What Did Your Factor Tilt Earn? Thirteen Years of Smart-Beta ETFs Against the S&P 500

Gaurav Gupta · Research note · 31 October 2026 · USMV, MTUM, QUAL, VTV, IJR vs SPY, monthly total returns net of fund fees, Aug 2013 – Sep 2026 (158 months)

1 of 5
Factor funds ahead of the S&P 500: momentum, 15.7% vs 14.1% a year (alpha t = 0.9)

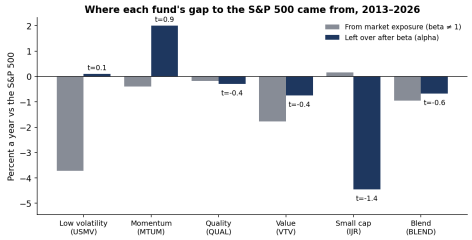
0.1%
Low volatility's alpha after its 0.70 beta; its protection was less market, not skill

−1.6 pts
Equal-weight blend of all five vs the index a year: $1 → $4.68 vs $5.66

−2.9 pts
Holding last year's best factor fund each month, Sep 2014 – Sep 2026

Fund	Return	Vol	Worst DD	Beta	Alpha (t)	3y windows ahead
S&P 500 (SPY)	14.1%	14.4%	−23.9%	1.00	—	—
Momentum (MTUM)	15.7%	16.7%	−30.2%	0.98	+2.0% (0.9)	59%
Quality (QUAL)	13.6%	14.5%	−27.8%	0.99	−0.3% (−0.4)	37%
Value (VTV)	11.5%	13.8%	−25.1%	0.87	−0.7% (−0.4)	17%
Low volatility (USMV)	10.4%	11.6%	−19.1%	0.70	+0.1% (0.1)	27%
Small cap (IJR)	9.8%	19.4%	−36.1%	1.12	−4.5% (−1.4)	23%
Equal-weight blend	12.4%	13.9%	−22.0%	0.93	−0.7% (−0.6)	28%

Longer window, Feb 2004 – Sep 2026: value 9.5% and small cap 9.6% a year vs SPY 10.8%. Drawdowns: low volatility fell less than SPY in all three S&P 500 drawdowns over 10% (2018, 2020, 2022).



Each fund's annual gap to the S&P 500, split into market exposure (grey) and alpha (blue).

SOURCES

- Fund prices and dividends (SPY, USMV, MTUM, QUAL, VTV, IJR) and 3-month Treasury bill yields: defeatbeta/yahoo-finance-data on Hugging Face (ODC-BY), sha256-pinned.
- Methods: Sharpe (1964); Jensen (1968); Newey–West (1987); Fama–French (1993); Jegadeesh–Titman (1993); Frazzini–Pedersen (2014); Asness et al. (2019).

METHOD

- Daily total return (price + dividend) compounded to months; partial months dropped; fees already in fund prices.
- Common window: the 158 months all six funds traded.
- Alpha: intercept of monthly fund excess return on S&P 500 excess return over T-bills, ×12; Newey–West errors, 6 lags.
- Rotation: hold next month the fund with the best trailing 12- or 36-month return; past data only (unit-tested).

KEY CALCULATIONS

- Blend gap: 12.4% − 14.1% = −1.6 pts a year ≈ $16M per $1bn (illustrative).
- Low vol: −3.6 pts gap = −3.7 pts from beta 0.70 + 0.1 pt alpha.
- Chase (12m): 11.0% vs 13.9% (SPY) and 12.3% (blend); 33 switches. Chase (36m): 13.5% vs 15.0%.

RECOMMENDATIONS

- Decompose every tilt into beta and alpha before approving; pay active fees only for reliable alpha.
- If the aim is lower drawdowns, compare low-vol funds with simply holding less equity.
- Set the review horizon in advance; three-year records ranged from −10.8 to +14.1 points.
- Ban rotation into recent winners.
- Commercial: a factor-tilt audit for allocators, priced at 1–2 bp of assessed assets (illustrative).

Independent research on public data, not investment advice; dollar figures are illustrative. Analysis, code, charts and text were produced with AI assistance and reviewed by the author. Code: github.com/guptagaurav-info/factor-etf-scorecard

Pipeline: sources (blue), code steps (lavender), checks (red).

