
# Timing – To DCA or Not To DCA (Is that the Real Question?)

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## Is Timing Everything?

The month of January tends to bring on a slew of year-end reviews for clients. It is often the case that investors like a year-end wrap up. The discussion often includes what worked and what may have not worked as well in the year just ended. Recently, these reviews have pointed out one glaring issue affecting clients…timing.
It is often said that timing in life is everything. Being in the right spot, at the right time is seemingly as important in life as is proper hydration or brushing your teeth. Of course most people think about "timing" in the extreme sense, focusing on how important timing is to get the perfect job, meet the perfect person, or even get the best parking spot. Rarely do people think of the importance of timing when it comes to investing. (Editor's Note: This is not about Market Timing, but instead our commentary on the starting point of an investment strategy.)

At Baystate Wealth Management, we are not believers in timing, in any sense of the word. That is mainly because our view is that investors should focus on diversified portfolios and the time horizon that they are willing to be invested in the market; and our preference is for investors with a view to the long term. As we always say, if one is investing for the short run, they probably should not be investing at all.

## Spring of 2015

Think back to 2015. That was the year that, amongst other events, Volkswagen was caught cheating on emissions test, oil prices fell precipitously and the Chinese stock market lost roughly 20% of its value in a 5-day trading period. Further, some investors might recall that in the fall of 2015, liquidity seemed to have frozen up a bit in the high yield bond markets, which caused some to recall the pain of the 2008 credit crisis. All of this culminated in a full-on stock market correction, as defined by a fall of 10% or more from peak to trough. In fact, using the S&P 500 stock market index as a market barometer, from reaching a high point for 2015 in late May, the market fell by more than 10% from May 21st to August 25th. Unbeknownst to investors at the time, this correction would be the first of two in a rather short period, as stock markets corrected again to begin 2016, finally hitting bottom in mid-February.

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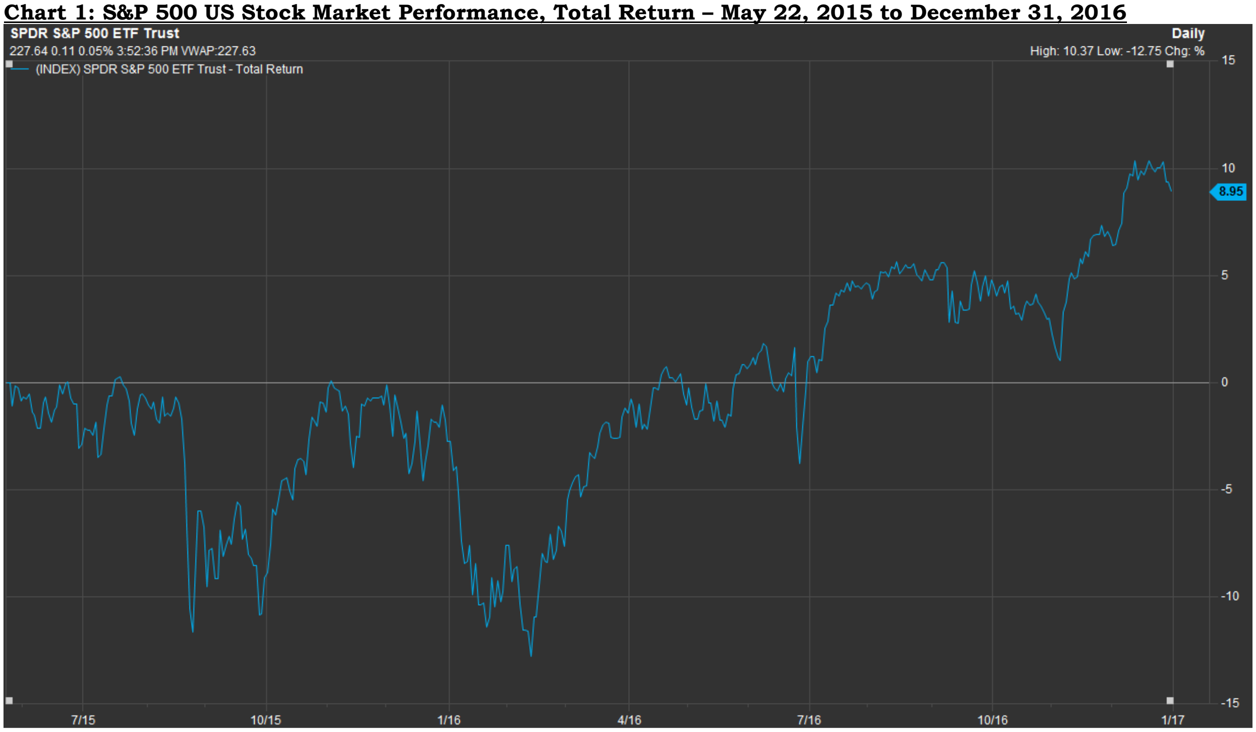
With back-to-back corrections hitting risk markets from May of 2015 into the early months of 2016, some investors found their portfolios in the "red" for an extended period of time. Said differently, an investor purchasing stocks in the middle of May 2015, the point where stock markets globally hit their high point for the year, would not have been made whole on that purchase for more than one year. Using the US market as a proxy, and the commonly cited Exchange Traded Fund that tracks the S&P 500 index, with the ticker symbol of SPY, it had a closing price on May 22, 2015 around $213 per share. This price was not eclipsed until July of 2016, roughly 14 months later. While the price was underwater for this period of time, per the chart below, on a total return basis there were glimmers of hope in the fall of 2015 and then again briefly in the spring of 2016. Though as the chart illustrates, the S&P 500 didn't maintain positive performance until July of 2016, oddly enough just after the Brexit vote hit the newsfeeds.

**Chart 1: S&P 500 US Stock Market Performance, Total Return – May 22, 2015 to December 31, 2016**




**Source: Factset**

Fast forward to January 2017, and we find investors are finally digging out of a potential hole created during a volatile 10-14month period for all asset classes. While we always say that no one should invest for a period of months, it is true that a three, six, or even twelve month period could define a client's investment experience, at least in the short run. So does timing matter?

## Better to be Lucky than Good?

Sometimes investors ponder the importance of luck when investing. As it turns out, I personally do not believe in luck. When one hopes to get lucky, anything short of that hoped-for outcome is presumed unlucky, and I do not ascribe to a world of extremes or absolutes. The only exception to this belief may be when it comes to investing.

So, what does luck have to do with it? From a big picture point of view, one must recognize that performance in a given investment market is the result of a mass belief in an expected outcome, in which many (if not millions) of participants take a position (good, bad, or indifferent). Think about the investor who bought Apple stock in September of 2012. After completing a high level of due diligence, the investor is of the mindset that over the long run Apple, as a company, will be profitable on a going forward basis. The stock price at that point, in September of 2012, was roughly $100. Unfortunately, by April of 2013, the stock price on America's favorite company fell to roughly $55. Without regard to dividends, an investor making such an investment saw the value of

their purchase almost cut in half within a matter of 6-7 months. Yet, if that same investor held on to the stock through the period of decline until 2015, they could have sold out of the position with a potential 34% gain, as Apple's stock price hit as high as $134 in May of that year.
So, again, what luck has to do with it, in terms of the example of buying Apple stock? Well, looking at the valuations measure, in September 2012, the price-to-earnings (P/E) ratio on Apple was 13x, well below its historical average of 24x. Therefore, in our example, the investor bought Apple at a valuation (price relative to expected earnings) that was less than the company's historical levels, which is seemingly a sound investment decision. However, out of the gate the trade went against the investor, before changing course in the spring of 2013.

From an analytical perspective, when calculating an expected return calculation on a stock with a P/E ratio of 13x, one would calculate the company's earnings yield to assist in understanding potential returns. Earnings yield is simply the inverse of the P/E ratio. So, in this case with Apple, it is 1/13, which equals roughly 7.7%. Again, this calculation effectively gives the investor an estimation of an annualized return over a long period of time (think years and not months). Again, at a 13 P/E ratio the earnings yield would be around 7.7% and would not include additional return from dividends. So interestingly enough, an investor who bought Apple at $100 in 2012 would have been rewarded by the Spring of 2015 with the price of Apple stock reaching $134 a share; representing a 34% increase over the original purchase price. Comparatively speaking, a 34% cumulative return outpaces an annualized return of 7.7% over 3 years, which would have been closer to a cumulative return of 25% (again, not including additional return from dividends). The actual mathematical calculation is $[1.077*1.077*1.077]-1 = 24.95\%$. Of course the investor who purchased the stock at any point between September of 2012 and April of 2013 had a better return than the investor our example, and may have been "luckier."

Realizing that this is a gross simplification of how stocks are priced and markets work, it is a great reminder of the importance of patience and time horizon when investing. In this example, an investor made a sound decision to buy a stock, or make an investment, on what could be an expected annual return of 7.7% per share plus dividends. Though, from a timing perspective, the stock got cheaper before becoming profitable. Therefore, it could have been the case that the stock investor felt unlucky in his purchase at $100 and sold out of the stock at some point before seeing his hypothesis actually play out.

**<u>So if timing (sort of) matters should I Dollar Cost Average?</u>**

This is a question that most investors find themselves pondering at some point in time. Dollar cost averaging ("DCA") is the process by which an investor draws down a cash balance through a predetermined timeline and increment for investing in an investment strategy. For example, a DCA program could be an investment strategy in a set structure or timeline, such as buying monthly in equal increments over a 12-month period. Starting points for DCA strategies tend to be arbitrary, such as monthly, based off of the date of the initial purchase. It is our view that time *in* the market matters more than tim*ing* the market. Further, if an investor is truly investing for the long-run, then these relative short bouts of volatility will become simply blips on the radar in retrospect. Considering that a start and end point on a DCA plan is rather arbitrary, there are definitely periods of time where this type of strategy may work to the investor's benefit. For example, beginning a 12-month DCA strategy in October of 2008 would have benefitted an investor. Though had an investor executed a strategy such as this in the spring of 2009, it would have worked against them as the market only went up from there.

So looking arbitrarily at the return streams for 2015 and 2016 might be helpful to illustrate the effects of DCA as both calendar years are unique and random, just as is every calendar year in the market Recall that in 2015, the S&P 500 ended the year slightly positive, while last year the S&P 500 ended the year up more than 12%.

For simplicity in this example we will look at the price of entering the stock market, as benchmarked by SPY, the iShares S&P 500 Exchange Traded Fund, on the first trading day of each month beginning in January of each year. What is laid out below in Table 1 is the open price on SPY on the first trading for each month in both 2015 & 2016.

**Table 1: Price of SPY on first trading day of each month in 2015 & 2016**

| 1/2/2015 | 2/2/2015 | 3/2/2015 | 4/1/2015 | 5/1/2015 | 6/1/2015 | 7/1/2015 | 8/3/2015 | 9/1/2015 | 10/1/2015 | 11/2/2015 | 12/1/2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $ 206.38 | $ 200.05 | $ 210.78 | $ 206.39 | $ 209.40 | $ 211.94 | $ 207.73 | $ 210.46 | $ 193.12 | $ 192.08 | $ 208.32 | $ 209.44 |

| 1/4/2016 | 2/1/2016 | 3/1/2016 | 4/1/2016 | 5/2/2016 | 6/1/2016 | 7/1/2016 | 8/1/2016 | 9/1/2016 | 10/3/2016 | 11/1/2016 | 12/1/2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $ 200.49 | $ 192.53 | $ 195.01 | $ 204.35 | $ 206.92 | $ 209.12 | $ 209.48 | $ 217.19 | $ 217.37 | $ 215.82 | $ 212.93 | $ 220.73 |

**Source: Yahoo Finance**

So to further illustrate this, let's assume an investor deposits cash to be invested in a 12-month DCA plan, beginning on the first trading day of the year, in equal increments to follow, with trades executed on the first trading day of each subsequent month, for a total of 12 purchases. In 2015, the first purchase would have been at a price of $206.38. Unfortunately, of the next 11 purchases, 8 of them would occur at a price that is higher than the original purchase price in January of that year. In 2016, assuming again the same structure as the client created in 2015, the first purchase would have been executed at a price of $200.49. Unfortunately for an investor in a DCA plan in 2016, 9 of the 11 next purchases would have been at a higher price than that of the initial price on January 2$^{nd}$ that year, despite all of the market volatility.

Of course these prices and dates, and even the investment vehicle, are arbitrary and for illustration purposes only. And of course, if one were to data mine for hours on end, they could find a time period or structure of months and increments in which dollar cost averaging worked in the investor's favor. Of note, however, in the research done for this piece, it seems that the few times in which a DCA strategy has worked in an investor's favor, or at least left them somewhat even, occurred only when timing the peak of the stock market almost exactly. Though unfortunately for most investors, when markets are seemingly good and rising, they tend to want to be "all in" with the driving fear of missing a good run. Further, it is almost impossible to time the top or the bottom with exact precision. And, as we learned twice in 2016, with the Brexit and the GOP electoral sweep, no one truly knows how a market will react to events or behave in the future.

## Are luck and timing sustainable?

Unfortunately there is no secret sauce to success when it comes to investing. In fact, we are always saying that there is no one singular way to invest successfully. From a practical perspective, there are only a few strategies that are reliable and consistent, and which do not require elements of luck to be successful. Thus, in our view, of the multiple ways to invest, we ascribe to the belief that the strategy that requires the least amount of "luck" is the best route to go. The desire to remove luck from the investment strategy as a factor of success or failure leads us to our core belief of the importance of diversification and time spent invested in the market.

The crux of this piece was a focus on market price action and the potential ramifications on a DCA strategy. It is important to note that math is not the only driver in a successful investment strategy, there is also an equally important aspect of behavioral finance (emotion management) involved. This is where a DCA plan could be beneficial to an investor. If the goal is for as much time in the market as possible, then we would ascribe to the belief that whatever means of accomplishing that is most beneficial for everyone. Specifically, if legging into a market over an extended period of time provides comfort to an investor and more importantly, keeps them invested, then a DCA strategy could be a very appropriate solution.

Looking back at the examples laid out above, investing in one stock, such as Apple, requires some luck on the investor's entry point. That is to say that the average investor probably would not stomach a 45% decline in a given stock, especially when it occurs over a rather short period of time and immediately after the initial purchase.

Further, the hope of getting "lucky" in terms of timing to begin a DCA plan and the subsequent increments of purchases seems like a flawed investment strategy as well. Paradoxically, when an investor executes a DCA plan, that investor creates an immediate conflict of interest. Practically speaking, the investor wants the value of their initial purchases to fall in hopes of a lower entry point for future purchases. Therefore, the investor is actually hoping to lose money on the investments they own currently, which seems counterintuitive. Not to mention, a long-term DCA plan is a bet that the market will fall in an orderly fashion for an extended period of time, which seems to be rarely the case.

This is not to say that a diversified and risk-appropriate strategy is the best approach for all investors. But, it is to say that such a strategy is one that eliminates the need for luck to increase one's odds for success.

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

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