Blue Barn Wealth

Market Update Summary

- U.S. Large Cap Stocks have experienced a correction (drop of over 10%)
- Other major global indexes are approaching bear market territory including Small US Companies
- The uncertainty around global trade, rising interest rates, slowing global growth and a potential inverted yield curve, have investors nervous and are leading to large daily swings in prices
- End of year tax loss harvesting is also contributing to more sellers than buyers
- The large price swings that we have had over the past 6 weeks are not uncommon in comparison with historical returns
- 2017 was an abnormally calm year in equity markets
- Intra-year declines of over 10% are very common in equity markets historically
- The bull market and economic expansion that began in 2009 is the 2nd longest in history and could end at any time
- Strong market returns are common immediately following a recession and we recommend that you stay invested through a downturn

Steps we are taking to benefit our clients during the correction

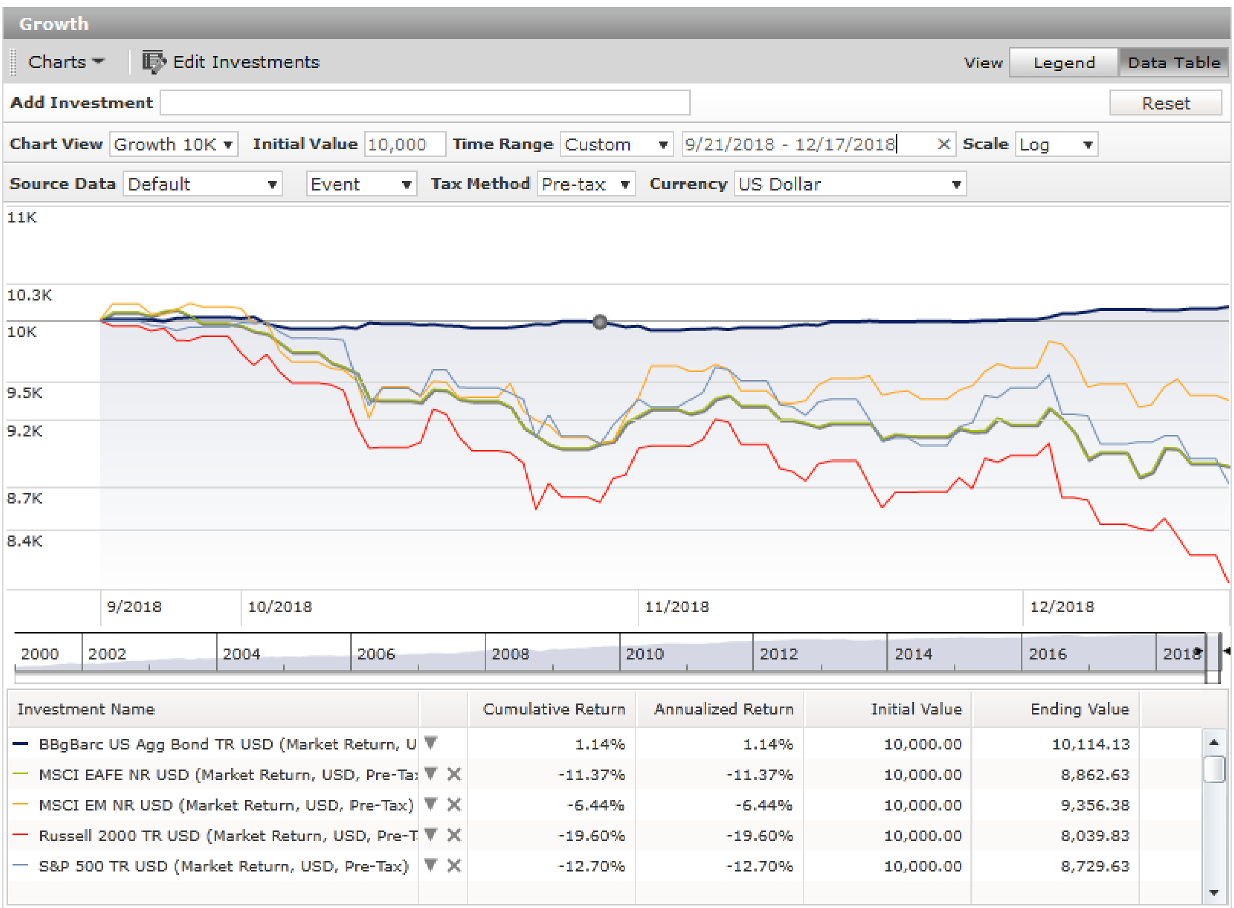
- Harvesting tax losses in taxable accounts
- Rebalancing from bonds to stocks to take advantage of the relative outperformance of bonds over the past three months
- Evaluating current investments and making changes as necessary

Market Update

As global equity markets continue to experience large swings with an overall negative trend, we want to provide some perspective on how this compares to other market declines. We also want to let you know what we are doing to help you take advantage of this volatility.

Since the S&P 500, an index of the 500 largest U.S. companies, hit an all time high on September 21 of this year, it has decreased in price by nearly 13%. Over this same period, the Barclays U.S. Bond Index has counteracted stocks and risen by over 1%. The Russell 2000, an index of small U.S. companies, reached its all time high on 8/31/2018 and has since declined by over 19%. International markets reached their 2018 highs back on January 25 and have dropped 18 to 22% since. See Figure 1 below.

Figure 1 – US & Intl Market Index Performance from 9/21/2018 – 12/17/2018



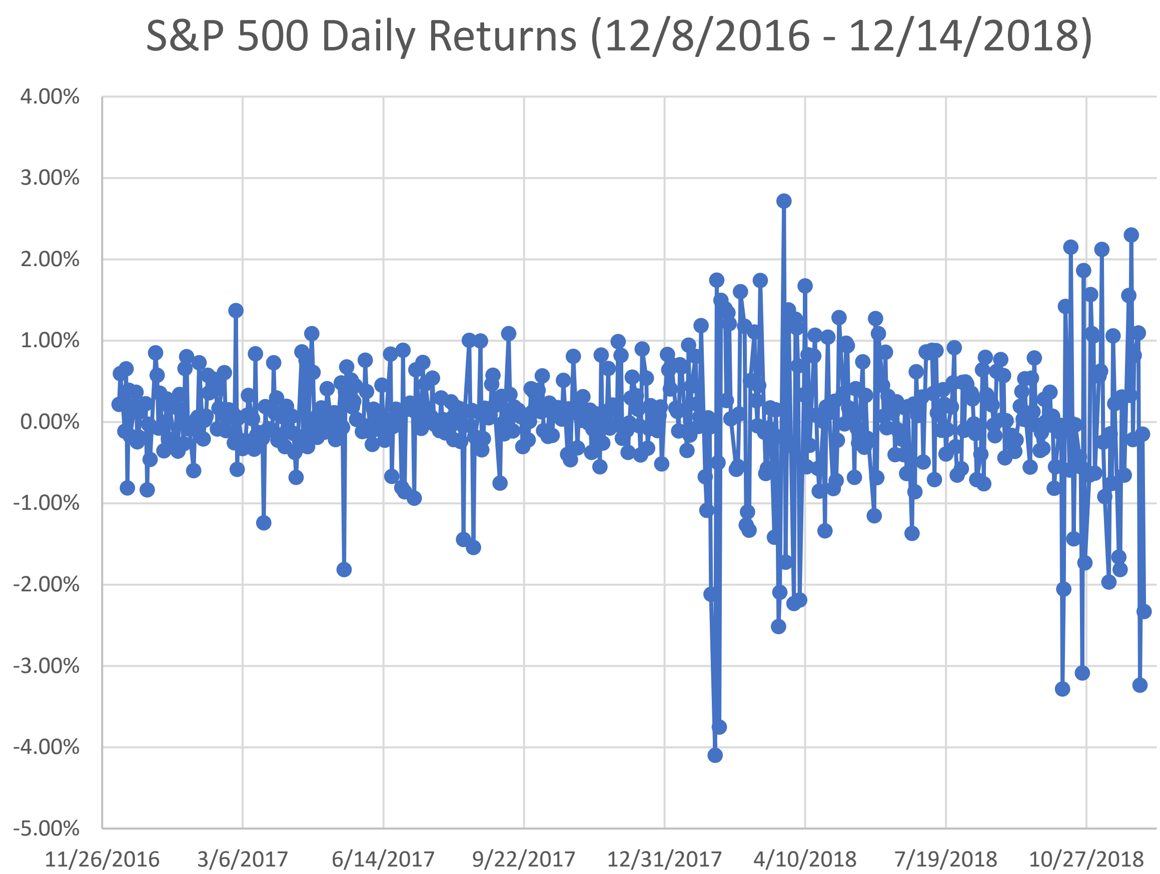
Investment Name	Cumulative Return	Annualized Return	Initial Value	Ending Value
BBgBarc US Agg Bond TR USD (Market Return, U	1.14%	1.14%	10,000.00	10,114.13
MSCI EAFE NR USD (Market Return, USD, Pre-Ta:	-11.37%	-11.37%	10,000.00	8,862.63
MSCI EM NR USD (Market Return, USD, Pre-Tax)	-6.44%	-6.44%	10,000.00	9,356.38
Russell 2000 TR USD (Market Return, USD, Pre-T	-19.60%	-19.60%	10,000.00	8,039.83
S&P 500 TR USD (Market Return, USD, Pre-Tax)	-12.70%	-12.70%	10,000.00	8,729.63

While the S&P 500 has clearly entered correction territory, defined as a drop of 10% or more, the International and U.S. Small Company Indices are approaching or are in bear market territory, which is defined as a drop of 20% or more. This marks a sharp reversal for U.S. stocks which had performed well up through the end of August.

As is often the case, this price decline has occurred during a period of uncertainty with market participants concerned about global trade tensions, rising short term interest rates, potential inverted yield curves, and slowing global growth. It is also the end of the year when many market participants harvest losses for tax purposes. This uncertainty has led to large swings in market prices, with multiple one day changes exceeding 2 and 3%. Its times like this that make us question why we even bother to invest in stocks.

The below chart shows each one-day percent return in the S&P 500 Index over the past two years. As is evident from the chart, most daily returns over this period have fallen within a positive or negative 1% change. However, in January and February of 2018 as well as the most recent 6 weeks, we have experienced much larger one-day changes.

Figure 2 – S&P 500 Daily Returns for the past two years



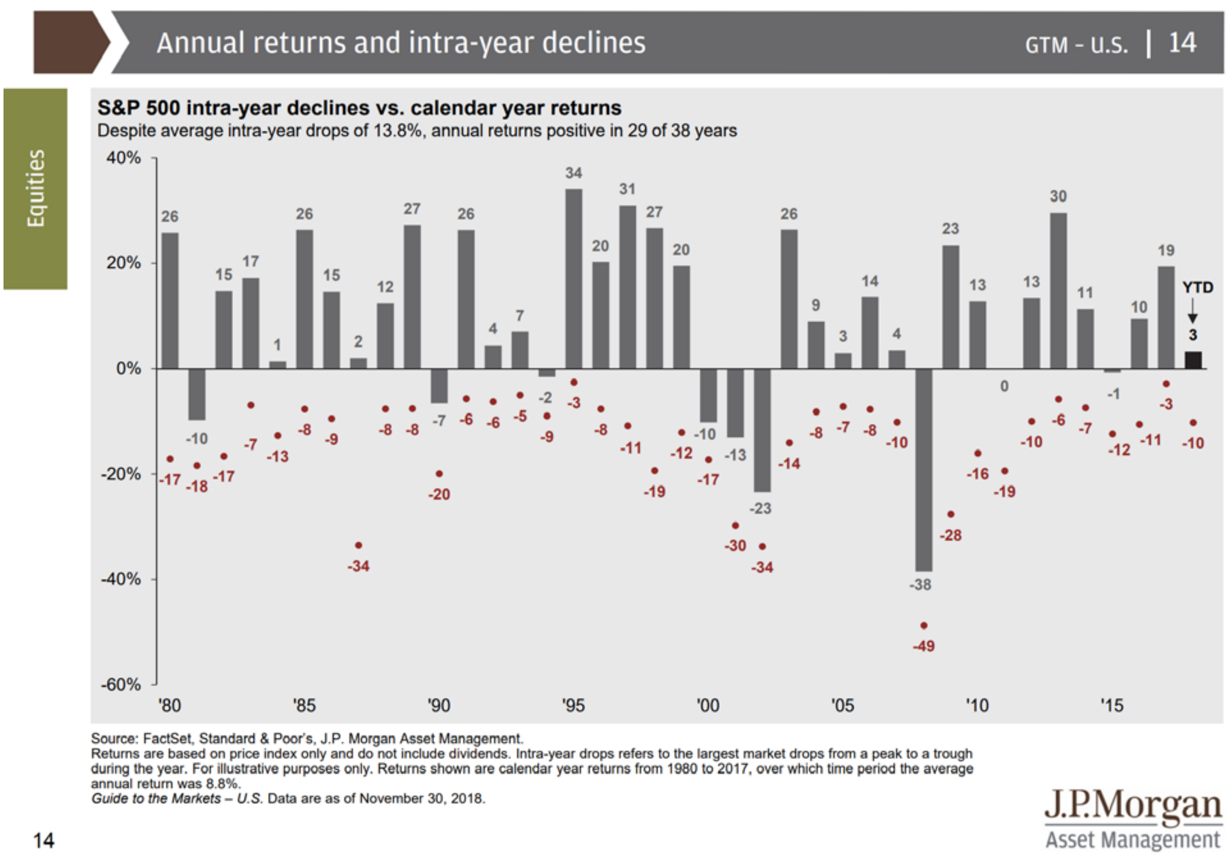
Because the market was unusually calm in 2017, it was easy to forget that periods of uncertainty and large price swings are part of equity investing. Table 1 shows three different periods of performance for the S&P 500. From 1950 through 2018, one-day market increases and declines of 2% or more occur around 4% of the time (or 10 days in a year). From 2012 through 2018, we have experienced swings of this size less than 3% of the time. Whereas, in 2017, we did not have a single day with a market move greater than 2%. This table is a good reminder that having a limited number of daily swings of greater than 2% is more “normal” than the abnormally steady market we enjoyed in 2017.

Table 1 – Percentage of times events occurred

	Jan 1, 1950 - Dec 16, 2018	Jan 1, 2012 - Dec 16, 2018	Jan 1, 2017 - Dec 31, 2017
Fall 2% or Greater	2.1%	1.8%	0.0%
Rises 2% or Higher	2.1%	1.1%	0.0%
Fall 3% or Greater	0.6%	0.5%	0.0%
Rises 3% or Higher	0.6%	0.1%	0.0%
Positive Days	53.3%	55.0%	57.8%
Negative Days	46.1%	45.0%	42.2%
Annualized Return	11.2%	13.4%	21.8%

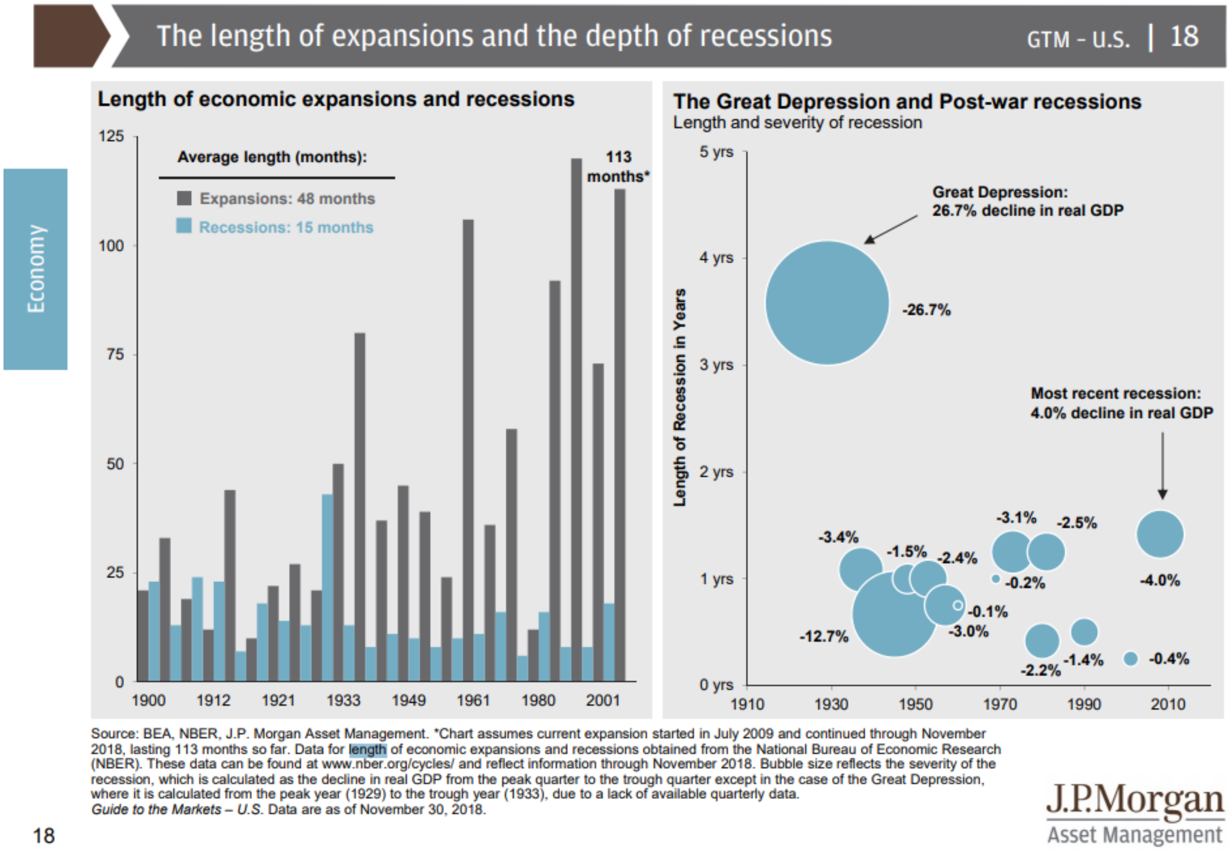
Regarding the drop in the S&P 500 Index, Figure 3 helps put this in perspective as well. The red dot and associated number on this chart show for each year since 1980, the largest intra-year decline in the S&P 500. The gray bar and associated number show the annual return for the index in that year. For example, in 2010 the S&P 500 returned 13% for the calendar year and even so there was a point in the year when it was down 16% from its high point. This chart points out that even though 29 out of 38 years shown have positive annual returns, the average intra-year drop is 14%. Thus, the drop of nearly 13% in the S&P 500 since September 21 is in line with the average intra-year decline over the period shown.

Figure 3 – Intra-year declines in the S&P 500 from 1980 to present



With all global markets significantly below their 52-week highs, the question arises as to whether we have reached the end of the bull market run and economic expansion that started in 2009? Figure 4 shows that we are currently in the second longest economic expansion since 1900, of 113 months or nearly 10 years. The only expansion that lasted longer was the 1990s. While we do not know when the next recession will happen, we do know that we will eventually have one, maybe as early as 2019 or 2020.

Figure 4 – Length of expansions

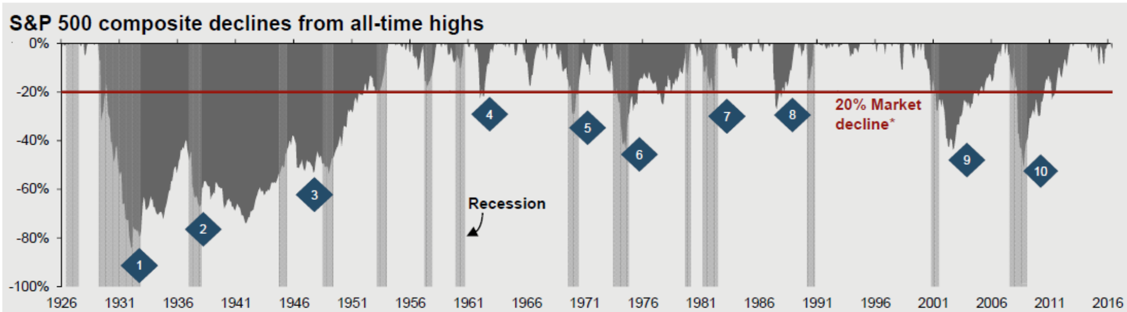


What will we do differently if this correction continues, turns into a bear market or the U.S. has a recession? Not much. We will continue to invest on your behalf per your risk appropriate portfolio. We will rebalance your portfolio during significant pull backs in order to buy equities for reduced valuations, and we will take advantage of opportunities to do tax loss harvesting. What we won't do is try to tactically sell all your equity investments and hold cash or buy bonds and then try to buy back equities at the right time. We feel this is an inferior long-term investment plan to remaining invested through the pull backs. Figure 5 helps explain, why we believe it is better to stay invested. This chart shows all 10 U.S. bear markets since 1929, how long they lasted and the percent decrease in the equities markets over that period. You can see that the average bear market lasted 24 months with an average decrease in equity valuations of 45%. On the flip side, the average bull market lasted 54 months with an average return of 160%. We prefer to stay invested, collect dividends and interest payments and benefit from the growth on the other side.

Figure 5 – Historical Bear and Bull Markets

Bear markets and subsequent bull runs GTM – U.S. | 15

Equities



Characteristics of bull and bear markets

Market Corrections	Bear markets			Macro environment				Bull markets		
	Market peak	Bear return*	Duration (months)*	Recession	Commodity spike	Aggressive Fed	Extreme valuations	Bull begin date	Bull return	Duration (months)
1 Crash of 1929 - Excessive leverage, irrational exuberance	Sep 1929	-86%	32	◆			◆	Jul 1926	152%	37
2 1937 Fed Tightening - Premature policy tightening	Mar 1937	-60%	61	◆		◆		Mar 1935	129%	23
3 Post WWII Crash - Post-war demobilization, recession fears	May 1946	-30%	36	◆			◆	Apr 1942	158%	49
4 Flash Crash of 1962 - Flash crash, Cuban Missile Crisis	Dec 1961	-28%	6				◆	Oct 1960	39%	13
5 Tech Crash of 1970 - Economic overheating, civil unrest	Nov 1968	-36%	17	◆	◆	◆		Oct 1962	103%	73
6 Stagflation - OPEC oil embargo	Jan 1973	-48%	20	◆	◆			May 1970	74%	31
7 Volcker Tightening - Whip Inflation Now	Nov 1980	-27%	20	◆	◆	◆		Mar 1978	62%	32
8 1987 Crash - Program trading, overheating markets	Aug 1987	-34%	3				◆	Aug 1982	229%	60
9 Tech Bubble - Extreme valuations, .com boom/bust	Mar 2000	-49%	30	◆			◆	Oct 1990	417%	113
10 Global Financial Crisis - Leverage/housing, Lehman collapse	Oct 2007	-57%	17	◆	◆	◆		Oct 2002	101%	60
Current Cycle								Mar 2009	290%	108
Averages	-	**-45%**	**24**					-	**159%**	**54**

Source: FactSet, NBER, Robert Shiller, Standard & Poor's, J.P. Morgan Asset Management.
*A bear market is defined as a 20% or more decline from the previous market high. The bear return is the peak to trough return over the cycle. Periods of "Recession" are defined using NBER business cycle dates. "Commodity spikes" are defined as significant rapid upward moves in oil prices. Periods of "Extreme valuations" are those where S&P 500 last 12 months' P/E levels were approximately two standard deviations above long-run averages, or time periods where equity market valuations appeared expensive given the broader macroeconomic environment. "Aggressive Fed Tightening" is defined as Federal Reserve monetary tightening that was unexpected and/or significant in magnitude. Bear and Bull returns are price returns.

15 *Guide to the Markets – U.S.* Data are as of March 31, 2018.

J.P.Morgan Asset Management

It is important to note that if you are uncomfortable with how much your portfolio has decreased during this pull back, you may be invested too aggressively. While this may not be the best time to change to a more conservative allocation, it is a good time to have a conversation with us about changes you might want to make in the future. Please let us know if you would like to retake our risk tolerance questionnaire to reevaluate how you are invested.

Throughout this update, we have mostly focused on how the equity indices have done. However, if you are in a balanced portfolio with 60% in stocks and 40% in bonds, your portfolio would have lost around 7% instead of 13% and you would have had significantly fewer 2% up or down days. In other words, you would have had a much smoother ride. Figure 6 compares a portfolio of 60% S&P 500 40% Barclays Aggregate Bond Index (orange) with a portfolio that is 100% the S&P 500 (blue). The 60-40 portfolio clearly still has positive and negative returns; however, the magnitude is significantly reduced.

Figure 6 – Last 2-year performance of a 60-40 Portfolio

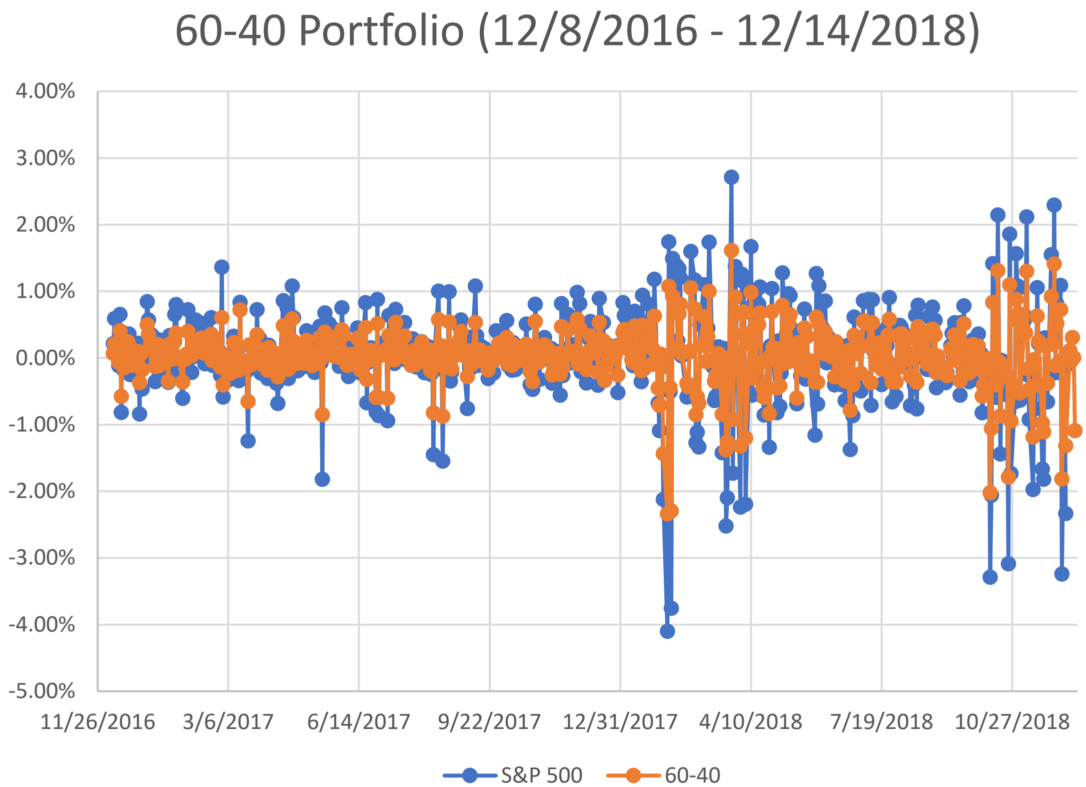
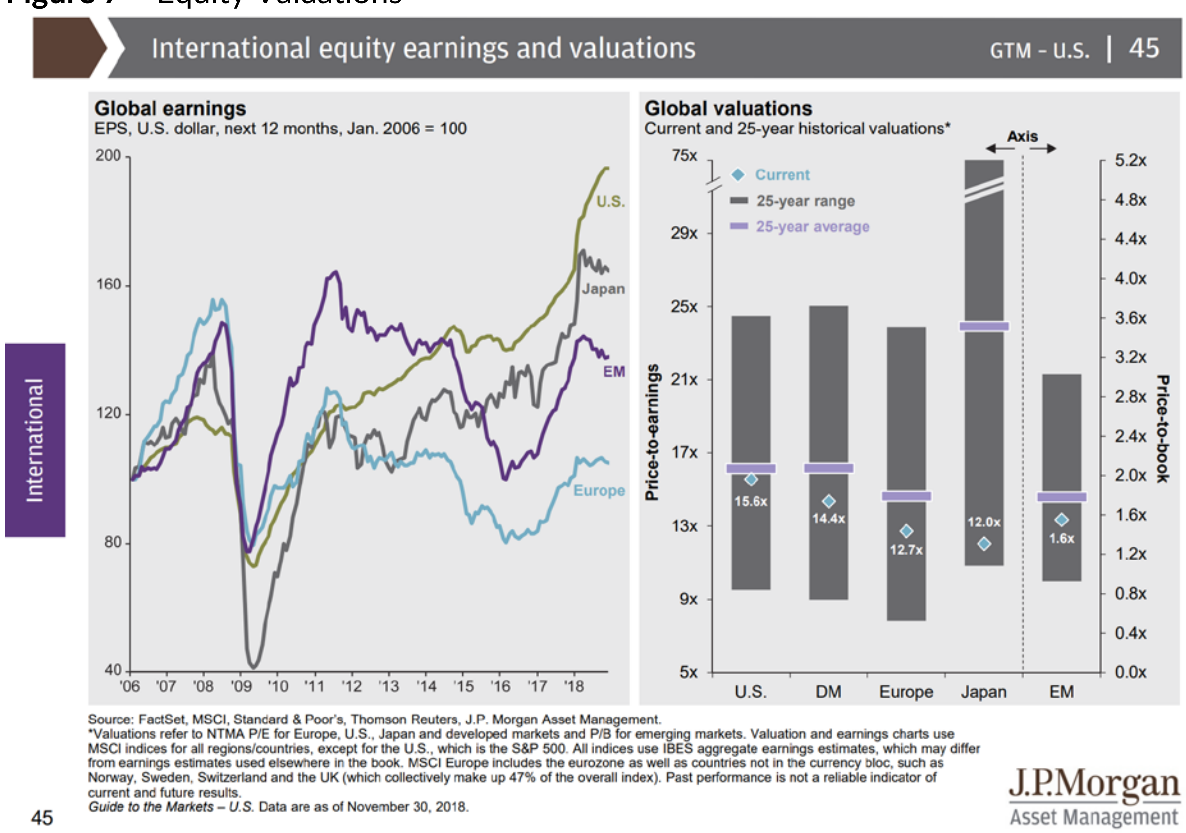


Figure 7 – Equity Valuations



Lastly, one of the bright spots of the pull back in equity prices is that the valuations of stocks have become more reasonable. Figure 7 shows that valuations for all major markets are below their 25-year averages. For example, the International Developed Market (DM) is trading at around 14x next twelve-month earnings whereas the historical average is closer to 16x. As long as earnings hold up, valuation should be a catalyst to drive stock prices back up from here.

Please reach out to us if you have any follow up questions as we would love to connect and make sure you feel comfortable with your investment portfolio.

Blue Barn Wealth