

I tried to measure survivorship bias. Then I ran into it.

I pulled 64 years of monthly prices for every stock listed in the United States today, 4,717 common stocks once the funds, warrants and blank-check shells were removed, and asked a simple question: over its own lifetime, how did each one do against an index fund? The answer is bleak. And the answer is flattering, because the data can only show you the companies that made it.

22%

of today's stocks beat the
S&P 500 fund over their own
lifetime

44%

lost money, dividends
included

1%

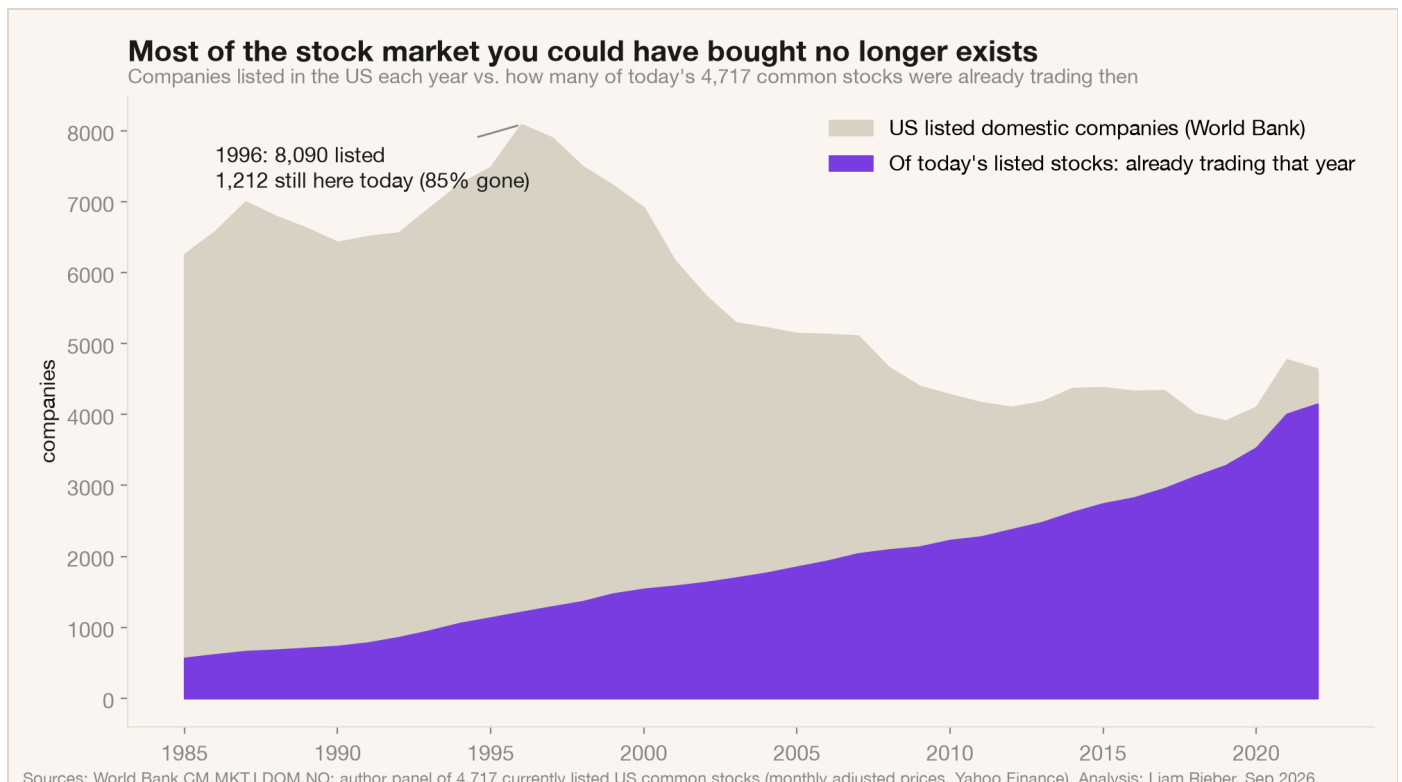
of stocks produced half of all
the ending wealth

85%

of the companies listed in
1996 are no longer in the
data

The market you can see is not the market that existed

Start with what is missing. The World Bank counts 8,090 domestic companies listed on US exchanges in 1996. Of the stocks trading today, only 1,212 have a price history reaching back to that year. The other 6,900 were acquired, went bankrupt, were delisted, or were merged into something with a new ticker. Go back to 1985 and 91% of that year's market is gone.

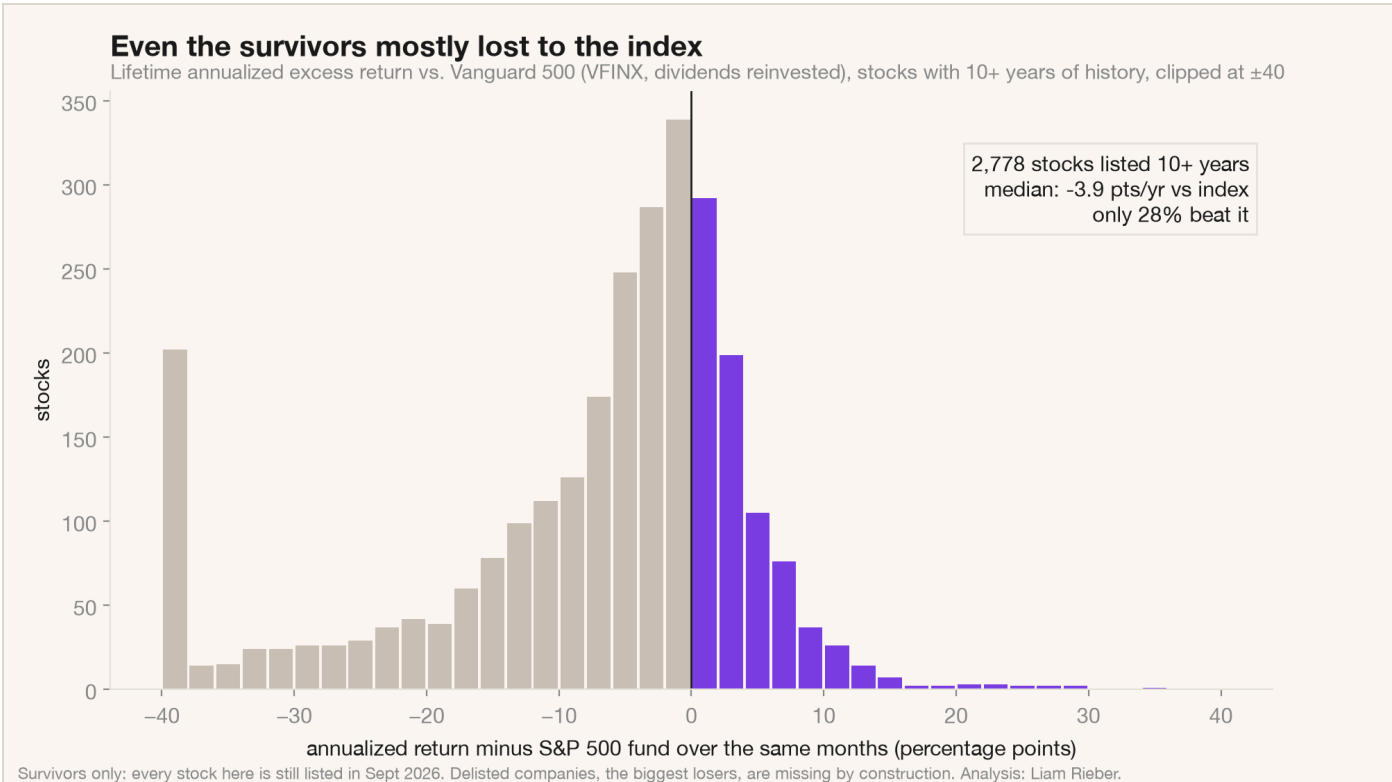


The grey area is how many companies were listed each year. The purple area is how many of today's stocks were already trading then. The gap is everything the historical data cannot show you.

This matters because every number that follows is computed on the purple area only. The delisted companies are, on average, the ones that did worst. So whatever the survivors' record looks like, the true record of "all the stocks you could have bought" is worse. Keep that in mind, because the survivors' record is already not good.

Even the survivors mostly lost to the index

For each stock I took the first month of available data (its IPO, spin-off, or the start of Yahoo's records in 1985, whichever is later) and compared its total return through August 2026 against the Vanguard 500 Index Fund over exactly the same months, dividends reinvested on both sides. The fund is the honest benchmark because you could actually have bought it in every one of those months.



Annualized return minus the index fund's annualized return over the same window, for the 2,778 stocks with at least ten years of history.

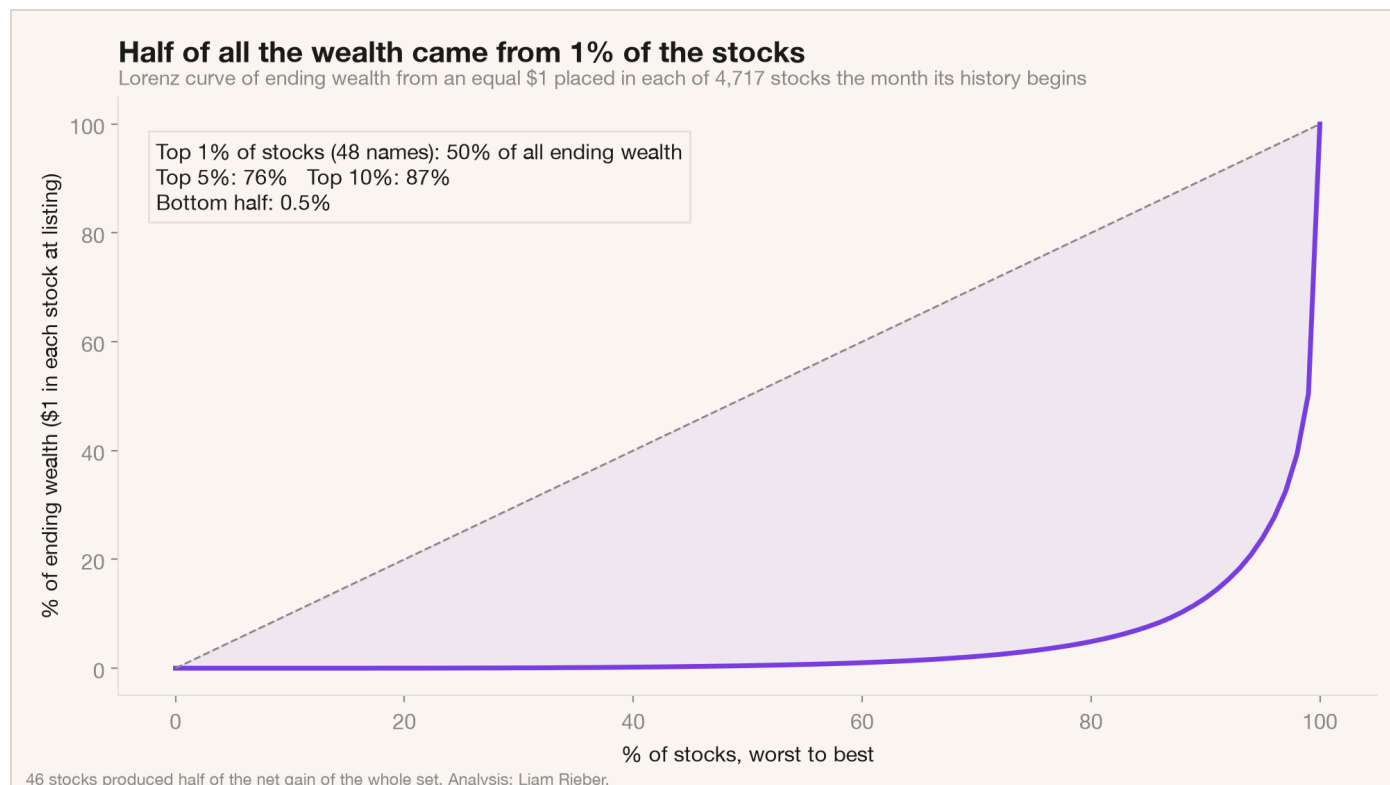
Stocks listed at least...	Count	Lost money	Beat the index fund	Median annual return	Index fund, same months	Median gap
1 year (everything)	4,717	44%	22%	3.3%	13.1%	-9.8 pts
5 years	3,844	38%	24%	5.3%	11.3%	-6.7 pts
10 years	2,778	27%	28%	7.3%	11.2%	-3.9 pts
20 years	1,892	17%	33%	8.4%	11.0%	-2.3 pts

Read the twenty-year row again. These are companies that have been public for at least two decades, which means they survived the dot-com crash, the financial crisis and the pandemic. They are the winners of the survivorship lottery. Two-thirds of them still did worse than an index fund an eighteen-year-old could have bought and forgotten about.

The median stock in the full set turned \$1 into \$1.44 over its lifetime. The average stock turned \$1 into \$38. That gap between median and mean is the entire story of stock picking: the typical outcome is mediocre and the average is dragged up by a handful of extraordinary ones.

Half of the wealth came from one percent of the stocks

Put \$1 into each of the 4,717 stocks the month its history begins and hold. At the end, the top 1% of stocks, 48 names, hold 50% of all the money. The top 5% hold 76%. The bottom half of all stocks, 2,358 companies, hold half of one percent between them. Just 46 stocks account for half of the net gain of the entire set.



Lorenz curve of ending wealth. A perfectly even market would follow the dashed line.

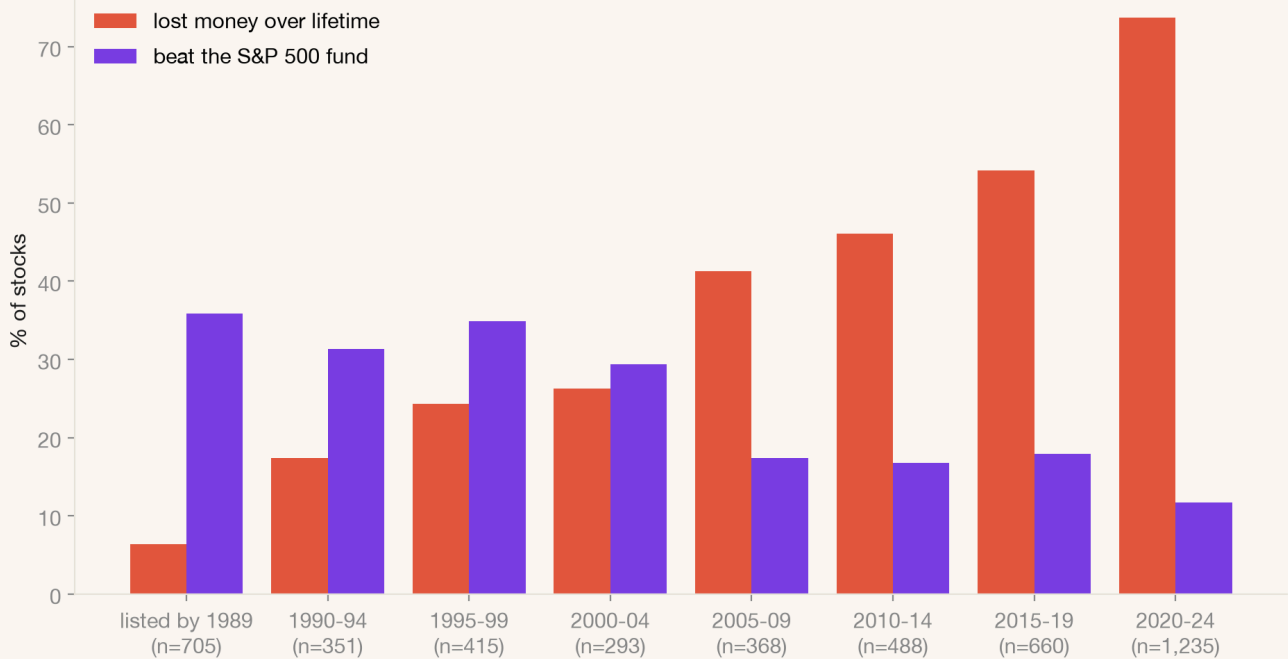
This is the survivor-only version of a result Hendrik Bessembinder published in 2018 using the full CRSP database, delisted companies included: since 1926, fewer than half of US stocks beat one-month Treasury bills over their lifetimes, and about 4% of companies account for all of the net wealth the stock market has created. My data cannot reach his numbers because it lacks the failures. What it shows is that the concentration is so extreme it survives even when you remove every loser that disappeared.

The 46 names that made half the money are not obscure: Microsoft (\$1 became \$8,337), Nvidia (\$5,924), Amazon (\$3,448), Apple (\$3,125), Amgen, Oracle, Applied Materials, Danaher, Cisco. But the list also contains Universal Insurance Holdings, Argan, HF Sinclair, Hubbell and Fastenal. You did not need to pick tech. You needed to pick one of 46 out of 4,717, and then hold it through what comes next.

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By half-decade a stock's price history begins (IPO, spin-off or data start), share that lost money and share that beat the index



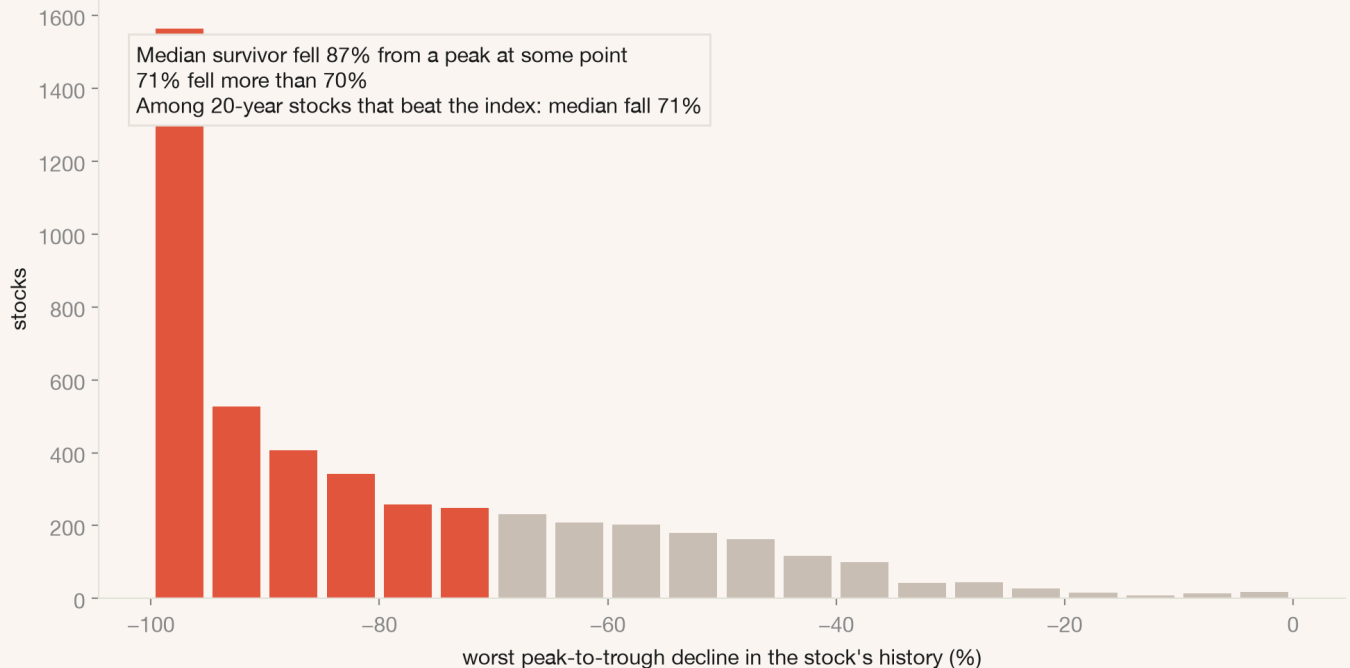
Stocks grouped by when their price history begins. The oldest cohort includes everything already listed by 1985.

Of the stocks that were already public by 1989, 6% have lost money over their lifetime and 36% beat the index. Of stocks listed since 2020, 74% have lost money and 12% beat the index; the median has compounded at -26% a year. Part of this is time: a stock that has only been public for three years has had less chance to recover from a bad start. Part of it is survivorship again, in reverse: the 1985 cohort has been filtered for forty years, the 2020 cohort has barely been filtered at all, and the filtering is what removes the losers. Give the 2020 cohort twenty years and most of its losers will be gone from this chart too, which will make the survivors look better than the cohort actually did.

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Distribution of maximum drawdown, all 4,717 stocks, monthly closes 1985-2026



Worst peak-to-trough fall in each stock's history, monthly closes. Monthly data understates the true figure.

The median stock in this set fell 87% from a peak at some point. Seven in ten fell more than 70%. This is not just the losers: among the 617 stocks that have been listed for twenty years and beat the index, the median maximum drawdown is 71%, and half of them fell more than 70%. Amazon fell 93% on its way to a 3,448-fold return. Nvidia fell 87%. Netflix fell 80%. The returns in the concentration chart were only available to someone who held through those declines, and almost nobody does.

What this means, and what it does not

- **The index is not a compromise. It is the strategy that guarantees you own the 46.** Every argument for concentrated stock picking has to explain how you identify the 1% in advance, when the 1% includes an insurance company from Florida and a contractor from Virginia alongside Microsoft.
- **Backtests built on today's ticker list are lying to you**, in your favour. Any screen, factor or strategy tested on "all current S&P 500 members" or "all stocks on Yahoo" is tested on a set that excludes the failures. The bias is not a footnote; in this data it is 85% of the 1996 market.
- **Survivorship also shapes how we talk about investing.** The people who write about their forty-year holdings are the people whose holdings survived forty years. The cohort chart is what the same story looks like before the filtering.
- **This is not a case against owning individual companies.** It is a case for knowing the base rate before you do. The base rate for a randomly chosen listed stock beating the index over its life, in the most flattering data available, is about one in five.

Method and caveats

Data. Monthly adjusted closes (splits and dividends reinvested) for 10,938 securities currently listed on NASDAQ and NYSE, from Yahoo Finance, January 1962 to August 2026, pulled 22 August 2026. Filtered to common stocks by excluding ETFs, warrants, rights, units, preferred and depositary shares, notes and debentures, closed-end funds and trusts, and blank-check acquisition companies by name; secondary share classes are collapsed to the primary. Yahoo's history for most older stocks begins in January 1985, so the analysis window starts there. Final set: 4,717 stocks; one was dropped for a zero starting price.

Benchmark. Vanguard 500 Index Fund Investor Shares (VFINX), monthly, dividends reinvested, matched to each stock's exact first and last month. A price-only S&P 500 index would understate the benchmark by about two points a year and make the stocks look better than they were.

Concentration. \$1 in each stock at its first month, held to its last month, no rebalancing; ending wealth ranked and cumulated. Because start dates differ, this is not a portfolio anyone could have held; it is a way of asking how unevenly returns were distributed across names.

Listing counts. World Bank indicator CM.MKT.LDOM.NO, "listed domestic companies, United States". It counts companies, not securities, and its methodology changed in 2012; the 1996 figure of 8,090 is consistent with contemporaneous exchange data.

What is not here. Delisted stocks, and therefore every bankruptcy and most bad acquisitions; foreign listings and ADRs are included where Yahoo lists them on a US exchange. Drawdowns are on monthly closes and are therefore understated. Nothing here is investment advice.