VISUALSECTORS

# AAPL — Trade Planning Assistant

Entry/Exit · Stop Loss · Targets · Position sizing · 2026-04-20

**BACKTEST PROVENANCE** **14.2-year backtest** · 47K observations for AAPL · 7832 tickers · 12 level methods *(2012-01-23 → 2026-04-21)*

**SUMMARY · NO DIRECTION · MID-RANGE**

AAPL is in a no-direction regime — calm and range-bound, currently mid-range between support $266.02 (Fibonacci 50.0% (42-day swing)) — 60% hold rate across 693K universe tests, avg bounce 11.6% / avg break 11.6% and resistance $279.04 (DEX Weighted Average (all exp, 30-45 DTE)) — 58% hold rate across 599K universe tests, avg bounce 9.4% / avg break 11.9%. No directional pressure; wait for a level test before forming a thesis.

WHAT'S BELOW

· Regime & Position · Backtested Levels · Trade Planning · Approach Breakdown

## Regime & Position

| | | | | |
|---|---|---|---|---|
| REGIME | Clear Trend | Volatile Trend | **No Direction** | High Uncertainty |
| POSITION | At Support | At Resistance | **Mid-range** | Pinned |

REASONING

- **Weak Trend** **ADX 15.4** No trend present (Wilder < 20). Sideways / mean-reversion conditions.
- **Mid Vol** **NATR 2.18%** Volatility for AAPL sits in the middle of the peer distribution.
- **Mid-range** **S 2.6% / R 2.2%** Closest support is 2.6% below price; closest resistance is 2.2% above.

## Backtested Levels — Quality

| | | | | | |
|---|---|---|---|---|---|
| **$289.72** | Far · Gamma Weighted Average (monthly + quarterly)<br>63% hold | +6.1% | Bounce +5.75%<br>Confl 2 | Break -3.96%<br>Str 49/100 |
| **$280.90** | Mid · Donchian Channel 55-day<br>43% hold | +2.9% | Bounce +4.21%<br>Confl 14 | Break -4.04%<br>Str 50/100 |
| **$279.04** | Near · DEX Weighted Average (all exp, 30-45 DTE)<br>56% hold | +2.2% | Bounce +5.30%<br>Confl 15 | Break -4.37%<br>Str 60/100 |
| | **$273.05 Current Price** | | | |
| **$266.02** | Near · Fibonacci 50.0% (42-day swing)<br>54% hold | −2.6% | Bounce +5.14%<br>Confl 7 | Break -6.13%<br>Str 52/100 |
| **$260.69** | Mid · Fibonacci 61.8% (42-day swing)<br>60% hold | −4.5% | Bounce +6.17%<br>Confl 9 | Break -4.98%<br>Str 45/100 |
| **$257.74** | Far · Fibonacci 61.8% (21-day swing)<br>64% hold | −5.6% | Bounce +5.51%<br>Confl 2 | Break -5.25%<br>Str 57/100 |

### How to Read the Backtested Levels

- **Hold Rate** — % of times price touched this level and bounced within 7 trading days. Bayesian-smoothed.
- **Bounce / Break** — average favorable move when held vs. average adverse move when broken.
- **Distance** — how far the level is from current close, as % of price.
- **Confluence** — how many other level types cluster within 0.35 ATR of this level.
- **Strength** — composite score (0–100) blending hold rate, stickiness, test count, and confluence.
- **Band** — Near (0.75–1.25 ATR), Mid (1.25–2.25), Far (2.25–3.25).

### Level Types Used in This Report

- Delta Exposure Weighted Average (DEX_WA) — delta-weighted center of the OI distribution. Represents the “gravity center” of options positioning.
- Donchian Channels (DONCHIAN) — highest high and lowest low over 10/20/55 bars. Breakout traders use these as trend-following entry/exit signals.
- Gamma Weighted Average (GEX_WA) — the exposure-weighted center of the gamma profile. Acts as a magnetic level that price gravitates toward.
- Fibonacci Retracements (FIB) — 38.2%, 50%, and 61.8% retracements of recent swings (21d/42d/52w). Based on the idea that pullbacks often stall at these proportional levels.

## Trade Planning

May 15 · $267.59 – $278.51 | Jun 18 · $259.40 – $278.51 | Jul 17 · $243.01 – $294.89

Implied support/resistance for the next three expirations (month, quarter or year contracts).

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Targets** | **UPSIDE** | $278.51 | (May) | → $278.51 | (Jun) | → $294.89 | (Jul) | |
| | **DOWNSIDE** | $267.59 | (May) | → $259.40 | (Jun) | → $243.01 | (Jul) | |
| **Stop losses** | **SUPPORT** | $267.59 | *– $4.47 = stop $263.12* | · | **RESISTANCE** | $278.51 | *+ $4.47 = stop $282.98* | |
| **Position sizing** | **1.74×** | *rel. vol. vs SPY* | · | size **~58%** of usual SPY position | | | | |

**Promo:** Free AI assistant to explore 50 variations of 12 level methods for each stock.

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## Approach Breakdown

Each level is selected from 12 independent method families (over 100 variants in total) and evaluated across three scopes: the individual stock, a peer group with similar volatility and trend characteristics, and the full S&P 500 universe. The final selection picks the single strongest level per distance band (near, mid, far) for both support and resistance — 6 actionable levels per stock per day.

| ACTIVE APPROACH | LEVELS SELECTED | I / Q / U BLEND * |
|---|---|---|
| Quality | 9 | 40% Ticker / 40% Group / 20% Universe |

SCORING FORMULA

0.30 × hold_rate + 0.25 × strength + 0.20 × confidence + 0.15 × confluence + 0.10 × stickiness

* **I** = Individual stock history, **Q** = Quantile peer group, **U** = Universe (full S&P 500).

## How Levels Are Built

1. **Load Data**
   Daily OHLCV and over 50 technical indicators for S&P 500 stocks from our pre-calculated database.
2. **Classify Regimes**
   Group each stock by volatility (NATR14) and trend strength (ADX14) into 9 peer groups.
3. **Generate Candidates**
   12 method families (with 100+ variants) produce 40–100 level candidates per stock per day, including options delta and gamma exposure.
4. **Evaluate (7-Day Test)**
   For each candidate: did price hold or break through within 7 trading days? Compute hold rate, bounce/break magnitudes, stickiness, and confluence.
5. **Pool Statistics**
   Aggregate metrics across the individual stock (I), its peer group (Q), and the full S&P 500 universe (U).
6. **Summarize History**
   Build one lifetime summary per level type per stock — rates, averages, and confidence intervals.
7. **Select Best Levels**
   Score all candidates and pick the single best per ATR band (near / mid / far) for support and resistance — 3 + 3 = 6 levels per stock per day.

### METHODOLOGY & DEFINITIONS

- **Hold rate** — share of historical tests where price respected the level within a 7-trading-day window. Bayesian-smoothed (α = β = 2) for thin samples.
- **Universe tests** — every test of this level type across all 7832 tickers in our backtest, accumulated over the 14.2-year history.
- **Avg bounce / avg break** — average favorable move when the level held vs. average adverse move when it broke (7-day forward window, % of price).
- **Confidence interval** — 95% Wilson score interval around the hold rate.
- **Scope I** — individual ticker history. Q (peer-group) and U (universe) aggregates are blended for selection but the universe rate is what we surface here.
- **Volatility regime** — NATR(14) percentile bucket: L (low), M (medium), H (high).
- **Trend strength** — ADX(14). Wilder thresholds: <20 weak, 20–25 emerging, ≥25 strong, ≥50 powerful.
- **Position** — At Support / At Resistance: within 1.5% of nearest level. Pinned: within 1.5% of both. Mid-range: neither.

**AAPL** belongs to peer group **vM_aL** (Medium Volatility; Low Trend) with 82 S&P 500 stocks.