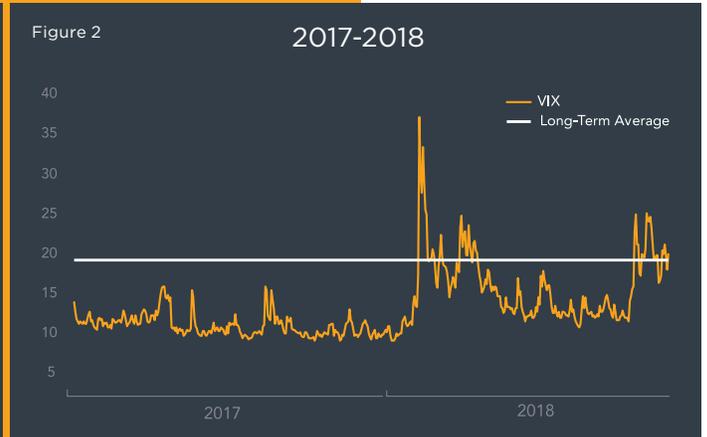
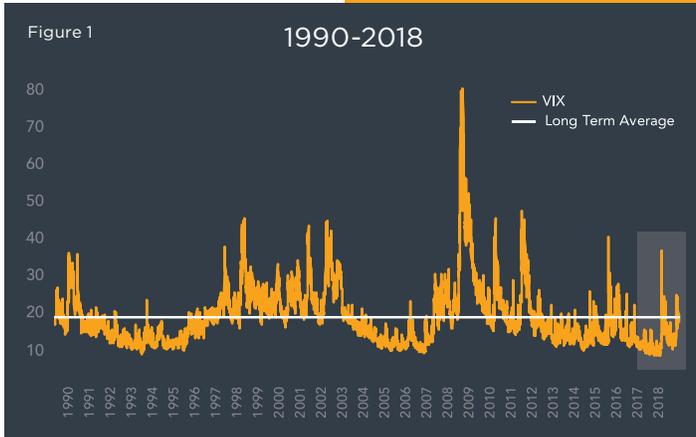




# A Quick Guide to Market Volatility

## The CBOE Volatility Index (VIX)



source: Bloomberg as of November 13, 2018

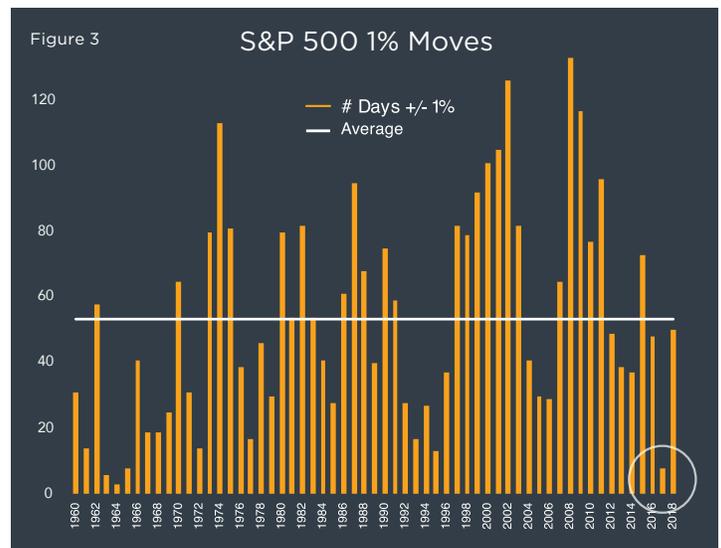
**F**all 2018 has brought about many newsworthy events including midterm elections, looming trade discussions with China, and uncertainty surrounding the Federal Reserve's plan for upcoming interest rate hikes. However, the most notable change for market participants has been the increased levels of risk when viewed through the lenses of any of the most common risk metrics, including market volatility. Many investors and news organizations alike have expressed increased concern that these volatility levels are abnormal or even extreme. Historical data, however, would suggest otherwise.

The CBOE Volatility Index (VIX) is the most common measure of volatility within U.S. equity markets and can be viewed as the stock market's expectation of volatility as implied by S&P 500 Index options. A higher level typically coincides with a higher probability of negative market moves and increased selling pressure. Since the VIX's inception in 1990, the average level has been 19.2 (see **Figure 1**). This is well above the average for 2018 which has been 15.8. However, spikes where the VIX jumped above 35 in February and again above the long-term average in October have investors feeling as if markets are becoming much more volatile. To put these in context, the VIX peaked at 80 in 2008 and remained above 35 for 6+ months. Couple that with the fact that markets are coming off 2017 where the VIX reached historic lows and never closed above

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its long-term average, the spikes in 2018 feel even more extreme due to recency bias (see **Figure 2**). In reality, 2017 was the outlier; the least volatile year that investors have experienced in over five decades.

Another way to measure fluctuations in equity markets is to look at the raw number of days where the markets are up more than 1% or down more than -1%. While swings of this magnitude are hardly uncommon, this measure can be a good bellwether for market activity. When analyzing price returns for the S&P 500 since 1960, markets experienced 53.5 such days on average each year. This would again suggest that 2017 was the anomaly. There were only 8 days in 2017 with such price movements whereas the 50 days of such moves in 2018 is well within range of the historical norm (See **Figure 3**).



source: Bloomberg as of November 13, 2018

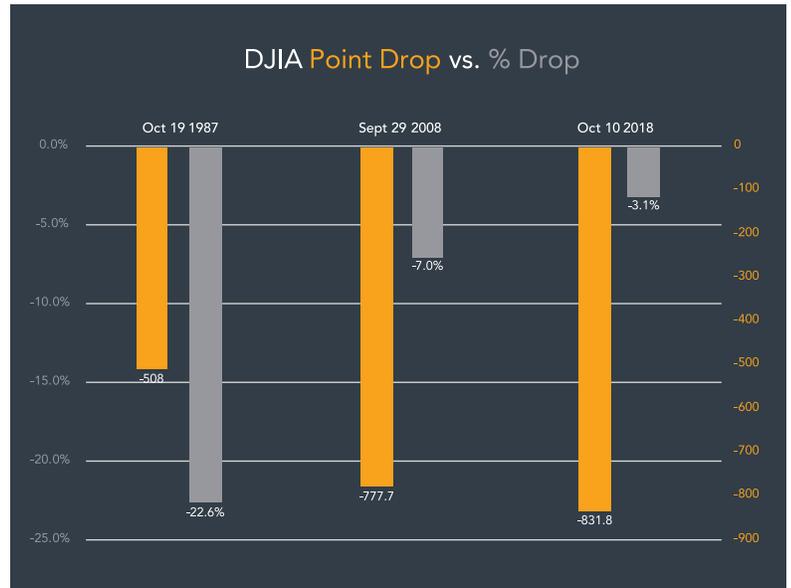


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One final item that often grabs headlines during times of increased volatility is the sheer magnitude of market moves from a point perspective. For example, a CNBC headline from October 10th read “Dow plunges more than 800 points in worst drop since February” seeming to suggest that the losses were monumental. Investors that have historically received their market news from these headlines may have read this and been blown away by the fact that an index that lost 508 points on Black Monday, what many consider the single worst day in Wall Street history, was down 300 more points on a single day in 2018. However, what is hidden in these headlines is that as markets continue to grow, and underlying index values

**When market losses are discussed in points instead of percentages, news headlines fail to paint the most accurate picture of market stability or fragility.**

increase, the effect of a single point drop becomes less and less severe as the base level of the index is higher than it has been in years past. When market losses are discussed in points instead of percentages, news headlines fail to paint the most accurate picture of



source: Bloomberg as of November 13, 2018

market stability or fragility. As can be seen in Figure 4, comparing the drops of October 19, 1987 (Black Monday) and September 29, 2008 (the worst point loss for the DJIA during the Great Financial Crisis) to the loss on October 10, 2018 paints a very different picture when comparing the point losses to the percentage losses.

## 2018: A RETURN TO NORMAL

The recent spike in volatility accompanied by many of the eye-catching headlines has served to heighten the fears of many investors heading into the end of the year. However, further analysis of recent events shows these moves are truly a return to normal rather something more extraordinary. As such, it is always important to put these in perspective in order to understand the full impact and significance.

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