Does an Inverted Yield Curve Still Mean Recession? Five Inversions, Three Recessions and the Cost of Selling on the Signal

Gaurav Gupta · Research note · 30 October 2026 · US Treasury curve 1990–2026 (10y–3m monthly), NBER recessions, SPY total return 1996–2026

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Inversions since 2000 followed by recession (8–16 months)

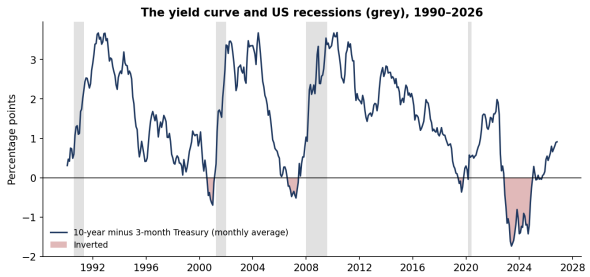
25 months
2022–24 inversion, deepest on record; no recession through Oct 2026

+49% vs +11%
SPY vs T-bills, Dec 2022 – Dec 2024

9.2% vs 10.3%
Cash-while-inverted vs buy and hold a year, 1996–2026

Inversion	Months	Deepest	Recession	Lead	SPY to recession	SPY next 12m
Jul 2000 – Jan 2001	7	−0.70 pp	Mar 2001	8 m	−14%	−15%
Aug 2006 – May 2007	10	−0.52 pp	Dec 2007	16 m	+19%	+16%
May 2019 – Sep 2019	5	−0.36 pp	Feb 2020 (Covid)	9 m	+11%	+1%
Nov 2022 – Nov 2024	25	−1.73 pp	None (Oct 2026)	n/a	n/a	+10%
Mar 2025 – Aug 2025	5	−0.06 pp	None (Oct 2026)	n/a	n/a	+17%

Rules, Feb 1996 – Oct 2026 (return / worst drawdown / Sharpe): buy and hold 10.3% / −50.8% / 0.52; cash while inverted 9.2% / −50.8% / 0.48; cash 12 months after un-inversion 9.9% / −46.3% / 0.54. Today: 10y–3m +0.91 pp, 10y–2y +0.39 pp.



The 10y–3m spread and NBER recessions (grey), 1990–2026.

SOURCES

- US Treasury daily par yield curve; SPY prices and dividends: defeatbeta/yahoo-finance-data (ODC-BY), sha256-pinned; NBER business-cycle dates
- Estrella & Mishkin (1998) REStat 80(1); Estrella & Hardouvelis (1991) JF 46(2); Harvey (1988) JFE 22(2); NY Fed yield-curve model

METHOD

- Monthly-average 10y–3m spread; episode = 3+ inverted months (gaps under 3 months merged); recession within 24 months
- Rules move SPY to 3-month bills; signal at month-end applied next month (unit-tested)
- Probit of recession in next 12 months on the spread: in-sample, pseudo-R^2 0.05 (descriptive)

KEY CALCULATIONS

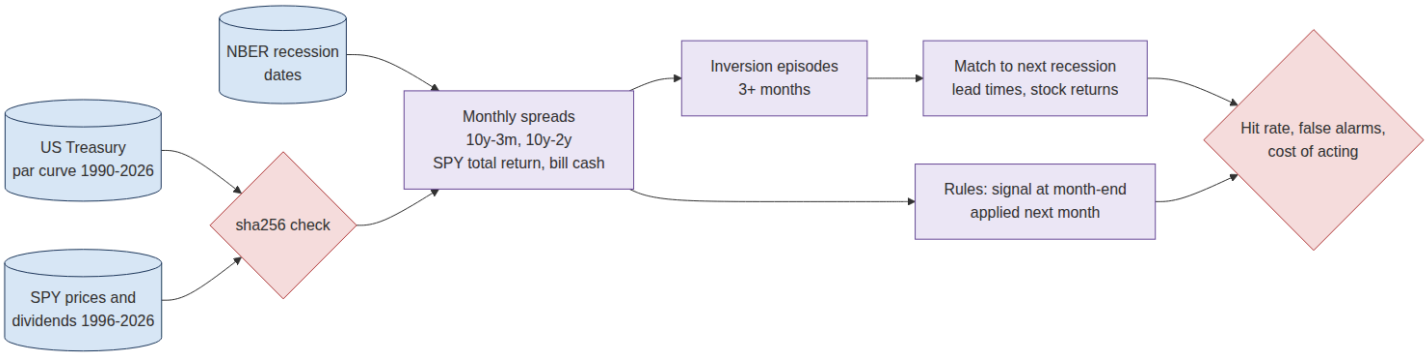
- $1 → $20.6 buy and hold vs $15.1 cash-while-inverted (1996–2026)
- Dec 2022 – Dec 2024: cash instead of SPY ≈ $370M per $1bn
- 2008 crash came after the June 2007 un-inversion: inversion rule fully invested

RECOMMENDATIONS

- Treat inversion as a risk-review trigger, not a sell order
- Judge macro signals by the decision and their false alarms
- Size equity to hold through a recession rather than time one

Independent research on public data; not investment advice; not deployed. Produced with AI assistance and reviewed by the author. Code: github.com/guptagaurav-info/yield-curve-signal · guptagaurav.info/articles/does-an-inverted-yield-curve-still-mean-recession

Pipeline


NBER recession dates
US Treasury par curve 1990-2026
SPY prices and dividends 1996-2026
sha256 check
Monthly spreads
10y-3m, 10y-2y
SPY total return, bill cash
Inversion episodes
3+ months
Match to next recession
lead times, stock returns
Rules: signal at month-end
applied next month
Hit rate, false alarms,
cost of acting

Selling on inversion vs buy and hold

