



The S&P 500: Not Always 500, and Why That Matters

The S&P 500 is often seen as a fixed list of America's top companies. In reality, it's a dynamic and ever-changing club, and that matters more than most investors realise.

It's Not Always 500 Companies

Despite its name, the S&P 500 hasn't consistently included exactly 500 companies. Over the past two decades, more than 200 changes have been made to its membership. Household names like Amazon and Tesla only joined recently, while former giants such as Lehman Brothers and Bear Stearns were removed after collapsing during the Global Financial Crisis.



To give you an idea:

- As of October 2025, the index includes **656 listings** — not 500.
- In 2006, it peaked at **858 listings**.

This variation occurs because some companies have multiple share classes listed separately (e.g. Alphabet's Class A and Class C shares), and corporate actions — such as mergers, acquisitions, and spin-offs — can temporarily inflate or reduce the count.

Where the Name Comes From

The “S&P” in S&P 500 stands for **Standard & Poor's**, the financial services firm that created and maintains the index.



- Standard Statistics Company was founded in 1906.
- It merged with Poor's Publishing in 1941.
- The combined firm became Standard & Poor's, now known as **S&P Global**.

The first version of the index launched in 1923, tracking 233 companies. The modern S&P 500 was introduced in 1957, expanding to include 500 of the largest publicly traded U.S. companies. While the number of listings has varied, the name remains a symbol of broad market representation.



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Understanding Survivorship Bias

Survivorship bias occurs when we analyse only the companies that survived and ignoring those that failed or were removed. It's a subtle but important concept in investing.

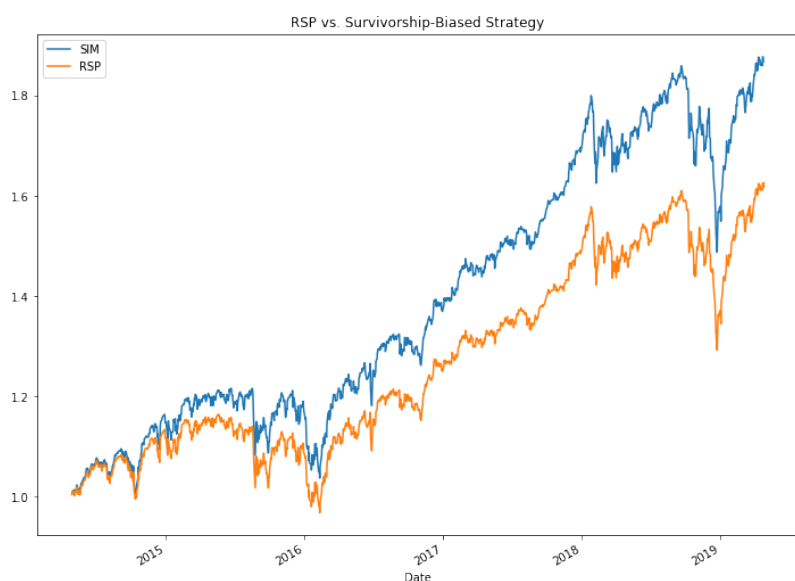
In the context of the S&P 500, this means historical performance charts often reflect the success of companies that remained in the index while quietly omitting those that were removed due to poor performance, bankruptcy, or acquisition.

For example, if you back-test a strategy using today's S&P 500 members and apply it to past data, you're essentially pretending those companies were always in the index. That can make past returns look better than they actually were.

Example: RSP vs. Survivorship-Biased Strategy

The following chart compares two approaches to back-testing S&P 500 strategies from 2014 to 2019:

- **SIM (blue line):** A survivorship-bias-free method that includes all stocks historically in the index.
- **RSP (orange line):** A strategy using only current constituents, introducing survivorship bias.



The result? The survivorship-biased approach underperforms significantly. By ignoring companies that dropped out of the index, the back-test can paint an overly optimistic picture of past performance.

Source: Teddy Koker – <https://teddykoker.com/2019/05/creating-a-survivorship-bias-free-sp-500-dataset-with-python/>

Survivorship Bias Over Time

The following image shows how survivorship bias grows as back-test periods lengthen. Over 25 years, **467 companies are missed**, creating a **41.6% bias**. Longer back-tests mean more missing data, which can distort performance analysis.

SURVIVORSHIP BIAS BY TIME PERIOD (Using CSV Data)				
Period	Historical	Current	Missed	Bias %
5 years	720	656	64	8.9
10 years	820	656	164	20.0
15 years	904	656	248	27.4
20 years	1030	656	374	36.3
25 years	1123	656	467	41.6

💡 **INSIGHT:** Survivorship bias increases with longer time periods! The longer your backtest, the more companies you miss.

Source: FXStreet – <https://www.fxstreet.com/analysis/how-many-stocks-in-the-sp-500-202510160541>



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Why This Matters

- **Index investing is powerful**, but understanding how the index works helps set realistic expectations.
- **Historical returns may be inflated** if survivorship bias isn't accounted for (which is often the case, as it's difficult to eliminate this bias).
- **Active managers face a challenge**: the index is regularly pruned, removing underperformers and adding rising stars. That's a luxury most investors don't have unless they're actively managing their portfolios.

Survivorship bias can lead to overly optimistic assumptions. It's easy to think the index always performs as well as its current members did in the past, but that ignores the reality that many companies didn't survive. Real-world investing involves holding both winners and losers.

Key Takeaways

- The S&P 500 is not a static list; it evolves with the market.
- Survivorship bias can distort performance data and expectations.
- Staying diversified and thinking long-term helps smooth out these distortions.

What You Can Do

- **Stay diversified**: Index investing remains a powerful tool, but it's important to understand what's under the hood.
- **Think long-term**: Markets change, but long-term investing helps ride out short-term noise.
- **Ask questions**: If a chart or strategy seems "too good to be true," survivorship bias might be at play.