Manager's Report October 2017

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BAYSTATE WEALTH MANAGEMENT

Oh Volatility…Where art thou?

Volatility in the stock market has seemingly vanished. When considering that there have been only 4 days where the S&P 500 has fallen by 1% or more so far this year, it feels like the only inherent risk when investing in stocks, is the risk of not being invested. By way of reference, the S&P 500 fell by 1% or more on 22 days in 2016. The last bouts of volatility were not that long ago, when investors were contemplating the risk around the flash crash of August 2015, the Brexit vote, falling oil prices and the presidential election. However, the volatility and each ensuing selloff was relatively short-lived. The current low levels of volatility have led many investors wonder if they should become more aggressive with their investment strategy. Effectively, investors are thinking more about returns and less about risk. But under these conditions, where volatility has vanished relative to historical norms, it is hard to blame them.

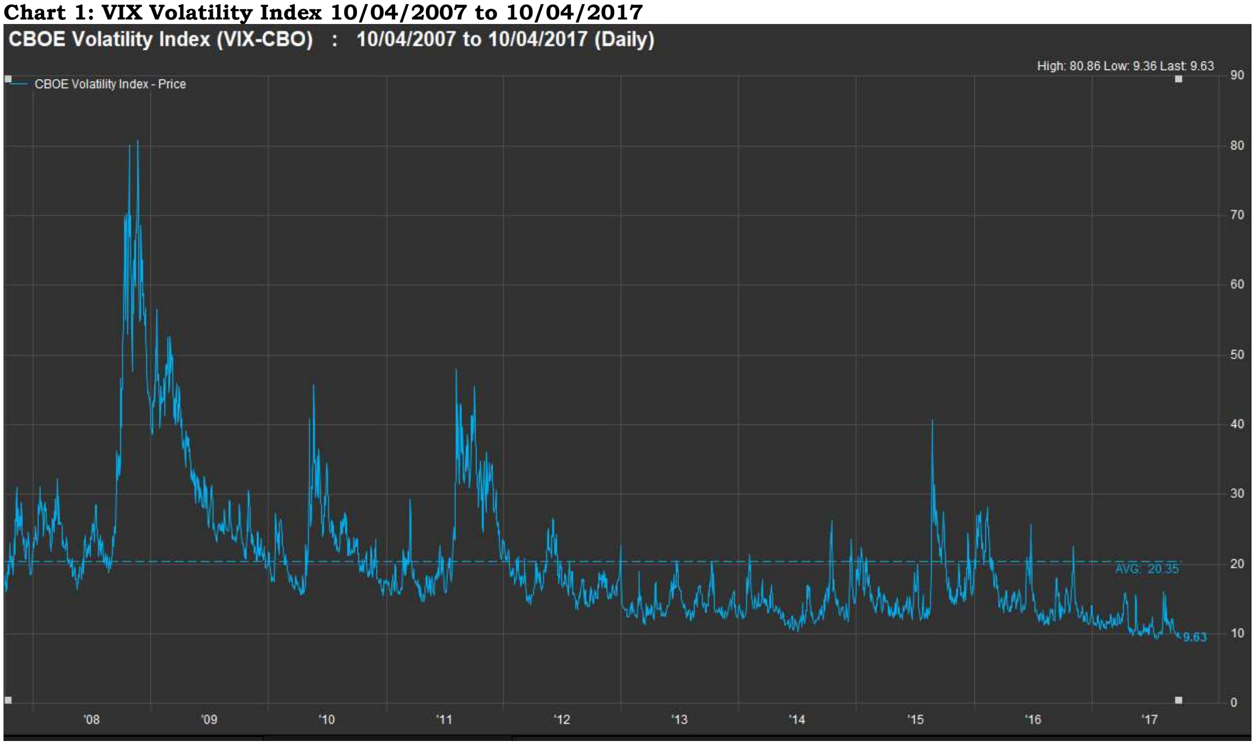
What is Volatility - VIX?

Volatility can be defined a few different ways. Further, one's view of volatility may be somewhat subjective. Broadly, there are two common ways of looking at volatility. The first, and the one that is most often discussed in the news, is the CBOE Volatility Indicator Index, also known as the VIX. The VIX is a mathematical index which tracks the prices of options that expire between 23 and 37 days out. Effectively, the index calculates the prices of put options (fear of market prices falling) relative to the prices of call options (speculation that the market will rise). In short, the index attempts to calculate the degree to which investors expect the S&P 500 will fluctuate in price in the very near term.

The VIX, on average, is priced around 20 when looking at historical data going back 20 years. Even on a ten-year basis, as illustrated below, the average reading on the index is slightly more than 20. The index did get as high as 80 in the 2008-2009 "Great Recession" and it posted a reading of around 40 during the flash crash in August 2015. Currently, we stand at a point where the index is around 10, or roughly half the longer-term average, and at a point that is rarely maintained by the index. By way of reference, since 1990, the VIX has hit a level below 10 on only 69 trading days. Otherwise stated, of the 26+ years since 1990, the VIX has hit a level of 10 or below less than one percent of the time. And believe it or not, of those 69 days hitting a level below 10, 50 of them (or 72%) have come after April of this year alone.

Below is a chart illustrating the VIX index going back 10 years. As you can see, it shows how high the level of fear got in 2008 and 2009, though the trend from that point was to lower levels of fear with some blips along the way. By way of reference, the average VIX reading over this timeframe is 20.35, or two times higher than the reading as of October 4th of this year.

Chart 1: VIX Volatility Index 10/04/2007 to 10/04/2017



Source: Factset, Baystate Wealth Management

It should be noted that the VIX is not a trading tool for most investors. Though, the VIX can be more of a trading tool for institutional investors and specifically firms using heavy doses of quantitative analysis. For most of us, the VIX is more of a "fear gauge," which not surprisingly the media outlets enjoy touting as a point of reference for volatility, or potential concern in the markets. Further, what is interesting is that the "fear gauge" was at a level of 20.65 on September 1, 2008, roughly around its current 10-year average. This was some 5-6 months after Bear Stearns went defunct, and roughly the beginning of the financial crisis which led to the Great Recession. Though in fairness, by October 1st of 2008, the VIX level almost doubled to roughly 40. This is not say that we could use history as a guide and that volatility or a selloff in the stock market is imminent, considering the VIX at its current level, but it is to say that the fear gauge may be more of a coincident indicator and not much of a leading one. Thus, to us, as managers of diversified portfolios using fundamental analysis, the VIX is rather interesting but not necessarily relevant from a portfolio management perspective.

What is Volatility – The Investor Experience?

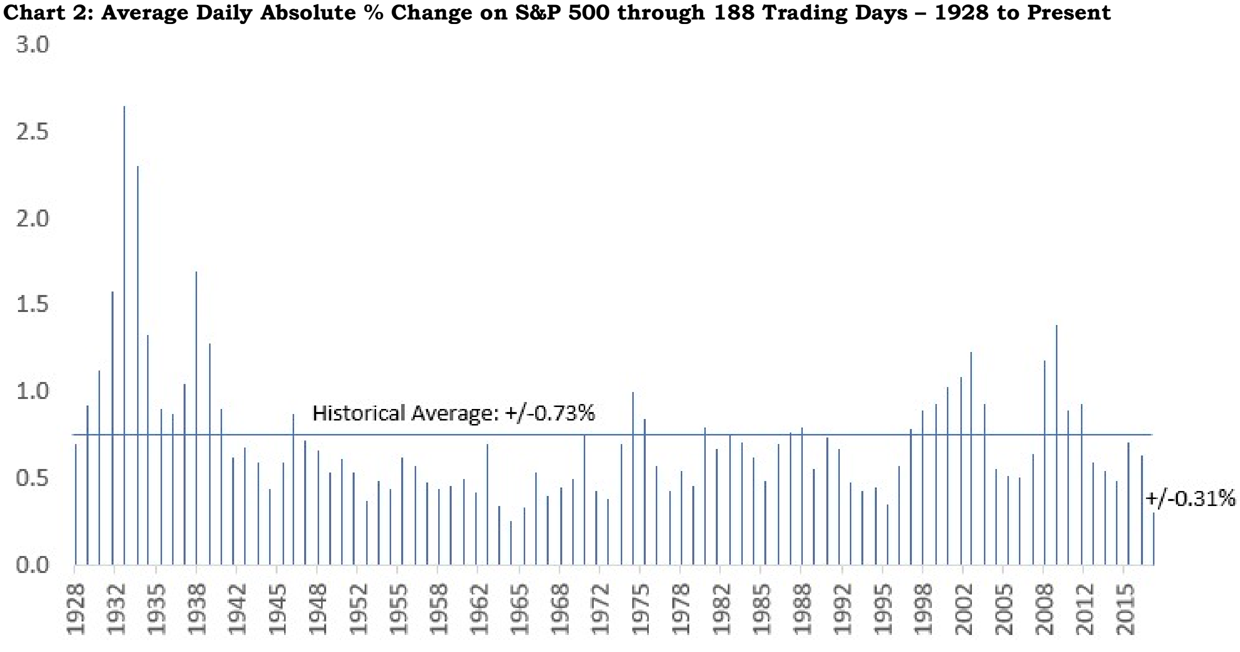
The second way to think about volatility, and how it is characterized for most investors, is more of a focus on the price movement of major stock market indices, such as the Dow

Jones Industrial Average, the S&P 500, and the MSCI All Country World Index. In fact, while the VIX attempts to be forward-looking based off options prices looking out roughly 30 days, typical investors simply look at the nightly news and changes in their account values as the true gauge of volatility. These core stock market indices act as benchmarks for the major markets, and thus the typical interested investor looks to the daily or weekly moves in these benchmarks as way to "feel" the realized current volatility.

Portfolio volatility in the year 2011, as opposed to simply the VIX, offers a good example of the investor experience; this is what is called 'realized' volatility. Keeping in mind that the VIX is a gauge of expected volatility expressed through the options market, and investors experience actual (realized) volatility when markets have big swings in prices. Thus, in 2011 there were 96 days where the US Stock market, as represented by the S&P 500, was up or down by 1% or more. Those 96 days in 2011 represent roughly 38% of all trading days for the year. Maybe it is unfair to look at 2011 as a year to define volatility, considering the multitude of issues being faced by the market, the world, and the economy at the time. So, looking at more recent data, in 2016, the S&P 500 US stock market index rose or fell by 1% or more on 48 days, or roughly 19% of the 252 calendar year trading days. So far in 2017, we have had only 8 days like this, out of the 188 days of trading thus far.

To further illustrate the current low volatility regime, the research data firm, Bespoke Investment Group, put out a report recently with the chart below. Effectively, this chart illustrates that on average, the S&P 500 stock market moves roughly 0.73% up or down daily going back to 1928. Though this year, the average daily move, up or down, has only been 0.31%, which is the tightest range of returns going back to 1964.

Chart 2: Average Daily Absolute % Change on S&P 500 through 188 Trading Days – 1928 to Present



Source: Bespoke Investment Group

Should I Get More Aggressive?

Considering that investors are seeing continuous news headlines on new all-time highs in risk markets and volatility at historically low levels, investors are questioning whether this is the "new normal." And, if that were to be the case, with continuous new market highs and low volatility, it would easily lead one to question why they don't simply own an all stock portfolio and abandon diversification altogether.

In full disclosure, a core part of our philosophy is diversification, so our bias for most investors is for a portfolio that would include many different asset classes, and not be focused solely on stocks. That said, it's important to remember that a portfolio with even modest exposure to stocks, such as a 50% allocation, will derive most of its risk and volatility from that position. Indeed, if one could start a portfolio on day one and then not look at it until some 10-20 years later, an all-stock portfolio may make the most sense. Though keep in mind, a 10-year time horizon does not always equal high returns on stocks. In fact, from 2000 to 2009, the S&P 500 had a total return of -8% over that timeframe, or roughly -0.77% annualized. While that 10-year timeframe may seem random, remember that the beginning of the year 2000 was still during the technology internet craze. Though, that market cycle did peak in March of that year. This period for US stocks is often referred to as the "lost decade." Another example of a presumed "lost decade" could be seen in the international markets, from 2007 to the end of 2016. Over this 10-year period the MSCI EAFE (Europe, Asia, Far East) ETF had a total return of 6%, or a mere 0.60% per year (rounded up for simplicity). Again, these timeframes are somewhat cherrypicked, but both are good reminders that even over a long term, such as 10 years, there is no guarantee for high (or even positive) returns for risk assets. A more extreme example would be to look at the NASDAQ, as represented by the Powershares QQQ ETF. This ETF and index, made up of mostly technology stocks, peaked in late March of 2000, and was under water in negative territory until finally getting back to even in 2015.

To be clear, I am **not** calling for a market top at this juncture, but instead illustrating that timing matters when investing in one single asset class such as stocks. No one would have thought that an investment in the US stock market in the year 2000 would yield a negative total return over the next ten years. These "lost decades" are a good reminder that for any given period, any asset class could underperform expectations (or historical norms). Further, this illustrates the importance of diversification, just in case we stumble onto one of these periods in the coming years, be it only for 3, 5, or even 10 years.

It is times like these when investors should remember that returns across different segments are completely random. Hence the phrase, "historical returns are no guarantee of future results." The chart below from Callan provides such a reminder, as an illustration of how most core asset classes performed in every calendar year back to 1997. For instance, in 7 of the 20 years from 1997 to 2016, the broader US stock market (S&P 500) did perform in the upper 50% of the listed asset classes. So, that is roughly 35% of the time. Bonds, as represented by the Bloomberg Barclays US Aggregate Bond Index, were in the top 50% of the asset class returns in 9 years out of the 20-year period. Of note is that the best performers over this 20-year period, with returns falling in the upper 50% in 11 of the 20 years, are the MSCI EAFE and the MSCI Emerging Markets. Though, that surely has not been the case in recent years with these two international market segments falling out of favor. Here we must remind everyone that historical results do not guarantee future performance. A more appropriate reminder may be that this chart truly illustrates that returns are random and what will happen in the coming months and years in terms of which asset class will be the top performer is anybody's guess.

Chart 3: Annual Returns for Major Market Indices (1997 – 2016)

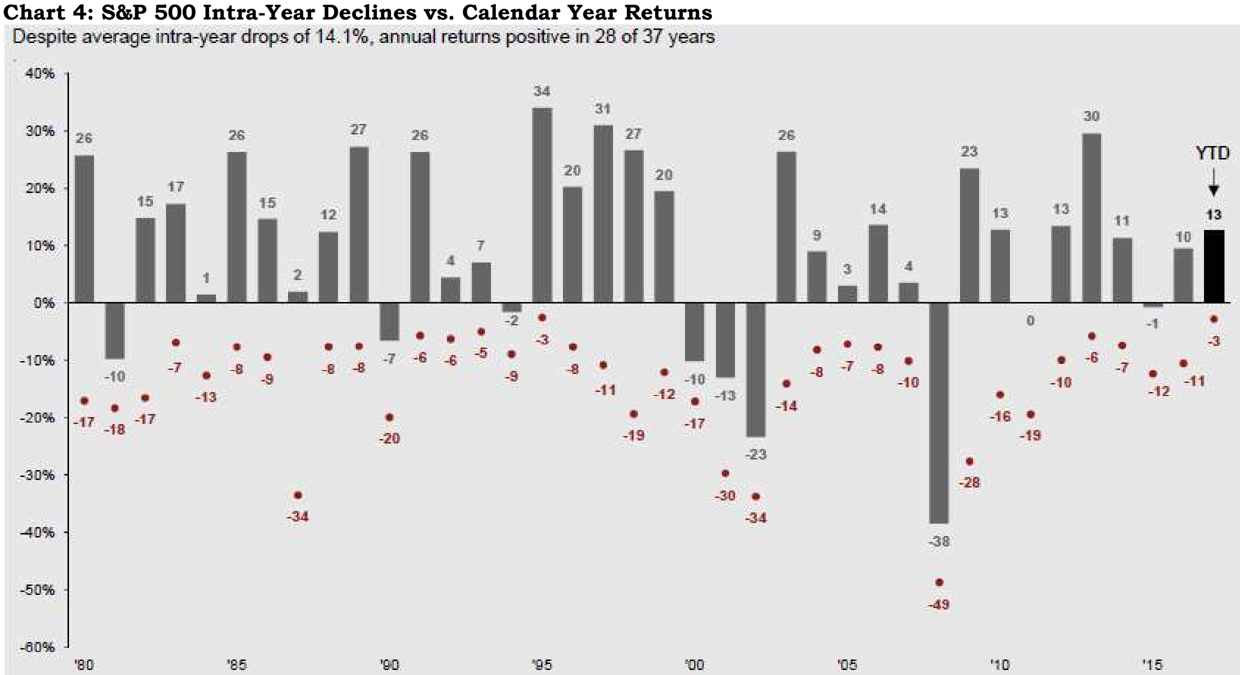
1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
S&P 500 Growth 36.52%	S&P 500 Growth 42.16%	MSCI Emerging Markets 66.84%	Russell 2000 Value 22.83%	Russell 2000 Value 14.02%	Bloomberg Barclays Agg 10.26%	MSCI Emerging Markets 55.82%	MSCI Emerging Markets 25.55%	MSCI Emerging Markets 34.00%	MSCI Emerging Markets 32.17%
S&P 500 33.36%	S&P 500 28.58%	Russell 2000 Growth 43.09%	Bloomberg Barclays Agg 11.63%	Bloomberg Barclays Agg 8.43%	Bloomberg Barclays High Yield -1.37%	Russell 2000 Growth 48.54%	Russell 2000 Value 22.25%	MSCI EAFE 13.54%	MSCI EAFE 26.34%
Russell 2000 Value 31.78%	MSCI EAFE 20.00%	S&P 500 Growth 28.24%	S&P 500 Value 6.08%	Bloomberg Barclays High Yield 5.28%	MSCI Emerging Markets -6.16%	Russell 2000 47.25%	MSCI EAFE 20.25%	S&P 500 Value 5.82%	Russell 2000 Value 23.48%
S&P 500 Value 29.98%	S&P 500 Value 14.68%	MSCI EAFE 26.96%	Russell 2000 -3.02%	Russell 2000 2.49%	Russell 2000 Value -11.43%	Russell 2000 Value 46.03%	Russell 2000 18.33%	S&P 500 4.91%	S&P 500 Value 20.81%
Russell 2000 22.36%	Bloomberg Barclays Agg 8.67%	Russell 2000 21.26%	Bloomberg Barclays High Yield -5.86%	MSCI Emerging Markets -2.61%	MSCI EAFE -15.94%	MSCI EAFE 38.59%	S&P 500 Value 15.71%	Russell 2000 Value 4.71%	Russell 2000 18.37%
Russell 2000 Growth 12.95%	Bloomberg Barclays High Yield 1.87%	S&P 500 21.04%	S&P 500 -9.11%	Russell 2000 Growth -9.23%	Russell 2000 -20.48%	S&P 500 Value 31.79%	Russell 2000 Growth 14.31%	Russell 2000 4.55%	S&P 500 15.79%
Bloomberg Barclays High Yield 12.76%	Russell 2000 Growth 1.23%	S&P 500 Value 12.73%	MSCI EAFE -14.17%	S&P 500 Value -11.71%	S&P 500 Value -20.85%	Bloomberg Barclays High Yield 28.97%	Bloomberg Barclays High Yield 11.13%	Russell 2000 Growth 4.15%	Russell 2000 Growth 13.35%
Bloomberg Barclays Agg 9.68%	Russell 2000 -2.55%	Bloomberg Barclays High Yield 2.39%	S&P 500 Growth -22.08%	S&P 500 -11.89%	S&P 500 -22.10%	S&P 500 28.68%	S&P 500 10.88%	S&P 500 Growth 4.00%	Bloomberg Barclays High Yield 11.85%
MSCI EAFE 1.78%	Russell 2000 Value -6.45%	Bloomberg Barclays Agg -0.83%	Russell 2000 Growth -22.43%	S&P 500 Growth -12.73%	S&P 500 Growth -23.59%	S&P 500 Growth 25.66%	S&P 500 Growth 6.13%	Bloomberg Barclays High Yield 2.74%	S&P 500 Growth 11.01%
MSCI Emerging Markets -11.59%	MSCI Emerging Markets -25.34%	Russell 2000 Value -1.49%	MSCI Emerging Markets -30.71%	MSCI EAFE -21.44%	Russell 2000 Growth -30.26%	Bloomberg Barclays Agg 4.10%	Bloomberg Barclays Agg 4.34%	Bloomberg Barclays Agg 2.43%	Bloomberg Barclays Agg 4.33%

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
MSCI Emerging Markets 39.38%	Bloomberg Barclays Agg 5.24%	MSCI Emerging Markets 78.51%	Russell 2000 Growth 29.09%	Bloomberg Barclays Agg 7.84%	MSCI Emerging Markets 18.23%	Russell 2000 Growth 43.30%	S&P 500 Growth 14.89%	S&P 500 Growth 5.52%	Russell 2000 Value 31.74%
MSCI EAFE 11.17%	Bloomberg Barclays High Yield -26.16%	Bloomberg Barclays High Yield 58.21%	Russell 2000 26.85%	Bloomberg Barclays High Yield 4.98%	Russell 2000 Value 18.05%	Russell 2000 38.82%	S&P 500 13.69%	S&P 500 1.38%	Russell 2000 21.31%
S&P 500 Growth 9.13%	Russell 2000 Value -28.92%	Russell 2000 Growth 34.47%	Russell 2000 Value 24.50%	S&P 500 Growth 4.65%	S&P 500 Value 17.68%	Russell 2000 Value 34.52%	S&P 500 Value 12.36%	Bloomberg Barclays Agg 0.55%	S&P 500 Value 17.40%
Russell 2000 Growth 7.05%	Russell 2000 -33.79%	MSCI EAFE 31.78%	MSCI Emerging Markets 18.88%	S&P 500 2.11%	MSCI EAFE 17.32%	S&P 500 Growth 32.75%	Bloomberg Barclays Agg 5.97%	MSCI EAFE -0.81%	Bloomberg Barclays High Yield 17.13%
Bloomberg Barclays Agg 6.97%	S&P 500 Growth -34.92%	S&P 500 Growth 31.57%	Bloomberg Barclays High Yield 15.12%	S&P 500 Value -0.48%	Russell 2000 16.35%	S&P 500 32.39%	Russell 2000 Growth 5.60%	Russell 2000 Growth -1.38%	S&P 500 11.96%
S&P 500 5.49%	S&P 500 -37.00%	Russell 2000 27.17%	S&P 500 Value 15.10%	Russell 2000 Growth -2.91%	S&P 500 16.00%	S&P 500 Value 31.99%	Russell 2000 4.89%	S&P 500 Value -3.13%	Russell 2000 Growth 11.32%
S&P 500 Value 1.99%	Russell 2000 Growth -38.54%	S&P 500 26.47%	S&P 500 15.06%	Russell 2000 -4.18%	Bloomberg Barclays High Yield 15.81%	MSCI EAFE 22.78%	Russell 2000 Value 4.22%	Russell 2000 -4.41%	MSCI Emerging Markets 11.19%
Bloomberg Barclays High Yield 1.87%	S&P 500 Value -39.22%	S&P 500 Value 21.17%	S&P 500 Growth 15.05%	Russell 2000 Value -5.50%	S&P 500 Growth 14.61%	Bloomberg Barclays High Yield 7.44%	Bloomberg Barclays High Yield 2.45%	Bloomberg Barclays High Yield -4.47%	S&P 500 Growth 6.89%
Russell 2000 -1.57%	MSCI EAFE -43.38%	Russell 2000 Value 20.58%	MSCI EAFE 7.75%	MSCI EAFE -12.14%	Russell 2000 Growth 14.59%	Bloomberg Barclays Agg -2.02%	MSCI Emerging Markets -2.19%	Russell 2000 Value -7.47%	Bloomberg Barclays Agg 2.65%
Russell 2000 Value -9.78%	MSCI Emerging Markets -53.33%	Bloomberg Barclays Agg 5.93%	Bloomberg Barclays Agg 6.54%	MSCI Emerging Markets -18.42%	Bloomberg Barclays Agg 4.21%	MSCI Emerging Markets -2.60%	MSCI EAFE -4.90%	MSCI Emerging Markets -14.92%	MSCI EAFE 1.00%

Source: Callan

To answer the question laid out above, regarding an investor moving up the risk scale, such a move should only be derived from the risk tolerance and financial goals of each individual investor. The level of risk for an investor, and his or her portfolio, cannot be driven by market returns, but instead by one's tolerance for volatility. The chart below offers the best visual for volatility on a calendar year basis. As the chart states, in any given year, the S&P 500 falls by 14.1% from peak to trough on average.

Chart 4: S&P 500 Intra-Year Declines vs. Calendar Year Returns



Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management.
Returns are based on price index only and do not include dividends. Intra-year drops refers to the largest market drops from a peak to a trough during the year. For illustrative purposes only. Returns shown are calendar year returns from 1980 to 2016, over which time period the average annual return was 8.5%. The 2017 bar represents the year-to-date return and is not included in the average annual return calculation.
Guide to the Markets – U.S. Data are as of September 30, 2017.

So, if one is looking at getting more aggressive, then the investor should be prepared to handle a fall in stock values in the range of 14% in any given calendar year. The real risk in becoming more aggressive is that the investor finds that they cannot stomach that type of volatility, and thus they may sell at precisely the wrong time. This reminds me of the famous quote from Warren Buffet. When discussing markets, Mr. Buffet once said: “Be greedy when others are fearful and fearful when others are greedy.” That is not say that an investor questioning their portfolio’s level of risk is greedy. But it is to say that one might want to question why now is the right time to get more aggressive.

As always, please call on us if we can be of service.

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