Stembrook
Asset Management

Stembrook Market Review — Fourth Quarter 2017

In a quarter that would end with an announcement of a tax-reform bill in the United States, global equities continued to rally, finishing the year up 24.6%.[1] Global economies continued to improve, albeit at a modest pace (see details in Economic Backdrop). The equity markets remain extremely stable, as the VIX Index, a measure of volatility in the U.S. stock market, ended the quarter at 11.9, considerably lower than its long-term average of 19.3.[2] Consumer sentiment in the U.S. reached a new, post-crisis high in 2017 and remains at an elevated level.[3]

As equity valuations have increased, our long-term return expectations have decreased. This is consistent with historical data, showing that higher valuations tend to be followed by lower future returns. Despite higher equity prices, it is important to note that earnings per share are also increasing, this is especially apparent in markets outside the U.S. The chart located in the bottom center of this page summarizes earnings per share growth for global equity markets. Earnings growth was strong for each of these markets in 2017. The most notable earnings growth improvements were in Europe, Pacific and Emerging Markets.

The bond market experienced a modest rise in rates at shorter maturities, while rates on longer-term bonds ended the year slightly lower. This change, known as a flattening of the yield curve, was largely driven by the Federal Reserve's normalization of interest rates, which put upward pressure on shorter maturity issues.

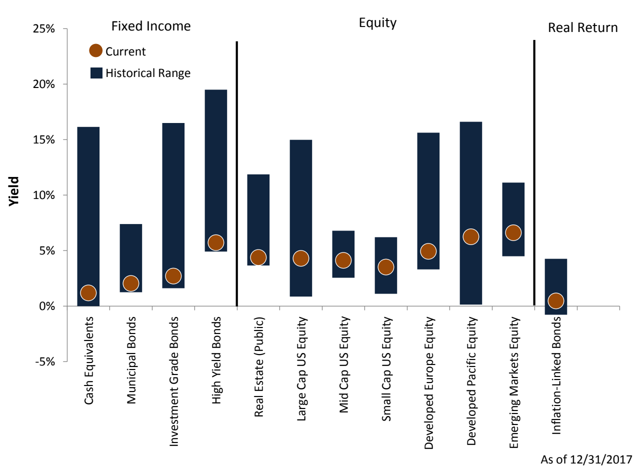
Our proprietary models forecast pre-tax returns ranging from 1% to 3% for fixed income-like asset classes and 4% to 10% for equity-like asset classes (see table to the right). We continue to favor equities over fixed income for long-term investors, despite the rise in short-term interest rates and our reduced return expectations for equities. Our more detailed observations and current portfolio positioning are outlined in the following comments.

Expected Market Returns and Risks 7-10 Year Horizon

	Pre-Tax Annualized Return	After-Tax Annualized Return	Volatility[1]
Inflation	1.9%	1.9%	3.1%
Cash Equivalents	1.2%	0.7%	3.5%
Municipal Bonds	1.9%	1.9%	4.4%
Inflation-Linked Bonds	2.3%	1.3%	5.6%
Investment Grade Bonds	2.5%	1.4%	6.7%
High Yield Bonds	2.5%	1.1%	13.2%
Real Estate (Public)	4.4%	2.3%	17.5%
Broad Market US Equity	7.9%	6.2%	16.9%
Developed Non-US Equity	7.9%	6.0%	21.4%
Emerging Markets Equity	10.0%	6.5%	29.6%

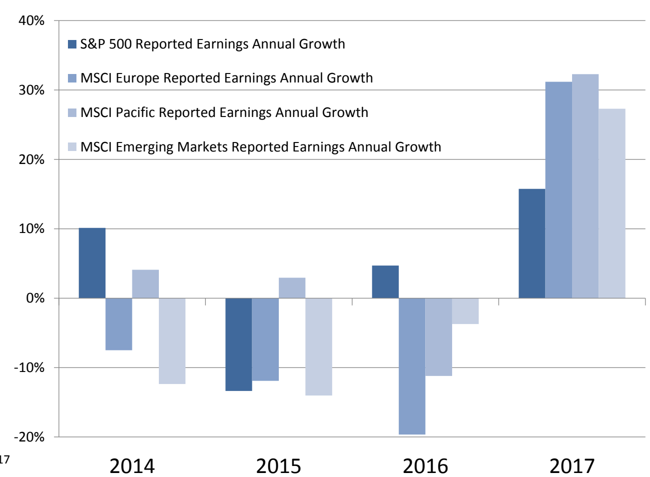
A sampling of return expectations produced by our models. Expected returns are projections and are not guaranteed.

Yields Across Asset Classes



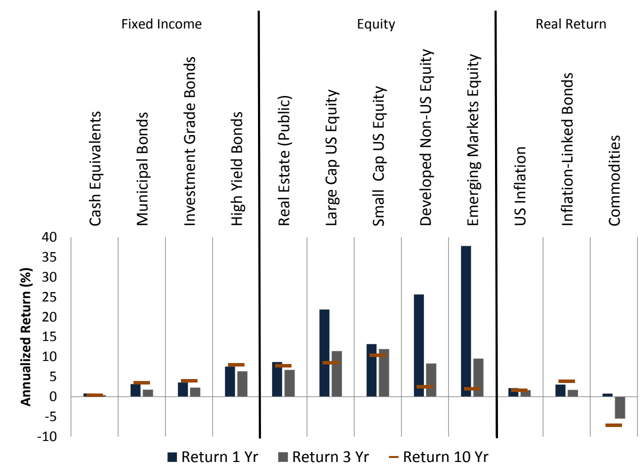
Yields are an indicator of future returns. Orange dots show current yields, blue bars show historical ranges. Yields are generally low versus their historical range.

Global Earnings Growth



All major markets experienced positive earnings growth in 2017.

Historical Market Returns



Historical market returns as of December 31st, 2017. Note that looking backwards at recent returns is not a reliable method for predicting future returns.

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Global Asset Class Returns

Asset Class Name	Last 10 Years	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Small Cap US Equity	Small Cap 8.6%	Inv Grd Bnd 5.2%	EM Eq 79.0%	Real Estate 28.6%	Infl-Indx Bnd 14.0%	EM Eq 18.2%	Small Cap 41.3%	Real Estate 31.8%	Real Estate 2.8%	Small Cap 26.5%	EM Eq 37.3%
Large Cap US Equity	S&P 500 7.0%	CPI 0.1%	HY Bnd 56.3%	Small Cap 26.3%	Real Estate 9.2%	Real Estate 17.6%	S&P 500 32.4%	S&P 500 13.7%	S&P 500 1.4%	HY Bnd 17.5%	Intl Eq 25.0%
High Yield Bonds	HY Bnd 6.5%	Infl-Indx Bnd -1.2%	Intl Eq 31.8%	EM Eq 19.2%	Inv Grd Bnd 7.8%	Intl Eq 17.3%	Intl Eq 22.8%	Inv Grd Bnd 6.0%	CPI 0.8%	S&P 500 12.0%	S&P 500 21.8%
Real Estate (Public)	Real Estate 6.4%	HY Bnd -26.2%	Real Estate 28.6%	Commod 16.8%	HY Bnd 4.5%	Small Cap 16.3%	HY Bnd 7.4%	Small Cap 5.8%	Inv Grd Bnd 0.5%	Commod 11.4%	Small Cap 13.2%
Investment Grade Bonds	Inv Grd Bnd 3.3%	Small Cap -31.1%	S&P 500 26.5%	HY Bnd 15.2%	CPI 3.0%	S&P 500 16.0%	Real Estate 1.9%	Infl-Indx Bnd 4.6%	Intl Eq -0.2%	EM Eq 11.3%	Real Estate 8.7%
Inflation-Linked Bonds	Infl-Indx Bnd 2.9%	Commod -35.6%	Small Cap 25.6%	S&P 500 15.1%	S&P 500 2.1%	HY Bnd 15.4%	CPI 1.5%	HY Bnd 2.5%	Infl-Indx Bnd -1.4%	Real Estate 8.6%	HY Bnd 7.5%
Developed Non-US Equity	Intl Eq 1.8%	S&P 500 -37.0%	Commod 18.9%	Intl Eq 7.8%	Small Cap 1.0%	Infl-Indx Bnd 7.2%	Inv Grd Bnd -2.0%	CPI 1.3%	Small Cap -2.0%	Infl-Indx Bnd 3.6%	Inv Grd Bnd 3.5%
Emerging Markets Equity	EM Eq 1.5%	Real Estate -39.2%	Infl-Indx Bnd 10.1%	Infl-Indx Bnd 6.5%	Intl Eq -12.1%	Inv Grd Bnd 4.2%	EM Eq -2.6%	EM Eq -1.8%	HY Bnd -4.6%	Inv Grd Bnd 2.6%	Infl-Indx Bnd 3.0%
Inflation	CPI 1.4%	Intl Eq -43.4%	Inv Grd Bnd 5.9%	Inv Grd Bnd 6.5%	Commod -13.3%	CPI 2%	Infl-Indx Bnd -9.4%	Intl Eq -4.5%	EM Eq -14.8%	CPI 1.8%	CPI 2.1%
Commodities	Commod -5.8%	EM Eq -53.2%	CPI 2.7%	CPI 1.5%	EM Eq -18.4%	Commod -1.1%	Commod -9.5%	Commod -17.0%	Commod -24.7%	Intl Eq 1.6%	Commod 0.7%

Returns are arranged in columns, by year. Each color represents a different asset class. Each year, the leaders and laggards tend to shift. Diversification across a range of asset classes can smooth returns and enhance growth.

Economic Backdrop

- Building on a strong three quarters, real GDP in G-20 countries is expected to grow at an annualized rate of 3.2% in the fourth quarter.[4] Inflation remains stable, and is expected to increase at an annualized rate of 2.2%, unchanged from the third quarter.[5]
- The U.S. economy continues to maintain above-trend growth. GDP is expected to grow by 3.2% on an annualized basis, in the fourth quarter.[4]
- The Eurozone gained momentum and economists expect real annualized GDP growth for the region to grow by 2.6% in the fourth quarter.[4]
- While the Japanese equity market continues to rally, GDP growth remained stable in the fourth quarter, growing at a 2.5% annualized pace.[4]
- Emerging markets' growth rates remained stable with GDP growing at a 4.9% annualized pace. Growth continues to exhibit breadth, as each member country grew at more than a 1% pace during the period.[4]
- In their December meeting, the U.S. Federal Open Market Committee voted to raise the federal funds target rate to 1.50%, a move largely expected by economists. The median forecast from economists polled by Bloomberg is for the rate to reach 2.25% by year-end, with 3 to 4 rate increases over the course of 2018.
- Global manufacturing and service sectors remained strong through the end of the year, with the global service sector PMI finishing at 53.9 and the manufacturing survey at 54.5.[6] Surveys in developed countries were stronger than in emerging countries. Readings above 50 indicate expansion, while readings below 50 indicate contraction.

Currencies

- The U.S. Dollar continued to decline versus other major currencies, down 1% in the fourth quarter. The Dollar finished the year down 10%.[7] A weaker Dollar results in higher current returns for non-U.S. investments denominated in Dollars. In addition, it leads to higher import prices, which can put upward pressure on inflation, which has remained subdued.

Equities

- Emerging markets rallied in the latter part of the year, as commodity prices increased. The index finished the quarter up 7.3%. Non-U.S. developed equities advanced 4.2% and broad market equities in the U.S. returned 6.5% in the quarter to round out a very strong year for global equity markets.[8]
- With momentum driving stock prices higher, value-oriented stocks continued to underperform growth stocks in the U.S. during the fourth quarter. Value underperformed growth by 12 percentage points over the year, a reversal of last year's leadership by value stocks.[9]

Fixed Income

- Fixed income returns remained strong in the fourth quarter, punctuated by a return of over 1.2% in inflation-linked bonds. Over the course of the year longer duration bonds outperforming shorter duration bonds, as short-term yields rose.[10]

Current Positioning

- We invest in **lower priced, value-oriented equities, both in the U.S. and abroad,** which tend to outperform the broad market, over time.
- We maintain our recent shift to marginally **underweight large cap U.S. equity.** After years of holding an overweight position in an outperforming market, valuations have risen to above average levels and our models indicate that a reduced allocation to the U.S. market is prudent.
- We also maintain our recent shift to **overweight developed non-U.S. and emerging market equities**, where valuations and long-term growth potential remain attractive.
- We remain **overweight municipal bonds** for taxable investors.
- Our fixed income portfolio continues to be positioned for a normalization of central bank policy. Given our significant concerns regarding a longer-term, secular rise in interest rates and the resulting negative impact on bond prices, we continue to **hold shorter maturity bonds**, while steering away from **U.S. Treasuries** and investing in **corporate bonds, high yield bonds and floating rate bonds**.

We continue to focus our efforts on helping you meet your financial objectives by following our disciplined investment approach. Our approach uses time-tested return and risk models, incorporating fundamental valuations and tax-efficient strategies. This investment discipline is tailored to your individual situation in our continuing effort to craft your customized solution.

As always, we thank you for placing your trust in our investment management and advice and welcome your questions and comments at any time.

Peter D. D'Agati, CFA   Thomas Kosinski

Endnotes and Sources:

Text:

(1) Bloomberg: MSCI ACWI Index.12/31/16-12/31/17.
(2) Bloomberg: CBOE Volatility Index. Average 3/30/1990-12/31/17. As of 12/31/17.
(3) Bloomberg: University of Michigan Consumer Sentiment Index. As of 12/31/17.
(4) Bloomberg, Stembrook Research: GDP measures are based on the most recent annualized quarterly, seasonally-adjusted data. Statistics are stated in inflation-adjusted terms. Aggregate Statistics are weighted by each country's GDP translated into USD. Where available, official estimates are used. Where official estimates are not available, GDP data is based on Bloomberg Contributor Forecasted GDP. Emerging Markets measures are based solely on Bloomberg Contributor Forecasted GDP. As of 12/31/17.
(5) Bloomberg, Stembrook Research: Aggregate inflation statistics are weighted by each country's GDP translated in to USD. As of 12/31/17.
(6) Bloomberg: Markit Global Purchasing Managers Index for Manufacturing and Service. As of 12/31/17.
(7) Bloomberg: Dollar Index. 9/30/17-12/31/17, 12/31/16-12/31/17.
(8) Bloomberg: MSCI Emerging Markets, MSCI EAFE, S&P 1500. 9/30/17-12/31/17.
(9) Bloomberg: S&P 500 Value +15.35%, S&P 500 Growth +27.43%. 12/31/16-12/31/17.
(10) Bloomberg: S&P 10 Year U.S. TIPS Index. 9/30/17-12/31/17.

Charts:

Expected Market Returns and Risks, 7-10 Year Horizon: As of 12/31/17.
Source: Stembrook Research.
(1) Volatility is measured in terms of Standard Deviation. Standard deviation is the statistical measurement of dispersion about an average, which depicts how widely a stock or portfolio's returns varied over a certain period of time. Investors use the standard deviation of historical performance to try to predict the range of returns that is most likely for a given investment. When an investment has a high standard deviation, the predicted range of performance is wide, implying greater volatility. If an investment's returns follow a normal distribution, then approximately 68 percent of the time they will fall within one standard deviation of the mean return of the investment, and 95 percent of the time within two standard deviations. For example, for a portfolio with a mean annual return of 10 percent and a standard deviation of two percent, you would expect the return to be between 8 and 12 percent about 68 percent of the time, and between 6 and 14 percent about 95 percent of the time. Source: Morningstar.

Yields Across Asset Classes: As of 12/31/17.
Sources: *Cash Equivalents Yields* since March 1976. Ibbotson, Federal Reserve Bank, Thomson Reuters, *Municipal Bond Yields* since March 1988. Barclays Capital, Charles Schwab, BofA Merrill Lynch, Standard & Poor's/Investortools Municipal Bond Indices, *Investment Grade Bond Yields* since March 1976. Barclays Capital, *High Yield* since December 1984. BofA Merrill Lynch, Barclays Capital, *Real Estate (Public) Earnings Yield* since March 1976. NAREIT all Equity, *Large Cap U.S. Equity Earnings Yield* since March 1976. Standard & Poor's, BARRA, *Mid Cap U.S. Equity Earnings Yield* since June 1991. Standard & Poor's, BARRA, *Small Cap U.S. Equity Earnings Yield* since December 1993. Standard & Poor's, BARRA, *Developed Europe Equity Earnings Yield* since March 1976. MSCI Europe, Standard & Poor's Europe 350, *Developed Pacific Equity Earnings Yield* since March 1976. MSCI Pacific, S&P/Citi PMI Asia Pacific, S&P Asia 50, *Emerging Market Equity Earnings Yield* since December 1998, *Inflation-Linked Bond Real Yield to Maturity* since March 1997. Citi Yield Book, Federal Reserve Bank. Note: Yields are not perfect predictors of future returns and should not be used in isolation.

Global Earnings Growth: As of 12/31/17.
Sources: Bloomberg, Standard and Poor's, MSCI.
Indices: S&P 500, MSCI Europe, MSCI Pacific and MSCI Emerging Markets.

Historical Market Returns: As of 12/31/17.
Source: Bloomberg, Stembrook Research.
Indices: Bloomberg Barclays U.S Treasury Bills 1-3 Month Total Return, Bloomberg Barclays Municipal Bond 5 Year (4-6) Total Return, Bloomberg Barclays U.S. Aggregate Bond Total Return, Bloomberg Barclays U.S. Corporate High Yield Total Return, FTSE All Equity REIT Total Return, S&P 500 Composite Total Return, S&P SmallCap 600 Total Return, MSCI EAFE Total Return, MSCI EM (Emerging Markets) Total Return, Consumer Price Index – U.S., S&P 10 Year U.S. TIPS Total Return, Bloomberg Commodity (Total Return) Index.

Global Asset Class Returns: As of 12/31/17.
Source: Thomson Reuters, Bloomberg, Stembrook Research.
Indices: Consumer Price Index – US, U.S. 30-Day Treasury Bills, Bloomberg Barclays U.S. Treasury Bills: 1-3 Month Index, Citigroup Inflation-Linked Index, S&P 10 Year US TIPS Index, Bloomberg Barclays U.S. Aggregate Bond Index, BofA Merrill Lynch U.S. High Yield Cash Pay, Bloomberg Barclays U.S. Corporate High Yield Index, Dow Jones Wilshire REIT Index, FTSE All Equity REIT Index, S&P 500 Composite Total Return, S&P SmallCap 600 Total Return, MSCI EAFE Index, MSCI EM (Emerging Markets) Index, Dow Jones AIG Commodity (Totl Ret) Index, Bloomberg Commodity Index.

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Additional information is available upon request.