisors is a trade name used by Wells Fargo Clearing Services, LLC, and Wells Fargo Advisors Financial Network, LLC, Members SIPC, separate registered broker-dealers and nonbank affiliates of Wells Fargo & Company.

Wells Fargo Securities is the trade name for the capital markets and investment banking services of Wells Fargo & Company and its subsidiaries, including Wells Fargo Securities, LLC, member NYSE, FINRA and SIPC and Wells Fargo Bank, National Association.

© 2019 Wells Fargo Investment Institute. All rights reserved. CAR 1119-02506

IHA-6600703