



The (Mis)Behavior of Markets: A Fractal View of Risk, Ruin, and Reward (2004), Dr. Benoit Mandelbrot and Richard Hudson.

Benoit Mandelbrot, brilliant scientist and mathematician, and discoverer of fractal geometry teams up with Richard Hudson, scientific journalist and former Wall Street Journal editor, to bring an eye-opening look at the flagrant errors in some of the most widely used tools regarding risk in the industry. Mandelbrot's insights explode the false assumptions that have caused millions to underestimate the real risk of the market. After reading this book investors will never see the market, or their portfolios, the same again.

So what is Mandelbrot's premise and what are some of the errors in the tools we are using today? Capital Asset Pricing Model (CAPM), the Black-Sholes formula, and Modern Portfolio Theory (MPT) are all built on the faulty assumption of the bell curve governing market price movements. The historic record does not support this case.

Modern financial theory holds studying price to earnings (P/E) ratios to try to determine when a stock or market is overvalued as a waste of time. The answer its advocates offer is to simply use index funds. "In fact, several studies have found, stocks with high P/E ratios tend to perform worse than stocks with low ratios. That is, of course, just common sense. A stock [or market] for which you overpay from the start is less likely to give you a profit." Pg. 101

Fama, the very one who postulated the Efficient Markets Hypothesis in the early 1960's, presented a research paper in 1992 that revealed that price/earnings effects and market/book effects could explain most of what differentiated one stock from another. It was a 'shot straight at the heart of the (CAPM) model.' This paper is also known as the beta-is-dead paper. Pg. 102

"Prices only rarely follow the predicted normal pattern. The Brownian data shows 98% of the changes in the markets occur within 3 standard deviations (sigma) and no changes greater than 5 (sigma). **Changes of more than five standard deviations...happened two thousand times more often than expected. Under normal rules such an event should occur only once every seven thousand years; in fact, it happens once every three or four years.** Statisticians call this a "fat tail" and it means the standard model of finance is wrong." Pgs.93, 94 & 96

"From 1986 - 2003, the dollar traced a long, bumpy descent against the Japanese yen. But nearly half that decline occurred on just ten out of those 4,695 trading days. **Put another way 46 percent of the damage to the dollar investors happened on 0.21 percent of the days.** A prudent investor would do as the Wall Street pros: Take a profit." Pgs.234, 235

With all the talk against "market timing", we are lead to believe that no "diversified" or index fund should ever be sold. Consider Mandelbrot's words: "**Market timing matters greatly. Big gains and losses concentrate into small packages of time.**" According to this book, index funds constitute one-fourth of the US investment markets today.

To this I add only that indexing, by its very nature, is the exact opposite of John Templeton's maxim, "Never Follow the Crowd."