

March 2020

Market Volatility and Risk Tolerance

Daniel B. Berkowitz, CFA

dberkowitz@prudentmanagement.com



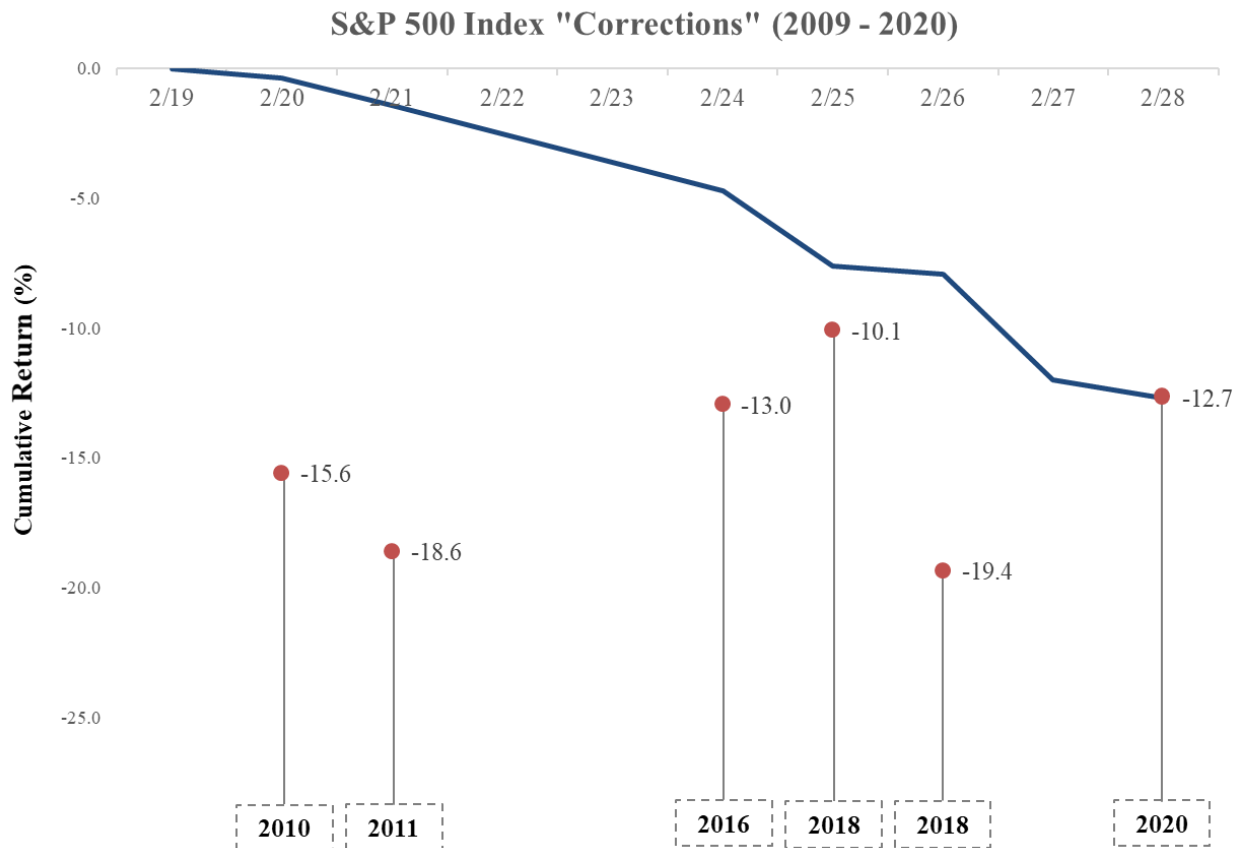
At the end of February the S&P 500 experienced a 12.7% decline. The DJIA also experienced both its largest point drop in history (1,191 points on 02/27/20) and then on the first business day of March its largest point gain in history, 1,294 points, all of which relates to the spread of the coronavirus (COVID-19). This note will address this volatility and, most importantly, reflect on the lessons it poses as to the concept of risk tolerance. I begin with a look at past outbreaks of infectious disease and how they have subsequently affected the S&P 500 Index over short 6- and 12-month periods:

Epidemic	Month-End	Subsequent S&P 500 Return	
		6-Month (%)	12-Month (%)
HIV/AIDS	Jun-81	-0.30	-16.50
Pneumonic plague	Sep-94	8.20	26.30
SARS	Apr-03	14.59	20.76
Avian flu	Jun-06	11.66	18.36
Dengue Fever	Sep-06	6.36	14.29
Swine flu	Apr-09	18.72	35.96
Cholera	Nov-10	13.95	5.63
MERS	May-13	10.74	17.96
Ebola	Mar-14	5.34	10.44
Measles/Rubeola	Dec-14	0.20	-0.73
Zika	Jan-16	12.03	17.45
Measles/Rubeola	Jun-19	9.82	N/A

A full article containing this data table can be found at the following link: <https://www.marketwatch.com/story/heres-how-the-stock-market-has-performed-during-past-viral-outbreaks-as-chinas-coronavirus-spreads-2020-01-22>.

In almost all of these cases, the S&P 500 Index generated a positive return over both periods. Markets have generally not suffered long-lasting consequences—or even short-lasting consequences—from these types of events. Of course, “past performance is no guarantee of future results” and therefore we caution against any further extrapolation of this data. More specifically, each of these time periods was categorized by unique sets of both macroeconomic and epidemiological circumstances.

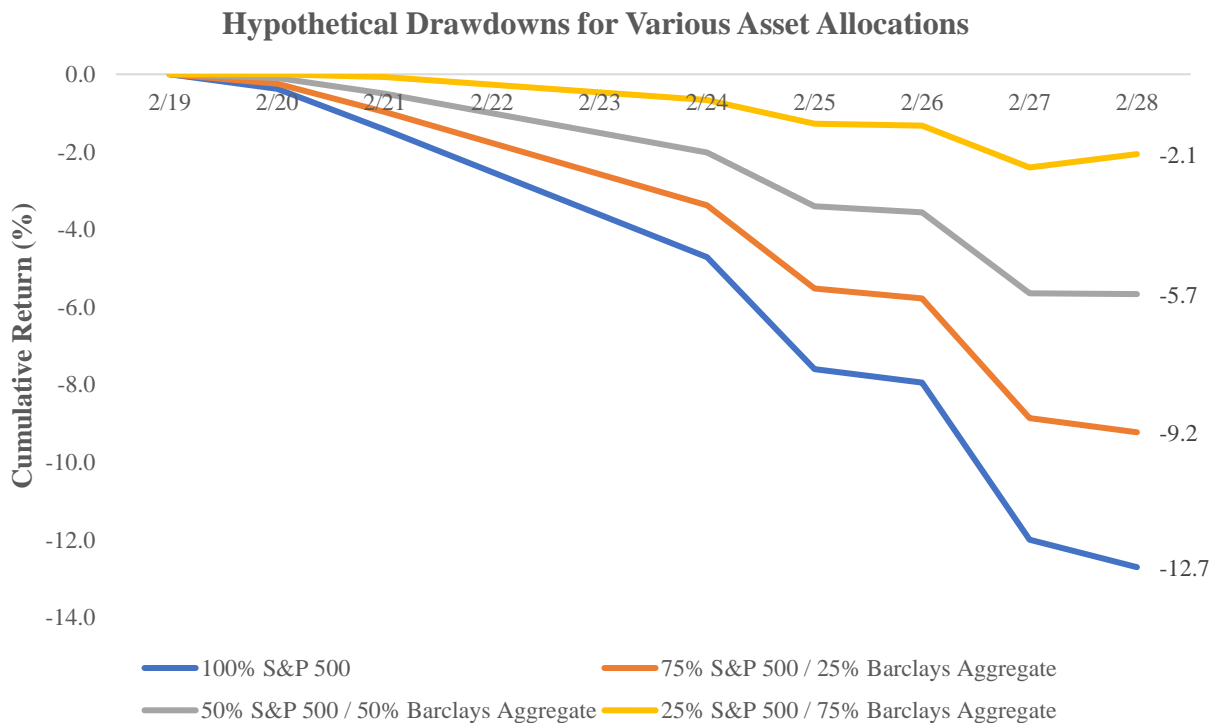
Furthermore, market “corrections” (declines of 10% or more from a recent market peak) have occurred five times over the eleven years since the start of the current historic bull market. Two of them approached “bear market” territory (declines of 20% or more). Because of the large overall gains accrued during this eleven-year timespan, it is easy to forget the periods of market distress we actually experienced. Using a start date of March 1, 2009 for the current bull market, I have mapped five cumulative drawdowns relative to the most recent decline ended February 28, 2020 in the figure below.



Notwithstanding these six dramatic market declines, over the full period beginning March 1, 2009 and ending February 29, 2020, the S&P 500 Index generated an average annual return of approximately 16% (including dividends). This is well above the Index’s long-term average return of closer to 10%.

For now, we do not plan to make any asset allocation changes as a result of the recent outbreak, though we are monitoring this situation carefully. Though taking no action in a portfolio is often the best course during periods of distress, one thing that we recommend all clients do is reflect on risk. The concept of risk tolerance can be a complex, multi-dimensional issue, but reactions to market volatility can provide insight into one’s willingness to take risk. If you found yourself unable to bear the thought of your assets declining in value with the stock market during the most recent drawdown, this might be an indication that a less risky asset allocation may be more appropriate.

For example, the chart below takes the same 12.7% S&P 500 decline at the end of February 2020 and compares this figure to the results of three other hypothetical allocations. These three allocations consist of various mixes between the S&P 500 Index and the Bloomberg Barclays US Aggregate Bond Index, which covers the US investment-grade bond market.



Clearly, the addition of the fixed income allocation results in smaller declines than the 12.7% decline in the S&P 500 Index, cushioning the effect of the full market drop. On the other hand, of course, over the long-term a portfolio with a greater fixed income allocation should have a lower expected return. In short, more risk, more pain, but also, generally speaking, if you can be patient and stick with it for the long-term, more reward. There is no “one answer” to this problem, each

client must honestly and thoroughly evaluate their own circumstances and risk tolerances to determine what is best for them.

Thinking through these types of numbers can help you calibrate how comfortable you feel with taking equity market risk, particularly in light of the recent declines experienced at the end of February. Market downturns that appear to be the result of panic selling, verging on a stampede, are upsetting to experience.

As many of you know, I recently joined PMA from Vanguard last summer. It has been a great transition thus far. I have been highly impressed with both the caliber of professionals at PMA and the robustness of the investment process that the late Dr. Blume designed.

PMA once again encourages its clients to consider their circumstances and their own risk tolerances. If any client wishes to discuss their allocations further in light of the recent dramatic market volatility, we at PMA would be happy to do so with you.