2018 1st Quarter Stock Market Commentary

SOMETIMES YOU SHOULD PUT OFF UNTIL TOMORROW WHAT YOU COULD HAVE DONE TODAY

"Wouldn't economics make a lot more sense if it were based on how people actually behave, instead of how they should behave?"
- Dan Ariely

In the mid-1960s, Walter Mischel, a psychology professor at Stanford University, performed a now-famous experiment with 653 children at the campus' Bing Nursery School. Each child was placed in a room with a single marshmallow, which they were told they could eat at any time. But if they could resist the temptation, usually for a period of fifteen minutes, they would be given an extra marshmallow. The children employed a variety of strategies to keep from devouring the marshmallow – some covered their eyes with their hands, or turned their chairs around to avoid seeing the treat. Others kicked the desk as a form of distraction, while some stroked the marshmallow like a small animal. Despite their best efforts, however, roughly 70% of the children could not resist the temptation of a sugar high. A lack of impulse control among toddlers is hardly surprising to anyone who has been seated next to a few of them in a restaurant.

But the results of a follow-up study a decade later was considerably more startling. The majority of children who had eaten the lone marshmallow had exhibited some form of behavioral problem, such as poor ability to focus, difficulty controlling emotions or maintaining relationships. Academically, the children who had deferred gratification averaged 210 points higher on their SAT scores than those with weaker impulse control.

A similar pattern persisted into adulthood. After another fifteen years the children who ate the initial marshmallow reported more relationship problems, drug addiction, a higher level of obesity and more difficulty holding down a regular job. The children with better self-control had longer lasting relationships, fewer addiction problems, earned higher incomes and were less likely to have been convicted of a crime.

We were reminded of this experiment when last year's Nobel Prize in economics was awarded to Richard Thaler, who holds the Charles R. Walgreen Distinguished Service Endowed Chair at the University of Chicago Booth School of Business. In its award citation, the prize committee cited Thaler's work on three aspects of human psychology and their role in economic behavior;

1) "Cognitive limitations," which cause people to make irrational decisions,

2) "Social preferences," such as inequity aversion, which often causes people to make decisions against their own economic interest when they feel unfairly treated, and
3) "Self control problems," in which the inability to restrain the desire for immediate gratification limits the ability to accomplish long term goals.

In this essay we focus on this third aspect and how a lack of impulse control, similar to that exhibited by the children who could not resist that first marshmallow, frequently derails wealth accumulation.

In the investment world, an analog to the low impulse control exhibited by some children may be found in investors whose desire for instant gratification causes them to purchase stocks which are already rising sharply. This is known as momentum investing. Literally thousands of academic studies have documented the fact that stocks which have been strongly outperforming over the past 3-12 months will continue to outperform in the near future. The basis for the persistence of momentum is probably the behavioral bias of herding; everyone wants to be part of the group smart enough to ride a strong uptrend. As Warren Buffett quipped, "A pack of lemmings looks like a group of rugged individualists compared to Wall Street when it gets a concept in its teeth."

Probably the best-known example of a momentum strategy can be found in the Value Line Investment Survey. Each week Value Line issues a Timeliness Rank for each of the 1,700 stocks in its database, designed to predict relative price performance during the next six to 12 months. Stocks are ranked from 1 (Highest) to 5 (Lowest). There are many components to the computation of the rank, but it is primarily driven by relative earnings and price momentum. The rank of 1 is assigned to the 100 stocks with best expected return, the next 300 receive the rank of 2, 900 stocks receive a 3, implying average performance, while the ranks of 4 and 5 go to the last 300 and 100 stocks, respectively.

Since its inception in 1965 the ranking system has produced stunning results, with stocks ranked 1 returning 26,533% through the end of 2009, a compound return of 13.5% per year dramatically outperforming the market. Those ranked 5 trailed badly, producing a cumulative return of -99%, or -10.1% per annum.

It would seem that this creates a simple strategy for outperforming the market: buy all the stocks ranked 1, sell them when they lose their ranking, and replace them with the new issues given the highest rating. Value Line has actually run this experiment for you, by running the Value Line fund. For the 15 years ending June 30, 1999, it produced a return of 17.14% per year. That sounds great, until you compare it to the Standard & Poor's 500 Index, which gained 19.12% annually for the same period. The Value Line Small-Cap Growth Fund and the Value Line Special Situations Fund also trailed funds designed to passively track their respective benchmarks. Further, the performance comparisons were made on a pre-tax basis. The Value Line Funds are actively managed and have a turnover rate of roughly 200%, meaning that the average holding period is only six months. This results in most gains being short term, and thus highly taxed relative to the passive funds.

Why should it be that a system which trounces the market on paper results in subpar performance when implemented? First, a publication does not incur any of the operating expenses of a mutual fund for legal and accounting fees, shareholder record keeping, mailings, etc. But more importantly, a newsletter does not incur transaction costs, such as commissions, bid/asked spreads and the market impact when large block purchases or sales move the price of a stock. It is simply hard to beat the market when implementing a high-turnover momentum strategy. Investors are better off if they hold off on that first marshmallow.

Interestingly, Value Line also includes on every stock report an estimate of the projected performance of that security over the next 3-5 years. Using forecasts of future earnings per share and price/earnings ratios, the company uses a statistical technique called regression to predict the high and low price of each of the 1,700 companies it follows over the next 3-5 years, as well as the cumulative returns and annualized returns if those prices are reached. Given the accuracy of the Timeliness ranking system, perhaps investors with a longer term orientation (those individuals who were able to resist that lone marshmallow) would be better off utilizing the long-range estimates?

Unlike the Timeliness ranking system, the accuracy of the 3-5 year forecasts have not been extensively studied. We did manage to find two research papers on this subject reference below.[1,2] The conclusion in both papers was the same, and highly counterintuitive. The higher the long run forecast, the lower the actual performance of the stock over the next 3-5 year period.

Why should this be? The answer is highly instructive. The Timeliness rankings are objective, and based upon observable data. But the Long-Term Projections are based upon analyst forecasts over the next five years. Numerous studies have shown that analyst forecasts for companies which are growing are routinely overoptimistic, while forecasts for companies with poorer prospects tend to be too pessimistic. Thus, the companies with the poorest prospects have a much better chance of exceeding expectations. This is same reason that a value investing style has consistently outperformed a growth style over long time periods.

Early in his career, Richard Thaler co-authored two papers with Werner DeBondt on this topic. In both studies the authors considered two baskets of stocks. The first basket consisted of the 35 stocks on the New York Stock Exchange that had had the worst performance over the previous three years. The second basket contained the 35 stocks with the best three-year performance. They then tracked how those stock performed over the subsequent three years. This was done for every overlapping three-year period since 1926: 1926-28, 1927-29, 1928-30, etc. In almost all cases investors would have been better off investing in the previous losers.

[1] *An Analysis of Value Line's Ability to Forecast Long-Run Returns* by Gary A. Benesh and Steven B. Perfect, published in the Journal of Financial and Strategic Decisions Volume 10 Number 2 Summer 1997, and

[2] *An Examination of Value Line's Long-term Projection* by Andrew Szakmary, C. Mitchell Conover, and Carol Lancaster, all of the University of Richmond, published in the Robins School of Business Finance Publications in 2008.

There are many ways to define “value.” Almost all involve a stock being cheap relative to some ratio – low price/earnings ratio, low price-book ratio, high EBIT/EV (operating cash flow/enterprise value). Regardless of the metric used, all produce above market performance over the long-term. There is an investment blog called Value Stock Geek, which has back-tested whether the performance of stocks chosen using the most widely used valuation metrics could be improved by incorporating quality metrics. In most cases, incorporating these factors lowered the rate of return, primarily because high quality raised expectations disproportionately. The only quality metric associated with improved performance was low debt/equity, another of our stock selection criteria.

Since the end of 1964 the S&P 500 has returned 15,508% with dividends included. Berkshire Hathaway, run by legendary value investor Warren Buffett, has returned 2,404,748%. But even the greatest investor of all time has long periods of underperformance. For example, for the ten years ending December 31, 2017, Berkshire Hathaway trailed the S&P 500 by nearly 1% per year. This is only one of several periods when value has trailed growth by a wide margin, so that anyone who sold their shares at the first hint of underperformance would have missed out on the spectacular gains. Buffett has been famously quoted as saying his favorite holding period is forever. Investors (like children who can’t pass up that first marshmallow) pay a big price to seek instant gratification.