

WELLS FARGO
INVESTMENT INSTITUTE

2018 Outlook

MOVING AHEAD IN AN AGING RECOVERY

A letter to investors from Darrell L. Cronk

| December 2017



For much of 2017, positive feedback between the global economy and risk markets has boosted equity and fixed-income credit prices, improved capital flows and sentiment, and facilitated easier financial conditions—which, in turn, boosts risk asset prices. This positive feedback loop was strong for 2017 and should remain in place until we see negative forces from higher input prices or borrowing costs begin to temper growth.

As we look ahead to 2018, the global expansion is coordinated but the U.S. expansion is more mature. We also expect U.S. individual and corporate tax cuts. Still, the U.S. economy is near full employment, and equity prices appear fully valued. So, tax cuts may spark only modest economic and equity-market gains—and probably some uncertainty about how long the stimulus may last and about its potential impact on inflation and interest rates. These uncertainties may leave financial markets susceptible to pullbacks.

The cycle's age also may contribute to market volatility. Historically, the later years of a U.S. expansion are often among the best for returns but also can be a time when strong sentiment can drive prices ahead of fundamental factors. The U.S. market's steady upward trajectory may be less steep in 2018, but we expect the bull market to continue beyond 2018 as tax-cut uncertainties fade while prices and fundamentals realign.

In our opinion, the primary portfolio challenge for the coming year will be to assess risk and reward more diligently. Investors should consider looking carefully across asset classes and around the globe. For example, some international equity markets look more attractive than domestic markets, and this is because the U.S. market is later in its growth cycle compared with international economies and markets.

In 2018, it may be challenging to find investments that either trade below their intrinsic values or are fundamentally cheap, but our report, "Moving Ahead in an Aging Recovery," offers several late-cycle potential opportunities to consider. We also introduce our four 2018 Focus Themes—key trends we see emerging that we'll examine in depth in the coming year.

We encourage our clients to stay engaged with their investment plans so that market optimism does not turn into complacency. Our focus throughout the following pages is to consider risk and return thoughtfully and to offer ways to potentially reduce risk in asset classes where the balance is unfavorable.

On behalf of my Wells Fargo Investment Institute colleagues, I want to thank you for the trust you extend to us as our clients and wish you investment success in 2018.

A handwritten signature in black ink, appearing to read "Darrell L. Cronk".

Darrell L. Cronk, CFA

President, Wells Fargo Investment Institute

Chief Investment Officer, Wealth and Investment Management

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

MOVING AHEAD IN AN AGING RECOVERY

Global economy

- We believe the U.S. economy is in the last third of its recovery, but we do not expect a recession in 2018.
- In our view, another year of slow growth and low inflation should deliver mixed results for the U.S. dollar.

Page 4

2018 FORECAST
YEAR-END NUMBERS

Global equities

- We believe the U.S. bull market is maturing but still has room to run.
- We favor international stocks over U.S. stocks for 2018 because international stocks are earlier in their cycle.

Page 6

2.6%
U.S. GDP growth

Global fixed income

- We expect the Federal Reserve (Fed) to continue tightening monetary policy slowly and deliberately; we expect two Fed rate hikes in 2018 and no change in long-term rates as measured by the 30-year U.S. Treasury bond yield.
- Our outlook for international developed-market fixed income remains negative.

Page 8

2.4%
U.S. inflation
Consumer Price Index

Global real assets

- We continue to have a negative outlook for commodities, which are in the seventh year of a bear market that could last 12 to 15 years.
- We believe that real estate investment trusts (REITs) offer opportunities because many of them are currently selling at a discount to their underlying assets.

Page 10

2,650–2,750
S&P 500 Index

Global alternative investments

- As the era of quantitative monetary stimulus slowly winds down, we continue to forecast an improved environment for active management.
- We believe that long/short equity and credit strategies should perform best, followed by strategies focused on special situations and stressed/distressed credit.

Page 12

1.75%–2.00%
Federal funds rate

Portfolio implementation

- We outline five actions that may make a difference for investors' portfolios in 2018, including evaluating portfolio allocations and exploring active strategies.

Page 14

\$40–\$50
West Texas Intermediate
crude oil per barrel

2018 focus themes

- We examine four investment themes to watch in 2018 and the years beyond.
 - Balancing risk and reward
 - Investing late in a bull market
 - Tomorrow's technology
 - The new approach to retirement

Page 17

Source: Wells Fargo Investment Institute (WFII); November 30, 2017. A full list of WFII 2018 year-end forecasts is on page 16.

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

GLOBAL ECONOMY

GROWTH MATURES

Paul Christopher, CFA

Head of Global Market Strategy

The U.S. expansion shows signs of maturing, not overheating

The current U.S. economic expansion that began in 2009 is already the third longest on record, a fact that begs the question of its longevity. If we think of the economy as an automobile engine, new recessions come from revving too hot, not from downshifting. Job growth typically fuels confidence, which sparks borrowing demand and faster spending. As households approach their borrowing limits and inflation heats up, spending typically falls and businesses lay off workers. These out-of-work consumers cut their spending further, which starts another round of the recession spiral.

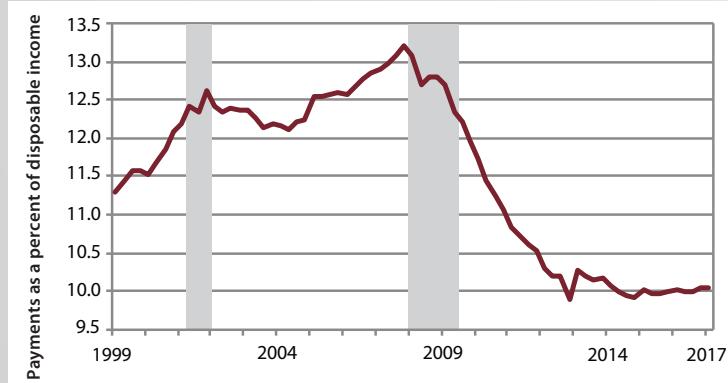
Until now, a slow debt buildup has helped prolong the U.S. economic expansion. Households and businesses collectively finished reducing debt only in 2015. Credit card and auto debt have hit new record levels, but mortgage debt accounts for 70% of household liabilities and remains below its 2007 peak. Most importantly, low interest rates and rising wealth and wages put the ratio of debt payments to total income below its 2008 peak (see below). Corporate debt service is also below its prior peak. We believe the U.S. economic expansion is in the final third of its term but is not about to overheat.

Proposed tax changes could provide a modest benefit

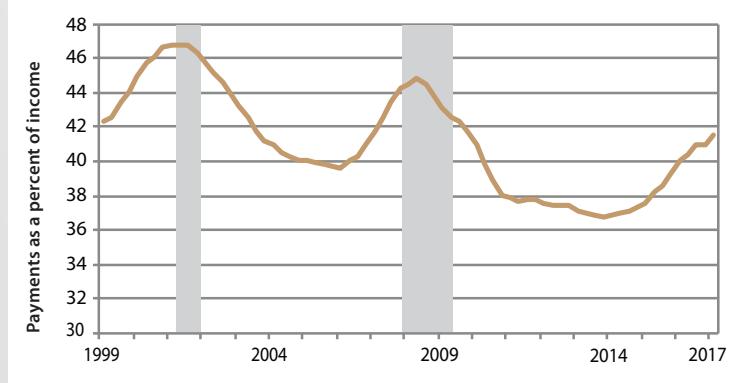
The U.S. administration recently proposed moderate changes to individual and corporate tax rates. If implemented, such changes should aid spending growth. Still, we expect that possible tax cuts of \$100 billion in 2018 would provide only a modest economic stimulus because the economy is already near full employment. Similar levels of annual stimulus after 2018 are likely to raise debt and inflation levels faster than would be the case without tax cuts, thereby raising the risk of recession beyond 2018.

U.S. debt service ratios remain favorably low

U.S. household debt service payments



U.S. nonfinancial corporate debt service payments



Shaded area represents time frame of a U.S. economic recession. Disposable income is defined as income after taxes.

Sources: Federal Reserve Board, Bank for International Settlements, and Wells Fargo Investment Institute; October 5, 2017

Growth looks to gain again overseas

We anticipate a 2018 pickup in international economic growth, though at a pace still below the global average since 1980. Headwinds from high debt have subsided and confidence is growing in Europe and Japan. Meanwhile, waning economic stimulus should slow the Chinese economy in 2018. However, emerging economies should receive support from trading with and investing in other developing countries. As these economies reach for higher-value production, they should depend less on the wide swings in commodity production cycles.

Our U.S. dollar outlook is mixed

Looking at the dollar versus the euro, rising U.S. interest rates and residual European political risks in 2018 (such as an Italian election) may only partially offset euro-positive factors, which include recovering European economic growth and reduced monetary stimulus. By contrast, full-throttle Japanese monetary stimulus (continued negative policy rates and a 10-year sovereign yield target of 0%) implies yen depreciation. Heightened geopolitical risk and U.S. policy uncertainty may produce volatility, and currency pairs may trade in wide ranges over the year. Tax reform to encourage U.S. companies to repatriate foreign earnings is unlikely to help the dollar, in our view, because corporate liquidity is already overwhelmingly held in dollars. We have a moderately positive outlook for emerging-market currencies against the dollar in 2018. Yet, risk remains that a faster pace of U.S. rate increases may tilt the outlook toward a stronger dollar.

A replay of 2008 is unlikely—focus on new risks

No two economic expansions have been the same, and a repeat of 2008 seems very unlikely. After all, households and businesses have strengthened their balance sheets, and inflation trends are modest. As consumers' caution of the past 10 years following the financial crisis slowly dissipates, however, newfound confidence could push debt servicing to peak levels in the coming years. People tend to ignore their limits in predictable ways, which may be why history does not repeat as often as it rhymes.

Put another way, we see debt, spending, inflation, and contraction developing in the same sequence as in past expansions but at a slower pace. The long cycle does not mean endless growth, although the slow pace may lull some investors into thinking that this time is different, which can become the basis for impulsive buying. Thoughtful investors should remain diligent on judging where to take risks and how much risk to take. The balance of this report explains where we see opportunities to exploit growth and also where to reconsider reward and risk.

INVESTOR WATCH

- *The U.S. economic expansion is maturing, but international economies are gaining momentum. A recession in 2018 remains unlikely.*
- *Another year of potentially slow growth and low inflation may deliver mixed results for the U.S. dollar—stronger against the yen but modestly weaker against the euro and emerging-market currencies.*
- *The slow-but-steady economic recovery may be encouraging some complacency that the economic expansion could run indefinitely. When markets become complacent, investors should weigh risk and reward even more carefully.*

GLOBAL EQUITIES

EARNINGS MOMENTUM CONTINUES

Stuart Freeman, CFA

Co-Head of Global Equity Strategy

Sean Lynch, CFA

Co-Head of Global Equity Strategy

Scott Wren

Senior Global Equity Strategist

We don't see the aging U.S. bull market ending in 2018

Consistent with an equity bull market that is maturing but still has room to run, we anticipate continued earnings growth for S&P 500 Index companies in 2018. We expect S&P 500 Index revenues to increase at a 6.4% pace, versus 5.9% in 2017, and earnings per share (EPS) to grow 12.4% (from \$129 to \$145), versus 10% in 2017, fueled by tax reductions and higher operating margins. We expect growth to be spread more broadly across sectors—and to be less dependent upon the easy Energy sector comparisons of 2017.

It is typical for valuations to contract when the Fed is tightening. But as the Fed has increased the federal funds rate modestly from zero, S&P 500 Index valuations have not contracted—they have moved to the higher end of their long-term ranges. If we exclude the late-1990s bubble, the S&P 500 Index has been cheaper roughly 89% of the time (from the third quarter of 1986 to today). As of this writing, the index trades at a price/earnings (P/E) ratio of 20.4 times trailing 12-month earnings, versus a long-term median of 16.7 times. The price/sales ratio was 2.2 times, versus a long-term range of 0.7 to 2.3 times. (The high occurred in 1999.) Investors appear to have become more complacent in this rising, low-volatility equity market.

Top sectors for 2018

Consumer Discretionary

Industrials

Financials

Health Care

To evaluate the health of the bull market, we are watching a variety of factors, including:

- Typically, small-cap stocks underperform over the final years of a market cycle as investors start to have concerns about slowing earnings growth and Fed rate hikes. As the chart on the next page shows, small caps started to underperform the S&P 500 Index in 2014, a trend that could continue over the balance of this cycle.
- Mega-cap stocks (the largest of the large-cap stocks) tend to underperform the S&P 500 Index when investors feel confident that more growth lies ahead. We believe more growth lies ahead. As a result, it does not surprise us that mega-cap stocks have underperformed recently.
- Stocks with higher dividend yields have tended to outperform at the very end of a bull market.¹ They have mostly underperformed over the past year, and we expect them to continue to do so in 2018.

Top international region for 2018

*Developed Market Pacific
(Australia, Hong Kong,
Japan, Singapore)*

International stocks, earlier in their cycle, may have more growth potential

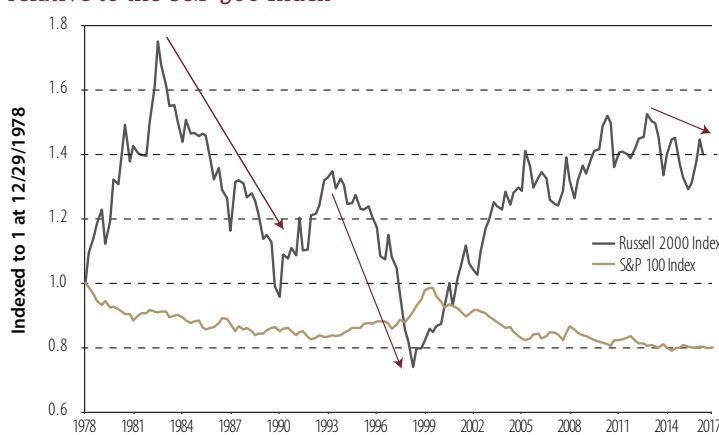
We favor international stocks over U.S. stocks, driven by solid earnings and more attractive valuations. Also, the international economies are earlier in their expansions. We are projecting 7% growth in developed international earnings and 16% growth in emerging-market earnings. We believe valuations will stay fairly close to current levels, which currently are above long-term averages. Our year-end price target for the MSCI EAFE Index (representing international developed-market equities) is based on a 16.2 P/E multiple, and our target for the MSCI Emerging Markets Index is based on a 13.6 P/E multiple.

¹Analysis of S&P High Yield Dividend Aristocrats Index. The S&P High Yield Dividend Aristocrats Index is designed to measure the performance of companies within the S&P Composite 1500[®] that have followed a managed-dividends policy of consistently increasing dividends every year for at least 20 years. The S&P Composite 1500 combines three leading indices, the S&P 500[®], the S&P MidCap 400[®], and the S&P SmallCap 600[®], to cover approximately 90% of the U.S. market capitalization. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Dividends are subject to change or elimination.

Small-cap stocks have underperformed; mega caps are yet to show late-cycle outperformance

Small-cap stocks have tended to underperform in the latter half of bull markets as shown by the arrows in the chart. Mega-cap stocks have tended to outperform in the very last phase of a bull market. Recent small-cap and mega-cap performance suggests that the bull market still has room to run.

Performance of the Russell 2000 Index and S&P 100 Index relative to the S&P 500 Index



Sources: Bloomberg and Wells Fargo Investment Institute; November 13, 2017

Past performance is no guarantee of future results. An index is unmanaged and not available for direct investment. The Russell 2000® Index measures the performance of the 2,000 smallest companies in the Russell 3000® Index. The S&P 100 Index is a subset of the S&P 500 Index and measures the performance of 100 major blue-chip companies across multiple industry groups. The S&P 500 Index is considered representative of the U.S. stock market.

A closer look at emerging-market equities

In both international developed and emerging markets, the earnings rebound from the global financial crisis began later than it did in the U.S. and will probably end later. Business and consumer confidence levels continue to improve, and international central banks are likely to remain more accommodative than the Fed. Emerging-market equities, in particular, seem set for a three-year streak of increasing earnings, which last happened in 2007. The composition of emerging markets has changed dramatically over the past five years. Information Technology is now the largest sector, and weightings for Energy and Materials have greatly diminished. This may result in higher valuations in 2018 and beyond.

Main risks to our outlook

In the U.S., our outlook could be at risk if inflation were to rise materially, the Fed were to raise rates more aggressively than we expect, or higher wage growth puts earnings expansion at risk. We also could see an adverse effect on corporate earnings or stock prices if Congress fails to pass a tax-reduction package or implement growth-friendly policies. Conversely, we could see upside risk if increased investor complacency and risk-seeking behavior resulted in yet more extreme late-cycle valuation levels.

Internationally, optimism about consecutive years of earnings growth could be dampened by worries that central-bank tightening might limit the midcycle recoveries in these economies. Our outlook also would be threatened if China were to materially decrease its economic stimulus.

INVESTOR WATCH

- We believe that S&P 500 Index revenue and earnings growth will continue. Cyclically dependent (versus defensive) companies should continue to benefit from global growth.
- International equities are earlier in their cycle and could outperform U.S. equities.
- We believe international small-cap equities look attractive. Investors may want to consider allocating to this asset class by using a portion of their international developed-market equity allocation.

FIGHTING FIXED-INCOME COMPLACENCY

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

Top asset classes for 2018

U.S. Taxable Investment Grade Fixed Income

U.S. Intermediate Term Taxable Fixed Income

Top sectors for 2018

Inflation-Linked Fixed Income

Essential Service Revenue (Municipal Bond Sector)

Supportive conditions, but caution is in order

In our opinion, investors should use current yield levels as a proxy for expected 2018 fixed-income returns. Even with continued economic improvement, it is impossible to ignore the fact that risks are increasing. The Fed is tightening monetary policy, the yield curve is flattening, and credit spreads are near historically tight levels. As we head into 2018, we believe investors need to take into account potential late-cycle risks and be thoughtful regarding fixed-income portfolio positioning.

The Fed: Slow and deliberate with rate hikes

We expect the Fed to continue tightening monetary policy slowly and deliberately in 2018. As part of that process, the Fed began to pull back on quantitative easing by reducing the amount of bonds on its balance sheet. Although we expect the pace of balance-sheet reductions to increase in 2018, we believe that Fed balance-sheet tapering is unlikely to be a disruptive event. The Fed will not be selling bonds outright but instead will be decreasing the total reinvestment from maturing positions.

We also expect the Fed to continue raising the federal funds rate. As a result, we believe that investors will see further interest-rate curve flattening—the Fed will slowly increase short-term rates while longer-term rates remain relatively contained. We continue to expect that short-term rates will remain below long-term rates, suggesting that more gas remains in the economic tank.

Time for investors to upgrade their credit profiles

As investors move down in credit quality, the potential that an issuer will be unable to make payments of principal and interest to bondholders increases. The higher the incremental yield over U.S. Treasury security yields (credit spread), the bigger the credit risk. With the corporate credit spread (over Treasury yields) near historically expensive levels, investors are presented with an asymmetric risk profile—upside returns are limited to current yield levels while potential losses could be significantly greater. Although a meaningful turn in the credit cycle is not our base case for 2018, the risks are elevated. We recommend that investors focus on investment-grade-rated issuers.

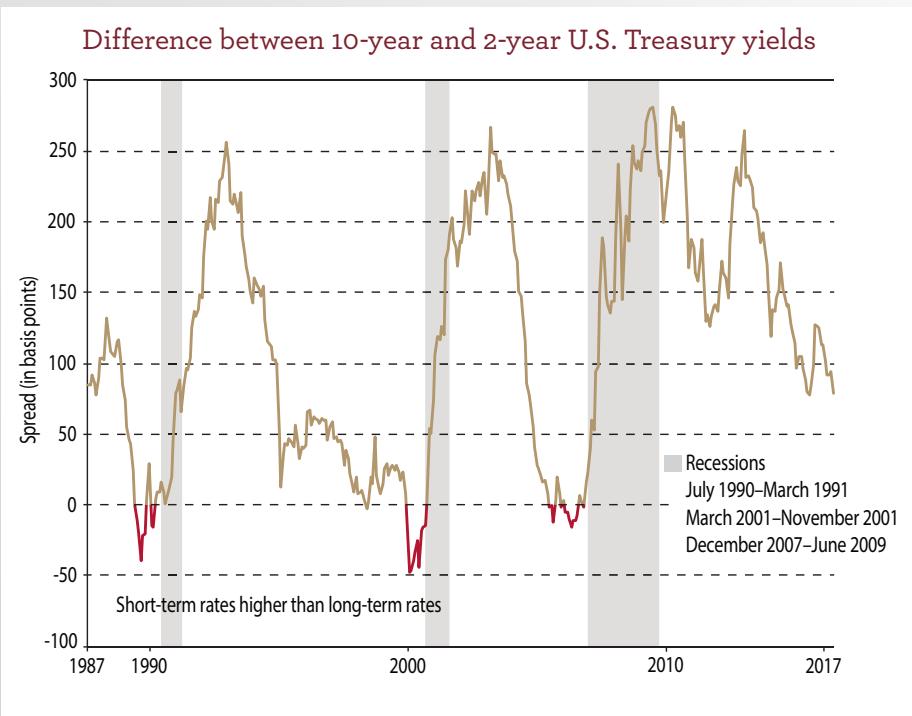
For municipal investors, we favor higher-quality issues rated A or better in the essential-service revenue and general obligation sectors. Depending on what happens with proposed tax-reform legislation, municipal securities may prove to be even more beneficial for some high-tax-bracket investors in the future. Yet, municipal-market volatility could rise as investors assess the impact of tax-reform changes on this market segment.

Positioning for inflation risks

One of the risks of owning bonds is that inflation could move higher than expected, so the stream of payments buys less than it otherwise would. While we view inflation risk as low, there is the potential that tax cuts could increase the risk in 2018. As a result, investors should consider allocating a small portion of their portfolio to U.S. Treasury Inflation-Protected Securities (TIPS).

The yield curve supports our outlook for continued economic expansion

Short-term rates often move above longer-term rates before a recession. We forecast that short-term rates will remain below long-term rates at the end of 2018, consistent with our belief that the economic expansion is likely to continue.



Sources: Bloomberg and Wells Fargo Investment Institute; November 7, 2017

The shaded area represents a time frame of a U.S. economic recession. Yields represent past performance. **Past performance is no guarantee of future results.** Current yields may be higher or lower than that quoted above. Yields fluctuate as market conditions change. One basis point is equal to 1/100 of 1%; 1% equals 100 basis points.

International: We see risk in developed-market debt

International developed-market fixed income delivered surprisingly positive returns in 2017, largely because of currency gains versus a weakening dollar. We continue to recommend that investors avoid holding meaningful positions in these bonds because developed-market yields remain close to zero or are negative in many instances. We believe that returns are likely to disappoint over time.

We expect stable returns in dollar-denominated emerging-market sovereign bonds. Higher available yields in emerging markets versus the U.S. should help attract demand in an environment in which yields seem destined to remain lower for longer.

Main risks to our outlook

Much depends on the Fed continuing to move at a moderate pace in raising interest rates and reducing its balance sheet. Our outlook could be at risk if the Fed moves more aggressively. We anticipate that turnover at the Fed, including the confirmation of Jerome Powell as Fed chair, won't result in significant policy changes. However, any uncertainty could unsettle the markets.

INVESTOR WATCH

- We recommend that investors upgrade their fixed-income credit profiles, favoring investment-grade-rated debt.
- Investors should consider allocating a small portion of their portfolios to TIPS to help mitigate an unexpected increase in inflation expectations.
- We believe that U.S. intermediate-term fixed income should continue to provide investors with modest returns, coupled with limited downside volatility.

GLOBAL REAL ASSETS

SIDEWAYS IN 2018

John LaForge

Head of Real Asset Strategy

The commodity bear market is not done yet

We continue to believe that the majority of commodity prices will be flat to down by the time 2018 concludes, as that pesky commodity bear supercycle continues. The average bear-market supercycle lasts for approximately 20 years, and we are at a point at which many commodities are still overproduced.

The good news is that commodity bear markets have shortened in length in the past century, as shown by the shaded areas in the chart below. We believe this current cycle might last in the range of 12 to 15 years. The bear market is now almost seven years old, and most of the downward price action tends to happen in the first five years. For most commodities, that will mean sideways price action and capped price rallies in 2018.

Top asset class for 2018

Public Real Estate

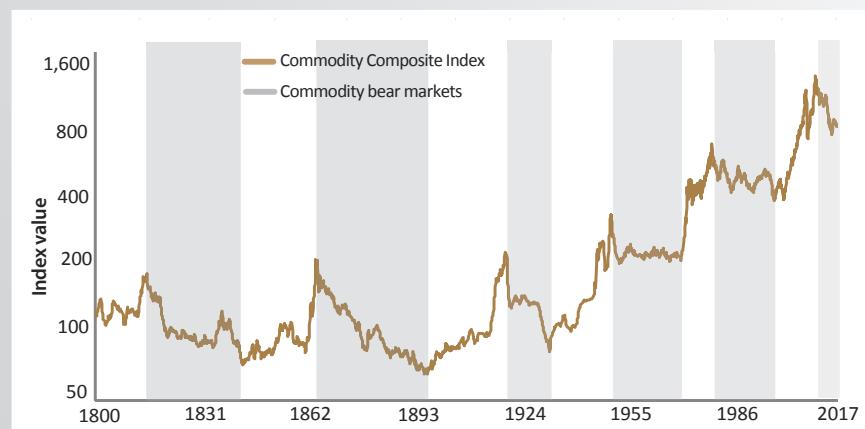
Commodity bear supercycles

	PERCENTAGE LOSS (%)	LENGTH (YEARS)
1814–1843	-62.2	28.3
1864–1896	-70.7	31.8
1920–1933	-65.7	12.8
1951–1971	-38.6	20.4
1980–1999	-45.7	18.6
Current bear	-40.9	6.0
Average bear	-54.0	19.6

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

Past commodity bear-market supercycles

The shaded areas in this chart highlight commodity bear supercycles back to the year 1800. Notice how the shaded areas have shortened in the past century. We suspect today's bear market will be shorter than the average of 20 years.



Sources: Bloomberg and Wells Fargo Investment Institute. Monthly data: January 31, 1800, through September 30, 2017. Dates selected to show all available data on commodity bear markets.

The Commodity Composite Index measures a basket of commodity prices as well as inflation. It blends the historical commodity index from George F. Warren and Frank A. Pearson; the U.S. Bureau of Labor Statistics Producer Price Index for Commodities; the National Bureau of Economic Research Index of Wholesale Prices of 15 Commodities; and the Thomson Reuters Equal Weight Commodity Index. Please see the end of this report for the risks associated with the representative asset class.

A look at oil and gold

The most-watched commodities—oil and gold—should for the most part continue to follow the rangebound action of the commodity bear supercycle. We expect price rallies from both commodities, but those rallies should be capped and contained as they are met with increasing supply.

INVESTOR WATCH

- We expect downside action in oil and gold to begin in 2018 and sideways price action for most commodities.
- We expect mid- to high-single-digit returns for REITs in 2018, although rising interest rates could cause volatility.
- MLPs generally should track oil prices, which we expect to be flat to down. However, we believe MLP performance should be respectable because of potentially generous dividend yields.

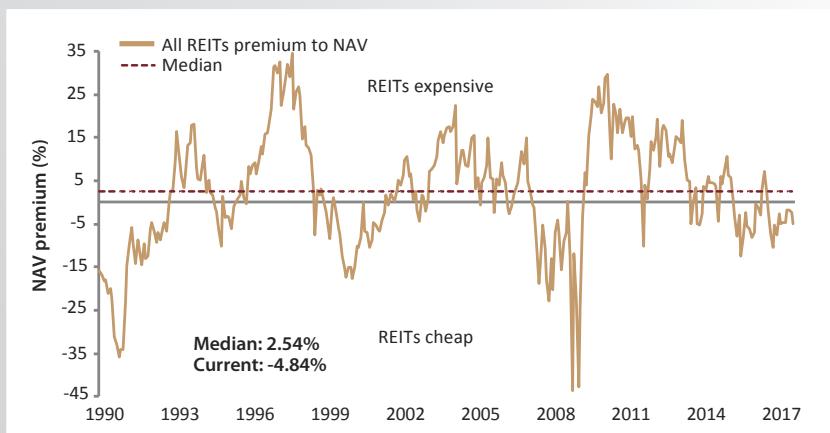
A look at master limited partnerships (MLPs) and REITs

We expect MLP performance generally to track oil prices in 2018, as was the case in 2017. Many MLPs have paid generous yields, however, so we believe total MLP returns should outpace the total returns from oil prices in the year ahead.

We expect the average REIT to deliver mid- to high-single-digit gains, in large part because REITs today offer decent fundamentals at a good value. Fundamentally, REITs saw solid but not great year-over-year price gains in commercial real estate (overall) in 2017, offset by continued negative retail headlines and fears over rising interest rates. We expect a similar picture will prevail in 2018 but that investors will increasingly focus on value.

As shown in the chart below, REITs now trade at a 4.8% discount to their underlying real estate holdings, as compared with the 2.5% average premium at which they have traded since 1990. That typical premium makes sense because REITs offer potential advantages that include professional real estate management and access to capital, making the rare discount especially compelling.

Equity REITs are now trading at a discount to net asset value (NAV)



Sources: Green Street Advisors and Wells Fargo Investment Institute; monthly data from February 1, 1990, through September 1, 2017

For illustrative purposes only. All REITs premium to NAV is a weighted average (weighted by NAV shares outstanding) of all U.S.-listed companies in Green Street's coverage universe, excluding hotels and those without a published opinion. NAV is the REIT equivalent of book value and represents the estimated market value of a company's property assets less any liabilities. **Past performance is no guarantee of future results.** Green Street's coverage universe includes 128 REITs and other publicly traded real estate companies, including 83 companies in North America and 45 in Europe.

Main risks to our outlook

The main risks to our outlook for commodities include a declining U.S. dollar, rising inflation and inflation expectations, and surprisingly strong global growth. Any one of these factors could lead to higher-than-expected commodity prices. The greatest risk to MLPs would be continued bankruptcies from their main customers—exploration and production companies—although we believe bankruptcies have peaked for this cycle. Fed rate hikes could add volatility to REIT returns.

GLOBAL ALTERNATIVE INVESTMENTS

FOCUS ON ACTIVE MANAGEMENT

Adam Taback

Head of Global Alternative Investments

Regime change for alternative investments

In our *2017 Midyear Outlook*, we introduced the idea that a regime change was underway for alternative investments and that we expected hedge fund performance to improve. Our outlook was based on the thesis that unprecedented quantitative easing after the financial crisis caused a distortion in prices, a suppression of volatility, and a reduced emphasis on corporate fundamentals. Passive investing thrived in such an environment. As the era of quantitative monetary stimulus began to wane, we forecast that the environment would become more favorable for active management.

Recent hedge fund performance has tended to support our thesis. Hedge fund returns for the 12 months that ended October 2017 did indeed show a significant improvement compared with the average rolling 12-month returns over the past 8 years. Looking ahead, we expect the maturing economic cycle to be a key driver of returns in 2018, tightening the performance gap between hedge funds and long-only benchmarks.

Top hedge fund strategies for 2018

*Equity Hedge—
Directional/Low Net*

*Relative Value—
Long/Short Credit*

Event Driven—Distressed

Top private capital strategies for 2018

Private Equity—Specialty

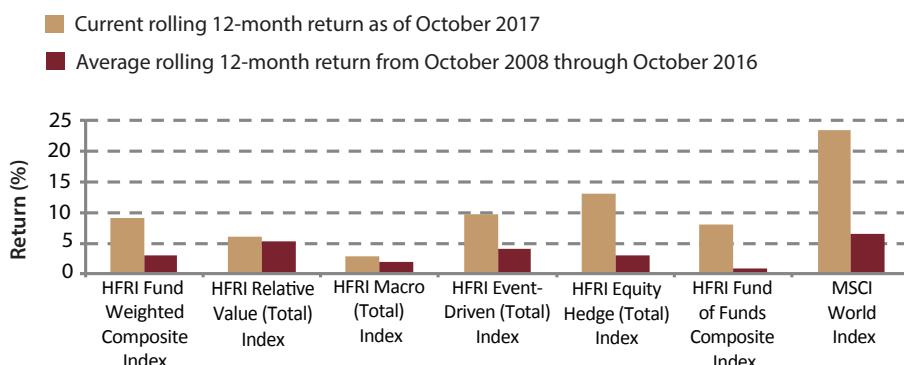
Private Debt—Direct Lending

Private Debt—Distressed

*Private Real Estate—
Opportunistic*

Alternative investments, such as hedge funds, private capital funds, and private real estate, are not suitable for all investors. They are available only to persons who are accredited investors or qualified purchasers within the meaning of the U.S. securities laws.

Hedge fund returns have improved over the past 12 months



Sources: Bloomberg and Wells Fargo Investment Institute; monthly data from October 1, 2008, through October 31, 2017

Past performance is no guarantee of future results. The performance shown is for illustrative and informational purposes only and does not predict or depict the performance of any investment or the likelihood of achieving any return on an investment. The asset classes shown may not perform in a similar manner in the future. An index is unmanaged and not available for direct investment. Index returns do not reflect any deduction for fees, expenses, or taxes applicable to an actual investment. Unlike most asset-class indices, HFRI index returns reflect fees and expenses. Please see the end of this report for the risks associated with the representative asset classes and definitions of the indices.

The HFRI indices are based on information self-reported by hedge fund managers that decide, on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, LLC. 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.

Long/short strategies seem poised to shine

We have strong conviction that long/short equity strategies should benefit from favorable conditions in 2018. We expect greater fundamental dispersion among sectors, industries, and geographies in the year ahead, as well as greater dispersion among the prices and returns on equities. Such an environment tends to lead to lower correlations among equity assets and more opportunities to add value through both long and short investments. We expect these trends to strengthen and become even more favorable for active managers as the economic cycle matures and the winners become more easily discernible from the losers.

A positive case also could be made for relative value strategies, which should benefit if we see credit market disruptions similar to those experienced from the third quarter of 1999 through 2001. That period was marked by an increase in credit spread volatility, which we view as possible in 2018 given a disconnect between the current historically tight credit spreads and a burgeoning deterioration in fundamentals. Among relative value strategies, we believe that long/short credit strategies are well positioned compared with long-only credit and traditional fixed income.

Distressed credit should offer opportunities to event driven managers

We are encouraged by the opportunity set developing for event driven managers over the next several years. Event driven investing can be viewed opportunistically, with certain strategies performing better than others depending on the economic and credit cycle. Although some smaller managers can tactically engage in merger arbitrage, we expect many event driven managers will focus more on stressed and distressed credit investing.

Private capital: We favor international and sector-specific funds

We expect the illiquidity premium offered by private capital strategies to increase in 2018. This should result in attractive opportunities for private debt strategies, particularly those involving distressed credit and special situations. But with valuations relatively high and record amounts of dry powder waiting to be deployed in mainstream private equity and private real estate strategies, we favor more specialty/niche opportunities, including international and sector-specific funds. We recommend qualified investors consider accelerating their vintage-year allocations to these opportunities.

Main risks to our outlook

The main risk to our outlook would be any event that returned us to the postcrisis era of quantitative easing. An unexpected recession or a geopolitical crisis might be two such events. It also is possible that the credit markets weaken more than we anticipate, causing mark-to-market volatility and complicating the picture for distressed debt investing.

INVESTOR WATCH

- *We anticipate another strong year for hedge fund returns in 2018, with credit and equity selection driven by a maturing economic cycle and the gradual removal of monetary stimulus.*
- *Dispersion strategies such as long/short equity and credit should perform best, followed by event driven strategies focused on special situations and stressed/distressed credit.*
- *The illiquidity premium offered by private capital strategies, especially private credit, is likely to increase in 2018 as lending conditions tighten and credit markets weaken.*

PORTFOLIO IMPLEMENTATION

FIVE MOVES THAT COULD MAKE A DIFFERENCE

Tracie McMillion, CFA

Head of Global Asset Allocation Strategy

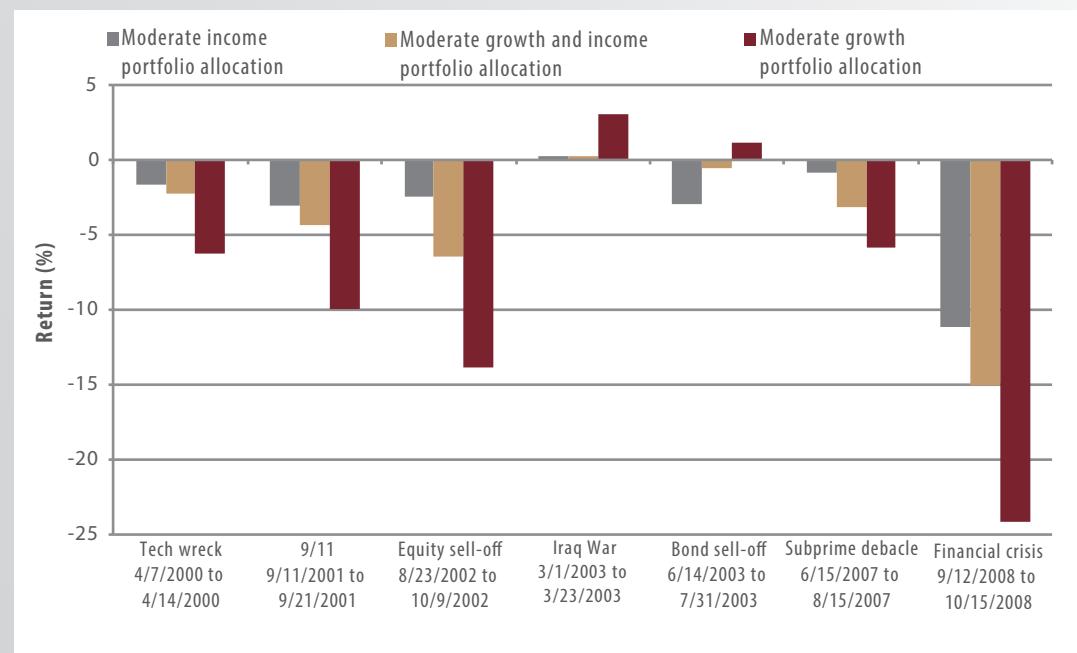
Evaluate hypothetical model portfolios against historical events

1

Investors now have experienced almost a decade of positive equity returns, but they will see markets decline again. The danger for investors is that, over time, equities can grow to a larger proportion of a portfolio than initially intended or a portfolio's allocation may fall out of alignment with its investment objective. We recommend that investors regularly look to identify the risks in their portfolios which may help to minimize losses should a significant market correction or geopolitical crisis take markets lower.

An evaluation of hypothetical historical investment performance is a good way to see how a portfolio allocation may have performed in past crisis events. A portfolio that has more risky assets like equities tends to rise more in positive markets and suffer greater losses in negative markets. The chart below shows that during certain historical crisis events, growth portfolios declined the most, income portfolios tended to decline the least, and growth and income portfolios experienced moderate declines.

Performance of model portfolios against historical events



Source: Wells Fargo Investment Institute and Morningstar Direct. Cumulative returns for the time periods noted as of September 30, 2017.

Performance results for the model portfolios are hypothetical and for illustrative purposes only. The indices reflect the historical performance of the represented assets and assume the reinvestment of dividends and other distributions. An index is unmanaged and not available for direct investment. Index returns reflect general market results and do not reflect actual portfolio returns; the experience of any investor; or the impact of any fees, expenses, or taxes applicable to an actual investment. **Hypothetical and past performance does not guarantee future results.**

Keep in mind, there are difficulties in assessing hypothetical asset class performance during certain crisis periods, in part, because these results do not represent actual trading and cannot completely account for the impact financial risk has on actual trading. In addition, any actual portfolio or account will invest in different economic conditions during periods with different volatility and in different securities than those incorporated in the hypothetical performance shown above. It is possible there are other scenarios, or crisis events which could have resulted in heavier losses for a portfolio than those that occurred during the time periods shown. There is no guarantee any asset class will perform in a similar manner in the future. Please see pages 22 and 23 for the model portfolio compositions, definitions of the indices and risks associated with the representative asset classes.

Seek alpha through active strategies

2

Investment returns can be divided into two parts: beta and alpha. Beta is the market's overall return. Alpha is any additional return generated by choosing assets or managers that outperform the overall market. In a low-return environment—such as the one we are projecting for 2018—investors can seek higher returns by selecting managers that offer the potential for alpha. Later in an investment cycle, active managers may outperform passive (index-tracking) managers. Therefore, it may be beneficial for investors to incorporate some active management into their portfolios. Qualified investors may want to consider equity hedge and relative value hedge fund strategies.

Stay flexible when assets are mispriced

3

As noted economist John Maynard Keynes said, "The markets can stay irrational longer than you can stay solvent." In our opinion, the key is to be flexible and look for opportunities when assets are mispriced, which can occur when dislocations take place, such as in a crisis event, or when market sentiment reaches euphoric levels. We currently believe that high-yield bonds are overpriced in both the corporate and municipal markets. Small-cap stocks also appear overpriced to us.

Hold an appropriate level of cash alternatives

4

We suggest that investors hold 6 to 18 months of living expenses in cash alternatives, such as money market instruments, for several reasons. Cash alternatives can be used to fund near-term expenses. If a purchase is planned within the next six months, assets earmarked for that purchase should be readily accessible and offer reduced exposure to market volatility. Cash alternatives give investors a sense of control if they face an emergency situation; investors can pull from these holdings rather than be forced to sell assets in a potentially falling market. Cash alternatives typically are easy to deploy if a market opportunity presents itself; however, this often happens during market downturns when investors are reluctant to commit more assets. A better plan might be to invest any excess cash systematically over a period of months or quarters.

Keep your eyes on the goal

5

We believe that 2018 is likely to be a transitional year, with moderate upside for many asset classes. Yet, risks are building from a valuation perspective, an investor-sentiment perspective, and a geopolitical perspective. Increased risk could support traditionally defensive asset classes, such as high-quality fixed income and precious metals, or result in price declines for traditionally risk-seeking assets, such as global equities. Holding assets that react differently to various situations may help investors stay the course in the coming year.

ECONOMIC AND MARKET FORECAST

Global economy	2018E	2017	2016
U.S. GDP growth	2.6%	2.3% ¹	1.5%
U.S. inflation	2.4%	2.2% ¹	2.1%
U.S. unemployment rate	4.2%	4.2% ¹	4.7%
Global GDP growth	3.6%	3.2% ²	3.2%
Developed-market GDP growth	2.2%	1.7% ²	1.7%
Developed-market inflation	2.0%	2.0% ¹	1.3%
Emerging-market GDP growth	4.7%	4.3% ²	4.3%
Emerging-market inflation	4.3%	2.1% ¹	5.7%
Eurozone GDP growth	2.0%	2.5% ¹	1.8%
Eurozone inflation	1.6%	1.5% ¹	1.1%
Dollar/euro exchange rate	\$1.16–\$1.24	\$1.16 ¹	\$1.05
Yen/dollar exchange rate	¥110–¥120	¥114 ¹	¥117
Global equities			
S&P 500 Index	2,650–2,750	2,575 ³	2,239
S&P 500 operating EPS	\$145	\$129 ^E	\$117
Russell Midcap® Index	2,050–2,150	2,000 ³	1,784
Russell Small Cap Index	1,500–1,600	1,503 ³	1,357
MSCI EAFE Index	2,050–2,150	2,003 ³	1,684
MSCI Emerging Markets Index	1,160–1,240	1,119 ³	862
Global fixed income			
10-year U.S. Treasury yield	2.50%–3.00%	2.38% ¹	2.44%
30-year U.S. Treasury yield	3.00%–3.50%	2.88% ¹	3.07%
Federal funds rate	1.75%–2.00%	1.25% ¹	0.75%
Global real assets			
West Texas Intermediate crude price (barrel)	\$40–\$50	\$54 ³	\$54
Brent crude price (barrel)	\$45–\$55	\$61 ³	\$57
Gold price (troy ounce)	\$1,150–\$1,250	\$1,271 ³	\$1,152

Wells Fargo Investment Institute forecasts. Forecasts are based on certain assumptions and views of market and economic conditions, which are subject to change.

Sources: FactSet, Bloomberg, International Monetary Fund, and Wells Fargo Investment Institute; November 30, 2017

GDP = gross domestic product; E = estimate

¹ As of September 30, 2017

² As of December 31, 2016

³ As of October 31, 2017

West Texas Intermediate crude oil is a light, sweet (that is, low sulfur) crude oil, which is the main type of U.S. crude oil traded in U.S. futures markets. Brent crude oil is a light, sweet crude oil extracted from the North Sea. It serves as a major benchmark price for purchases of oil worldwide.

We believe that tax cuts will generate some inflation pressure but that flat commodity prices and restrained wage growth will limit the inflation increase.

We expect moderate appreciation in the U.S. dollar versus the euro and yen. Repatriation of overseas earnings is unlikely to be large enough to move spot exchange rates.

The Fed has announced that it will reduce its bond holdings. This marks a slow return to normalized monetary policy.

We continue to believe that commodities are in a long-term bear market and forecast flat prices for crude oil and gold.

WHAT TO WATCH IN 2018 AND BEYOND

Balancing risk and reward

What risks are investors facing at this stage in the economic cycle?

Investing late in a bull market

How will investors need to reposition their portfolios as we get closer to the end of this long bull market?

Tomorrow's technology

How is new technology changing the way we think about business sectors and market performance?

The new approach to retirement

What does retirement mean for individuals in the 21st century as longer life spans bring increased risk of outliving retirement assets?

Tracie McMillion, CFA
Head of Global Asset Allocation Strategy

Luis Alvarado
Investment Strategy Analyst

Chris Haverland, CFA
Global Asset Allocation Strategist

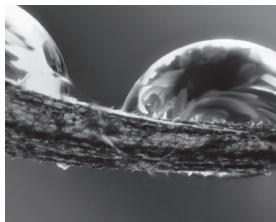
Ken Johnson, CFA
Investment Strategy Analyst

Michael Taylor, CFA
Investment Strategy Analyst

Veronica Willis
Investment Strategy Analyst

Bobby Zheng, CFA
Investment Strategy Analyst

BALANCING RISK AND REWARD



Three key questions we'll answer in 2018

- *What risks are investors facing at this stage in the economic cycle?*
- *How do psychology and emotions influence investor behavior during market fluctuations?*
- *How can diversification help mitigate risk?*

The (high) price of return

Investing involves taking calculated risks in exchange for expected gains. Today, investors appear to be taking on increasing levels of expected risk for shrinking levels of expected return. This is typical after a long period of rising asset prices. Investors grow accustomed to rising prices and soon forget the sting of a market correction.

However, when asset prices begin to rise ahead of fundamental valuation measures, such as earnings growth and yields, we believe that investors should exercise greater caution. For example, small-cap stocks are poised to benefit from tax cuts but are also vulnerable if interest rates rise quickly later in the cycle. The extra yield earned by investing in lower-quality bonds versus higher-quality bonds is low. In some areas, real estate prices have risen to levels that are not supported by the income-generating potential of the underlying properties. Commodity prices have fallen significantly since their peak but still may not be priced at attractive levels as supply continues to outweigh demand.

Can prices keep moving higher? Yes, but history has shown that overvaluation is eventually corrected. Prices may move lower in acknowledgment of unrealistic earnings expectations, or prices may trade in a range until earnings catch up to valuations over time. Are there opportunities for investors in today's markets? Yes. We recommend employing active management in certain asset classes, especially international equities and hedge funds, and maintaining a diversified portfolio using tactical asset allocation.

P/E ratio helps in evaluating stock prices

A stock's P/E ratio is calculated simply by dividing its market price by its EPS:

$$\frac{\text{Price per share}}{\text{EPS}}$$

The higher a stock's P/E, the more expensive it is considered to be. In this example, the stock may be overvalued.

Example: P/E is above a hypothetical stock's historical average

► 20 P/E is above historical average of 18 P/E

$$\frac{\$100}{\$5} = \mathbf{20 \text{ P/E}}$$

► Price goes down ...

$$\frac{\$90}{\$5} = \mathbf{18 \text{ P/E}}$$

OR

► Earnings go up ...

$$\frac{\$100}{\$5.56} = \mathbf{18 \text{ P/E}}$$

► To return to historical average of 18

Source: Wells Fargo Investment Institute; November 15, 2017. For illustrative purposes only.

INVESTING LATE IN A BULL MARKET



Three key questions we'll answer in 2018

- How close do we think we are to the end of this equity bull market?
- How do investors typically behave toward the end of an upcycle?
- How have asset classes performed late in the cycle, and how does performance shift when an equity bear market occurs?

Will this be the longest bull market ever?

The current equity bull market (as measured by the S&P 500 Index) will turn nine years old on March 9, 2018. But age typically has nothing to do with why a stock market rally ends. Bull markets usually end for other reasons, such as a monetary policy mistake or a geopolitical event. Here are some classic warning signs that investors should monitor:

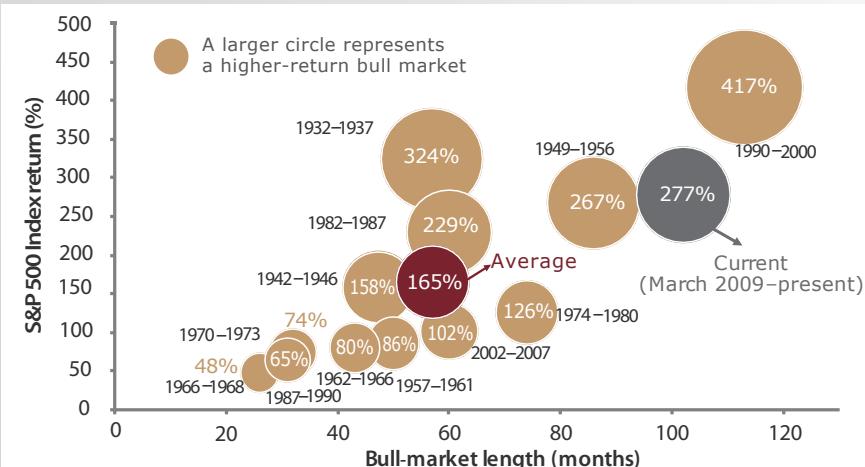
- Investor exuberance: Investor bullishness is currently above the long-term (30-year) average.
- Earnings deterioration: Corporate profits are expected to grow in 2018.
- Widening credit spreads: Defaults and yield spreads remain low.
- Rising rates: Short-term interest rates are increasing but are not considered restrictive.

Bull markets eventually lead to bear markets. Properly diversifying and regularly rebalancing back to strategic asset allocation targets can help investors prepare for this inevitable outcome. We recommend investors consider the following investment ideas:

- Maintain equity exposure because the final years of a bull market historically have been strong.
- Invest globally because international economies and markets likely are earlier in their economic cycles.
- Use bonds for income and to counterbalance equity-market volatility.
- Broaden exposure to alternative investments that offer the possibility of participating in market upside while also mitigating downside risk.

Room to run, or running out of room?

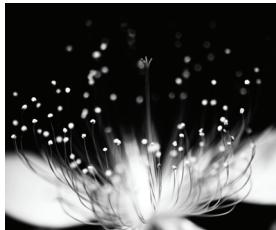
The current equity-market recovery has surpassed the return and duration of the average bull market. However, we believe there is still more room for it to run.



Sources: Bloomberg and Wells Fargo Investment Institute; September 30, 2017. For illustrative purposes only.

The market is represented by the S&P 500 Index. The S&P 500 Index is a market-capitalization-weighted index composed of 500 widely held common stocks that is generally considered representative of the U.S. stock market. **Past performance is no guarantee of future results.** An index is unmanaged and not available for direct investment.

TOMORROW'S TECHNOLOGY



Three key questions we'll answer in 2018

- *How is technology influencing businesses and economic sectors?*
- *What impact will robotics and automation have on the labor force and productivity?*
- *What role will cybersecurity play in the adoption of innovative technologies?*

The benefits and pitfalls of new technology

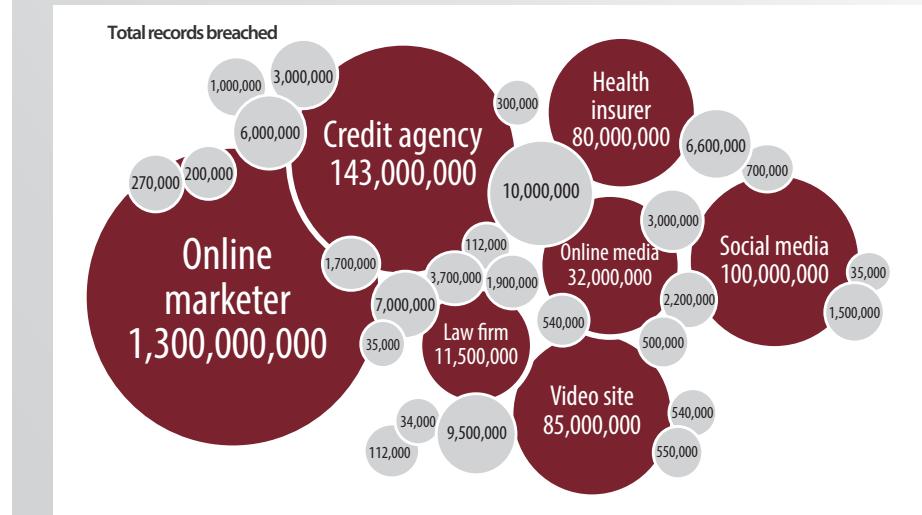
Technology continues to amaze us. A dazzling array of technological advancements may be characterized as the fourth industrial revolution. Transformative technologies such as manufacturing automation, artificial intelligence, and 3-D printing challenge the limits of possibility for many industries. Yet, technology advancements often come with trade-offs. Ride-hailing services and electric vehicles are creating new employment opportunities to the detriment of traditional cab companies and auto manufacturers. Moreover, cyberattacks have become a greater threat. Since 2005, more than 1 billion personal records, such as Social Security numbers and account numbers, have been stolen in the U.S. alone.¹

We have seen mounting investor interest (indicated by rising market capitalization) in the Information Technology sector. Investment opportunities may exist in companies and sectors that effectively address threats such as cyberattacks. We also see opportunities for companies that can help improve productivity growth—that is, workers' ability to use emerging technologies and machines efficiently. Examples of promising technologies include machine learning, robotics, and automation.

¹Source: Privacy Rights Clearinghouse; October 31, 2017

Major data-security breaches worldwide, 2016 through 2017

Cybersecurity is a significant and growing concern for businesses and consumers.



Source: Data from Information Is Beautiful and Identity Theft Resource Center, "Data Breach Report," 2016 and 2017

THE NEW APPROACH TO RETIREMENT



Three key questions we'll answer in 2018

- *How are Baby Boomers approaching retirement differently than past generations?*
- *How are Generation Xers and Millennials planning for retirement?*
- *What steps should investors take to prepare for their own retirement and the potential for significantly longer life spans?*

What does retirement mean for individuals in the 21st century?

Traditionally, retirement generally meant leaving behind a 9-to-5 job and perhaps spending time with family, volunteering for worthy causes, or traveling. But that may be changing. Today, as Baby Boomers approach retirement age at an accelerating rate, many wonder if they can ever afford to fully retire. According to AARP, Inc., 40% of Baby Boomers plan to work part time in retirement.¹ For some, a job may be necessary to supplement Social Security. For others, working part time offers the opportunity to do something meaningful, stay active and intellectually engaged, and postpone dipping into their retirement assets. Many future retirees can expect to live a long life, but without careful planning, they may run the risk of outliving their savings.

Today, planning for life in retirement often is up to the individual. Future retirees will need to grow their assets, especially because health care expenses continue to rise faster than inflation. Yet based on a recent Wells Fargo Millennial Study, one in five Millennials surveyed indicated unwillingness to invest in the equity market, which we believe limits the growth potential of their retirement savings.² Looking ahead, part-time employment likely will play a larger role in helping investors meet income needs in retirement.

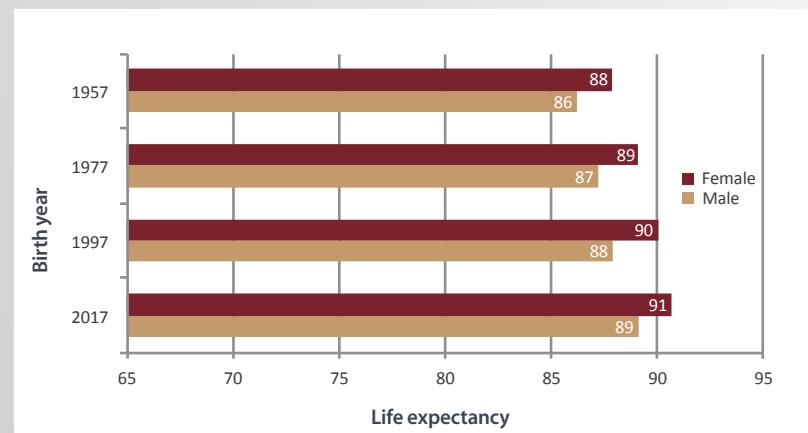
For those who truly want to leave their work life behind at retirement, beginning to save for retirement early and choosing an appropriate investment strategy—which may include a sizable allocation to equities—has the potential to make the task of achieving that goal more attainable, in our view.

¹ Source: AARP Bulletin, January/February 2017

² Source: 2017 Wells Fargo Millennial Study

Investors should prepare for longer life spans

Aging populations will require consistent income provisions in retirement.



Source: Social Security Administration Retirement & Survivors Benefits: Life Expectancy Calculator, www.ssa.gov/OACT/population/longevity.html; November 20, 2017

INDEX DEFINITIONS

Definitions for hedge fund returns, page 12:

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 performance net of all fees 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.

The **HFRI Relative Value (Total) 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 **HFRI Macro (Total) 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 analyses, combinations of top-down and bottom-up theses, quantitative and fundamental approaches, and long- and short-term holding periods.

The **HFRI Event-Driven (Total) 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 Equity Hedge (Total) Index** is managed by maintaining positions both long and short in primarily equity and equity derivative securities.

The **HFRI Fund of Funds Composite Index** invests with multiple managers through funds or managed accounts. The strategy designs a diversified portfolio of managers with the objective of significantly lowering the risk (volatility) of investing with an individual manager. The HFRI Fund of Funds Composite Index is not included in the HFRI Fund Weighted Composite Index.

The **MSCI World Index** is a free-float-adjusted, market-capitalization-weighted index that is designed to measure the equity-market performance of 23 global developed markets.

Compositions and definitions for model portfolios, page 14:

Moderate Income model portfolio: 3% Bloomberg Barclays 1–3 Month Treasury Bill Index, 19% Bloomberg Barclays U.S. Aggregate Bond Index (1–3Y), 30% Bloomberg Barclays U.S. Aggregate Bond Index (5–7Y), 7% Bloomberg Barclays U.S. Aggregate Bond Index (10+Y), 6% Bloomberg Barclays U.S. Corporate High Yield Bond Index, 5% JPM GBI Global ex.-U.S. Index, 5% JPM EMBI Global Index, 12% S&P 500 Index, 2% Russell Midcap® Index, 2% Russell 2000® Index, 4% MSCI EAFE Index (USD), 5% FTSE EPRA/NAREIT Developed Index.

Moderate Growth & Income model portfolio: 3% Bloomberg Barclays 1–3 Month Treasury Bill Index, 4% Bloomberg Barclays U.S. Aggregate Bond Index (1–3Y), 16% Bloomberg Barclays U.S. Aggregate Bond Index (5–7Y), 7% Bloomberg Barclays U.S. Aggregate Bond Index (10+Y), 6% Bloomberg Barclays U.S. Corporate High Yield Bond Index, 3% JPM GBI Global ex.-U.S. Index, 5% JPM EMBI Global Index, 21% S&P 500 Index, 9% Russell Midcap® Index, 8% Russell 2000® Index, 6% MSCI EAFE Index (USD), 5% MSCI EM Index (USD), 5% FTSE EPRA/NAREIT Developed Index, 2% Bloomberg Commodity Index.

Moderate Growth model portfolio: 2% Bloomberg Barclays 1–3 Month Treasury Bill Index, 2% Bloomberg Barclays U.S. Aggregate Bond Index (1–3Y), 3% Bloomberg Barclays U.S. Aggregate Bond Index (5–7Y), 3% Bloomberg Barclays U.S. Aggregate Bond Index (10+Y), 3% Bloomberg Barclays U.S. Corporate High Yield Bond Index, 2% JPM GBI Global ex.-U.S. Index, 3% JPM EMBI Global Index, 29% S&P 500 Index, 13% Russell Midcap® Index, 13% Russell 2000® Index, 10% MSCI EAFE Index (USD), 10% MSCI EM Index (USD), 5% FTSE EPRA/NAREIT Developed Index, 2% Bloomberg Commodity Index.

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 U.S. Aggregate 1–3 Year Bond Index** is unmanaged and is composed of the Bloomberg Barclays U.S. Government/Credit Index and the Bloomberg Barclays U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities with maturities of one to three years.

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

The **J.P. Morgan Global Ex United States Index (JPM GBI Global Ex-US)** is a total return, market-capitalization-weighted index, rebalanced monthly, consisting of the following countries: Australia, Germany, Spain, Belgium, Italy, Sweden, Canada, Japan, United Kingdom, Denmark, Netherlands, and France.

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 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 **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 Composite 1500 Index** represents the large-cap, mid-cap, and small-cap segments of the U.S. equity market.

RISK CONSIDERATIONS

All investing involves risks, including the possible loss of principal. There can be no assurance that any investment strategy will be successful or will meet its investment objective. 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 are investment methods used to help manage risk. They do not ensure a profit or protect against a loss. Each asset class has its own risks and return characteristics. 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 asset classes discussed throughout this report include:

Alternative investments, such as hedge funds, private equity/private debt funds, and private real estate funds, are speculative and 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, less regulation, and higher fees than mutual funds. Hedge fund, private equity, private debt, and private real estate fund investing involves other material risks, including capital loss and the loss of the entire amount invested. They are intended for qualified, financially sophisticated investors who can bear the risks, associated with these investments. **Private debt strategies** seek to actively improve the capital structure of a company often through debt restructuring and deleveraging measures. This strategy has speculative characteristics that include potential default, limited liquidity, and the infrequent availability of independent credit ratings for private companies. An **opportunistic real estate investment** style bears the highest level of risk among real estate strategies as it typically involves a significant amount of "value creation" through the development of underperforming properties in less competitive markets or other properties with unsustainable capital structures.

Hedge fund strategies, such as event driven, long/short equity, long/short credit, and relative value, involve the use of short selling, leverage, derivatives, and other aggressive investment practices. Short selling involves leverage and theoretically unlimited loss potential since the market price of securities sold short may continuously increase. 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 may entail other risks, such as market, interest rate, credit, counterparty, and management risks. Event driven strategies involve investing in opportunities created by significant transactional events, such as spinoffs, mergers and acquisitions, bankruptcy reorganization, recapitalization, and share buybacks. Managers who use such strategies may 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. Long/short credit strategies seek to mitigate interest rate and credit risks regardless of market environment through investment in credit-related and structured debt vehicles. These strategies involve the use of market hedges and involve risks such as derivatives, fixed income, foreign investment, currency, hedging, leverage, liquidity, short sales, loss of principal, and other material risks. Long/short equity strategies take long and short positions in equities and related derivatives with the intention of hedging against the downside. Relative value strategies focus on exploiting perceived imbalances or valuation discrepancies between related markets or instruments. There is no guarantee any of these strategies will be successful or will not incur loss.

Cash alternatives: Each type of cash alternatives has advantages and disadvantages. They typically offer lower rates of return than longer-term equity or fixed-income securities and may not keep pace with inflation over extended periods of time.

Commodities: 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. The commodities markets are considered speculative, carry substantial risks, and have experienced periods of extreme volatility. Commodities may be affected by changes in overall market movements, commodity index volatility, changes in interest rates, or other factors affecting a particular industry or commodity. Investing in physical commodities, such as gold, exposes a portfolio to other risk considerations, such as potentially severe price fluctuations over short periods of time and storage costs that exceed the custodial and/or brokerage costs associated with the portfolio's other holdings. Products that concentrate their investments in the gold industry increase their vulnerability to international, economic, monetary, and political developments affecting the industry.

Equity investments are subject to market risk, which means their value may fluctuate in response to general economic and market conditions, the prospects of individual companies, and industry sectors. Mid- and small-cap stocks are generally more volatile, subject to greater risks, and less liquid than large-cap stocks. Technology and internet-related stocks, especially of smaller, less-seasoned companies, tend to be more volatile than the overall market.

Fixed-income securities: Investments in fixed-income securities, including municipal securities, are subject to market, interest rate, credit/default, liquidity, 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. 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 offer interest payments exempt from federal taxes and potentially state and local taxes. These bonds may also be subject to the alternative minimum tax. Municipal securities are 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. All fixed-income investments may be worth less than their original cost upon redemption or maturity.

Foreign securities: Investing in foreign securities presents certain risks not associated with domestic investments, such as currency fluctuations, political and economic instability, and different accounting standards. This may result in greater share-price volatility. These risks are heightened in emerging markets.

Master limited partnerships (MLPs): MLPs involve 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. 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. An MLP is not required to make distributions and distributions may represent a return of capital as detailed in the K-1 delivered to the unitholder. Unlike regular dividends, a return of capital is typically tax-deferred for the unitholder of an MLP and each distribution may reduce the unitholder's cost basis.

Real estate: There are special risks associated with an investment in real estate, including the possible illiquidity of underlying properties, credit risk, interest-rate fluctuations, and the impact of varied economic conditions.

Sector specific: A portfolio that is concentrated in certain sectors may present more risks than a portfolio that is broadly diversified over numerous sectors of the economy. This will increase the portfolio's vulnerability to any single economic, political, or regulatory development affecting the sector and may result in greater price volatility.

Systematic investment plan: A periodic or systematic investment plan such as dollar cost averaging does not ensure a profit or protect against a loss in declining markets. Since such a strategy involves continuous investment, the investor should consider his or her ability to continue purchases through periods of low price levels.

Investment expertise and advice to help you succeed financially

Wells Fargo Investment Institute is home to more than 100 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.



Wells Fargo Investment Institute, Inc., is a registered investment adviser and wholly owned subsidiary of Wells Fargo Bank, N.A., a bank affiliate of Wells Fargo & Company. Wells Fargo Wealth and Investment Management (WIM) is a division within Wells Fargo & Company. WIM provides financial products and services through various banking and brokerage affiliates 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 and 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 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 account(s) 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 the trade name used by two separate registered broker/dealers: Wells Fargo Advisors, LLC, and Wells Fargo Clearing Services Financial Network, LLC, Members SIPC, nonbank affiliates of Wells Fargo & Company.

© 2017 Wells Fargo Investment Institute. All rights reserved.