Stembrook Market Review — Third Quarter 2017

Global equities continued to extend their gains during the third quarter of 2017. The oldest of the bull markets is in U.S. equities, now in its 102nd month, only bested by the uptrend of the 1990s which lasted 113 months. Stocks remain relatively attractive versus bonds, but return expectations have come down.[1] Global headlines have been disconcerting in recent months, but markets have not been phased by nuclear tensions in North Korea, threats to the post World War II political order or natural disasters. Market volatility remains extremely low. The VIX volatility index, a measure of fear amongst market participants, ended the quarter near an all time low at 9.5, compared to an average of 19.4 since 1990.[2]

Many factors have helped to sustain the rally in equity markets. Corporate earnings growth has picked up its pace in all major markets, and economic data and sentiment are strong across the globe (see economic backdrop). During the quarter, non-U.S. equities were up 5.5%, while U.S. equities were up 4.5%.[3] Year-to-date, non-U.S. equities are up 18.5%, compared to 14.2% for U.S. equities.[4]

Given strong recent performance, our return expectations for equities are lower for the coming years; however, we still favor stocks over bonds, for long-term investors. We remain diversified across global equity markets and favor lower priced, value oriented stocks. Despite recent outperformance, global stocks have underperformed U.S. stocks over the past 5 years and remain favorably valued by most metrics (see middle bottom chart).

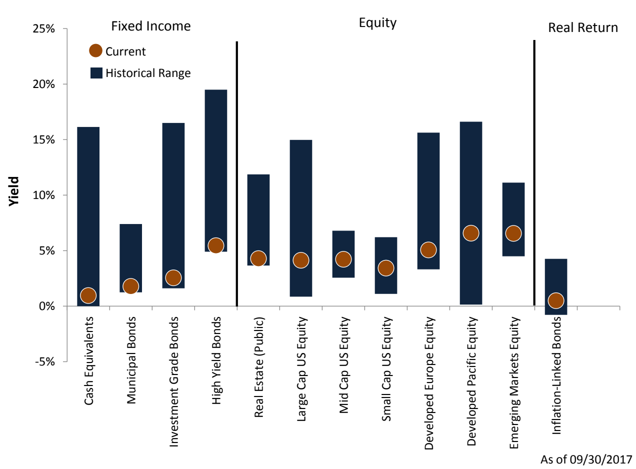
Our proprietary models forecast pre-tax returns ranging from 1% to 2% for fixed income-like asset classes and 4% to 10% for equity-like asset classes (see table to the right). Our more detailed observations and current portfolio positioning are outlined in the following comments.

Expected Market Returns and Risks
7-10 Year Horizon

	Pre-Tax Annualized Return	After-Tax Annualized Return	Volatility[1]
Inflation	1.8%	1.8%	3.1%
Cash Equivalents	1.1%	0.6%	3.3%
Municipal Bonds	1.7%	1.7%	4.4%
Inflation-Linked Bonds	2.2%	1.2%	4.7%
Investment Grade Bonds	2.3%	1.2%	6.7%
High Yield Bonds	2.2%	0.8%	13.7%
Real Estate (Public)	4.3%	2.2%	18.3%
Broad Market US Equity	7.9%	6.2%	17.5%
Developed Non-US Equity	7.9%	6.0%	22.4%
Emerging Markets Equity	10.1%	6.4%	30.6%

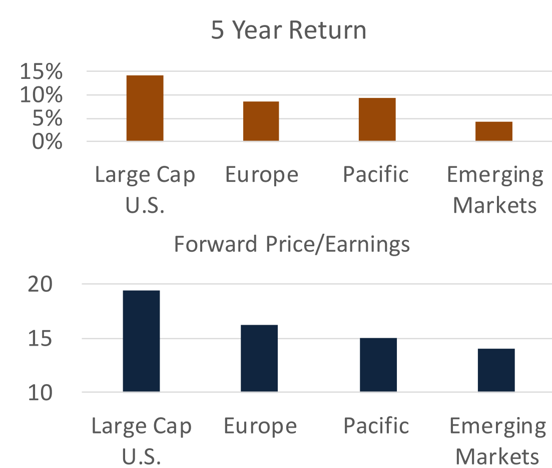
A sampling of return expectations produced by our models. Expected returns are projections and are not guaranteed.

Yields Across Asset Classes



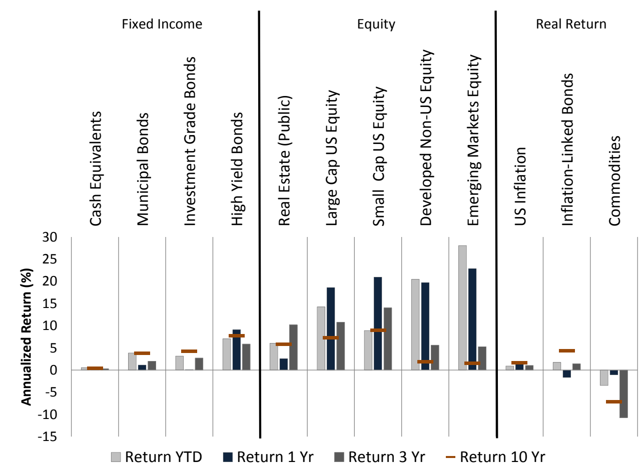
Yields are an indicator of future returns. Orange dots show current yields, blue bars show historical ranges. Yields are generally low versus their historical range.

Global Equity Returns and Valuations



U.S. equities have outperformed Non-U.S. equities. Non-U.S. valuations are more attractive on a prospective basis.

Historical Market Returns



Historical market returns as of September 30th, 2017. Note that looking backwards at recent returns is not a reliable method for predicting future returns.

Global Asset Class Returns

Asset Class Name	Last 10 Years	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Small Cap US Equity	Small Cap 7.5%	EM Eq 39.8%	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%
High Yield Bonds	HY Bnd 6.0%	Commod 16.2%	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%
Large Cap US Equity	S&P 500 5.8%	Infl-Indx Bnd 11.6%	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%
Real Estate (Public)	Real Estate 4.0%	Intl Eq 11.2%	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%
Investment Grade Bonds	Inv Grd Bnd 3.6%	Inv Grd Bnd 7.0%	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%
Inflation-Linked Bonds	Infl-Indx Bnd 3.6%	S&P 500 5.5%	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%
Emerging Markets Equity	EM Eq 1.7%	CPI 4.1%	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%
Inflation	CPI 1.6%	HY Bnd 2.2%	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%
Developed Non-US Equity	Intl Eq 0.8%	Small Cap -0.3%	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%
Commodities	Commod -4.7%	Real Estate -17.6%	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%

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

- Global GDP growth continues to gain momentum in G-20 countries, where economists forecast 3.2% growth in the third quarter.[5] Along with an increase in economic activity, inflation is expected to rise to 2.1%, after slowing in the second quarter.[6]
- Despite uncertainty domestically and abroad, GDP growth in the United States is forecast to increase by 3.1% in the 3rd quarter.[5]
- After many years of slow growth, the European economy continues to gain momentum. GDP in the region is forecast to grow at a 2.3% annual rate.[5]
- In similar fashion to other major developed economies, Japan's GDP growth is expected to rise to 2.5%, despite unfavorable demographics and high debt levels.[5]
- GDP growth in emerging economies continues to accelerate, growing by 4.9% in the third quarter. The breadth of economic expansion has improved, as each member country had positive growth in the quarter.[5]
- The U.S. Federal Open Market Committee met in September and, as expected, left the federal funds target rate unchanged at 1.25%. The Fed also indicated that they would begin to reduce the size of their balance sheet at a modest pace in October. Most economists expect one more 0.25% rate increase in December of this year followed by three increases next year, as inflation has begun to approach the Fed's 2% target.
- Global manufacturing continues to gain strength, with the Global Purchasing Managers Index for Manufacturing reaching 53.2 in September. The survey indicates great breadth in the improving global economy, as all major members had readings over 50, in September.[7] Readings above 50 indicate expansion, while readings below 50 indicate contraction.

Currencies

- The U.S. Dollar was down 2.7% in the quarter and has fallen nearly 9% this year.[8] A weaker Dollar results in higher returns for non-U.S. investments denominated in Dollars. Secondary effects include higher import prices, which can put upward pressure on inflation.

Equities

- Non-U.S. equities continued to outperform U.S. equities. Broad market U.S. equities were up 4.4% while developed non-U.S. equities returned 5.5% and emerging markets equities were up 8%, in Dollar terms.[9]
- Technology stocks and small cap stocks in the U.S. continued to outperform in the third quarter, up 6.2% and 6% respectively. Large cap stocks in the U.S. were up 4.5% over the same period.[10]

Fixed Income

- High yield bonds and floating rate bonds had the strongest returns in the U.S. fixed income market during the third quarter, up 2% and 1% respectively, compared to a 0.9% gain in investment grade bonds.[11]

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 order 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) JP Morgan Asset Management *Guide to the Markets* September 30, 2017: A bear market is defined as a 20% or more decline from the previous high.
(2) Bloomberg: CBOE Volatility Index. Average 3/30/1990-9/30/17. As of 9/30/17.
(3) Bloomberg: MSCI ACWI Excluding U.S. Stocks, S&P 500 6/30/17-9/30/17.
(4) Bloomberg: S&P 500, MSCI ACWI Excluding U.S. Stocks 12/31/16-9/30/17.
(5) 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 in to 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 9/30/17.
(6) Bloomberg, Stembrook Research: Aggregate inflation statistics are weighted by each country's GDP translated in to USD. As of 9/30/17.
(7) Bloomberg: Markit Global Purchasing Managers Index for Manufacturing. As of 9/30/17.
(8) Bloomberg: Dollar Index.6/30/17-9/30/17, 12/31/16-9/30/17.
(9) Bloomberg: S&P 1500, MSCI EAFE, MSCI Emerging Markets.
(10) Bloomberg: Nasdaq Composite, S&P SmallCap 600, S&P 500.
(11) Bloomberg: Bloomberg Barclays U.S. Corporate High Yield Index, S&P Leveraged Loan 100 Index, Bloomberg Barclays U.S. Aggregate Bond Index.

Charts:

Expected Market Returns and Risks, 7-10 Year Horizon: As of 9/30/17.
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 9/30/17.
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 Equity Returns and Valuations: As of 9/30/17.
Sources: Bloomberg
Indices: S&P 500, MSCI Europe, MSCI Pacific and MSCI Emerging Markets. All returns in U.S. Dollars.

Historical Market Returns: As of 9/30/17.
Source: Bloomberg, Stembrook Research.
Indices: BofA Merrill Lynch 0 to 3 Month U.S. Treasury Bill Index, Barclays Capital Munis 5-Yr Index, Barclays Capital Aggregate Bond Index, Merrill Lynch U.S. High Yield Cash Pay, FTSE All Equity REIT Total Return, S&P 500 Composite Total Return, S&P SmallCap 600 Total Return, MSCI EAFE Index, MSCI EM (Emerging Markets) Index, 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 12/31/16.
Source: Bloomberg, Thomson Reuters, Stembrook Research.
Indices: Consumer Price Index – U.S., U.S. 30-Day Treasury Bills, Citigroup Inflation-Linked Index, S&P 10 Year U.S. TIPS Index Barclays Capital Aggregate Bond Index, BofA Merrill Lynch U.S. High Yield Cash Pay, 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.