ESTATE COUNSELORS, LLC

ASSET MANAGEMENT

Monthly Market Risk Report

For the Month of November, 2016

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Estate Counselors, LLC monitors a number of forward looking economic indicators in an effort to identify when the risks of a market bubble or adverse economic conditions are increasing. If those indicators suggest there is an unusually high risk that a market bubble has formed or that a recession is on the horizon, then we may recommend to our clients that they consider investing in option contracts that are intended to increase in value should either a bubble pop or a recession take hold.

The following is a list of indexes tracked by Estate Counselors, LLC and their current forecast. Based on the data below it appears that:

Economic Risk is **MODERATE**.

Market Risk is **MODERATE**.

Hidden Markov Model (HMM) indicates that the equity markets are currently in a **BEAR MARKET** trend. (A more detailed discussion of HMM can be found later in this Report.)

Estate Counselors' Equity Hedge Index (ECHI) is signaling **HEDGE OFF.** (Please see below for a description of ECHI.)

Interest rates have jumped to a 2016 high of 2.36% on the 10 Year Treasury, and a December interest rate hike is now fully priced into the market. As has been the case for several months, many stock market valuation indicators are suggesting that equities are overvalued. However, the result of the presidential election, and President-elect Trump's proposed policies presents what may very well be a paradigm shift in the domestic economic backdrop. For example, current equity prices reflect market expectations for a reduction in corporate tax rates. This would raise corporate earnings which in turn would bring valuations of equity markets closer to their historic averages. Considering the foregoing, we believe equity prices could remain elevated for some time despite the prospect for interest rates rising faster than anticipated just a short time ago.

Our VA4 strategy is currently directing a slight underweighting to stocks in our client portfolios, while our CAAR strategy is currently directing "neutral" weights as compared to the benchmark. However rebalancing of accounts using this strategy will occur at the end of month, and we expect that this will result in an increased allocation to stocks and a corresponding decline in allocation to fixed income.

A. ECONOMIC INDICATORS

1. **Capital Spectator's U.S. Economic Trend Index (ETI).** ETI strengthened this month, and its current reading continues to indicate that there is a low probability of a recession beginning.

   As of November 18th, the ETI index reading was 71.4%. Higher readings equate with more indicators signaling that the economy is expanding; lower readings imply a weaker economy, with levels below 50% signaling a high probability that a recession has started.

   One month ago: 69.0%
   Two months ago: 64.3%

   ETI is a diffusion index that measures the percentage of 14 leading and coincident indicators that are trending positive for economic growth. More specifically, a diffusion index represents the percentage of the variables that are positive. Accordingly, if all of the indexes included in ETI were positive, the value of the ETI index would be 1.0 or 100%. If 7 of the 14 variables were positive, the value of the ETI index would be 0.50 or 50%. Higher readings equate with more indicators signaling that the economy is expanding; lower readings imply a weaker economy, with levels below 50% signaling a high probability that a recession has started. This index is typically released mid-month based on data for the prior month.

2. **Capital Spectator's U.S. Economic Momentum Index (EMI**). EMI ticked higher again this month and continues to indicate recession risk is low.

   As of November 18th, the EMI index reading is 2.4%. Near zero and below zero readings are indicative of recessions, usually with a slight lead time relative to the start dates, as determined by the National Bureau of Economic Research.

   One month ago: 2.2%
   Two months ago: 1.8%

   EMI is the monthly median percentage change for the 14 indicators that comprise the ETI. EMI is based on the median rather than the average (i.e., the mean) of these indexes because the mean is subject to outlier numbers, which can mislead us as to the true average. The median, by contrast, is immune to extremes because it reflects the middle point for a batch of numbers. As is the case with the ETI, this index is typically released mid-month based on data for the prior month.

3. **Capital Spectator's Macro-Markets Risk Index (MMRI).** The most recent MMRI signal suggests that business risk remains low and is decreasing.

If MMRI falls under 0%, that would suggest that recession risk is elevated. By contrast, readings above 0% imply that the markets are anticipating/ forecasting economic growth. MMRI has risen over the past several weeks to 3.70% as of November 11th. This reading bounced back slightly after falling last month.

One month ago:	2.90%
Two months ago:	7.60%

MMRI measures the daily median change of U.S. stock, bond, and oil prices. Because this information is available in real time, with continuous updates, prices have an edge over conventional economic statistics, which are published with a lag of a month or more. In addition, unlike published indexes, the market data on which MMRI is based is not adjusted. Accordingly, MMRI is intended for use as a supplement for developing perspective on the current month's economic profile until a complete data set is published.

4. **Chicago Fed National Activity Index (CFNAI).** The CFNAI for October indicates that economic activity has decreased with growth remaining below its historic average.

The three-month moving average for the month of October registered -0.27. However, it remains above the -0.70 level that would signal the onset of a recession.

One month ago:	-0.21
Two months ago:	-0.07

The CFNAI is a weighted average of 85 existing monthly national economic indicators. It is constructed to have an average value of zero and a standard deviation of one. Since economic activity trends toward growth over time, a positive reading corresponds to growth above trend and a negative reading corresponds to growth below trend. Research has found that the CFNAI provides a useful gauge on current and future economic activity and inflation in the U.S. The index's three month moving average provides a more consistent picture of national economic growth and is therefore used by Estate Counselors, LLC instead of the volatile monthly numbers.

When the three month moving average moves below -0.70 following a period of economic expansion, there is an increasing likelihood that a recession has begun. Conversely, when the three month moving average is above 0.70 after a period of economic contraction, there is an increasing likelihood that a recession has ended.

B. MARKET VALUATION INDICATORS

1. **Bullish Percent Index (BPI).** BPI indicates that stocks are trading in fairly valued territory.

As of November 21st, the BPI for the NYSE index is 61.64%. When the percentage of bullish stocks within a particular index is 70% or higher, the index is considered to be overvalued. When the index is below 30, stocks are considered to be oversold.

One month ago: 61.75%
Two months ago: 67.10%

BPI is a popular market breadth indicator that is calculated by dividing the number of stocks in a given group (an exchange, an industry, etc.) that are currently trading with Point and Figure buy signals, by the total number of stocks in that group. For example, if 2,100 stocks signal buy and 700 signal sell, the value of the NYSE Bullish Percent Index is 75.

2. **CAPE Ratio.** The CAPE ratio indicates stocks are valued well above their historical average.

	Cape on 11/21/16	Median	Mean	High	Above Average	Neutral	Low
Cape	27.16	16.04	16.68	25.1+	22.5-25	17.5-22.4	<17.4

One month ago: 26.56
Two months ago: 27.04

CAPE is a modified form of the PE ratio of the S&P 500 as determined by Robert Schiller. CAPE is simply the S&P 500 index's current price divided by the 10 year average of trailing earnings, adjusted for inflation. A high CAPE reading may be evidence that stock prices are inflated. The long term average of this ratio is 16.68, while its historical high is 44.2.

3. **Total Market Cap of the U.S. Stock Market to GDP.** The Total Market Cap to GDP ratio increased from the prior month and remains in "significantly overvalued" territory, as defined by gurufocus.com. At this

level, gurufocus.com states that the stock market is currently likely to return 0% per year, including dividends.

	Market Cap to GDP on 11-21-16	Median	Mean	High	Above Average	Neutral	Low
Market Cap to GDP %	123.0%	68.83	75.89%	115+	90.1%-115%	50.1%-90%	<50%

One month ago: 121.3%
Two months ago: 123.0%

The Total Market Cap to GDP ratio is an indicator of whether the stock market is fairly valued. It compares how much money is invested in the market relative to GDP, which is closely tied to corporate profits. A high reading would be an indication that equity prices are inflated.

4. **Tobin's Q.** Tobin's Q has again decreased after several months of higher readings, although it is still suggesting stocks are still at above average valuations.

	Tobins Q on 11/1/16	Median	Mean	High	Above Average	Neutral	Low
Tobin's Q	0.99	0.76	0.68	0.90+	0.75-0.90	0.65-0.70	<0.65

One month ago: 1.01
Two months ago: 1.04

This statistic is calculated by dividing Total Market Value (as represented by the Wilshire 5000) by the Total Asset Value. A low Q (between 0 and 1) means the cost of the assets of companies included in the Wilshire 5000 is greater than the combined value of their stock. In that event the stock market is undervalued. Conversely, a high Q (greater than 1) implies that the stock price of all Wilshire 5000 companies exceeds the replacement cost of the assets of those companies. A Tobin's Q that significantly exceeds its historic average of 0.68 is a potential indicator of an equity market bubble.

5. **S&P Earnings Yield.** This measure indicates that stock valuations have increased while high yield bond valuations have decreased since last month.

As of November 21st, the S&P 500 earnings yield is 3.96% while the yield on high yield bonds is 6.12%. This amounts to a spread of +2.16%. The spread has increased as stock prices have rallied and bonds have sold off.

This statistic is the inverse of the S&P 500's P/E ratio (trailing 12 month earnings divided by index price). It can be used to compare equity valuations with the yield on bonds. If the S&P earning's yield is higher than the yield on high yield bonds, then that is an indication that stocks represent a better value than their closest fixed-income equivalent.

	S&P	Bonds	Spread
One month ago:	4.04%	6.08%	+2.04%
Two months ago:	3.97%	6.08%	+2.11%

C. Hidden Markov Model (HMM)

The HMM decreased during November and continues to indicate that stocks are currently in a Bear market. Although the S&P 500 posted significant gains recently, its 1-year trailing return as of October 31, 2016 remained well below its average return during a bull market. As a result, the HMM's bull market probability dropped, following an impressive gain one month ago.

As of November 18th, the HMM output is 18.12%.

One month ago:	50.91%
Two months ago:	20.77%

A Hidden Markov Model is an econometric tool for representing probability distributions over sequences of observations. The model can be used to estimate the probability of a bull or bear market. It uses trailing S&P 500 1-year returns (calculated monthly) and the previous month's probability of a bull market as inputs and then generates the current probability of a bull or bear market as an output. HMM readings above 75% indicate a high probability of a current bull market. If the HMM reading is below 25%, it is an indicator of a high probability of a bear market. Although the S&P 500 posted significant gains recently, its 1-year trailing return as of October 31, 2016 remained well below the average return during a bull market. As a result, the HMM's bull market probability dropped, following an impressive gain one month ago.

D. ECHI

ECHI is currently signaling Hedge Off.

The Estate Counselors, LLC Hedge Index (ECHI) was developed to provide an empirical signal for when a hedge on equities should be established due to an impending market decline. ECHI is a composite risk index that draws on the output of the Crash Risk Index (CRI) which is an equal-weighted mix of ten indicators developed by Jim Picerno of The Capital Spectator, drawing on a diverse range of U.S. equity and bond market factors. It provides a daily measure of risk for evaluating the potential for a near-term market correction/crash. 0 of the 10 SMRI signals are currently active. If 5 or more of the SMRI indicators signals are active, ECHI signals high market risk ("Hedge On"). Once ECHI is triggered it will continue to signal Hedge On until less than 5 SMRI signals are active.

END NOTES

- The latest ETI reading can be found at http://www.capitalspectator.com/.
- The latest EMI reading can also be found at http://www.capitalspectator.com/.
- The latest MMRI reading can also be found at http://www.capitalspectator.com/.
- A reading of the bullish percent index for the NYSE can be found at http://stockcharts.com/h-sc/ui using the symbol $BPNYA.
- The most recent CAPE reading can be found at http://ycharts.com/indicators/pe10.
- A current reading of total market cap to GDP can be found at http://www.gurufocus.com/stock-market-valuations.php.
- Tobins Q can be found at http://www.advisorperspectives.com/dshort/updates/Q-Ratio-and-Market-Valuation.php.
- The current S&P earnings yield can be found at http://www.multpl.com/s-p-500-earnings-yield.