Does trading pay?

Trading against investing; why trading is zero-sum before costs and negative after; what 66,465 households and 1,551 day traders earned; what "statistically" means; what 20-year holds of the S&P 500 did; the verdict.

1 The rule

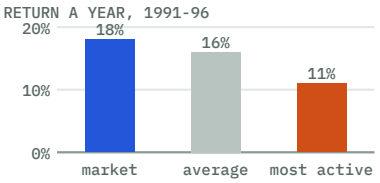
zero-sum game

- **Trading**: buy and sell **often**, to catch the moves · **investing**: buy broad (one fund, hundreds of companies), **hold** for decades · **day trading**: "buying and selling the same day to profit from small price moves"
- **Zero-sum**: "one side's gain is the other's loss, so together they add up to nothing before costs" → every trade = a buyer + a seller
- Costs (fee per trade + buy-sell gap) → paid win or lose → **negative-sum**: Leo `+$20 − $2` · Ann `−$20 − $2` → together `−$4`
- 10 traders, $1,000 each, shares +10% → together $11,000 − costs $500 → average **$1,050** vs holding $1,100 ⇒ `average trader = market − costs`

2 Households

Barber & Odean

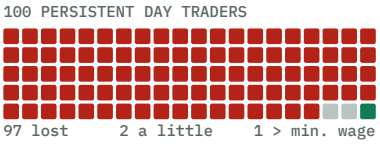
- Brad Barber & Terrance Odean (American economists): **66,465** US households at a discount broker (cheap online trading), 1991-96
- Market (all US stocks, ≈ the **S&P 500**: share prices of the 500 largest US companies, as one number) ≈ **18%** a year · average household ≈ 16% · most active fifth ≈ **11%** → ≈ 7 **percentage points** ("points": gap between two %) behind
- **Overconfidence**: "believing you know more than you do, so you trade more than is good for you" → lucky wins → feels gifted → trades more, bigger → more costs → behind the market
- Men traded ≈ **45%** more than women → trading cost men ≈ 2.7 points a year, women ≈ 1.7



3 Day traders

Brazil · Taiwan

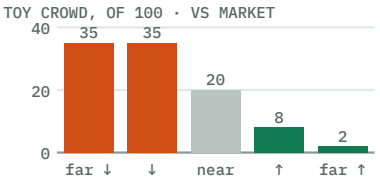
- Chague, De-Losso & Giovannetti (Brazilian economists): everyone who began day trading in Brazil's futures market (bets on the index's next move) 2013-15 and kept going **300+ days** → 1,551 people
- **97 in 100** lost money after fees · ≈ **1 in 100** (1.1%) earned more than the minimum wage (lowest legal pay) · and these were the persistent ones
- Taiwan, 1992-2006 (Barber, Lee, Liu & Odean): fewer than **1 in 100** kept winning year after year, after fees



4 "Statistically"

the average, not one

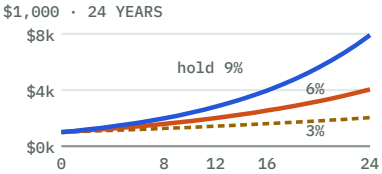
- **Statistically**: "about the average of a large group, not about any single person" · lottery → winners every week, the average ticket still loses
- Luck: 1,000 people × 10 coin flips → `1,000 ÷ 1,024 ≈ 1` gets 10 heads (Lesson 8) → a winner, not a coin expert · winners loud, losers quiet
- Toy crowd of 100: 35 far below (< −10 points) · 35 below (−10…−2) · 20 near (± 2) · 8 above (+2…+10) · 2 far above (> +10) → 10 beat it by more than 2 points · average ≈ 7 below
- Ad of a trading app, 10 users: +30, +10, 3 × −5, 5 × −15 → 2 beat the market · total `+40 − 15 − 75 = −50` · average **−5**



5 Holding

20-year stretches

- Aswath Damodaran (professor, New York University): S&P 500 + dividends (profits paid to owners), 1928-2025 → **79** stretches of 20 years
- Worst **+2.4%** a year (1929-48, ≈ 1.6 × the money) · average +10.7% · best +17.7% → **no** 20-year hold ended in a loss · **holding period**: how long you keep it
- Single years can fall: 1931 ≈ **−44%** · dollars before inflation · the past, not a promise
- Cost of trading every year (toy, rule of 72): $1,000, 24 years · 9% → doubles every 8 → ≈ **$8,000** · 6% (3 points of cost) → every 12 → ≈ **$4,000** · 3% → ≈ $2,000



6 Verdict

what the data say

- People who trade often → average result **below** the market · most lose · the few winners cannot be told from the lucky **in advance**
- The data do **not** say: every trader loses (≈ 1 in 100 persists and wins) · holding cannot lose (one year can fall by a third or more)
- They compare two **kinds** of choice, on average

Watch out: one winner (a cousin, an ad, a lottery) is **not the average** → ask what happened to the whole group · "every trader loses" × too: about 1 in 100 wins

This is a lesson, not financial advice. It shows what the evidence says about choices like these; what is right for you depends on your life.