The Long and Winding Road: An Investor's GPS for 2018

Introduction

As the story goes, a young man once found himself in the presence of legendary American financier John Pierpont (J.P.) Morgan. Hoping to procure a bit of knowledge from the chance encounter, he asked Mr. Morgan what he thought about the future direction of the stock market. Mr. Morgan said, "Young man, I believe the market is going to fluctuate."[1] This reply may seem a bit terse, perhaps even sarcastic, but in reality J.P. Morgan was acknowledging one of the few things investors can count on with almost complete certainty: Markets go up, markets go down, and it is often very difficult to determine when or why.

Interestingly, if Mr. Morgan gave this answer as part of a 2017 market outlook, he would have been correct, but barely. Last year, many financial market records were broken due to the peculiar absence of market fluctuations, otherwise known as volatility. As an example, the largest S&P 500® drawdown in 2017 was just -3%, marking the second lowest reading in the last 70 years and trailing only the -2.5% intrayear decline in 1995.[2] In our view, no matter what direction the market trends during 2018, it will be hard to get much "better" than 2017. Investors must grapple with two key questions:

- Have we entered a new market paradigm of reduced volatility?
- Or was 2017 an aberration that is unlikely to be repeated?

We believe the answer to the second question is yes, but timing is a challenge. The extremely low level of volatility in 2017 caught many by surprise (us included), but as we noted in our first quarter 2017 *Hawthorn Strategy Insights, Great Expectations,* "it is easy to make the case for a late-cycle bull market surge and possibly an extension of the current business cycle." We continue to believe it is too soon to call for a recession or bear market, but history tells us that markets are likely to fluctuate more than they did during the past 12 months. We believe an increase in volatility is quite probable in 2018. Thus, it is important to not confuse low levels of volatility with durable market stability.

In this issue of *Strategy Insights*, we review key elements of the economic and financial market backdrop that we believe could contribute to an increase in market fluctuations. At the same time, we balance that view with our belief that 2018 will bring continued positive global economic growth and equity market gains.

A Perspective on Volatility

Volatility has been and continues to be extremely low. In fact, the average daily closing level of the CBOE Volatility Index® (VIX® Index) in 2017 was just 11.18, lower than 97% of historical readings dating back to 1990. For perspective, during the global financial crisis in fall 2008, the VIX Index spiked as high as 80 (a data point at the opposite end of the spectrum). So what does a call for higher volatility mean for asset prices going forward? As it turns out, not as much as one might think.

In fact, history would indicate that, on average, forward returns for the S&P 500 can still be positive and only slightly below the long-run average when starting from the lowest volatility decile—which is where we remain as of January 2, 2018 (Table 1, page 2). The forward S&P 500 returns from the

[1] A variation of this quote has been attributed to several businessmen, including Henry Poor in 1922. Over time, as the story evolved, the quote became associated most notably with banker J. P. Morgan and industrialist John D. Rockefeller.

[2] Strategas Research Partners, "Low Vol Years Often Followed By Wider Return Outcomes," November 28, 2017.

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Table 1
Volatility Index versus S&P 500 Returns (1990–2016)

Volatility Index		Median Forward S&P 500 Total Return				
VIX Decile	VIX Range	1-Month	3-Month	6-Month	9-Month	12-Month
Bottom 10%	<12.25	1.2%	3.1%	5.7%	8.4%	10.5%
10-20%	12.25 to 13.43	1.1%	3.2%	6.3%	9.2%	12.5%
20-30%	13.44 to 14.85	1.0%	2.8%	6.6%	9.2%	12.8%
30-40%	14.86 to 16.32	1.1%	2.5%	6.8%	9.8%	12.9%
40-50%	16.33 to 17.93	1.5%	2.8%	4.9%	9.0%	12.7%
50-60%	17.94 to 19.89	1.6%	2.9%	5.5%	9.8%	13.1%
60-70%	19.90 to 21.97	1.4%	2.8%	3.9%	8.4%	11.9%
70-80%	21.98 to 24.52	0.9%	2.8%	2.9%	3.5%	8.2%
80-90%	24.53 to 29.02	1.8%	3.9%	7.2%	8.0%	10.7%
Top 10%	>29.02	3.3%	7.5%	14.7%	19.1%	24.0%
All Periods		1.3%	3.2%	6.1%	9.4%	12.8%

Source: Pension Partners

Table 2
Volatility Index (VIX) and Mean Reversion (1990–2017)

		Average Forward Returns (1990 - 2017)				
Starting Decile (Low to High)	VIX Levels	1-Month	3-Month	6-Month	9-Month	12-Month
0-10%	9.31 - 12.20	12.8%	18.2%	22.5%	29.1%	38.3%
10-20%	12.21 - 13.36	7.2%	9.2%	13.0%	16.9%	15.7%
80-90%	24.41 - 28.91	-5.6%	-8.6%	-13.0%	-2.8%	-4.5%
90-100%	28.92 - 80.86	-9.7%	-22.7%	-32.4%	-35.6%	-38.1%

Source: Pension Partners

bottom 10% VIX decile (top row), while slightly below average, have been quite respectable.

It follows that low volatility is not by itself a contrarian sell signal. It is not a foregone conclusion that stocks have never gone down following periods of persistently low volatility (they most certainly have). That is, volatility does not have a direct influence on ultimate market performance. In our view, what we can say about periods of extremely low volatility is that they tend to be followed by periods of higher volatility (that is, volatility mean reverts). The opposite is true as well, as illustrated in Table 2.

The conclusion of this analysis is that we should be mentally prepared for higher volatility in 2018. In order to control one's inclination to panic in times of market stress, we believe it is important to understand that a return to a more "normal" volatility environment may actually feel worse due to our genetically coded cognitive biases. Recency bias can be very powerful as investors evaluate their investments based on recent behavior and performance. Humans tend to extrapolate recent experiences (unusually low volatility in this case) and use them as indications of what to expect in the future. We think investors will benefit from the awareness of such biases, particularly the understanding that the current volatility backdrop should not be extrapolated too far into the future. An increase in price fluctuation would be normal, should be expected, and is *not* necessarily associated with poor returns. Although we still believe the market will ultimately be challenged by historically elevated valuations, our view is the current business cycle has not yet run its course; therefore, stocks could still rise in the midst of higher volatility as we move through 2018.

U.S. Tax Package

The end of 2017 brought with it the passage of a new tax bill. In January 2017, we wrote that the specifics of the bill "ultimately will be a key determinant of the multiplier effect any policy changes might have on GDP growth." With those specifics now largely in hand, the effects are becoming more apparent. Congress finalized tax legislation details, landing on a 21% corporate tax rate effective in 2018 rather than 2019 as proposed in the Senate version of the bill. This may be the most critical development, in our view, as it relates to the ability of the Tax Cuts and Jobs Act (TCJA) of 2017 to provide meaningful fiscal stimulus this year. Additional areas of interest include:

- 100% expensing for capital equipment purchases for five years, which should encourage capital expenditures; this is a temporary provision.
- Reduced tax rate on repatriated foreign profits.
- Corporate net interest deduction capped at 30% of earnings before interest expense, taxes, depreciation, and amortization (EBITDA) for the first five years and 30% of earnings before interest and taxes (EBIT) thereafter. EBITDA is typically a more friendly deduction versus EBIT, which can be important for more highly indebted companies. This should help shield the high yield market and may also protect master limited partnerships (MLPs) from potential headwinds related to interest deductibility in the short run.
- No "first in, first out" provision, which would have required individual investors looking to exit certain equity positions to sell them in the order in which they were acquired. This could have resulted in larger net capital gains taxes because older tax lots, in theory, are usually associated with lower cost bases and higher capital gains.

Some have estimated the net result of the bill could be to add as much as 1% to GDP in 2018.[3] We also believe the short-term impact of the bill will be stimulative for the economy in the coming year. The longer-term potential impact on the durability of the business cycle may likely be driven by growth in capital expenditures and by the bond market's reaction to adding more than $1 trillion to the deficit over the next 10 years, according to estimates from the Congressional Budget Office. For now, we advise maintaining broad equity market exposure since the net result of the bill in 2018 should be positive for both earnings and economic growth.

The debate continues as to whether or not tax cuts are being reflected in current market prices. Although it is difficult to know definitively, we anticipate that the benefits of the new tax bill should continue to be priced into markets as we begin 2018. It is possible, however, that we are entering a paradigm shift in which economic growth outpaces the appreciation in financial assets (we have experienced quite the opposite for many years now). This is a dynamic worth thinking about when trying to calibrate one's expectation for portfolio performance. Ultimately the economy is what drives earnings and market prices, but we are not guaranteed a one-for-one relationship between economic and financial market performance in the short term.

In Table 3, we analyze available information on the reported tax rate data for the S&P Composite 1500® Index broken into its component indexes.

Table 3
S&P 1500 Composite Tax Rates

	Median Tax Rate	Count	Data N/A
S&P 500®	27.60%	458	46
S&P MidCap 400®	30.93%	358	42
S&P SmallCap 600®	32.44%	504	96

Source: PNC

[3] Estimate via Strategas Research Partners, "Shock and Awe Tax Cuts Are Coming: New Changes Lift Tax Cuts to 1 Percent of GDP," December 14, 2017.

Table 4
EPS and Tax Rates

	EPS	EPS - New Taxes	Net Change:	Change as %
S&P 500	$1,732.69	$1,890.70	$158.02	9%
S&P 400	$1,001.85	$1,145.81	$143.96	14%
S&P 600	$655.84	$766.86	$111.02	17%
Total	$3,390.38	$3,803.37	$413.00	12%

Source: PNC

Table 4 looks at the earnings per share (EPS) of the companies for which data were available and recalculates EPS using the difference between the median tax rate and the new tax rate. The result, while not surprising, would seemingly indicate the most upside for the median small capitalization corporations (that is, represented by the S&P SmallCap 600®), which typically have higher effective tax rates than their larger public peers. The point here is the data prove that small and mid-size companies stand to benefit the most from the new tax rate.

While it is hard to quantify the exact extent to which the market will "reward" the benefits of the tax package, this simple analysis does provide some empirical evidence of the direction and potential magnitude of the impact on domestic companies. For now, even given historically elevated valuations, we anticipate that earnings should be supportive of U.S. stocks in 2018 as long as market multiples remain historically elevated.

In our opinion, a primary risk of the tax bill is that adding this degree of fiscal stimulus to an economy already at full employment could lead to an "overheating." We will continue to monitor inflation expectation surveys to detect any scenarios that might compel the Federal Reserve (Fed) to tighten monetary policy more quickly than currently forecast. This would be a sign to begin positioning portfolios more defensively.

Potential Implications for Donors and Charitable Entities[4,5]

There are certainly many puts and takes associated with the recently approved TCJA. Below we highlight just a few as they relate to donors/philanthropists and charitable entities and signify our positive/negative views of the change with a plus (+) or minus (-) sign. Many of the items discussed in this section go into effect beginning in 2018 and expire at the end of 2025.

Donors

+ Adjusted gross income limits for *cash* contributions: increased from 50% to 60%, enabling individual donors to deduct cash contributions to operating charities and donor-advised funds up to 60% of their adjusted gross income—a positive catalyst for charitable giving, in our view.

+/- "Pease Rule" repeal: elimination of the phasing-out of benefits associated with itemized deductions for a certain segment of high-income earners, which should at least remove a potential impediment for charitable giving. It is unclear whether this will actually accelerate charitable giving.

\- Estate tax threshold: doubled to $11 million for individuals and $22 million for married couples filing jointly. With fewer estates being subject to this tax, we anticipate that this change could have an adverse impact on the future pace and trajectory of charitable giving/bequests.

\- Standardized deduction: The TCJA nearly doubles the standardized allowable deduction for individuals, which means more individual taxpayers may end up taking the standardized deduction as opposed to itemizing. We think

[4] "Tax Cuts and Jobs Act of 2017: Implications for Charities and Philanthropists," December 20, 2017, https://www.huffingtonpost.com/entry/tax-cuts-and-jobs-act-of-2017-implications-for-charities_us_5a3abf18e4b0df0de8b061eb.

[5] "34 Things You Need to Know About the Incoming Tax Law," December 26, 2017, http://money.cnn.com/2017/12/20/news/economy/republican-tax-reform-everything-you-need-to-know/index.html.

this change has the potential to disincentivize, or at a minimum put a cap on, charitable giving above the standard deduction threshold for those who currently itemize but will find themselves taking the standard deduction under the new tax law.

Charitable Entities

+/- Unrelated business income tax (UBIT): The TCJA eliminates the ability to *aggregate* taxable gains and losses across various lines of business, potentially increasing the UBIT burden for nonprofits. This change in isolation should constitute a net-negative for charitable entities; however, because corporate tax rates were lowered as part of the tax package, this should provide at least a partial offset (21% rate applied to UBIT now versus 35% previously).

\- Excise tax for highly compensated employees: Highly compensated is defined as one of the top five highest paid employees in the organization, receiving more than $1 million per year in total compensation. A new 21% excise tax has been imposed and is required to be paid at the *employer* level (that is, the nonprofit/charitable entity), not by the employee. While this change does not directly affect the investments of a charitable entity, it may have an impact on expenses, potentially indirectly increasing the burden on an investment portfolio to the extent it is supporting an operating budget.

\- Excise tax for large endowments: Large is defined as "nonprofit colleges and universities that have at least 500 full-time or full-time equivalent (FTE) students and endowment assets exceeding $500,000 per student…. For a university with 50,000 full-time or FTE students, the tax would be applied if the university's endowment exceeds $25 billion."[6] Thus, a 1.4% excise tax has been imposed on the net investment income of endowments meeting these criteria. This is a significant negative development for large endowments. We anticipate that it will demand higher long-term return objectives from these institutions simply to maintain the same level of ongoing, budgetary support.

We think it's reasonably clear the tax bill should be a net-positive for both economic growth and earnings in 2018, but it has more mixed implications for donors, charitable entities, and the future of charitable giving. It is still too early to tell the exact direction and magnitude of the intended and unintended consequences from the TCJA, but we will continue to watch for them and re-evaluate our strategic and tactical recommendations if appropriate.

Key Components of Our Investment Process

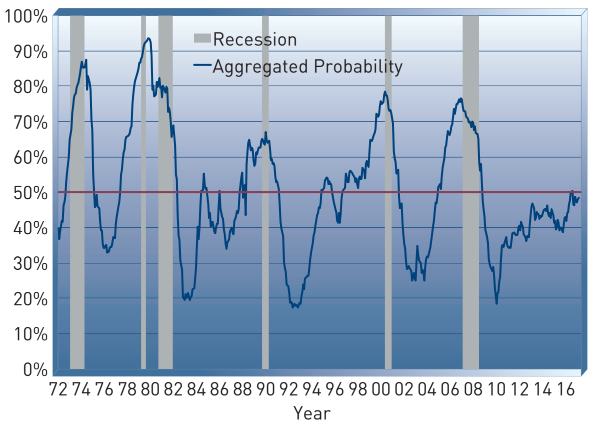
Business Cycle

We spend a great deal of time analyzing the business cycle to help calibrate valuations with the state of the economy to inform our shorter-term (one- to two-year) expected returns. Because valuation analysis has its limitations in terms of short-term market forecasting, it only serves as part of our investment process. A key benefit to our business cycle work is that it allows us to counter balance that tendency to be early; that is, it helps identify certain conditions that may perpetuate lower valuations in bad times and higher valuations in good times. Prices can easily disconnect from earnings for extended periods of time. Consider Japan, when its cyclically adjusted price-to-earnings (CAPE) ratio went from 20x in 1981 to 94x by 1989. If you sold equities when the market's CAPE was a mere 30x (circa 1983), you would have experienced some seller's remorse as the market proceeded to skyrocket over the next seven years. Those who sold at that time were not "vindicated" until 20 years later when the Nikkei 225 finally returned to 1983 levels (as it did again in 2009).

Despite elevated asset prices, we think the market can move higher in 2018, driven in large part by our views regarding the business cycle. Currently, our analysis tells us that a recession is still at

[6] "Tax Cuts and Jobs Act of 2017: Implications for Charities and Philanthropists," December 20, 2017, https://www.huffingtonpost.com/entry/tax-cuts-and-jobs-act-of-2017-implications-for-charities_us_5a3abf18e4b0df0de8b061eb.

Chart 1
Recession Probability (Aggregate–Monthly)
January 1972 through December 31, 2017



Source: FactSet Research Systems Inc., PNC

least a year away, and economic growth in 2018 may benefit from fiscal stimulus in the form of lower tax rates and reduced regulation. We believe avoiding recessionary periods is most critical for successful long-term performance, so we developed a proprietary recession indicator to help us track when we believe economic contractions are more likely. Dating back to the 1970s, our analysis includes 12 economic and financial market variables and indicates that once the "probability of recession" crosses definitively above 50%, a recession occurs about eight quarters later, on average (Chart 1). As of the end of December 2017, the probability reading was 47.1%. The average probability at the start of a recession historically is 75.2%. The lowest the probability has ever been at the start of a recession is 65%; the highest is 88%. The longest "false positive" (indicator above 50% then moving back below 50%) is 12 months; however, during that period the indicator never rose above 54%. For now, none of our recession tools are flashing red.

For 2018, we see only minor changes to the global growth backdrop. In the United States, even as the Fed has continued tightening monetary policy, financial conditions have eased via rising stock prices, narrowing credit spreads, and a weakening dollar. Financial conditions tend to lead GDP growth by about six to nine months, so it would be reasonable to expect continued economic growth this year.

We believe persistent growth will help drive the unemployment rate lower, ultimately leading to an uptick in inflation. We often hear the Phillips curve, or the relationship between unemployment and inflation, is no longer a useful tool for predicting price increases in the economy. We believe the Phillips curve has flattened over the past few decades, although the curve has a "kink" and becomes steeper once the unemployment rate pushes below 5.0%. In fact, U.S. wage data indicate workers in regions with the lowest unemployment rates are already experiencing fairly robust wage growth. For example, cities such as Denver, San Jose, and Austin already have unemployment rates below 4.0%, and wage growth in these areas is now doubling the 2.0% national average.[7] Therefore, wage pressure should increase as growth continues to push the national unemployment rate lower, and that should translate into higher prices. The PNC Economics team expects the unemployment rate to dip below 4.0% in 2018.

This, in our view, may ultimately become the catalyst for the next recession, with the Fed forced to raise interest rates faster in order to bring the unemployment rate back to its so-called "natural rate," which neither suppresses nor encourages inflation. According to data from the Federal Reserve Bank of St. Louis, the current natural rate of unemployment is around 4.75%. The unemployment rate moved below the estimated natural rate in November 2016. If one defines the final phase of the business cycle as the period in which the unemployment rate remains *below* its natural rate, the economy spends an average of 33 months in a late cycle mode, often including the start of a recession. We are now more than one-third of the way toward that average, with 13 months having passed since the unemployment rate fell below the 4.75% threshold. Once the unemployment rate starts to rise, a recession almost immediately follows. We will be watching this dynamic closely but do not believe inflation becomes a real concern until much later in the year.

As this late cycle phase develops, equities historically perform quite well. Even as risks mount and valuations push higher, it can be painful for investors to miss out on the final year of a bull market.

[7] Shayndi Raice and Eric Morath, "In Cities with Low Unemployment, Wages Finally Start to Get Bigger," *The Wall Street Journal*, January 1, 2018.

Since the 1930s, the average return during the final 12 months of a bull market for the S&P 500 is 25%, accounting for approximately 19% of the entire investment return generated over the course of the full cycle. Balancing the difficulty in predicting market peaks with the fear of missing a late cycle spurt is an ever-present challenge with no perfect solution.

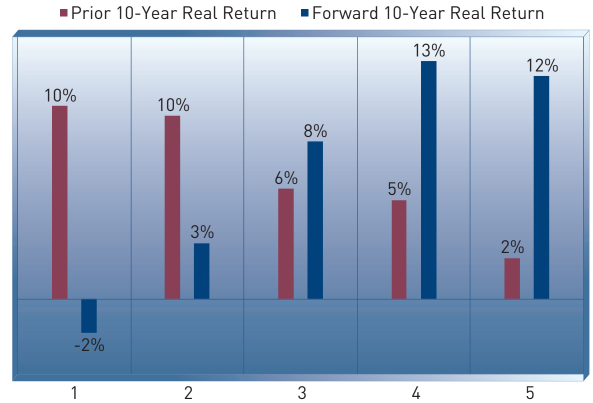
From an exposure standpoint, we think it makes the most sense to position for a late cycle economic acceleration, especially throughout the first half of 2018. Based on our analysis, accelerating expansions tend to favor sectors such as Information Technology, Industrials, Financials, and Consumer Discretionary, while sectors such as Telecommunication Services, Utilities, and Consumer Staples lag on average. We also believe the Energy sector is likely to rebound in 2018 on the heels of increased demand, higher commodity prices, and improving fundamentals. From an asset class perspective, this phase of the business cycle often benefits smaller capitalization and value-oriented areas of the market. Our only hesitation with small cap stocks is that current valuations may limit upside if multiples contract. Coupled with some of the tailwinds these sectors and asset classes are likely to enjoy as a direct result of the new tax legislation, we would be inclined to favor such exposures as we move into the new year. Notably, we maintain a specific allocation to U.S. bank stocks in our model portfolios.

Valuations

By most valuation metrics we track, the market appears expensive, with prices continuing to outpace even recently improving fundamentals. Investors have pushed equity prices higher, largely ignoring concerns about stretched valuations.

By our own calculations, the 12-month forward price-to-earnings (P/E) ratio for the S&P 500 is 19.8x as of December 2017, well above its five-year average multiple of 17.0x and 10-year average multiple of 15.5x. The CAPE ratio for the S&P 500 stands at roughly 32.1x, well above the top end of its historical range of 9.4–22.7x and more than one standard deviation above its median of 16.2x.

Chart 2
S&P 500 10-Year Forward Returns Sorted by Starting Interest Rate Quintile
As of 12/31/17



Source: FactSet Research Systems Inc., PNC

Many investors justify these lofty valuations as being a function of the historic lows in interest rates in the wake of the global financial crisis. This may help explain elevated multiples in the short term, but if and when interest rates begin to rise, multiples are likely to contract. Many market strategists choose to highlight that P/E ratios and interest rates have a negative contemporaneous correlation, concluding incorrectly that investors should be less concerned about high multiples in low interest rate environments. The logical extrapolation of that conclusion should be that reasonably strong forward returns can be expected. Empirically, the opposite is actually true (Chart 2).[8] The best forward returns occur in the decades starting with the *highest* interest rates—purchasing in the lowest interest rate quintile resulted in *negative* real returns on average in the subsequent decade. To be clear, this means that equity returns over the longer term are likely to be negatively affected by the current price investors must pay. However, low interest rates in the short term can perpetuate elevated multiples. This, combined with our business cycle analysis, leads us to conclude that valuations are high, but conditions are in place that could perpetuate those high valuations in 2018.

[8] Chart 2 examines different interest rate environments from 1965–2001. It puts each month over that period into one of five buckets based on the end-of-month 10-year Treasury yield. Bucket 1 includes all months when interest rates were in the lowest one-fifth of the entire sample, and bucket 5 includes all months when interest rates were in the highest one-fifth. Source: Clifford Asness, "Fight the Fed Model," *Journal of Portfolio Management* 30, no. 1 (Fall 2003).

PNC's midpoint forecast for 2018 S&P 500 EPS is $137.50 (+5% year over year). In this base case, multiples will still need to remain elevated to generate solid overall equity market returns. At $137.50 per share, the P/E multiple on the S&P 500 would need to increase from approximately 19.8x as of this writing to 21.2x in order to generate a 10% price return in 2018. Investors should keep in mind that a 20-plus multiple is possible in 2018, but in no way guaranteed. Significant multiple expansion in the face of rising interest rates and inflation (should that be the backdrop) would be the exception not the rule. If our earnings forecast including the positive benefit from the tax bill of $145 per share materializes, that obviously changes the multiple required to produce a given level of return. Regardless, a higher-than-normal multiple will be required for U.S. stocks to realize strong returns.

Technicals

Our analysis indicates most global equity markets remain in favorable uptrends, with more than 70% of S&P 500 constituents also in an uptrend. However, sentiment indicators remain quite bullish, which is typically considered a contrarian indicator foreshadowing a potential stock price correction at some point. While the market generated strong returns in 2017, it seems only reasonable to expect a market correction might occur in the not too distant future, in our view. After all, we have gone more than 380 days without a 5% correction as of the start of the year. However, positioning data suggest investors are still fairly long S&P 500 futures contracts, which should continue to be a source of underlying support for the market even at current valuation levels.

Stock market "breadth," or participation, is also used in technical analysis to help gauge the direction and robustness of market moves. It is a simple measure of the number of companies advancing relative to the number declining. Positive breadth occurs when more companies are moving higher than are moving lower—a bullish signal. When this trend reverses course, it is considered a bearish signal. Reviewing our breadth indicators tells us there is no divergence between the S&P 500 Advance/Decline line and the S&P 500. We believe this confirms relatively broad-based participation in the market's appreciation, with the number of S&P 500 stocks advancing in-line with the overall index.

Turning to fixed income, with the 10-year yield at approximately 2.46% as of January 2, 2018, it is "back above the important 2.44% level—marking three consecutive annual increases in yields (something that hasn't happened since the late 1970s)."[9] While the yield curve has flattened over the course of 2017, the shorter end has been shifting higher, with 2-year yields up the most (up about 70 basis points [bps]), but even 5- and 7-year yields are rising. Our interpretation of bond market technicals remains cautious, with the 10-year U.S. Treasury bond yield perhaps moving toward testing an intermediate resistance level of 2.6%. A breakout above this yield level would suggest that a testing of 3.0% is certainly possible, in our view.

Public Equities

Domestic/United States

As we head into the ninth year of the economic recovery, our outlook for domestic equities calls for cautious optimism. As the S&P 500 continues to make new all-time highs on a wave of accelerating economic growth and fiscal stimulus optimism, a high bar is being set for 2018. While global economic growth is expected to remain positive, we expect the rate of acceleration to taper later in the year as 2018 progresses against much tougher year-over-year comparisons. We believe earnings growth is likely to be the primary driver of domestic equities in 2018.

Fundamentals

The estimated revenue growth rate for the S&P 500 in 2017 is now 6.2%, with 10 out of 11 sectors making positive contributions to growth. According to FactSet Research Systems Inc., if this growth rate is achieved, it will mark the highest annual revenue growth for the index since 2011. Telecommunication Services is projected to be the lone detractor two years in a row. The Energy sector is expected to be the largest contributor to

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[9] Chris Verrone, "US Yields Breaking Out," Technical Analysis Research, Strategas Research Partners, December 20, 2017.

growth (up 20.3%), but this is largely a function of easy year-over-year comparisons as opposed to a material improvement in fundamentals despite a roughly 12% increase in the price of West Texas Intermediate crude over the course of 2017. If we exclude Energy from the calculation, the blended revenue growth rate for the S&P 500 would fall by about 120 bps to a still respectable 5.0%. Nevertheless, we think the pickup in revenue has been helped not only by a weaker dollar but also by generally faster global economic growth (that is, those companies that derive more of their revenues internationally tended to experience faster growth relative to domestically oriented companies). For full-year 2018, FactSet estimates consensus revenue growth to be a bit slower at 5.6% overall, with first-quarter 2018 expected to be the high water mark for the year.

On an earnings basis, the growth rate for 2017 is projected at 9.6%, the highest realized earnings growth rate since 2011, with all 11 sectors posting positive growth rates. As we did for revenue, if we back out Energy, the earnings growth rate would drop some 270 bps to 6.9%. For full-year 2018, the consensus earnings growth estimate is projected to accelerate ahead of 2017's result to 11.8%, largely a function of the anticipated fiscal stimulus associated with the recently passed 2017 TCJA. If achieved, it will be the first time the S&P 500 has reported double-digit earnings growth since 2011, according to FactSet.

Much of the earnings growth generated post-2008 can be attributed to broad-based margin improvement, with many companies depending on cost-cutting, elevated share repurchase activity, and mergers and acquisitions to drive growth. The S&P 500's operating margin peaked in December 2014 at 14.3% and has been in a shallow, declining trend ever since, down about 4.0%. We see some additional pressure on margins likely in 2018 mostly due to the rising cost of labor (wages) in an already tight (and likely to tighten further) labor market, higher input costs and commodity prices, and higher interest rates (translating into a higher cost of capital for many companies). These headwinds, along with the majority of cost-cutting firmly in the rearview mirror at this later stage of the cycle, lead us to believe that any additional margin improvement in 2018 from current levels will primarily be a function of one-time/step-up benefits associated with the tax package.

Initial public offering (IPO) trends are indicators we track closely to help gauge the current phase and positioning of the cycle. Early in a cycle, the number of IPOs tends to be fewer and usually isolated to the highest quality companies that have been able to withstand a market correction relatively unscathed. Late in a cycle, however, the number and frequency of IPOs tend to increase dramatically, giving rise to lower quality, but more expensively priced, deals. Of course, there is an exception to every rule, but this is generally how we interpret IPO/deal activity over the course of a market cycle.

2017 turned out to be a solid year from an IPO perspective. According to a recent article in the *Financial Times*, "in the U.S., companies raised $49 billion [in 2017]—double the $24 billion of listings in 2016, which was the worst year for IPOs in more than a decade." Deal activity snapped back in a big way this past year, largely a function of an improved outlook for business and economic activity as well as record low volatility, but still fell short of the 2014–15 market peaks. Interestingly though, the article also states that "the average gain of +23% for IPOs in 2017 in the U.S. did not significantly outperform the [robust] 20% increase in the S&P 500 index." We think the gap between public and private market valuations, as well as record low market volatility, could have been key headwinds for IPO performance in 2017. Most analysts expect 2018 deal volumes to outpace 2017, which would not come as a surprise to us, particularly at this late stage of the cycle.

Although further profit margin expansion is unlikely, in our view, the earnings backdrop should remain supportive of U.S. stocks in 2018. Again, however, even if we achieve our 2018 EPS target of $145 for the S&P 500, the market would need to maintain a 20x multiple to produce what might be considered an average price return of 7.5%. We think it is far easier to argue a multiple contraction story than a multiple expansion story, but if the Fed

Table 5
Difference Between Local Currency and U.S. Dollar-Denominated Returns
As of 12/31/17

Country Index	Local Currency Return	U.S. Dollar Return
United Kingdom	12.0%	22.6%
France	12.5%	28.3%
Germany	12.5%	28.3%
Italy	16.9%	33.3%
Spain	11.3%	26.8%
Stoxx Europe 600	10.2%	25.6%
Nikkei 225	21.9%	25.7%
S&P 500	21.8%	21.8%

Source: Bloomberg L.P.

is not forced to act more aggressively than currently anticipated, the economy continues to accelerate, and interest rates remain relatively low, we think it is probable that multiples remain above average.

Developed International

Global economic growth outpaced the United States in 2017. A weak dollar, down 10% in 2017 as measured by the U.S. Dollar Index (DXY) and its worst year since 2003, helped provide a tailwind for equity performance, as there was a stark difference between local currency and dollar-denominated returns (Table 5). As the earnings rebound in Japan and Europe now appears to be accelerating, developed international equities valuations continue to look relatively more attractive than U.S. equities. We look to Europe and Japan (the vast majority of developed international equity indexes) for catalysts that should help support positive momentum in these key regions.

Last year, our preference for domestic equities was largely predicated upon the potential for populist political outcomes internationally to overshadow any underlying cyclical economic improvements in these markets. What a difference a year makes:

- Germany does *not* have a government (though the election was more than three months ago).
- Spain, Portugal, and Ireland have *minority* governments.
- Austria is the first government since the 2008 financial crisis to *include* the populist right.
- The European Union (EU) is trying to pressure the Czech Republic, Hungary, Poland, and Slovakia to *conform* to the values of its Western European members.
- The Italian election is scheduled for March 4, 2018, and the largest parties in the race tend to *favor* euroskepticism (that is, they are pro-EU membership withdrawal).

If it weren't for the unexpected depreciation of the dollar, domestic equities handily outpaced many developed international markets in 2017. In fact, the MSCI World ex USA Index returned 15.2% in local currency terms versus 21.8% for the S&P 500. That said, performance was above average on an absolute basis for developed international equities. "Investors do not seem to care much about political developments provided they are local and do not pose systemic risks," noted Marc Chandler, global head of currency strategy at BBH.[10] Our primary short-term concern is the outcome of the March Italian election. It is possible this could quickly bring populist concerns back to the forefront of investors' minds, perhaps leading to an increase in volatility. With this risk in mind, we believe that stabilizing economic conditions, improving earnings growth, relatively attractive valuations, and still-supportive central banks have the opportunity to give developed international markets the edge over domestic markets, especially over a multiyear period.

[10] Marc Chandler, "Italian Election—Two Months and Counting," MarketView, BBH, January 4, 2018.

As it relates specifically to valuations, developed international equity market multiples are actually down on a year-over-year basis, largely a result of strengthening earnings growth patterns indicative of being in a slightly earlier phase of the business cycle. Based on this, and absent any populist shocks that may rattle the system, developed international equities are in a strong position heading into 2018. Our relative preference for these markets would be greater if it were not for the potential short-term benefit U.S. markets may receive if some of the pro-business elements of the administration start to materialize.

The dollar is unlikely to depreciate to the degree it did in 2017, so that particular tailwind to unhedged U.S. investors has likely diminished, but we do not believe a dramatic dollar appreciation is in the cards for 2018. Therefore, the return differential between local and dollar-denominated investors is likely to be much smaller this year, allowing underlying market returns to be less skewed by currency fluctuations.

Within our developed international allocations, we have a particular interest in Japan. Most investors are aware of the long-term difficulties associated with the Japanese economy, including high debt levels (government debt to GDP is over 250%) and challenging population demographics. However, there are signs of a cyclical acceleration that has the potential to boost economic growth and equity prices. For example, there have been six quarters of positive economic growth, the underlying growth trend of approximately 1.5% should help support inflation, and the Abenomics-driven 10% corporate tax cut is helping support earnings (fastest growing region among the United States, Europe, and Japan), business spending, and business confidence, which has reached a 25-year high.

In addition, Japan continues to be supported by monetary policy stimulus efforts. The qualitative and quantitative easing program at the Bank of Japan (BOJ) has helped keep interest rates low to further spur competitive lending overseas, while also allowing domestic companies to access credit markets without increasing leverage. While industrials companies had a strong 2017, Japanese equities were primarily driven by technology company results, and we believe that trend could continue into 2018. We expect Japanese equities to continue to be supported by the BOJ, attempting to place a ceiling on the equity risk premium relative to global equities. With a forward P/E ratio of 19.1x, the Nikkei index is one of the least expensive developed markets, with the 10-year average P/E of 17.6x.

While some of Japan's relative valuation discount may be artificially suppressed by the BOJ's monetary policy intervention, Prime Minister Shinzo Abe's landslide snap election in October suggests to us that Governor Haruhiko Kuroda will also be reappointed in April, and the supportive monetary policy regime will likely continue.
As the Fed continues its path to interest rate and balance sheet normalization and the European Central Bank (ECB) is set to slow its quantitative easing program, a significant contrast is expected between central banks in 2018. We expect this should help perpetuate, if not increase, the interest rate differential among these regions, leading to a relatively weaker yen. This should also be a net positive for Japanese share prices.

Emerging Markets

After trailing U.S. equities for the last five years, emerging markets had a strong 2017. With such a rapid move higher in a relatively short period, we caution the rally in emerging markets could stall relative to developed markets in the near term for a number of key reasons, including:

- The largest central bank in emerging markets, the People's Bank of China (PBOC), is tightening policy, which will likely begin to constrain/restrict China's growth, at least at the margin.
- In 2017, to the surprise of many market participants, U.S. interest rates remained relatively flat and the dollar declined. This served as a tailwind to emerging market (EM) equities, as fears of capital outflows in favor of higher yielding U.S. assets and concerns regarding the level of EM dollar-denominated debt faded into the background. Our view is that these two variables will no longer be a tailwind to EM stocks, if not somewhat reversed throughout the course of the year.

- We expect commodity prices to remain relatively stable in 2018, with decent underlying support at current levels. Although production agreements from both OPEC and non-OPEC countries will likely have a negative impact on global supply, those cuts continue to be offset by U.S. shale oil production, capping any potential price increase that would further benefit commodity-heavy EM economies.
- If our thesis for an uptick in market volatility plays out, emerging markets could experience an outsized move relative to developed markets.

The shorter-term bear case for EM equities rests mainly on China, which has a significant impact on performance with a weight of over 25% of the emerging markets index. If we also include companies domiciled in Taiwan and Hong Kong, that figure swells to over 40% of the index. "As goes China, so goes the rest of emerging markets," is a phrase we've used in the past to describe growth trends throughout emerging markets. As it relates to the current backdrop, BCA Research's Emerging Markets Strategy team summarizes that "Chinese banks have originated too much money, and the corporate sector has taken on a large amount of leverage."[11]

In our view, this poses a risk to the Chinese economy, particularly because the PBOC is now making efforts to curb liquidity and tighten the regulatory environment. As this has occurred, money and credit growth in China has slowed to all-time lows. In the past, this has been reliably associated with weaker financial asset prices and a broad slowdown in EM earnings. It has been a bit surprising to us that markets have not yet reacted to this development, but we do not believe this will be ignored indefinitely. Although corporate profit growth in China and emerging markets has markedly improved, helping to fuel the rally in share prices, we believe the move may have been too far too fast, and *forward looking* indicators of earnings growth/share prices (Chinese money supply growth, for example) are flashing red.

This, along with the reasons stated above, is why we continue to be cautious regarding the shorter-term outlook for EM stocks. Over the longer term, however, our outlook is more positive.

The EM growth story, particularly in the technology sector, remains a compelling case for the longer term. The generational shift toward e-commerce is helping to transform emerging Asia's tech and telecom at a significantly more rapid pace than in the United States. For example, digital payment systems such as Android Pay, Apple Pay, and others are starting to gain traction in the United States; however, at less than 10% of e-commerce transactions, it pales in comparison to what is occurring in certain emerging markets. In China, 80% of e-commerce is executed through mobile devices.[12]

The point of emphasis is that we recognize long-term structural changes in China and other emerging economies such as India are still underway, as those countries slowly shift toward a consumption-oriented economy rather than an industrial production and heavy-industry model. Over time, consumers in these economies will become more important not only to their local markets but also to the global economy as a whole. This will, of course, take time to materialize, and phenomena such as the most recent industrial investment boom in China are unlikely to be repeated, in our view. Our conclusion is that over the longer term, EM economies will reap the benefits of a powerful consumer base and a shifting economic model. However, the short-term tools to further stimulate economic growth from present levels are likely to have diminishing economies of scale in places like China. As it relates specifically to China, we do not see a dramatic contraction in growth, but neither do we anticipate a quick resolution to ballooning leverage levels and tighter policy.

In terms of valuation, given the strong performance in 2017, EM equities are trading above average on an absolute basis. That said, the valuation differential between emerging markets and the S&P 500 is wide by historical standards. Over the past 15 years, the spread between EM and U.S. P/E ratios has only been wider 14% of the time. Equity valuations are extended across global markets,

[11] Arthur Budaghyan, "Ms. Mea Challenges the EMS View," BCA Research, October 19, 2017.

[12] iResearch, Bloomberg, pymnts.com, 2017.

Table 6
Forward P/E Ratio Comparison (2003–17)

	S&P 500	MSCI EAFE	MSCI EM
Average PE	14.5	13.2	11.0
Current PE	18.4	15.0	12.7
Average PE Spread vs EM	3.5	2.2	–
Current PE Spread vs EM	5.7	2.3	–

Source: FactSet Research Systems Inc., PNC

but EM equities certainly look attractive versus U.S. equities on a relative basis. Although not particularly useful as a short-term indicator, we expect this valuation differential should bode well for the long-term relative performance of emerging markets. Compared to developed international equities, EM is cheaper, but the discount is much more in-line with historical averages (Table 6).

Fixed Income

Much of our 2018 outlook for fixed income could be a "cut and paste" from what we wrote heading into 2017, but with some important differences.

What Is the Same?

- long-term rate pressure;
- lower terminal federal funds rate;
- intermediate duration preference; and
- curve flattening bias.

We think several secular forces are at play that could exert downward pressure on interest rates. Last year, we highlighted the global savings glut, demographic trends, and high global debt levels as factors that could pressure interest rates over the long run. Add to that technological advancements that will likely pressure inflation over time, and you have a potentially powerful combination of forces that may result in an interest rate environment that is lower than what investors have been historically accustomed to. As we move into 2018, these long-term factors have not changed, and we believe they will be a persistent influence on the general interest rate environment for years to come.

These factors and others are reflected in the Fed's approach to monetary policy. Although the Fed appears more resolute in terms of tightening policy, given it is now shrinking its balance sheet and is on a more consistent rate hike trajectory, the Fed's long-term forecast for its own benchmark rate remains well below the highs of prior rate hike cycles. Since the 1950s, the federal funds rate has peaked at 9.5% on average, whereas today the Fed's dot-plot forecasts a terminal rate for this cycle of just 2.75%. This, in our view, may be one of the biggest factors keeping longer-term rates from increasing dramatically throughout the duration of this business cycle.

As highlighted in the November 2017 issue of the *Hawthorn Global Market Snapshot*, theory suggests the 10-year yield should equal market expectations for the average federal funds rate over the next 10 years, plus a term premium.[13] As we start 2018, the 10-year Treasury yield may be pricing in an average federal funds rate that is actually too high. The average expected federal funds rate over the next 10 years is unlikely to be higher than the Fed's terminal rate in this cycle. The peak federal funds rate would have to be close to 3% given the current 10-year Treasury rate, higher than the 2.75% that the persistently optimistic Fed dot-plot forecast suggests. The shallow trajectory, and ultimately lower peak, of the federal funds rate during this cycle may very well act as a magnet, pulling longer rates down.

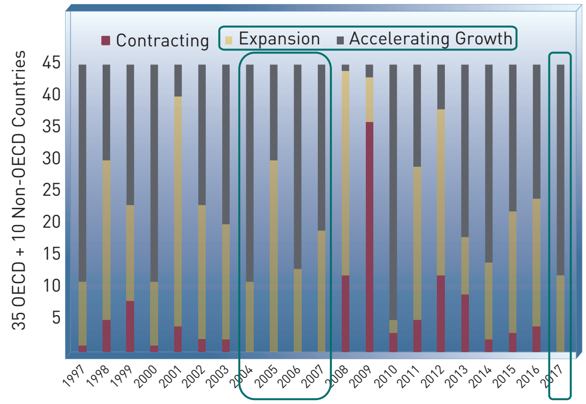
For these reasons, we will maintain a neutral duration recommendation in our fixed income portfolios. Heading into 2017 we expected the intermediate part of the yield curve to produce

[13] The term premium is the additional compensation investors require for committing their capital for a longer period of time, as well as for the risk that short-term rates do not move over time as the market is currently reflecting through the pricing of longer-term interest rates.

the best results since it balanced our view that rates would likely rise over time, but the visibility for substantially higher growth and inflation in 2017 was unclear. This thesis proved correct as the year progressed, with the 10-year Treasury yield remaining largely flat in 2017 and the spread between 2-year and 10-year Treasury yields compressing from 133 bps to just 56 bps. As the Fed continues to tighten policy in 2018, we think a flattening bias will persist, ultimately helping the intermediate part of the interest rate curve perform best in the coming years.

Chart 3

OECD Expansion Contraction Growth Indicator



Note: 35 OECD + 10 Non-OECD Countries
Contracting = Negative Growth Year over Year
Expansion = Positive Growth Year over Year
Accelerating Growth - Increasing Year over Year Growth

Source: Doubleline Capital, OECD

What Is Different?

- global growth;
- global central bank policy; and
- inflation outlook.

In 2018, we believe there is greater risk for a more sustained rise in yields, albeit at a measured pace. As a result, there is a risk that additional duration exposure will weigh on fixed income returns in the short term. Two factors that weighed on interest rates last year may be in the process of reversing course—global growth is much more consistent/stable today, which is having an impact on central bank policy. In October 2017, the International Monetary Fund (IMF) increased its global growth forecasts for both 2017 (3.6%) and 2018 (3.7%), citing a strengthening expansion in regions such as Europe and Japan. The IMF also believes that the median output gap for 20 developed economies will move into positive territory (0.3%) in 2018.

If this proves accurate, it will be the first time since the global financial crisis that more than 50% of those 20 countries have positive output gaps. The United States closed its output gap in 2015, according to the IMF's analysis, and now the rest of the world seems to be catching up; dare we use the new cliché "synchronized global growth."[14] In support of that theme, last year also proved to be the first year since before the financial crisis in which all 35 Organisation for Economic Co-operation and Development (OECD) countries, plus 10 non-OECD countries, experienced positive year-over-year growth. The last time this occurred was 2004–07 (Chart 3).

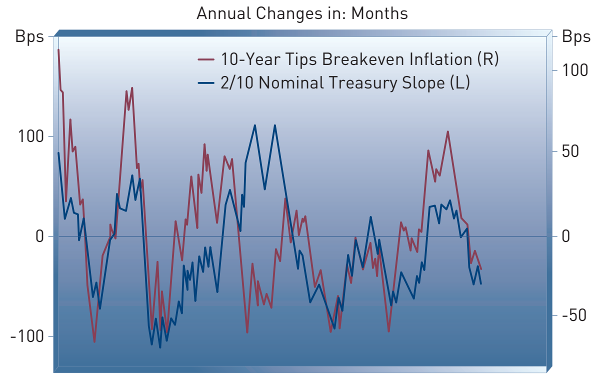
As a result, the Fed is no longer the only major developed market central bank tightening policy, with the ECB also initiating a slow removal of accommodation. We believe the combination of stronger global economic growth and a slow but evident reversal in the mentality of certain large central banks has the potential to reduce the interest rate differential between the United States and other markets, which served to increase the attractiveness of U.S. bonds to foreign investors. If the global economy continues on its current trajectory, that should help diminish this particular headwind to rising U.S. rates.

We believe a cyclical uptrend in inflation also has the potential to encourage interest rates higher in the near term. Although higher inflation is not always associated with higher rates, the Treasury market is not pricing in the possibility that core inflation returns to the Fed's 2.0% target. Increasing inflation expectations could be offset by a fall in real yields, but real yields are unlikely to fall while the Fed continues to tighten. The market is currently pricing in two to three rate hikes over the next 12 months, and unless that expectation is revised lower, real yields should at least remain stable, if not rise.[15]

[14] BCA Research, "U.S. Bond Strategy Special Report," November 28, 2017.

[15] Ibid.

Chart 4
Possible Change in Yield Curve
As of 11/1/17



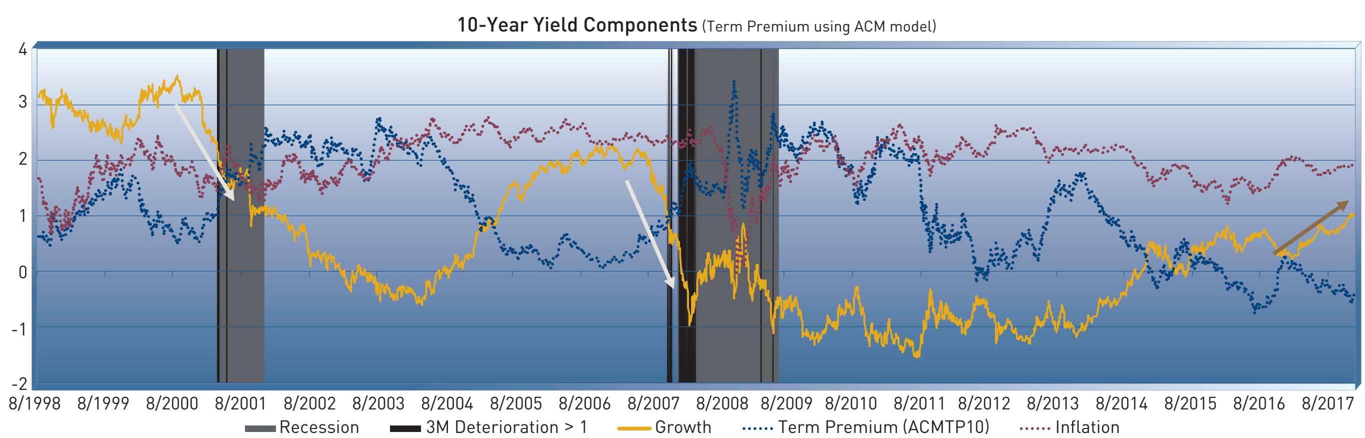
Source: BCA Research

Although we believe the U.S. yield curve will continue to flatten as it has in *all nine* previous Fed tightening cycles, there is the potential for an intermittent steepening. This would also likely have a negative impact on fixed income portfolios with more duration exposure. We think the Fed will likely be cautious in seeing that inflation levels are continuing to push toward its 2.0% objective. This means either inflation begins to pick up, allowing the Fed to hike as planned, or the Fed slows the pace of tightening to encourage higher inflation. Either way, if inflation breakevens move higher, the yield curve may steepen in the near term, pressuring returns further out the duration spectrum (Chart 4). If this were to materialize, we believe it would be a relatively short-lived reversal and curve flattening will prevail in the latter half of 2018 if the Fed continues to hike interest rates as forecast.

An important question to consider when analyzing fixed income markets is what the yield curve is telling us about the economic backdrop. Our decomposition of the 10-year rate shows that although the 10-year remains low/curve flatter, the growth expectations component of the 10-year rate remains in an uptrend. We typically do not see recessionary conditions until growth expectations start to deteriorate (Chart 5). The standard interpretation is that a flattening curve means that the bond market is pessimistic about future growth (low long rates) while the Fed is overly worried about inflation (rising short rates). That might not be the case today, with long rates affected by negative term premiums which are largely a function of the extremes we have seen in global monetary policy. The shape of the curve certainly warrants watching, but on its own a flattening yield curve is not an imminent threat. Under similar circumstances over the past 40 years, the S&P 500 has continued to rise and a recession has been a year or more in the future. We are still more than 50 bps away from inversion, which means the risk of a recession remains low.

The bottom line is interest rates likely will be affected by competing forces in the coming year, but we believe that certain pieces are in place, such as the potential for rising inflation, continued

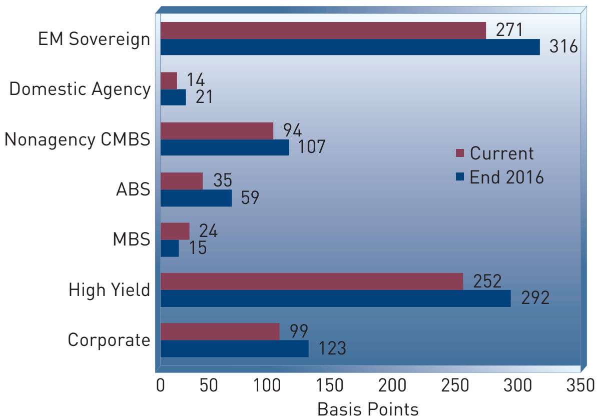
Chart 5
Ten-Year Yield Components (Term Premium Using ACM Model)*



*Term premium estimation model developed at the Federal Reserve Bank of New York by Adrian, Crump, and Moench (2013).

Source: FactSet Research Systems Inc.

Chart 6
Option-Adjusted Spread Comparison: End of 2016 versus December 2017



Source: BCA Research

economic growth, and slow/steady central bank tightening, that may push rates higher as we move through 2018. Longer term, however, we think interest rates are likely to remain meaningfully below what would be typical based on historical experience. As such, we will not attempt to time our duration exposure based on shorter-term interest rate movements, keeping a neutral exposure to interest rate risk. Again, we believe this balances our overall view on the likely path of interest rates given the myriad forces that may influence their direction in the coming year.

Corporate Credit and High Yield

Similar to our view heading into 2017, given our expectations for a supportive economic backdrop, we view the overall environment as generally supportive for spread products, including high yield. We do not believe 2018 will mark the end of the business cycle, making dramatic spread widening unlikely, especially in the first part of the year. That said, the credit cycle is advanced, and valuations will be a headwind for further price appreciation.

Most credit products are starting 2018 with a more challenging valuation backdrop compared with the already high prices seen at the start of 2017. Chart 6 examines the option-adjusted spread for nine different credit products, and all but mortgage-backed securities (MBS) are starting 2018 at tighter spread levels.

As it relates specifically to corporate high yield, we believe 2018 will be another year of solid returns, but the risk/reward proposition is even less attractive than it was at this time last year, especially for highly taxed individuals who can invest in the municipal market as an alternative. On the positive side, with the global economy projected to grow at 3.7%, default rates should continue to push lower. Default rates experienced a near-term peak in August 2016 and are projected to end 2018 close to 2.0%. From a fundamental perspective, credit rating agency action continues to reflect optimism within the asset class, and access to capital for highly leveraged borrowers remains supportive as lending standards have eased throughout the previous 12 months. From a "technicals" perspective, demand in the asset class still appears on solid footing. As of early December, the high yield market had a small net-supply shortfall, interest from foreign investors has persisted, and new issues have been mostly oversubscribed. Thus, valuation remains the primary challenge to achieving material upside in the asset class, with option-adjusted spreads historically very tight—340 bps compared with just over 400 bps entering 2017.[16]

As we continue to move deeper into the credit cycle, and with spreads near historically tight levels, the scope for additional spread tightening is limited, in our view. We think the return profile in credit markets will closely mirror the carry, or coupons, of these products. Although spreads are unlikely to tighten significantly from current levels, we are not forecasting significant price degradation from a rapid spread widening, given our belief that the economy will continue to expand and investors will likely continue to search for portfolio income. In the absence of spread tightening or widening, high yield would most likely produce returns in the 6% range, similar to 2017 returns. High yield may serve as a useful source of income in certain portfolios given the relatively low yields of competing asset classes; however, we would

[16] J. Stanley, "2018 Corporate High Yield Outlook," Virtus Investment Partners (2017).

Table 7
Municipal Bond Index Breakeven Analysis, 12-Month Horizon
As of 12/31/12

Index	Scenario* (bps)	Total Return**	Yield Return	Price Return
Short	+122	0%	2.78%	-2.78%
Short-Intermediate	+77	0%	1.87%	-1.87%
Intermediate	+64	0%	1.28%	-1.28%

Source: PNC Capital Advisors

** A parallel shift of the benchmark yield curve*
*** Total return = yield return + price return*

prefer equity market risk over high yield credit risk given the greater potential upside we see in stocks relative to credit.

In terms of risks to credit market performance, a sustained rise in inflation could be problematic. The last major disruption in credit markets was during 2014–15, when markets anticipated that the Fed would continue to tighten policy even as the dramatic fall in commodity prices was pressuring certain sectors. If inflation were to rise in earnest, which we believe is more likely later in 2018, the Fed may no longer be willing to step in the next time signs of trouble emerge in credit markets. Generally, we favor higher quality credit versus high yield, especially as we move into the latter parts of 2018.

Municipals

First, the municipal market will likely experience a pronounced shortfall in supply during the first few months of 2018. Many issues that would have come to market in the first part of 2018 were pulled forward to the end of 2017 as investors feared complications associated with new tax legislation. Although many of the market's largest fears did not materialize (the loss of tax exemption for private activity bonds, for example), the supply/demand dynamic has been affected in a way that should be favorable for municipal bonds relative to their U.S. Treasury bond counterparts. Time will tell what the ultimate impact is from other parts of the tax legislation. For example, the limitation of state and local tax deductions could increase the demand for tax-exempt income in high-tax states, while the reduction of personal and corporate tax rates could decrease the attractiveness of tax-exempt income.[17]

Similar to other credit sectors, the scope for additional performance via tighter spreads is limited in the municipal market, and we prefer the intermediate part of the curve. Due to the low level of interest rates, total returns can be negatively affected with relatively small moves in interest rates. However, the bias of the curve should be flatter, and longer-term rates should not increase rapidly as we move through the year, in our view. For some perspective, Table 7 shows an interest rate sensitivity analysis for different points on the curve.

For highly taxed investors, we continue to favor the municipal market over other credit sectors. We believe mid-range investment-grade credit exposure is preferable, with some selective exposure further down the credit spectrum.

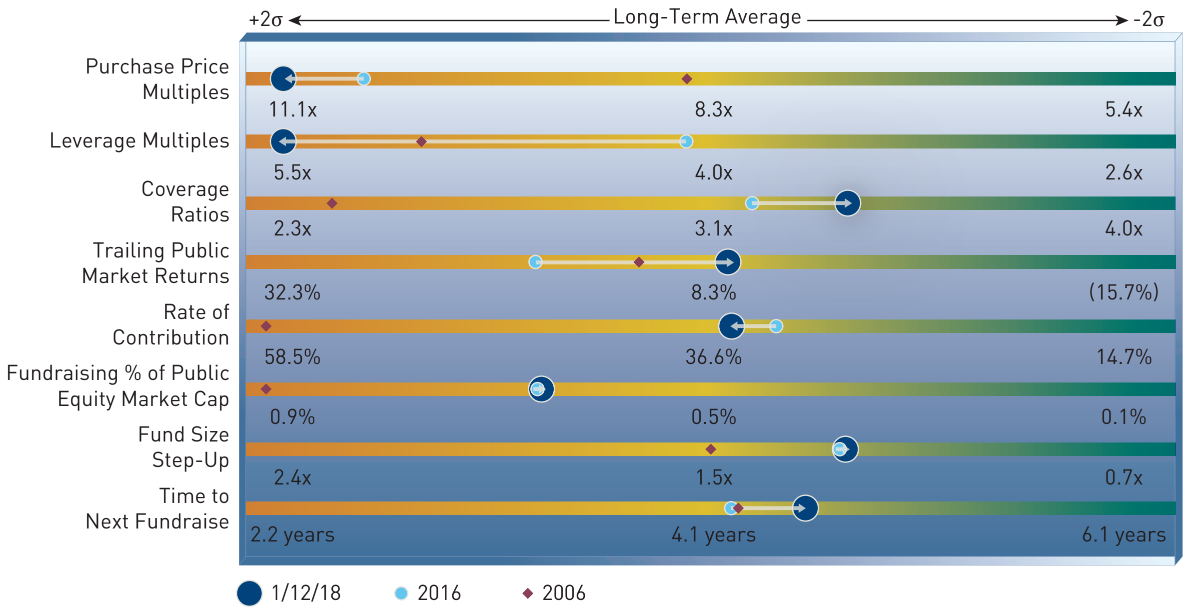
Alternative Investments

Investing in a world with lower expected returns poses real challenges for all investors. As we noted in our third-quarter 2017 *Strategy Insights*, portfolios have had to evolve significantly over the past 20 years to continue being able to meet the needs of the organizations they support. The shift from fixed income into greater equity allocations was the first major evolutionary shift, but in the current subdued return environment that move alone may not be sufficient. We continue to believe alternative investments can play an important role in portfolios by accessing returns that do not depend entirely on declining interest rates or rising public equity markets.

Overall, we continue to see an improving environment for alternative strategies versus

[17] PNC Capital Advisors, "Municipal Fixed Income Market Outlook 2018," January 2018.

Chart 7
Metrics on Private Equity and Debt



Source: Hamilton Lane

traditional public markets. In our view, positive catalysts creating a relatively more favorable backdrop for alternatives include, but are not limited to:

- our expectations for the return to a more fundamentally driven market (increasing dispersion between "winners and losers");
- less central bank intervention;
- falling market correlations; and
- more natural market-driven price discovery as monetary policy's influence on interest rates becomes less severe.

These trends should favor alpha generation (that is, active managers) and help mitigate some of the headwinds experienced by hedge funds, in particular, since the global financial crisis. Of course, manager selection within these asset classes is always critical, and return results can vary widely given the myriad strategies employed within each asset class.

Private investments can offer a meaningful premium over public markets to investors that have both the ability and willingness to assume the illiquidity constraint. Our research suggests this premium has historically been 300–500 bps per year (see our December 2016 white paper *Going Private: A Guide to Private Investments* for more details). We also continue to believe hedge fund strategies can play a valuable role in diversifying risk in portfolios by potentially mitigating the need for higher equity allocations while generating returns above what is possible in fixed income markets.

We believe it is difficult to make near-term predictions for alternative investments due to their inherent idiosyncratic nature. Nevertheless, below are our observations on the main alternatives categories and some thoughts on the best way to access these investments over the next 12 months.

Private Equity/Debt

There are reasons to be cautious about private equity and debt in the current environment. Based on data collected by Hamilton Lane, a private equity allocator, several metrics on private equity and debt are starting to become stretched (Chart 7). Purchase price and leverage multiples are high by historical standards, and there are sizeable capital raises and record amounts of so-called "dry powder" (the capital private equity managers have been allocated but not yet deployed) would give any investor pause.

However, there are also several mitigating factors. For example, managers are not increasing the size of their funds compared to their most recent prior funds, and the time between capital raises for the average manager has lengthened. These factors suggest to us that managers are being careful with the capital entrusted to them.

According to Preqin (a leading data aggregator for the alternatives industry), 56% of investors surveyed plan to maintain their private equity allocation at current levels and 39% plan to increase their allocations—a reasonable outcome, in our view.[18] Private equity allocations require diversification not only by strategy and manager but also by vintage (that is, the year the fund begins to invest). We believe investors should allocate their capital on a fairly systematic basis, spreading it out over multiple years rather than one lump sum at one point in time. We believe investors should continue to allocate to private equity in 2018, but those allocations should be aimed at diversification and more defensive parts of the private equity universe.

Small and middle-market buyout funds focused on active operational improvements are less likely to be affected by current pricing and economic conditions because an important part of their return stream comes from the manager's skill in improving the company. We also favor smaller private debt funds, which offer some protection through early coupon payments and being higher in the capital structure. Private debt markets suffer from similar concerns as private equity—deployment of large amounts of capital and the resulting lower underwriting standards. However, we believe that smaller, focused offerings can still generate strong risk-adjusted returns by identifying inefficient niche opportunities.

Private Real Estate

Similar to our views on private equity and debt, we are concerned about pricing in parts of the private real estate universe, especially given where we are in the economic cycle. However, private real estate can still offer valuable diversification in portfolios. We believe the current focus should be in real estate sectors whose dynamics are driven more by secular demographic factors than by the economic cycle itself. Multifamily housing, student housing, and senior living all depend on favorable demographic trends to drive returns, and these factors are typically not subject to market forces. That said, opportunities in more cyclically sensitive sectors, such as office and retail, could materialize if a recession occurs earlier than we expect. Thus, we favor nimble managers who can adjust their allocations to take advantage of depressed pricing rather than set up rigid sector targets over the next few years.

Private Impact Investments

Investors have been dramatically increasing their allocations to various forms of responsible investments (RI) to better align their investments with their values and/or missions. Commitments to private RI funds increased to $22 billion by 2016, doubling from $10 billion just four years earlier.[19] The number of deals has seen similar growth, from just under 5,000 in 2014 to nearly 8,000 in 2016.[20]

This growth has had a meaningful impact on the ability of investors to access RI through private investments. More managers have begun to recognize the rapid acceleration in demand and have built up their capabilities to source new investments that specifically target social-related impacts. This is not a new phenomenon, in our view—capital has always been needed in these spaces, but managers simply were not looking or did not even realize they were making impact investments. Thus, we believe investors can now have an impact with their investments without sacrificing much, if any, return to do so. (See our June 2017 commentary, *Aligning Values,* and *Aspirations: Hawthorn's Approach to Responsible Investing*.)

Hedge Funds

One of the great challenges in the current investment landscape is finding assets that can serve as a ballast in a portfolio while still generating sufficient returns. Globally, interest rates still remain quite

[18] Preqin Ltd., "Preqin Investor Outlook: Alternative Assets H2 2017," p. 11 (2017).
[19] Global Impact Investing Network (GIIN), "2017 Annual Impact Investor Survey" (2017).
[20] Global Impact Investing Network (GIIN), "Eyes on the Horizon" (2015).

low, and even though we expect interest rates in the United States to continue rising, fixed income assets simply cannot generate the returns over the next decade that they have over the past 30 years. Well-selected hedge fund strategies, however, can help play the role of portfolio stabilizer that is traditionally performed by fixed income assets. This may surprise some investors since hedge fund strategies are often thought of as high risk efforts to "beat the market."

In fact, many strategies actually focus on preservation of capital in that they are truly hedged and target lower volatility and correlation to traditional asset classes. These strategies vary in how they generate their returns and are not necessarily dependent on the direction of either equity or fixed income markets, meaning they still have the ability to generate returns comparable to historical averages despite current market conditions. Indeed, rising rates and increasing volatility will actually be beneficial to many of these strategies. Hedge fund strategies are also no longer reserved for only the largest institutional investors (that is, investor access has improved materially). While we do favor using limited partnership forms of hedge funds wherever possible, we also believe liquid hedge fund strategies (that is, those available as mutual funds) can play an important role in portfolios.

Conclusion

We are generally positive about prospects for the markets in 2018, though we certainly have some concerns. Although we still believe we are in the later stages of the cycle, we acknowledge there may be some room for the market to run, even at current lofty valuation levels. We base this conclusion on continued solid global growth prospects and a reasonably steady U.S. expansion bolstered at least in the short run by fiscal stimulus that should support continued earnings growth. On the flip side, we are mindful of increasing wage pressures and persistently low productivity growth levels that could ultimately cap U.S. growth prospects beyond 2018, as well as our view that the Fed may feel compelled to act more forcefully on interest rates to prevent the economy from overheating. We also are beginning to get concerned about market sentiment turning too blindly bullish. This could be a catalyst for an increase in short-term volatility.

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Hawthorn Asset Allocation Playbook
(as of 12/31/17)

Asset Class	Sub Asset Class	Favorability -			Neutral			+	Points of View
Equities					●				
U.S. Equity	Large Cap					●			Relative valuation and vulnerability to what we believe will be an increase in overall market volatility in 2018 cause us to narrowly favor large over small. Smaller cap companies could benefit from positive tax reform-related forward guidance; however, valuations remain quite expensive at 25x on a forward earnings basis.
	Mid Cap				●				
	Small Cap				●				
Non-U.S. Equity	Intl. Large/Mid Cap					●			Valuations appear relatively more attractive versus domestic equities, potentially creating attractive opportunities in many international markets. Still largely accommodative monetary policy by global central banks and strong earnings momentum should also provide additional support for international equities. A weaker dollar will likely be less of a tailwind, however.
	Intl. Small Cap				●				
	Emerging Markets			●					Although we like emerging markets for the long term given current valuations, we believe the rally to be overextended. The shorter-term bear case for emerging market equities rests mainly on China, which has a significant impact on performance with a weight of more than 25% of the emerging markets index.
Taxable Fixed Income				●					
U.S. Fixed Income	Short Fixed Income			●					With the likelihood of longer-term rates remaining well below long-run averages, we favor intermediate-duration fixed income. While mindful of the numerous crosscurrents affecting interest rate movements, we will not attempt to time our duration positioning, even though we think rates may drift higher in 2018.
	Core Fixed Income				●				
	U.S. High Yield			●					The credit cycle is aging, and valuations should become an increasing headwind for most below-investment-grade issuers. Leveraged loans remain more attractive than high yield given their seniority in the capital structure, thus potentially providing more protection from higher interest rates.
	U.S. Leveraged Loans				●				
	U.S. TIPS				●				Although inflation looks poised to rise later in 2018, the outlook is far from certain. We prefer to hedge inflation over the long term via our equity exposure.
Non-U.S. Fixed Income	Global Bond				●				Flexibility provides for diversification if rates should steadily rise (a primary risk to fixed income in this market).
	Unconstrained Bond						●		
	Emerging Market Bond			●					
Alternatives						●			
Private	Private Real Estate					●			Key drivers include a still relatively constrained supply backdrop, modest leverage levels, and the fact that capital flows into the asset class are becoming increasingly global (that is, investor demand is quite robust).
	Private Debt					●			Middle market lending in the corporate sector is still quite constrained, continuing to create opportunities for private debt investors. We continue to see investors rewarded with a substantial illiquidity premium for taking on unrated, smaller-sized loans.
	Private Equity						●		Opportunity in new/less efficient markets and a more diverse investable opportunity set, for example, via secondaries and "co-investment" options.
Hedge Funds	Equity Long/Short					●			A transition from a primarily macro-driven market environment to a more fundamentally driven one should be positive for these alpha generating strategies. Central banks now appear more committed to a steady normalization of interest rates than they have been in the past. However, should the market move steadily higher with little volatility, these allocations will likely underperform.
	Event Driven					●			
	Relative Value					●			
	Directional					●			
Cash					●				

Tactical Allocations						●			
Tactical	Master Limited Partnerships					●			While sentiment has been poor through much of 2017, we believe management teams' commitment to less equity issuance (less dilution) and stronger coverage ratios could spur investor interest given currently depressed valuations and underweight energy positioning among equity portfolio managers.
	Infrastructure					●			Defensive qualities and income potential that we like in this market.
	Currency Hedged Europe				●				Stabilizing economic conditions, improving earnings growth, relatively attractive valuations, and a still-supportive central bank put European equities in a good position heading into 2018.
	Currency Hedged Japan					●			Valuations are attractive, earnings growth is strong, consumer confidence is high, and technically the price chart of the Nikkei 225 shows a long-term structural breakout after recent strength.
	U.S. Banks						●		We think valuations, the regulatory backdrop, and the continuation of this business cycle are compelling reasons to tilt toward U.S. banks within value allocations.
	Structured Note (Drawdown)					●			Ability to earn a coupon while waiting for a more attractive entry point into equities can be an attractive strategy, especially versus cash.

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