
THE S&P 500: OUR INDUSTRY'S OOPS

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The [S&P 500 Index](#) has not been around as long as you think. I encourage you to investigate the events that led to it becoming a \$9.9 trillion monster.

You know the methodology: each of the 500 stocks is weighted by its [market capitalization](#). The supposed catalyst for choosing that methodology in 1957? The Efficient Markets Hypothesis (EMH)—the theory that all market-influencing information is already priced into stocks.

But wait a minute...that may not have been the catalyst at all.

Oops

There is a dog-eared copy of Princeton Professor Burton Malkiel's EMH groundbreaker, *A Random Walk Down Wall Street*, on every good academic's shelf. But after EMH was challenged, first in the wake of the 1987 market crash and then amid the dot.com rubble, Malkiel picked up his pen in 2003, citing no less than 57 works on the subject. Aside from Graham and Dodd—two academics who epitomize the opposite of efficient markets dogma—every single paper cited by Malkiel was written *after* 1957.

The S&P 500 Index wasn't designed to be an investment. We know this because it came before the EMH. Don't forget that Jack Bogle's index fund was born in the mid-1970s, not a moment earlier.

Figure 1: Malkiel's Citations

Citations in Malkiel, "The Efficient Markets Hypothesis & Its Critics" (2003)		
Researcher(s)	Publishing Year	Malkiel's Summary of Conclusion
Graham & Dodd	1934	Value stocks return more than Growth stocks
Nicholson	1960	Low P/Es provide higher rates of return
Cootner	1964	A stock's past performance does not indicate future returns
Benjamin Graham	1965	The strong market is a long run weighing mechanism
Jensen	1969	add value
Eugene Fama	1970	Markets are efficient
Burton Malkiel	1973	Prices reflect all known information
Fama & Schwert	1977	Short-term rates related to future returns
Basu	1977	Low P/Es provide higher rates of return
Ball	1978	Low P/Es provide higher rates of return
French	1980	Higher returns on Mondays
Grossman & Stiglitz	1980	incentive
Kahneman & Tversky	1982	Investors are overconfident
Keim	1983	Small cap factor is evident
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Keim & Stambaugh	1986	High yield sperads have predictive power
Campbell	1987	Interest rate term structure influences stock prices
Poterba & Summers	1988	Stock market mean reversion over long horizons
Haugen & Lakonishok	1988	January Effect
Lakonishok & Smidt	1988	Turn of the month effects
Fama & French	1988	Dividend yields forecast returns
Campbell & Shiller	1988	Dividend yields forecast returns
Bagwell & Shoven	1989	US corporate dividend behavior has evolved
Ariel	1990	Stock market patterns on holidays
Miller	1991	"fundamental" events
Fama & French	1992	Small cap factor is evident
Fama & French	1992	Size and price-to-book explain future returns
Roll & Shiller	1992	Market "inefficiencies" cannot be exploited
Fama & French	1993	Low price-to-book captures financial distress
Vishny	1994	CAPM doesn't capture all risk dimensions
DeBondt & Thaler	1995	Investor emotions causes prices to deviate
Hawawini & Keim	1995	Foreign nations' varying average daily returns
Hawawini & Keim	1995	Low price-to-cash flow generates excess returns
DeBondt & Thaler	1995	Stocks underreact to certain new events
Malkiel	1995	Repeat of Jensen (1969). Active managers didn't add value
Fluck, Malkiel & Quandt	1997	Stocks with previously low returns subsequently outperformed
Fluck, Malkiel & Quandt	1997	High dividend yields do not earn a high rate of return
Fama & French	1997	Price-to-book effect more powerful outside of US
MacKinlay	1997	Stocks underreact to certain new events
Fama	1998	Stocks respond efficiently to events like earnings surprises
Campbell & Shiller	1998	P/E ratios partially explain the variance of future returns
Kahneman & Riepe	1998	Value stocks return more than Growth stocks
Lo and MacKinlay	1999	Supportive of serial correlation
Odean	1999	Traders underperform buy-and-hold
Lo, Mamaysky & Wang	2000	Modest predictive power in technical analysis
Shiller	2000	"Irrational exuberance" in 1990s US equities
Shiller	2000	Dot.com bubble is evidence of irrationality
Shleifer	2000	Noise trader risk limits arbitrage when in a bubble
Shleifer	2000	Closed-end funds sell at irrational discounts to NAV
Lesmond, Schill & Zhou	2001	Trading costs negate relative strength strategies
Schwert	2001	Predictable patterns disappear after publication
Fama & French	2001	US corporate dividend behavior has evolved
Schwert	2001	DFA fund based on Fama & French (1993)
Rasches	2001	Stocks with similar tickers experience co-movement
Cooper, Dimitrov & Rau	2001	reaction
Ross	2001	Closed-end fund discounts explained by management fees
Fama & French	2002	High average returns result partly from large unexpected gains

Citations by Burton Malkiel, The Efficient Market Hypothesis and Its Critics (2003). List compiled by WisdomTree.

What do we think? [Cap-weighted](#) indexing as an investment is an accident of circumstance.

In retrospect, the rise of the methodology makes sense. The industry rightly benchmarked [active managers](#) against the commonly-cited S&P 500. The fund managers weren't so bad; their fees were. It wasn't that the S&P 500 was so superior; it was that it was being compared to mutual funds hindered by their own expenses.

Here's a simple study: 1957–2018, weighting stocks by their earnings. Every December 31, [rebalance](#). If S&P wanted an investable index, this earnings-weighting would have been a killer.

Figure 2: S&P 500 P/E Quintile Returns, 1957–2018

Quintile	Return	Risk
Lowest P/E	12.99%	16.45%
Low P/E	12.62%	15.93%
Mid P/E	10.74%	15.43%
High P/E	9.94%	15.42%
Highest P/E	8.50%	19.40%
S&P 500	10.59%	16.83%

Sources: Jeremy Siegel, WisdomTree, 12/31/1957–12/31/2018.

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Take the huge fee gap out and ask why old school [beta](#) makes sense in a 2019 fee structure world.

We recently cut the expense ratio on our earnings-weighted broad market “beta” fighter, the [WisdomTree U.S. LargeCap Fund \(EPS\)](#), to 8 [basis points \(bps\)](#) from 28 bps. Some chunk of the S&P's \$9.9 trillion is tracking an accident of happenstance for fee reasons, not merit. Think of EPS as merit-based beta for those of us who believe [fundamentals](#) matter.

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For standardized performance and the most recent month-end performance click [here](#) NOTE, this material is intended for electronic use only. Individuals who intend to print and physically deliver to an investor must print the monthly performance report to accompany this blog.

For more investing insights, check out our [Economic & Market Outlook](#)

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DEFINITIONS

S&P 500 Index: Market capitalization-weighted benchmark of 500 stocks selected by the Standard and Poor's Index Committee designed to represent the performance of the leading industries in the United States economy.

Market Capitalization: Market cap = share prices x number of shares outstanding. Firms with the highest values receive the highest weights in approaches designed to weight firms by market cap.

Market capitalization-weighting: Market cap = share prices x number of shares outstanding. Firms with the highest values receive the highest weights in approaches designed to weight firms by market cap.

Active manager: Portfolio managers who run funds that attempt to outperform the market by selecting those securities they believe to be the best.

Rebalance: An index is created by applying a certain set of selection and weighting rules at a certain frequency. WisdomTree rebalances, or re-applies its rules based selection and weighting process on an annual basis.

Beta: A measure of the volatility of a security or a portfolio in comparison to a benchmark. In general, a beta less than 1 indicates that the investment is less volatile than the benchmark, while a beta more than 1 indicates that the investment is more volatile than the benchmark.

Basis point: 1/100th of 1 percent.

Fundamentals: Attributes related to a company's actual operations and production as opposed to changes in share price.