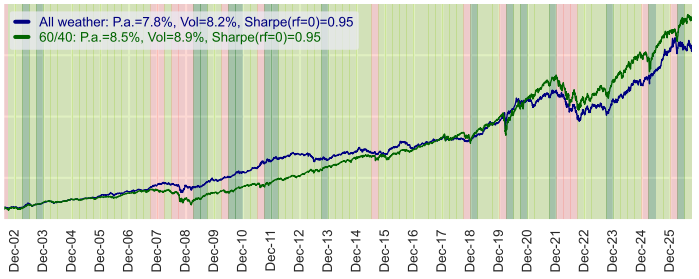
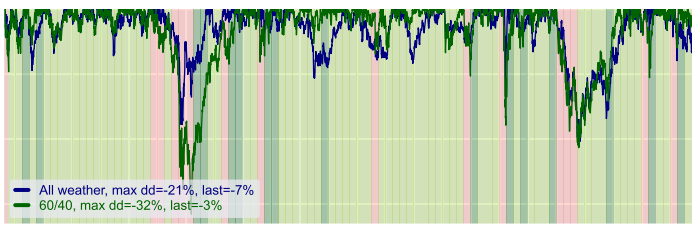
Cumulative performance (ME-freq stats) with bear/normal/bull regimes of SPY QE-returns



RA performance table for ME-freq returns with beta to SPY: 31Jul2002 - 30Sep2026

	Total return	P.a. return	An. vol	Sharpe (rf=0)	Max DD	Max DD /Vol	Skew	An Alpha	Beta	R2	p-Alpha
All weather	513%	7.8%	8.2%	0.95	-19%	-2.4	-0.56	4.4%	0.29	27%	0.00
60/40	614%	8.5%	8.9%	0.95	-29%	-3.2	-0.71	1.8%	0.58	91%	0.00
All weather-SPY	115%	3.2%	4.1%	0.79	-16%	-3.8	-0.50	0.1%	0.27	93%	0.66
All weather-TLT	32%	1.1%	3.7%	0.31	-14%	-3.8	0.11	1.6%	-0.03	1%	0.04
All weather-TIP	22%	0.8%	1.4%	0.57	-4%	-2.6	-0.84	0.5%	0.03	9%	0.09
All weather-GLD	80%	2.5%	4.1%	0.59	-12%	-2.9	-0.05	2.2%	0.02	1%	0.01
60/40-SPY	401%	6.9%	8.8%	0.78	-34%	-3.9	-0.66	0.0%	0.60	100%	0.34
60/40-IEF	40%	1.4%	2.7%	0.52	-10%	-3.6	0.22	1.6%	-0.02	1%	0.00

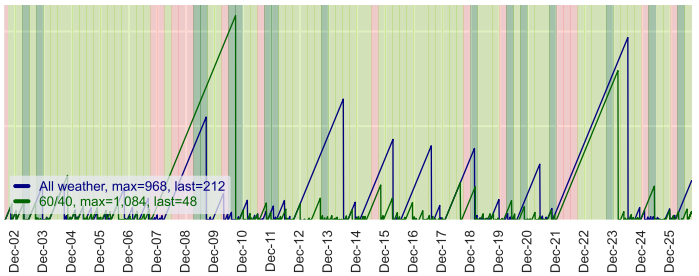
Running Drawdowns (B-freq)

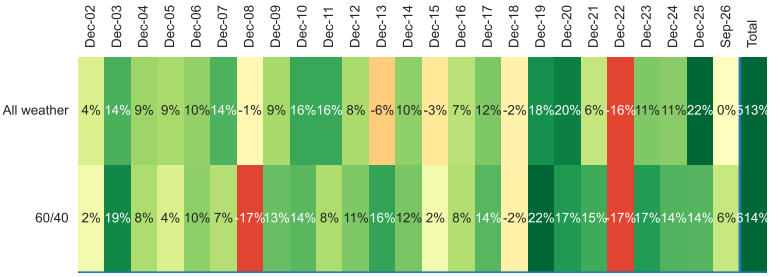


RA performance table for ME-freq returns with beta to SPY: 31Dec2020 - 30Sep2026

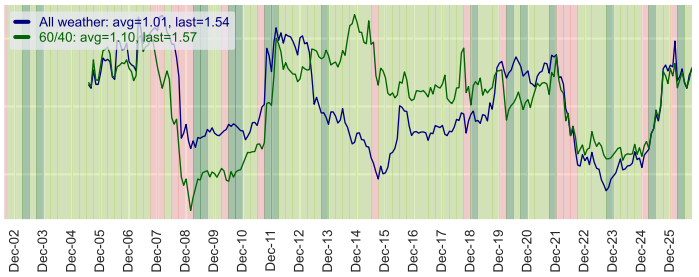
	Total return	P.a. return	An. vol	Sharpe (rf=0)	Max DD	Max DD /Vol	Skew	An Alpha	Beta	R2	p-Alpha
All weather	34%	5.2%	10.0%	0.52	-19%	-1.9	-0.45	-1.7%	0.49	54%	0.57
60/40	54%	7.8%	10.9%	0.72	-21%	-1.9	-0.50	-2.3%	0.70	95%	0.04
All weather-SPY	23%	3.7%	3.8%	0.97	-7%	-1.7	-0.41	-0.1%	0.25	100%	0.14
All weather-TLT	-11%	-2.0%	3.5%	-0.58	-13%	-3.6	0.21	-3.8%	0.12	29%	0.00
All weather-TIP	1%	0.1%	1.5%	0.07	-4%	-2.5	-0.90	-0.9%	0.07	44%	0.08
All weather-GLD	23%	3.7%	4.4%	0.83	-7%	-1.5	-0.13	3.0%	0.04	2%	0.12
60/40-SPY	63%	8.8%	9.1%	0.97	-15%	-1.7	-0.42	-0.1%	0.60	100%	0.07
60/40-IEF	-5%	-0.9%	2.9%	-0.31	-9%	-3.1	-0.03	-2.3%	0.10	26%	0.04

Rolling time under water (B-freq)

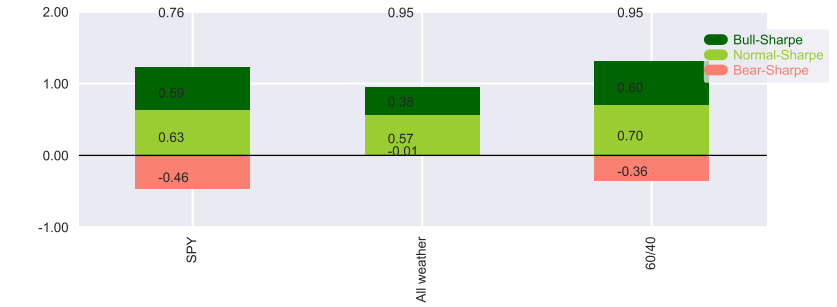




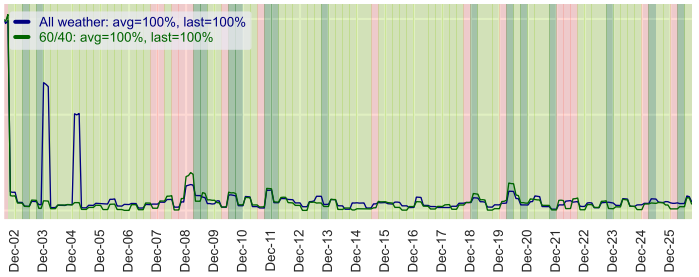
Rolling Sharpe with ME-freq and roll_period=36



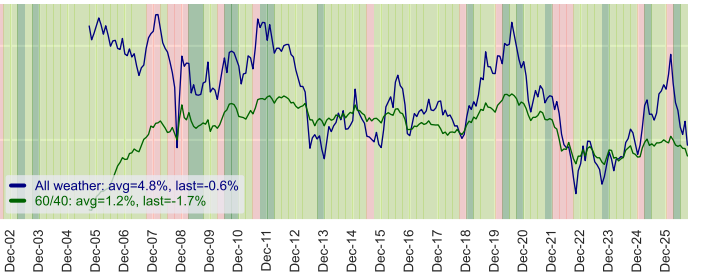
Sharpe in SPY Bear/Normal/Bull QE-freq regimes



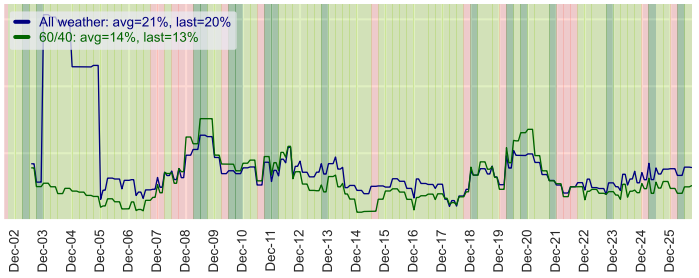
Portfolio net exposures (ME-freq)



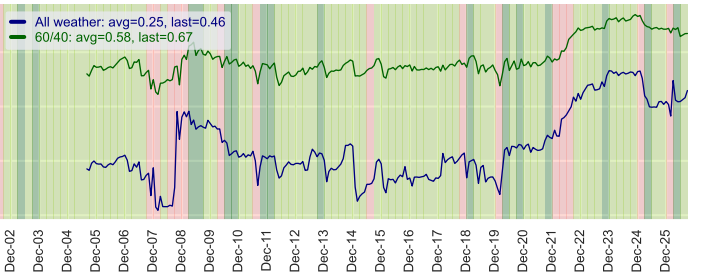
36-span rolling annualised Alpha of ME-freq returns to SPY, prior-period beta, first shown 30Sep2005



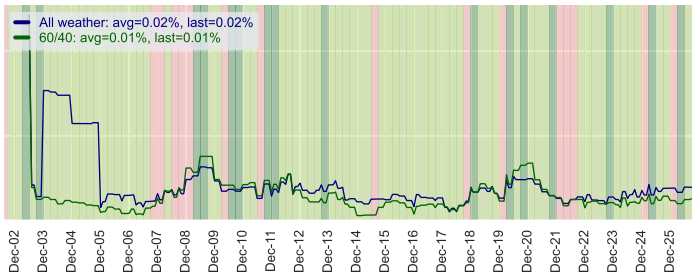
12-period rolling ME-freq Two-sided Turnover



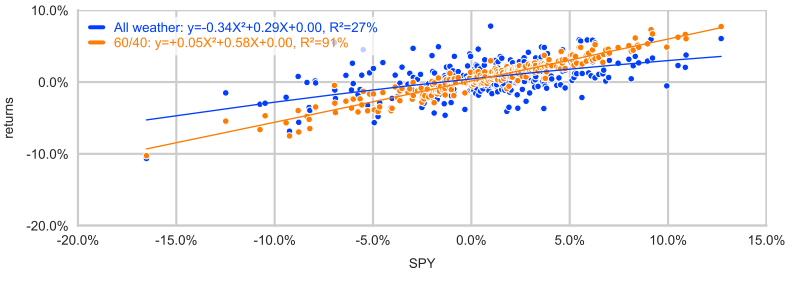
36-span rolling holdings-weighted Beta to SPY (ME-freq), 36-return warm-up, first shown 31Aug2005



12-period rolling ME-freq Costs %



Scatterplot of ME-freq returns vs SPY



All weather vs 60/40
Incremental performance

Paired Sharpe difference

Difference in arithmetic Sharpe | ME | af=12

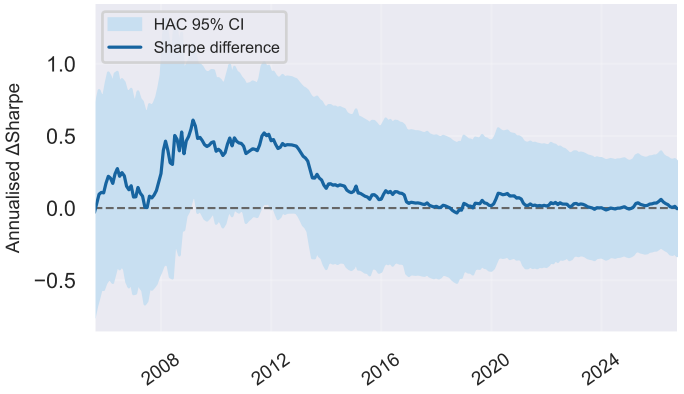
Sample	ΔSharpe	HAC 95% CI	p (2-sided)
Full history Aug2002–Sep2026 N=290; L=5	-0.00	[-0.33, 0.32]	0.977
Recent 5 years Oct2021–Sep2026 N=60; L=3	-0.08	[-0.56, 0.39]	0.732
Recent 3 years Oct2023–Sep2026 N=36; L=3	-0.01	[-0.97, 0.95]	0.981

Marginal holdings alpha

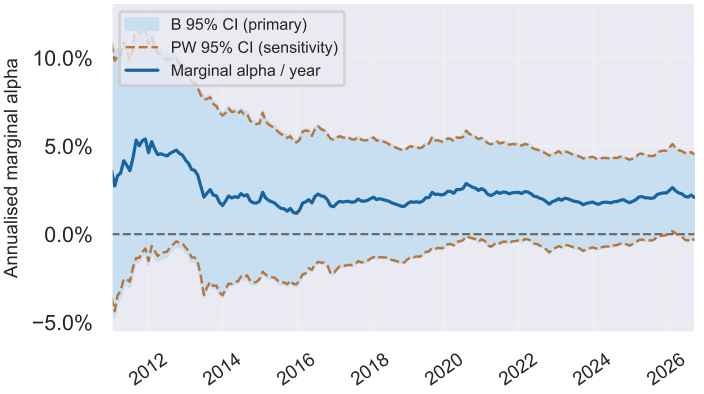
Holdings-weighted vs SPY (first benchmark)
ME | af=12 | beta span / warm-up: 36
Primary: B | same-sample sensitivity: PW

Sample	ΔAlpha[1]	HAC 95% CI	p (2-sided)
Full eligible history Jan2008–Sep2026 N=225; L=4	2.1%	B: [-0.3%, 4.5%] PW: [-0.4%, 4.5%]	B: 0.093 PW: 0.093
Recent 5 years Oct2021–Sep2026 N=60; L=3	1.5%	B: [-3.4%, 6.5%] PW: [-3.7%, 6.7%]	B: 0.546 PW: 0.565
Recent 3 years Oct2023–Sep2026 N=36; L=3	4.3%	B: [-2.3%, 10.9%] PW: [-2.7%, 11.3%]	B: 0.204 PW: 0.232

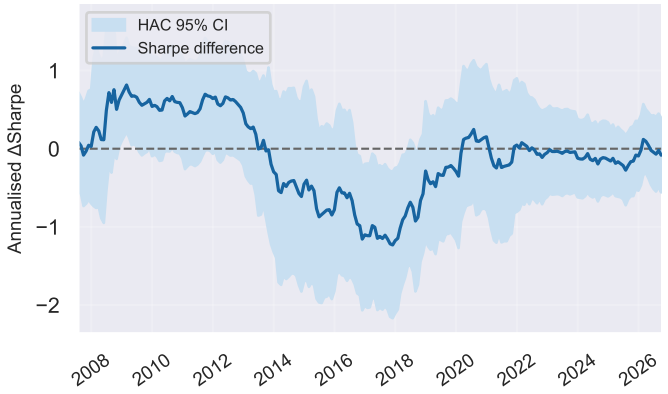
Expanding history



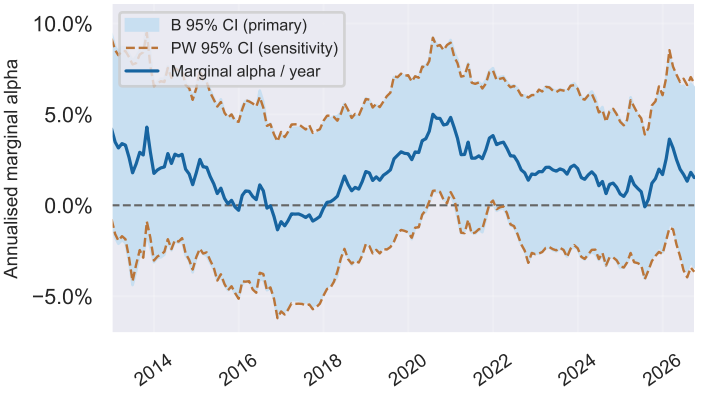
Expanding history



5-year rolling



5-year rolling



Strategy minus comparison portfolio: positive favours strategy. Simple total returns; zero cash assumed.
ΔAlpha = strategy return − comparison return − prior holdings beta difference × market excess return.
Paired HAC retains covariance. Betas: EWMA-demeaned instrument log returns; simple-return application is approximate.
Minimum N: Sharpe 24, alpha 24; each ≥24 and ≥2 years; HAC needs N ≥5(L+1). Automatic lags.
First jointly covered alpha return: 31Jan2008. No beta=1 prior, NAV regression, padded zeros or dropped interior gaps.
Expanding warm-up: normally 3 years. Rolling: 6 years at quarterly; otherwise 5 → 3 → 2 with warning. Existing NAV costs retained.
Pointwise asymptotic intervals, not simultaneous or selection-adjusted. Overlapping windows are dependent.
[1] Annualised mean residual difference; not pure manager skill or certainty about true beta. Coverage is not guaranteed.
Alpha only: B = Bartlett HAC; PW = AR(1)-prewhitened Bartlett. Same N/L; sensitivity p-values unadjusted; no method selection by p.

qis docs: Paired Sharpe test

qis docs: Holdings-weighted alpha

qis docs: HAC limitations