Executive Summary - Hedge P&L Attribution

Ten-term net P&L	Terms profitable	Premium collected	Payoffs paid	Final hedge cash	
(1.04)	**6 of 10**	**34.95**	**72.16**	**71.13**	
per100 notional	*annual terms*	*per100 notional*	*per100 notional*	*per100 notional*	

Executive Read-out

Bottom line: the program lost 1.04 per 100 notional over the ten completed annual terms. For a hedging program, a small loss can be acceptable if it reliably stabilizes guarantee economics; here the result was not smooth. 6 of ten terms were profitable, with the best term (2019) at 0.59 and the worst term (2018) at -1.17.

The main economic trade was clear: theta earned 22.56, while gamma cost 9.92. Net delta/hedge tracking added -13.11, and residual/higher-order effects were -0.20. The program therefore depends on option carry being large enough to pay for realized index movement and rebalancing slippage.

Year-by-Year Drivers

Term	Net P&L	Dominant Driver	Board-Level Explanation
2016	0.12	Theta	Profitable because theta carry (0.77) more than paid for gamma cost (-0.74); hedge tracking contributed 0.20.
2017	0.18	Theta	Profitable because theta carry (1.05) more than paid for gamma cost (-0.50); hedge tracking contributed 0.01.
2018	(1.17)	Theta	Loss because hedge tracking and sleeve/carry effects (-0.94) consumed most of the theta earned (2.88); gamma was -2.53 and rates were -0.36.
2019	0.59	Theta	Profitable, but narrow: theta carry (1.82) offset heavy hedge tracking drag (-1.29) and gamma cost (-0.26).
2020	(0.23)	Gamma	Loss driven by gamma: realized index movement cost -2.31, more than the theta earned (1.60).
2021	0.07	Gamma	Profitable mainly because the delta hedge and sleeve/cash carry contributed 0.26; theta was 1.11 and gamma cost -1.30.
2022	(0.30)	Gamma	Loss driven by gamma: realized index movement cost -0.50, more than the theta earned (0.33).
2023	(0.70)	Theta	Loss because hedge tracking and sleeve/carry effects (-4.18) consumed most of the theta earned (4.76); gamma was -0.69 and rates were -0.64.
2024	0.23	Theta	Profitable, but narrow: theta carry (4.50) offset heavy hedge tracking drag (-4.02) and gamma cost (-0.51).
2025	0.18	Theta	Profitable, but narrow: theta carry (3.75) offset heavy hedge tracking drag (-3.15) and gamma cost (-0.57).

Core Risk

The core risk is short gamma on a volatility-controlled index. The hedge is rebalanced after moves, so sharp or persistent index movement forces the program to buy exposure after rallies and sell after declines. That realized movement can overwhelm the theta earned from selling one-year options, especially when the index finishes materially in the money or when sleeve weights shift quickly.

Actions to Stabilize Future Performance

Action	Detail
Set a realized-volatility loss budget	Limit annual issuance or reduce participation when trailing realized volatility and index weight turnover rise above pricing assumptions.
Re-price participation for gamma cost	Make pricing explicitly compare expected theta to stressed daily gamma loss, not just point-in-time option premium.
Smooth hedge rebalancing governance	Use thresholds or staged rebalances for small delta changes while preserving hard limits for large moves and expiry risk.
Control funding and dividend basis	Track cash funding, dividend receipts, and T-bill changes as a named carry budget so rate moves do not hide inside hedge results.
Diversify term timing	Stagger issue dates and avoid concentrating new notional immediately after unusually calm periods when option carry looks artificially rich.