RATIO SPREAD RESEARCH · LIVE SIGNAL SERIES

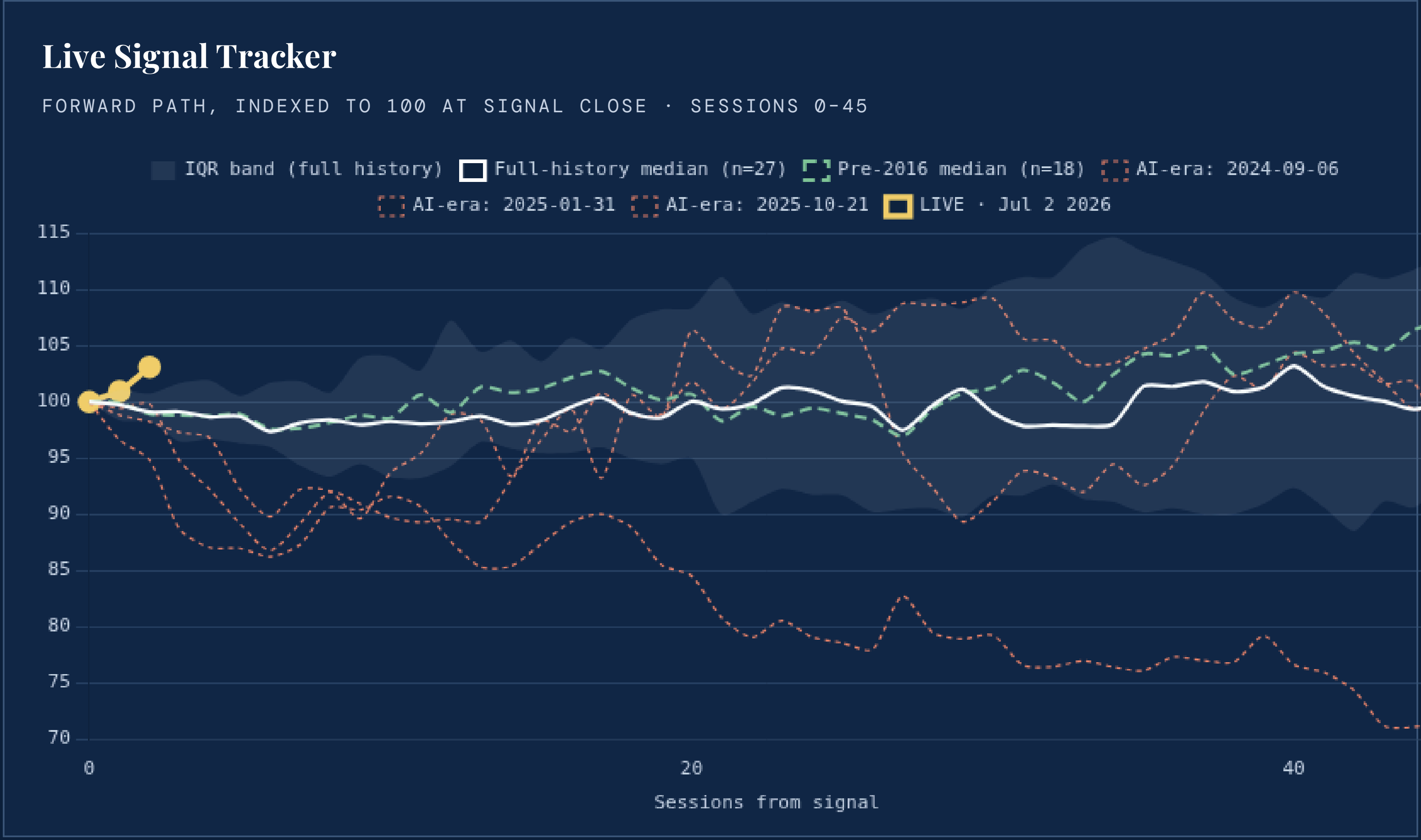
AAPL/NVDA: The Breakout *After the Base*

Twenty-seven years, twenty-eight sideways-then-90-day-high breakouts, two regimes that disagree completely — and one live signal, tracked daily against both.

SIGNAL DATE	ENTRY LEVEL	LAST (JUL 7)	DAY 2 P&L	HORIZON
Jul 2, 2026	1.584	1.633	+3.1%	45 sessions

The setup

Signal definition: the ratio closes at a new 90-session high, having made **no** 90-session high in the prior 60 sessions (the drought is the "sideways for months"), with 60-session range width at or below 1.25× its historical median (the compression). Events deduplicated to the first breakout per 45 sessions. Data: split- and dividend-adjusted daily closes, Jan 1999–Jul 2026, 6,905 sessions; the uploaded BATS series matches the adjusted ratio exactly over its span.



The gold line is the live trade. The white line is the full-history median path with its interquartile band; the green dashed line is the pre-2016 median (the cohort with the +18% mean and the fat right tail); the red lines are the three **AI-era events individually** — Sep 2024, Jan 2025, Oct 2025 — every one of which was underwater by session 5 and stayed there through session 10. Two sessions in, the live signal is doing the one thing the AI-era failures never did: going up immediately. That is either the first evidence of regime change or the most expensive head-fake of the four. Session 5 will say more than we can.

The two histories

Per the desk's framing: one base rate from everything we have, one from the environment we are actually in. They do not agree, and the disagreement *is* the finding.

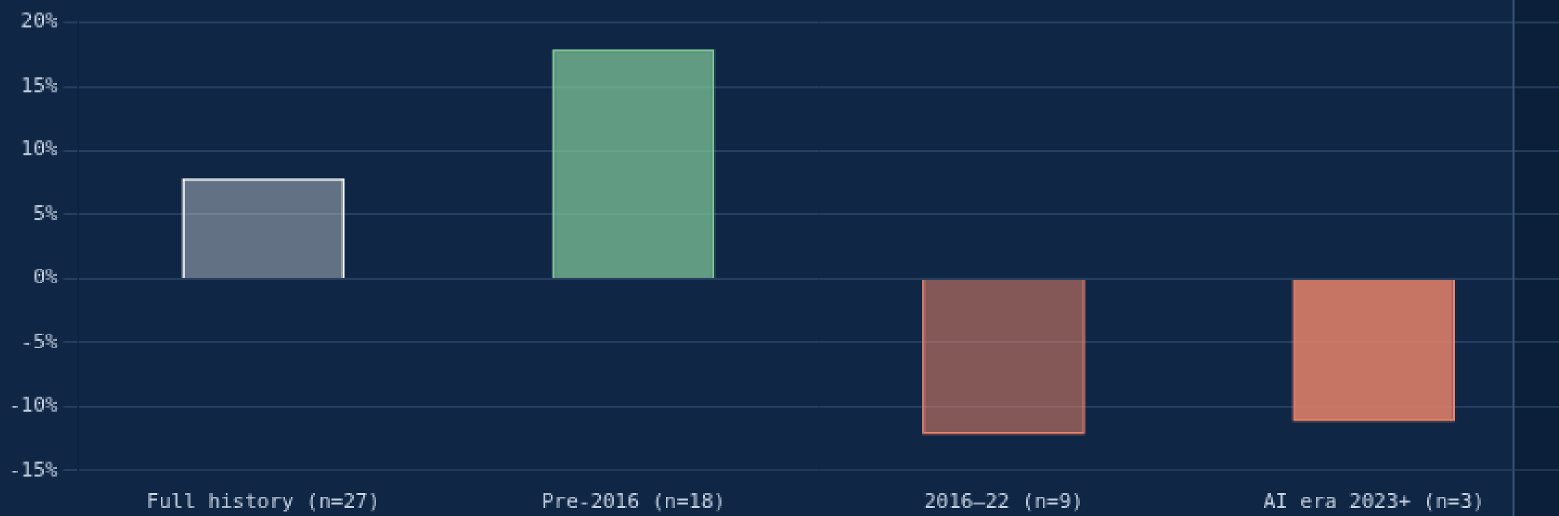
Forward Returns by Cohort

MEAN / MEDIAN, WITH HIT RATE · % FROM SIGNAL CLOSE

COHORT	+5 SESSIONS	+10	+21	+45
Full history 1999-2026, all events · n=27	-1.2% / -1.3% 41% hit	-0.7% / -1.8% 30% hit	+1.7% / -0.6% 44% hit	+7.9% / +0.1% 52% hit
Pre-2016 Before NVDA secular era · n=18	+0.1% / -1.1% 44% hit	+0.8% / -1.4% 39% hit	+4.2% / -1.7% 50% hit	+17.9% / +7.1% 61% hit
2016–2022 NVDA ascendancy · n=9	-3.8% / -1.9% 33% hit	-3.6% / -2.6% 11% hit	-3.3% / -0.6% 33% hit	-12.2% / -6.9% 33% hit
AI era 2023-present · the emphasis cohort · n=3	-10.5% / -10.8% 0% hit	-8.3% / -8.4% 0% hit	-5.4% / -0.6% 33% hit	-11.2% / -5.3% 33% hit

The Regime Disagreement

+45-SESSION MEAN RETURN BY COHORT



History says: +7.9% mean at 45 sessions — but the median is +0.2% and the mean is carried entirely by three pre-2012 monsters (Jun 2004 +126%, Apr 2010 +55%, Jun 2011 +51%). A bootstrap places the signal mean at the 91st percentile of random same-size draws: suggestive, short of significant. **AI history says:** three-for-three failures, mean −11.2% at 45 sessions, 0% hit rate at sessions 5 and 10, every breakout a countertrend rally into NVDA's structural bid that died within two weeks. n=3 is not a sample — it is an anecdote with a standard deviation — but it is the only sample drawn from the world this trade actually lives in.

> *The honest synthesis: this study cannot tell you the forward return. It can tell you the forward return is a bet on which regime you're in — and that the entire edge, if it exists, arrives after session 10. Historically even the winners gave back 1–3% in the first two weeks. The +3.1% two-session start is ahead of every cohort's median path, including the winners'.*

Event ledger

All 28 Events

SIDEWAYS → 90-SESSION-HIGH BREAKOUTS, 1999-2026 · AI-ERA ROWS SHADED

DATE	RATIO	+5	+10	+21	+45	ERA
2002-02-22	0.892	-8.0%	-7.1%	+11.3%	+48.5%	Pre-2016
2003-08-08	2.482	-3.7%	-9.8%	-14.9%	+13.7%	Pre-2016
2004-03-10	2.587	-10.6%	-16.3%	-22.0%	-4.3%	Pre-2016
2004-06-07	2.603	+13.0%	+24.5%	+28.5%	+126.2%	Pre-2016
2005-03-18	6.964	-3.7%	-1.2%	-4.9%	-16.9%	Pre-2016
2005-10-19	6.825	+1.9%	-1.8%	+2.1%	+14.1%	Pre-2016
2006-07-10	5.815	-0.9%	+5.8%	-10.3%	-15.2%	Pre-2016
2007-01-09	5.454	-1.3%	-5.3%	-10.0%	+12.4%	Pre-2016
2007-10-25	6.88	+0.6%	-1.6%	+11.0%	+10.5%	Pre-2016
2009-05-08	18.242	+0.3%	-10.7%	-10.1%	-4.9%	Pre-2016
2009-10-07	17.877	+0.3%	+11.9%	+15.5%	-6.9%	Pre-2016
2010-04-16	18.941	+13.6%	+14.6%	+35.0%	+55.1%	Pre-2016
2011-06-16	26.232	+1.7%	+4.8%	+34.9%	+51.1%	Pre-2016
2012-02-17	41.377	+7.3%	+13.3%	+32.8%	+38.0%	Pre-2016
2013-08-19	44.814	-1.7%	-3.0%	-14.9%	-3.4%	Pre-2016
2014-06-09	45.333	-3.8%	-1.3%	+1.5%	+3.8%	Pre-2016
2015-01-29	55.438	-2.2%	-5.3%	-5.0%	-2.2%	Pre-2016
2015-05-08	56.746	-1.3%	+3.2%	-5.3%	+2.6%	Pre-2016
2017-04-04	13.461	+0.5%	-1.8%	-1.8%	-32.3%	2016–22
2018-08-01	7.782	-1.9%	-0.4%	-0.6%	+0.1%	2016–22
2019-05-15	11.532	+0.4%	+7.0%	+11.2%	+0.4%	2016–22

DATE	RATIO	+5	+10	+21	+45	ERA
2020-01-29	12.782	-3.0%	-8.9%	-23.2%	-27.3%	2016–22
2020-12-22	9.678	+2.4%	-1.2%	+5.4%	-6.9%	2016–22
2022-01-25	7.011	-1.0%	-2.6%	-4.1%	-10.2%	2016–22
2024-09-06	2.132	-13.0%	-8.4%	-19.2%	-28.3%	AI (2023+)
2025-01-31	1.954	-10.8%	-10.3%	+3.6%	-5.3%	AI (2023+)
2025-10-21	1.447	-7.8%	-6.3%	-0.6%	+0.2%	AI (2023+)
2026-07-02 · **LIVE**	1.584	—	—	—	—	AI (2023+)

Caveats, stated like we mean them

Twenty-seven completed events over 27 years is thin; three AI-era events is threadbare, and conclusions from the emphasis cohort should be sized accordingly. The full-history mean is a power-law artifact of three events. The Jan 2020 event's −27% is COVID-contaminated (removing it changes nothing material). The compression filter involves judgment; a no-filter robustness run (plain 90-day-high after a 60-session drought, n=28) produced a nearly identical profile (+45 mean +7.5%, median −1.0%). Nothing here is a forecast; it is a base rate with a regime question attached.

Data: adjusted daily closes via Yahoo Finance v8, verified against uploaded BATS series. Not investment advice.