# Apple Inc. (AAPL)

## 1-Year Price Analysis

Generated: 2026-02-08

# Section 1 — Selection & Data Collection

Selection: Apple Inc. (AAPL) — large-cap U.S. equity chosen for its liquidity and representative exposure to consumer technology.

Rationale: chosen for liquidity, availability of a full year of daily data, and relevance to sector-level analysis (devices, services, and semiconductors).

Data collection: Yahoo Finance historical prices table was downloaded on the report run date and saved verbatim to `yahoo_history_raw.txt` to preserve the exact rows used.

Parsing pipeline: `parse_raw()` regex-extracts the table into numeric Open/High/Low/Close/Adj Close/Volume fields, sorts ascending by date, drops non-price marker rows (e.g., dividends/splits), and coerces volumes to integers. Rows parsed: 249. Date range: 2025-02-07 to 2026-02-06.

Reproducibility: rerun `analysis_aapl.py` or `generate_aapl_report.py` to regenerate the raw text and metrics using the same steps; volumes remain unadjusted share counts while prices use Yahoo's adjusted-close column for comparability.

# Section 2 — Major Events & Drivers

Corporate: Quarterly earnings (typically late Jan/Apr/Jul/Oct) and forward guidance, buyback/dividend updates, and major launch events (WWDC in June, iPhone/Watch refresh in September) often trigger sharp repricing of growth and margin expectations.

Industry: Semiconductor supply, foundry pricing (e.g., TSMC), and competitor launches in smartphones, PCs, and wearables shift share assumptions; channel checks or disruptions in Greater China/Europe can swing demand outlooks.

Economic: FOMC rate decisions, CPI/PCE inflation releases, and labor data reset discount rates and consumer spending expectations; USD strength/weakness and tariff or export-control actions move reported revenue and cost structures.

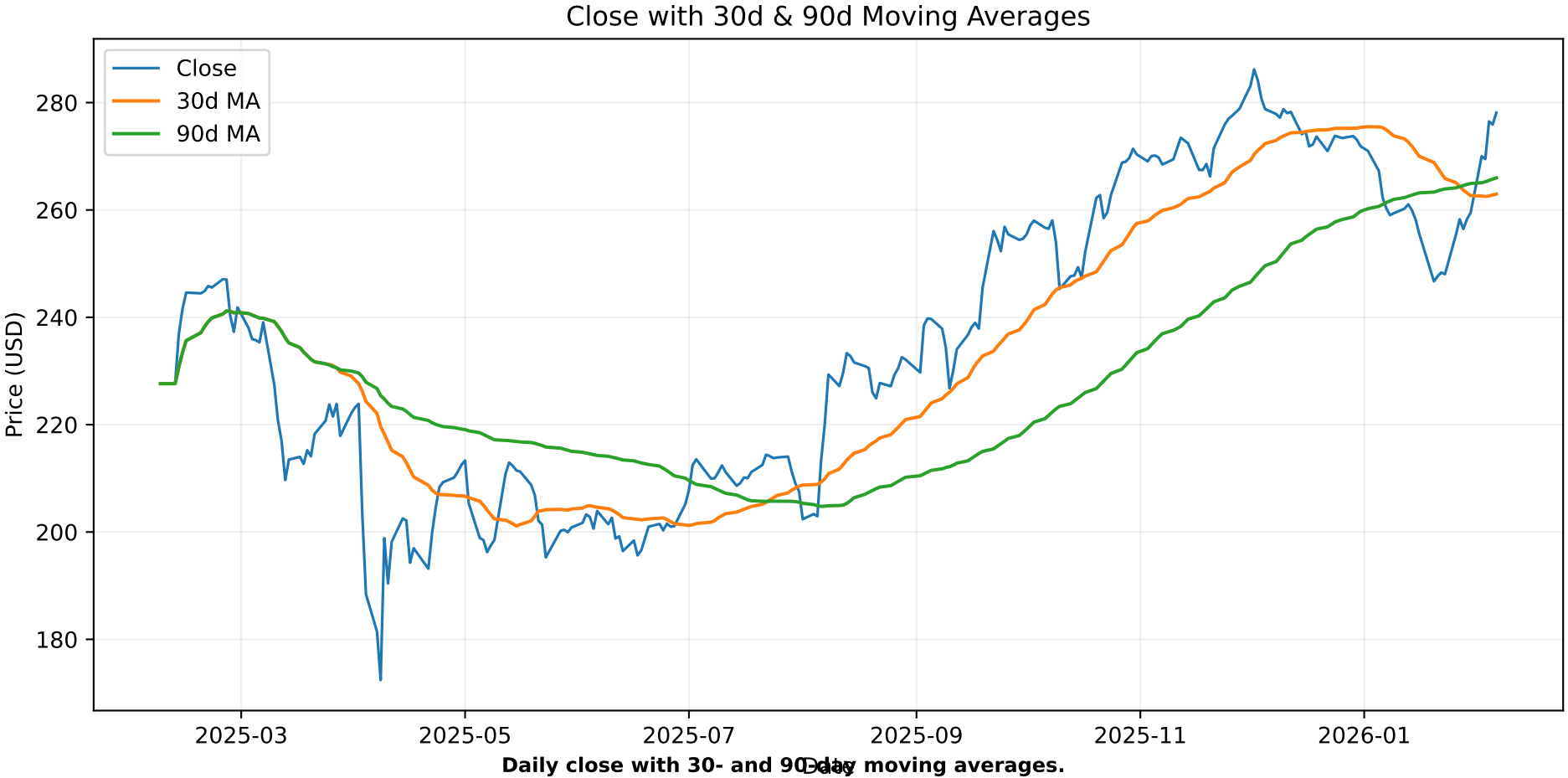
Sentiment & Events: Regulatory actions (App Store, antitrust), high-profile litigation, cybersecurity incidents, or macro shocks (banking stress, pandemics, geopolitical conflict) can cause volatility spikes or regime shifts.

How they impact price: Positive surprises to revenue growth, services margins, or cost control widen valuation multiples; negative guidance, supply constraints, or macro tightening compress multiples and drive gap-downs, usually alongside elevated volume.

# Section 3 — Data Analysis

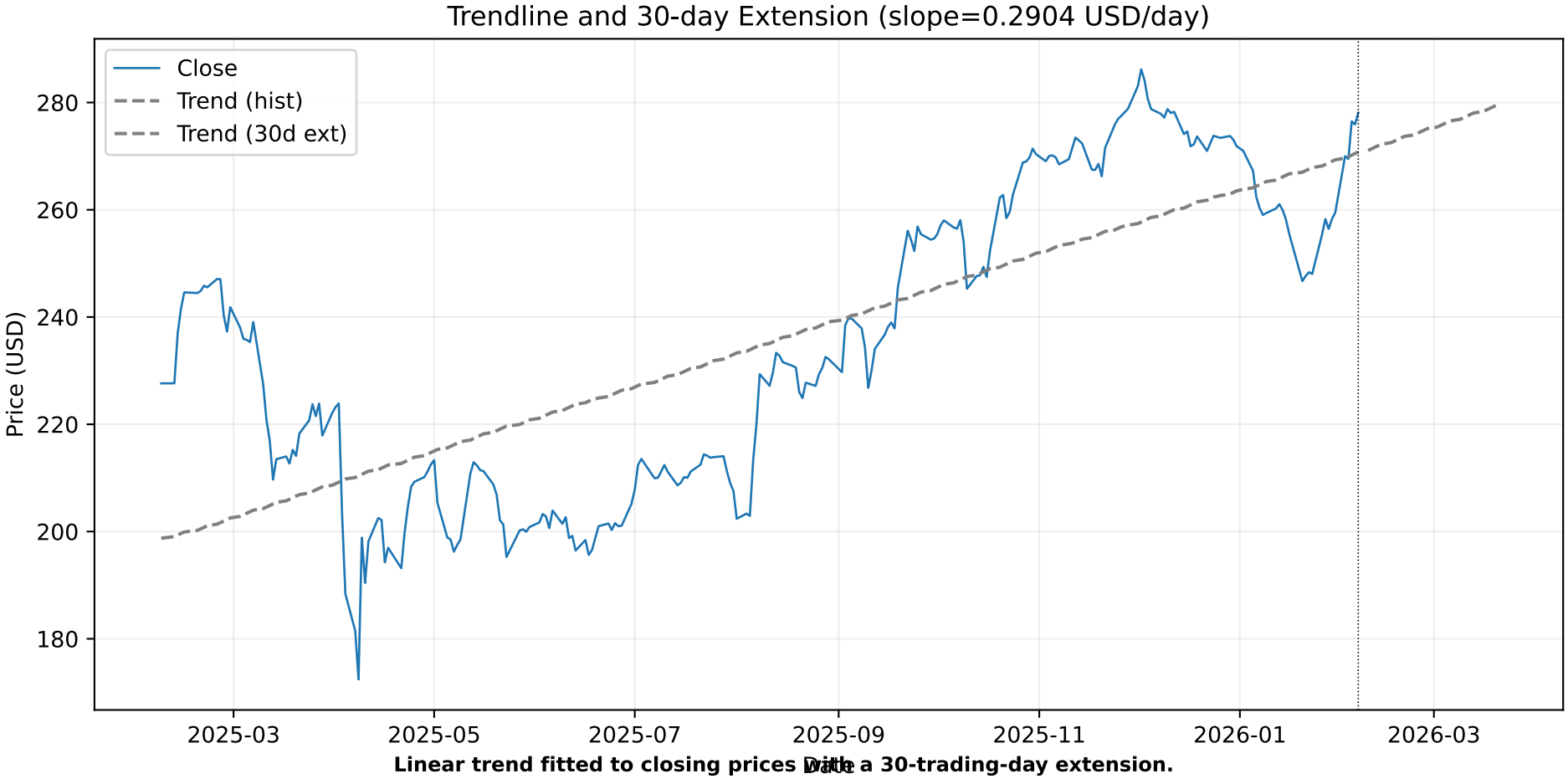
Last close: 278.12
Mean: 234.77  Median: 232.78  Std: 27.84
30d MA (latest): 262.96  90d MA (latest): 265.98
Trend slope: 0.2904 USD/day  30-day trend ext: 286.83
30-day projected 1σ range: 249.26 — 310.32
Projection method: daily log-return volatility scaled by √30, with the range computed as

Event drivers (summary): dividends and earnings, product cycles, macro (rates/inflation)
industry supply/competitive events. Limitations: uses historical realized volatility, linear
and does not capture intraday or options-implied signals or future structural breaks.



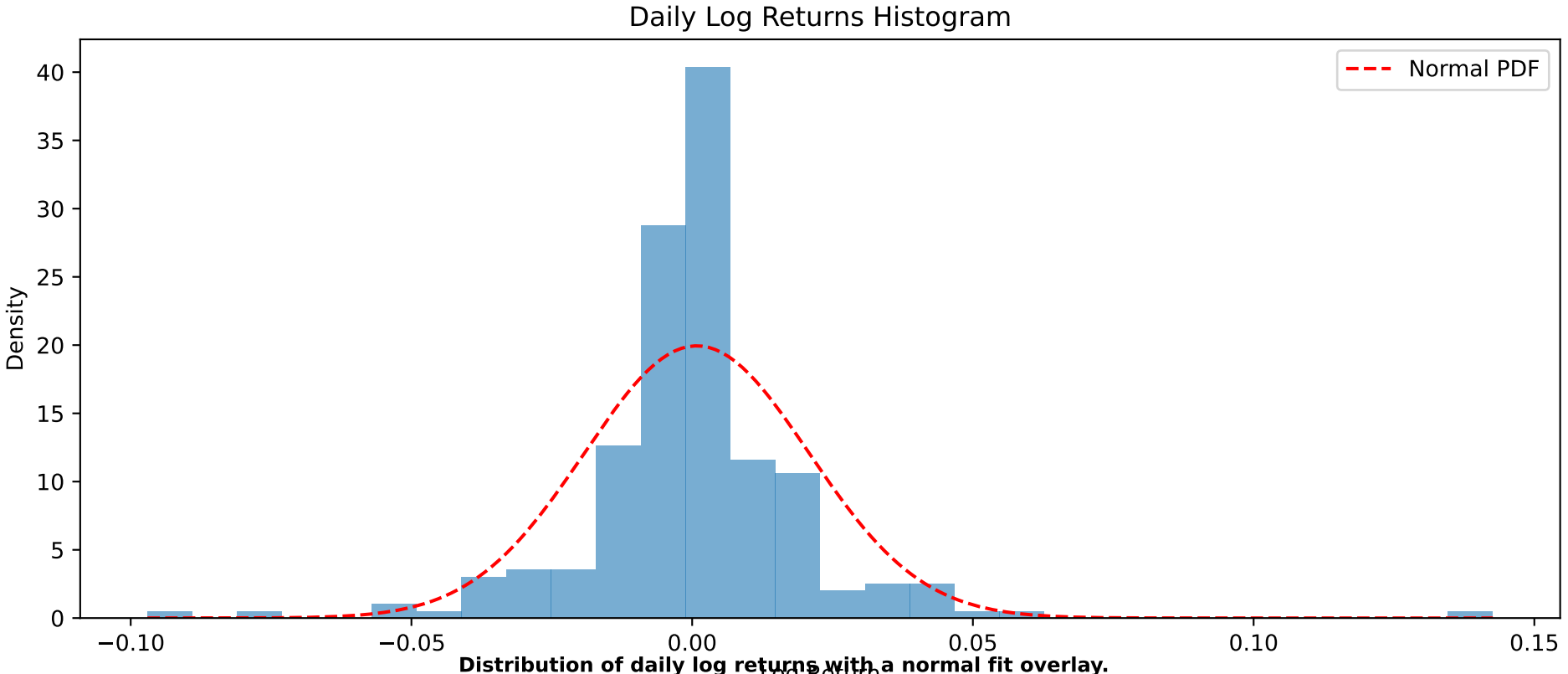

**Daily close with 30- and 90-day moving averages.**

This chart shows Apple's daily closing price over the past year, with 30-day and 90-day moving averages. The moving averages help visualize medium- and long-term price trends, smoothing out short-term fluctuations.



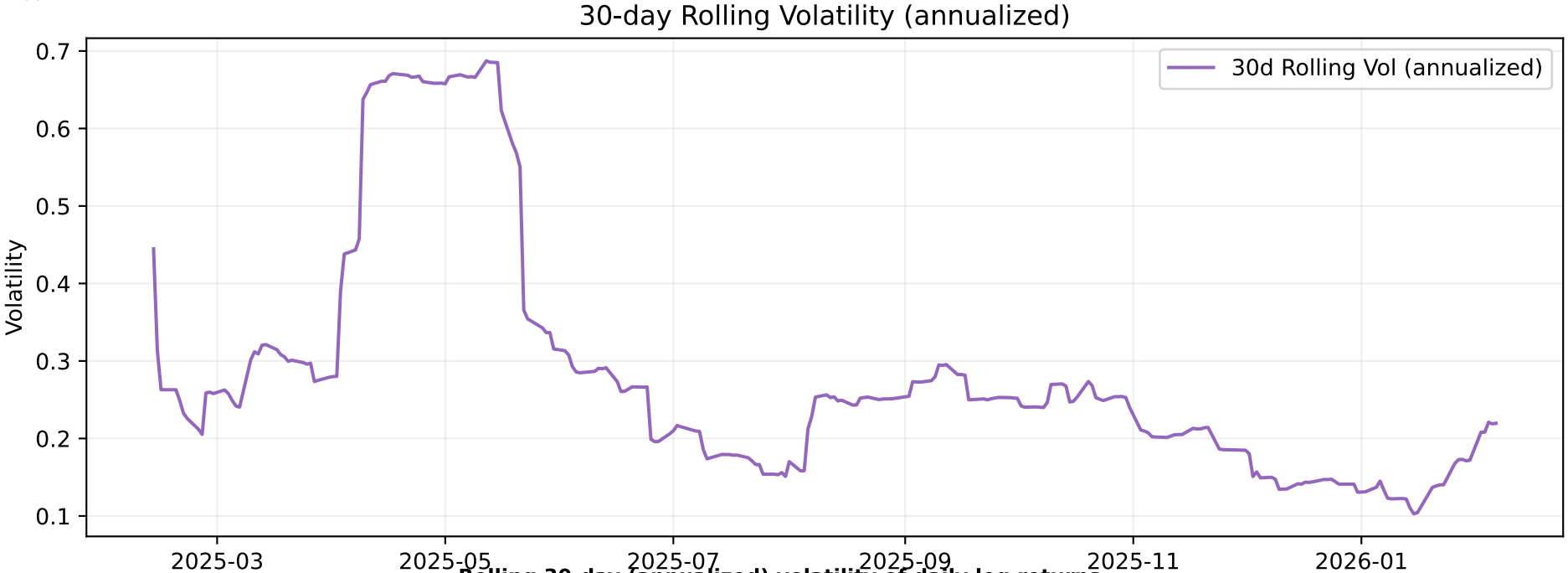

**Linear trend fitted to closing prices with a 30-trading-day extension.**

A linear trendline is fitted to Apple's historical closing prices and extended 30 trading days into the future. This illustrates the average price drift, but does not account for volatility or unexpected events.



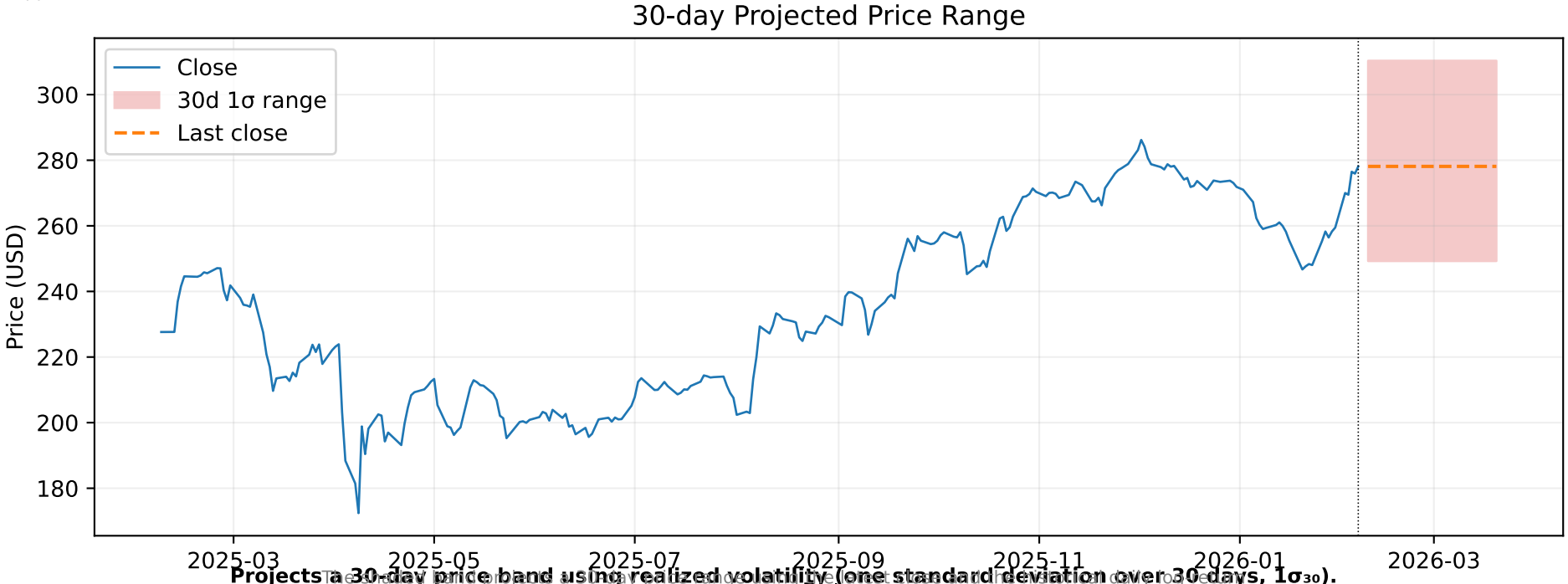

**Distribution of daily log returns with a normal fit overlay.**

This histogram shows the distribution of daily log-returns for Apple stock. The red dashed line is a normal distribution fit, allowing comparison of actual return behavior to theoretical expectations (skewness, fat tails).



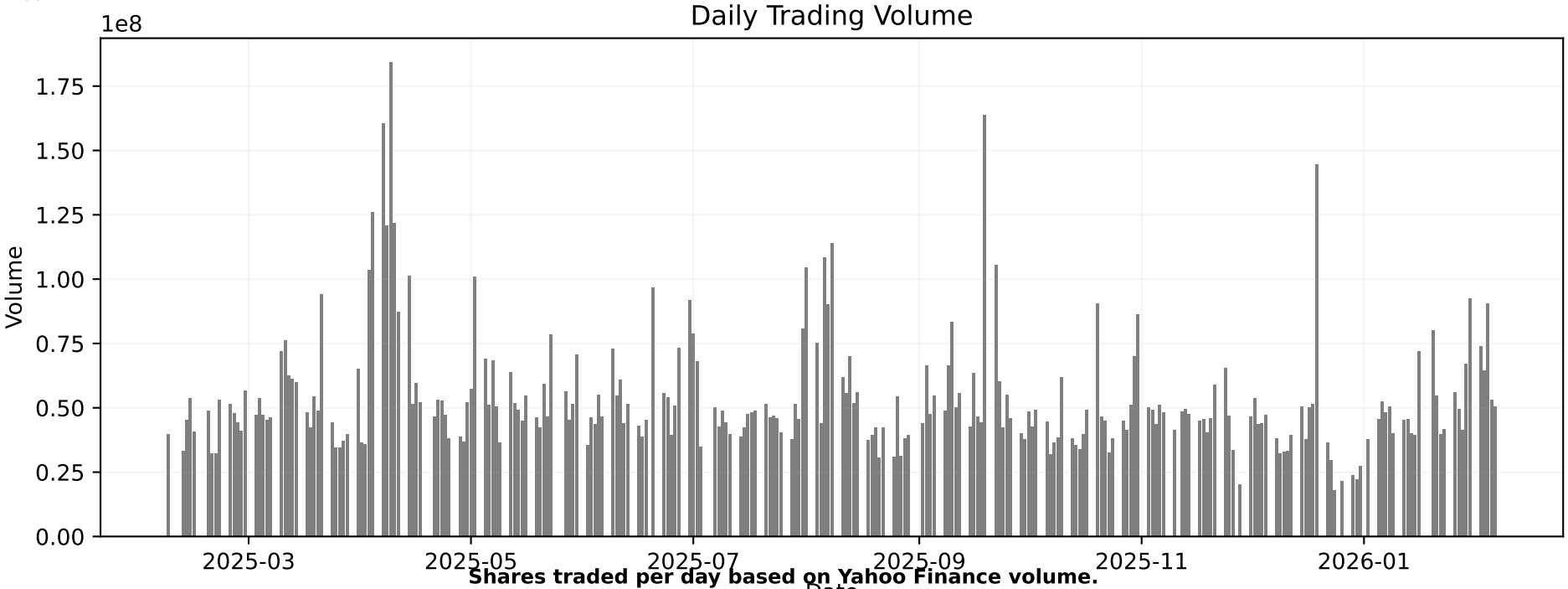

**Rolling 30-day (annualized) volatility of daily log returns.**

The 30-day rolling volatility (annualized) measures the time-varying risk of Apple stock. Higher volatility periods indicate greater uncertainty and larger price swings, often coinciding with major news or events.




**Projects a 30-day price band using realized volatility (one standard deviation over 30 days, $1\sigma_{30}$).**

The shaded band projects a 30-day price range using the latest close and the historical daily log-return volatility. The daily σ is scaled by √30 to form $\sigma_{30}$ (the 30-day volatility), and the range uses last_price × exp($\sigma_{30}$) for the upper bound and last_price × exp(-$\sigma_{30}$) for the lower bound, so it represents a probabilistic 1σ band rather than a point forecast.




**Shares traded per day based on Yahoo Finance volume.**

This chart displays Apple's daily trading volume. Spikes in volume often signal major price moves, news releases, or shifts in investor sentiment, and help assess liquidity.