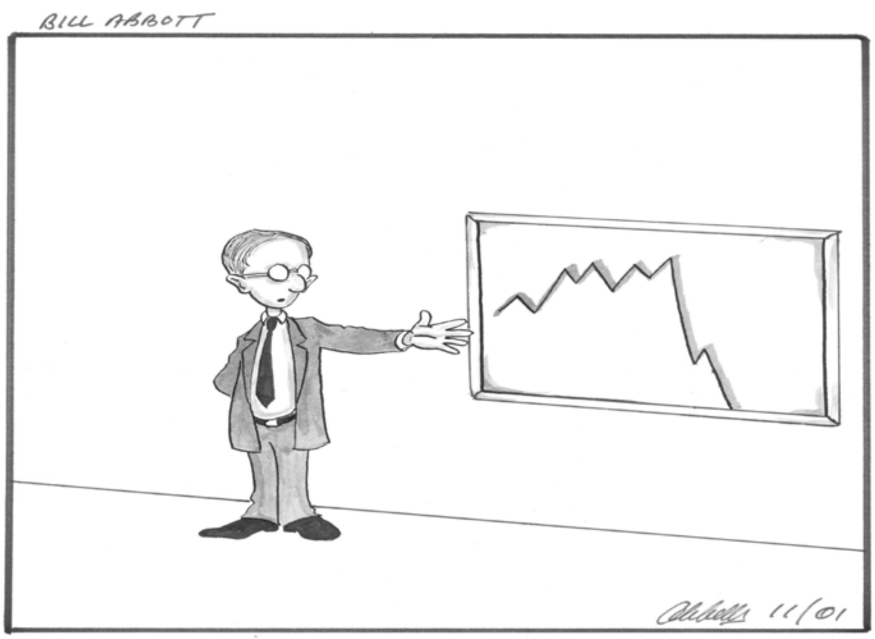
Isaac Newton Learned About Financial Gravity the Hard Way

"History doesn't repeat itself, but it often rhymes."
- Mark Twain



"..and so you see our profits, not unlike
Sir Isaac Newton, have felt the effects of gravity."

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For this month's newsletter, I decided to pass along a recent column by Jason Zweig of The Wall Street Journal. Mr. Zweig is one of my favorite personal financial journalists as his topics are usually easy to digest, thoughtful and well researched. Mr. Zweig is the editor of the revised edition of Benjamin Graham's "The Intelligent Investor," considered the bible for many value investors such as Warren Buffett.

Investing fads come and go, but the irrational behavior of human beings do not. When it comes to analyzing investment opportunities, mankind collectively has a poor track record. Even the best of us can get caught up in the manias and panics of the moment. This is exactly what happened to Sir Isaac Newton during the South Sea bubble of 1720 as written below. Enjoy.

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Isaac Newton Learned About Financial Gravity the Hard Way
By Jason Zweig, The Wall Street Journal
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Was one of the most immortal scientists in history also one of the world's most mortal investors?

In a recent column on the effort to predict stock-market behavior with principles from geophysics, I cited the losses — reputed to exceed $3.6 million in today's money — that Sir Isaac Newton incurred speculating on London's notorious South Sea bubble in 1720. I also cited the remark, often attributed to Newton, that he "could calculate the motions of the heavenly bodies, but not the madness of the people."

Andrew Odlyzko, a professor of mathematics at the University of Minnesota who has extensively studied the history of stock-market manias, has just released a research paper that closely analyzes Newton's track record as an investor.

It turns out that Newton had invested prudently and successfully for many years, diversifying his portfolio across stocks and government bonds worth a total of about £32,000 by the start of 1720 (roughly £4.4 million, or $5.7 million, today).

Newton was not just one of the world's greatest scientists; he was a financial pioneer. As master of the Royal Mint, he pushed the British government to migrate from silver to gold as its monetary standard, instituted exact weights and measures for coinage and sternly punished counterfeiters.

Newton was also among the earliest to spot the potential in the South Sea Co., the global trading firm that was seeking to restructure the growing debts of the British government. Newton began buying no later than June 1712, less than a year after the company was set up, according to Prof. Odlyzko.

That was almost eight years before speculating in the company's shares became a mania that swept up everyday investors and high society alike, including merchants, widows and farmers, the poet Alexander Pope and the portraitist Sir Godfrey Kneller, as well as roughly three-quarters of the members of Parliament and even the royal family of King George I.

The shares (quoted as a percentage of their par, or nominal, value) shot up from about 200 in March 1720 to nearly 1,000 in June and July, then crashed back below 200 in a few disastrous weeks later in 1720.

Prof. Odlyzko estimates that if Newton had bought and held his South Sea shares continuously from early 1712 through 1723, when the stock stabilized after the bursting of the bubble, he would have earned a cumulative total return of approximately 116%. That's about 6.5% annually, not counting dividends — a generous return at a time when long-term government bonds carried interest rates of 4% to 5%.

However, Newton didn't buy and hold continuously.

Instead, Newton — who held 10,000 shares of South Sea stock in early 1720 — sold 8,000 shares in April and May at prices around 350, realizing profits of at least £20,000, Prof. Odlyzko finds. That was a huge sum at the time, equivalent to nearly $4 million today.

But the price of the shares went almost straight up immediately after Newton sold them, brushing 800 in late May and early June, 1720.

“As the bubble continued inflating, it appears that he panicked,” Prof. Odlyzko writes of Newton. The great scientist, throwing his rationality to the winds, plunked £26,000 into South Sea shares on June 14, 1720, at a price of about 700 per share — twice what he had sold them for only a few weeks earlier.

Even worse, in late August, with the shares priced about 750, Newton put another £1,000 into a South Sea security that appears to have been comparable to a call option giving him the right to buy shares at a price of 1,000 each.

At this point, Newton had shifted from a prudent investor with his money spread across several securities to a speculator who had plunged essentially all of his capital into a single stock. The great scientist was chasing hot performance as desperately as a day trader in 1999 or many bitcoin buyers in 2017.

Newton appears to have lost as much as 77% on his worst purchases, or at least £22,600, estimates Prof. Odlyzko. That's the equivalent of £3.1 million, or nearly $4.1 million, in today's purchasing power. Overall, he lost at least a third of his account value.

Prof. Odlyzko finds that the words often attributed to Newton were ascribed to him years after his death, so the great man might or might not ever have said that he “could calculate the motions of the heavenly bodies, but not the madness of the people.”
But surely the author of the law of universal gravitation must have learned the First Law of Financial Gravity: What goes up must come down, and what goes up the most will come down the hardest.

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Sincerely,

Justin Kobe, CFA
Founder, Portfolio Manager & Adviser
