Why hasn't the Efficient Market Hypothesis disappeared?

By Linda Ferentchak

The inherent inefficiency of "efficient markets" is well-documented, yet the theory persists.

One of the most fascinating constructs of investment theory is the Efficient Market Hypothesis (EMH). It is widely taught in business schools, a required element of the Certified Financial Analyst® knowledge base and Certified Financial Planner™ studies, and frequently quoted by journalists and financial experts. EMH is the foundation of the Capital Asset Pricing Model; the source of beta and the use of standard deviation in measuring risk, and the rationale for index funds.

And while it may well be the ultimate zombie of the investing world, study after study has shown the Efficient Market Hypothesis is inherently flawed.

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For Professor Benoit B. Mandelbrot, known as the "father of fractals," the failure of the EMH is a matter of mathematics. The hypothesis is founded on two critical assumptions—price changes are statistically independent and they are normally distributed. In "The (mis) Behavior of Markets," co-authored by Mandelbrot and Richard L. Hudson, the authors debunk EMH by establishing that (1) price changes are not independent of each other—today does in fact influence tomorrow, evidenced in simple patterns, correlations, seasonal fluctuations of prices, and more—and (2) price changes are very far from following the bell curve. Under a normal distribution, market prices should cluster about the mean or average. The mathematical reality of markets is that the far ends flare too high and there are too many pricing spikes (both to upside and downside) well outside of any normal distribution.

According to the EMH and its dependence on a normal distribution of prices, over the period from 1916 to 2003 there should have been 58 days when the market—represented by the Dow Jones Industrial Average—moved more than 3.4%. There were 1,001 such days. The theory predicts six days of index swings beyond 4.5%—there were 366. One-day index swings of more than 7% should occur once every 300,000 years. In fact, the 20th century had 48

Efficient Market Hypothesis

From the Morningstar Investing Glossary comes the following explanation of the Efficient Market Hypothesis:

A market theory that evolved from a 1960s Ph.D. dissertation by Eugene Fama, the Efficient Market Hypothesis states that at any given time and in a liquid market, security prices fully reflect all available information. The EMH exists in various degrees: weak, semi-strong and strong, which addresses the inclusion of non-public information in market prices. This theory contends that since markets are efficient and current prices reflect all information, attempts to outperform the market are essentially a game of chance rather than one of skill.

The weak form of EMH assumes that current stock prices fully reflect all currently available security market information. It contends that past price and volume data have no relationship with the future direction of security prices. It concludes that excess returns cannot be achieved using technical analysis.

The semi-strong form of EMH assumes that current stock prices adjust rapidly to the release of all new public information. It contends that security prices have factored in available market and non-market public information. It concludes that excess returns cannot be achieved using fundamental analysis.

The strong form of EMH assumes that current stock prices fully reflect all public and private information. It contends that market, non-market and inside information is all factored into security prices and that no one has monopolistic access to relevant information. It assumes a perfect market and concludes that excess returns are impossible to achieve consistently.

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of stocks or the ability to forecast the future better than everyone else. Under the EMH, fundamental and technical analysis, which each rely on available information, should not offer the investor any advantage. This leaves successful investors such as Warren Buffett, Peter Lynch, Jim Rogers, John Templeton, Benjamin Graham and other legends in the industry as either consistently defying impossible odds or clairvoyant. The ability of accomplished investors to outperform the market over lengthy periods should not occur in efficient markets.

In support of the EMH, its defenders typically point to the failure of active managers in general (typically referring to stock pickers) to outperform the market. But detractors of the hypothesis point to the proliferation of benchmarks, style boxes and betas, and industry standards which reward managers not for beating the market, but for playing it safe and mirroring market performance. The more traditionally diversified the portfolio, the more likely it is to reflect the overall market, less management fees.

In contrast, a recent study of portfolio managers' select "best ideas" found these investments able to outperform the market. Investment banks and other portfolio managers employ thousands of analysts and traders—as well as an array of sophisticated models—in what should be a completely futile effort under the tenets of the EMH. But perhaps that is not so futile, as the success of many different variations of actively managed portfolio approaches has been well-established over the past 30 years.

The Efficient Market Hypothesis has changed the investment world, but arguably not for the better.

Which brings the subject back to the initial question: why does the Efficient Market Hypothesis continue to dominate investment philosophy? James Montier may have summarized the reason best in a recent presentation:

"Academic theories are notoriously subject to path dependence (or hysteresis, if you prefer). Once a theory has been adopted it takes an enormous amount of effort to dislocate it. As Max Planck said, 'Science advances one funeral at a time'."

Perhaps the greatest tragedy of the Efficient Market Hypothesis is the effect it has had on corporate governance. The EMH rewards short-term performance and the creation of "shareholder value." Companies are no longer valued for long-term growth prospects but primarily on the immediate information available to the markets. Perversely, the growing influence of index investing minimizes the importance of even short-term returns, replacing performance with demand for the index as an important driver of stock prices. The Efficient Market Hypothesis has changed the investment world, but arguably not for the better. pro

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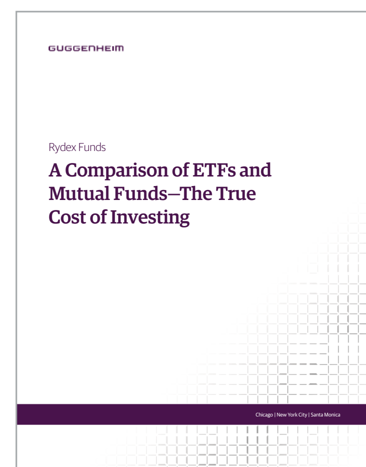

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