

PITCH PACK

Fixed Income Systematic Credit Derivative Investment Strategy

Summary:

I have developed a quantitative, systematic synthetic credit strategy that identifies and exploits inefficiencies and dislocations across the CDS Index and CDS Tranche universe (with single name CDS integration capabilities). I've built from scratch and tested the proprietary code that data extracts, quantitatively analyses and portfolio manages the strategy I propose to implement with full autonomy. The strategy has been backtested rigorously through worst possible cases and still delivers exceptional returns. This strategy captures and offers alpha in an underpenetrated corner of fixed income with quant and cash discipline, risk conscious framework and real-world execution pragmatism

Key Strategy Overview:

Investment products: CDS Indices, CDS Tranches (single name CDS for hedging/discretion)

Strategy: Scaling up a portfolio of beta adjusted buy/sell protection pairs, closing trades on pairs on exceptional returns

Goal: No/low cash usage and minimal margin requirements while maximising return-to-risk in a beta/correlation neutral framework that beats out right long risk in CDS Index and CDS Tranche products

Framework: Quantitative/Systematic backbone that adopts a z-score statistical engine and algorithmic signalling framework

Coverage: Developed markets; US (CDX), Europe (iTraxx) but not limited to it

Returns: Average log returns >100% (vs cash usage, with received cash capped at 100%)

Risks: Default losses accounted for. Equity tranche currently excluded. Other risks are treated and mitigated. Drawdowns are temporary in shocks and not realised losses

Strategy expansion: Possibility to L/S single name CDS or put on negative basis trades (carry and cash receiving)

Strategy Edge:

1. **Capital efficiency through long/short structures:** Upfront payments and risk on long/short legs offset each other, minimizing net cash usage. Short-risk positions absorb margin needs, significantly reducing drag on capital
2. **Alpha through systematic trade discovery:** A quantitative, signal-driven framework enables consistent trade identification, particularly for adding weight on positions that do not require immediate execution. Trades are beta-/duration-adjusted, and signals are calibrated to identify opportunities that generate positive returns net of costs, negative carry, defaults, and other structural frictions (as detailed later in this document)
3. **Portfolio hedging and thematic expression**
The strategy allows for dynamic hedging of portfolio-level risks, including tail risks and risk baskets. It also enables discretionary views across regions, sectors, asset classes, FX exposures, or single-name issuers
4. **Portfolio construction flexibility**
The framework supports portfolio construction based on key attributes such as carry, cash usage, CR01, and net exposure by product or issuer. Additional layers can be added to manage mark-to-market volatility and enhance return potential
5. **Predictable risk-reward profile**
CDS instruments offer fixed maturities and predictable cash flows. The strategy can be programmed to optimize net carry to maturity against default risk and expected loss, ensuring a positive return profile. Cash usage is known and controlled
6. **Scalable and underutilized opportunity**
Systematic macro CDS trading is underexploited, particularly at the scale and sustainability proposed in this strategy. Market dislocations persist, and major dealers (Citi, JPM, MS, BNP, DB, BofA etc) provide ample liquidity and depth. These factors are embedded into the model's design and execution logic. The credit derivatives market continues to grow, offering increasing opportunity

Drawbacks, while not detrimental to long-term profitability, the following factors should be considered:

1. **Higher returns from only long risk trades, but with trade-offs**
Selling protection outright (i.e., taking long credit risk) can generate 50–100% higher returns due to elevated carry. However, when traded spreads are below the running coupon, upfront costs rise significantly. CR01 exposure increases, leading to large mark-to-market swings (though not realized losses). Default risk is also higher, and collateral requirements can be substantial, adding operational complexity which my strategy mitigates
2. **Strategy Complexity and Data Requirements**
The strategy requires robust data infrastructure and reliable service providers but are readily available and periodic. The model is designed to generate profitable signals even when trades are held to maturity or when exit targets are missed — for example, through long-risk non-equity tranches paired with net carry, or trades where default costs are more than offset by carry

Core Strategy Methodology:

CDS Indices/CDS Index Tranches:

Trade Structures: Buy/Sell Protection beta adjusted pairs between: Index vs Index, Index vs Tranche and Tranche vs Tranche

Base Screening: Quantitatively analyse and screen dislocations between all tradeable products. Finding viable mean reversions after beta adjusting, incorporating multiple factors, overrides, considerations, momentums and so forth in my model but not limited to it

Signals and Factors:

- **Core Engine:** Utilizes z-score analysis to detect statistically significant dislocations between historically regressed (beta-adjusted) pairs within the index and tranche universe. Checking the CR01s and direction exceed the required thresholds (FX conversions, transaction costs, liquidity adjusted absolute returns, total returns)
- **Algorithmic Signalling:** Algorithmically score and rank viable pair trades on multiple input factors: target spread/returns, net carry and rolldown analysis over time periods, basis/net asset value, realised and expected notional default probabilities, subordination and direction analysis, CDS constituent breakdowns etc
- **Discretionary Views:** Incorporation through momentum driven inputs given to develop strength of the target spreads (single name CDS are assigned views that generate momentum scores, so absolute momentum spreads which in turn recomputes the new target spread return)

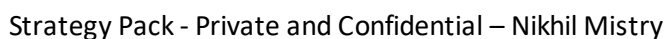
Adjustments:

- **Historic data adjustments:** Adjustments are made to exclude anomalous periods (e.g., COVID-19, European gas crisis) to avoid skewed signals. Ensures that historical relationships reflect normalised market behaviour
- **Live pricing and calculated deltas** are used to reassess transaction costs and bid-ask spreads in real time. Ensures that trades remain viable post-market moves
- **Incorporates maximum liquidity** between the pairs given the current market climate and banks abilities and offerings. Finding the combination that generates the greatest return
- **Beta** taken by historical regression where the generic latest series at the time is taken before the actual CDS product in question is created/live as the new tenor
- **Z score validation** by taking 2 periods of lookback. From the initial start date period and then an alternative look back from trade date (6 months). Any longer, we expect relationships have changed for the good thereafter
- All data is FX Adjusted

Detailed Risk Coverage and Considerations:

Risk Category	Nature of Risk	My Risk Treatment & Resolutions
Correlation Sensitivity	Changes in implied/systemic correlation	Given the correlation pricing smile in tranches, this strategy/analysis excludes equity tranches, where correlations are weak and idiosyncratic risk dominates Junior mezzanine to super senior have a positive trend between correlated underlying to tranche pricing. By nature of this strategy, with the core engine leveraging z-score analysis on beta adjusted pairs; trade opportunities are identified from these dislocations to pricing where correlation may not have adjusted pricing retrospectively in the pair
Spread Risk & Volatility	Spreads can reprice violently in stressed markets	The strategy utilizes historical data across multiple series, including prior vintages of the same product, to capture a range of market regimes and volatility episodes. Long/short pairs are constructed with similar durations and are beta adjusted, reducing exposure to outright credit spread moves and minimizing directional mark-to-market impact compared to a long-only position. Furthermore, the use of live reference index pricing and pre-calibrated tranche deltas enables real-time valuation of tranche exposures, supporting dynamic risk management and efficient execution
Dispersion/ Net Asset Value Adjustments	Tranche/Index pricing relative to the underlying CDS	The basis or net asset value (NAV) spread is incorporated into the directional positioning of each leg within the pair trade. This basis is then evaluated relative to the expected spread pickup, contributing to the overall strength and conviction of the trading signal
Default/Recovery Risk	Unexpected cluster defaults or lower recoveries	A custom recovery rate, default count and loss ranking can be assigned to each underlying ticker or index, which flows through into calculations of net basis(tranches), CDS hedge sizing, and expected notional default losses. This also informs the required net carry return necessary to offset projected defaults at the index and tranche level
Liquidity Risk	Bid-ask wider or notional reduced in tranches and off-the-run products	A liquidity analysis framework is implemented to assess the adjusted bid-ask spread and determine the maximum executable trade size per clip for each product. These calculations are based on current on-the-run liquidity metrics, including available notional and prevailing bid-ask levels across product sets such as CDX IG and iTraxx Main 5Y and so forth
Hedging Complexity	Imperfect hedging via index/potential basis risk	All pair trades are beta-adjusted to normalize risk exposure. The strategy generates a net single-name CDS exposure profile across the portfolio, enabling the identification and ranking of likely default candidates. These names can then be selectively hedged or used to enhance alpha generation. Trades are initiated only when the expected total return meaningfully exceeds the modelled probability of default, serving both as a precautionary filter and a reinforcement of signal strength
Systemic Risk Exposure	PnL volatility since beta breaks and pairs have differing durations	Equity tranches are excluded from the strategy due to their high idiosyncratic risk and limited correlation reliability. Instead, long-risk index positions are selectively included when the expected carry exceeds a predefined loss threshold. Given the transparent cash flow structure of CDS contracts, unrealized P&L tends to mean-revert over time. As a result, trades that deliver positive carry through to maturity are assigned stronger signals, serving as a built-in risk cushion and return anchor
Model Risk	Systematic processing to find and score pair trades	The strategy employs a rigorous and modular quantitative framework, designed to capture a wide range of potential outcomes for each pair trade. All models and assumptions are continuously refined, ensuring adaptability to evolving market conditions and the incorporation of new insights over time. Extensive back testing taking the worst-case scenarios; shows profit realisation upon reaching certain thresholds (closing trades) as well as growing a portfolio on the more 'optimum' trades to hold to maturity to deliver very strong cumulative returns
Margin Requirements	Initial Margin and Variable Margin needs	A margin requirement calculation is implemented in a more enforced or needed way, with net upfronts to find total cash deployment needs. Initial margin is calculated looking at the risk spread (traded spread) x CR01, with a discount factor for IG over HY. And the variable margin is the running PnL that's charged daily

Quantitative Process – Summary Flow:



Quantitative Process – Step by Step

1. Parameter Inputs (relevance explained in the next steps)

```
(start_date='2021-01-01',
 data_end_date = todays_date(),#todays_date()
 end_date= todays_date(),#todays_date()
 fx_conversion = 'EUR', # different products are in different
 pricing_source='markit', #input options ['markit','bloomberg']
 net_carry_requirement=-10, #input options ['positive', 'negative']
 target_return=10, #in cts to notional 1
 absolute_return=50000, #cash return outright based off of target
 pct_return_vs_cash_usage=10, #percentage return from target
 hold_to_maturity_pl_safe='Y', abs_carry_to_maturity=150000, #
 cash_benchmarked='Yes', # input options 'Yes', 'No' -> SET
 beta_historically_adjusted_attribute_changes='N',
 # input options are 'Y', else everything else is no. Adjust

# PRIORITY over BETA #
duration_weighted='No',
# input options , 'Yes', 'No'
duration_product_variance = 1.25,
# input options - in years
maturity_range=[-10, 20], #lower and upper range. inclusive

# Note, Superseded by duration_weighted
beta_calculation_method='historic',
#input options - 'historic' or 'cds_by_cds'
beta_sub_method='rolling_tenor_to_exact_to_exact',
#input options - 'rolling_tenor', 'exact_to_exact'
beta_data_filter = 'Y',
#input options - Y, N

pair_sub_direction_matters='Y',
#input options = 'Y', 'N', important for duration and fx adj
equity_tranche_included = 'N',
#input options = 'Y', 'N'

#run by cds by cds to see where the index/tranche should trade
forward_momentum='N',
# input options = 'Y', 'N'

cds_indices=['CDX IG', 'CDX HY', 'ITRAXX MAIN', 'ITRAXX XOVER',
#input options ['CDX IG', 'CDX HY', 'CDX EM', 'ITRAXX MAIN', 'ITRAXX XOVER']
cds_series_inclusion=-10, # backtest, dont add values. its

# NOT SET UP #
cds_index_tenor=['3Y', '5Y', '7Y', '10Y'],
#input options ['3Y', '5Y', '7Y', '10Y']
cds_index_product_type = ['Indices', 'Tranches'],
```

Start date/Data end date/End date: Time horizon to run the regression z score analysis from. And as of a particular date

FX Conversion: Conversion of data into one currency (thresholds spreads, CR01s, transaction costs, PnL)

Net carry requirement: Minimum tradable net carry requirement in bps once the pairs have been beta adjusted

Target return: Minimum target return in cts of a pair required

Absolute return: Minimum absolute target return required in FX converted currency

Hold to maturity safe: Total PnL for both legs in the pair return positive when held to maturity factoring expected default

Absolute carry to maturity: Minimum absolute return of the pair till maturity required post expected defaults

Cash benchmarked: The hurdle rate received/paid for cash used

Beta historically adjusted attribute changes: When assigning beta by single name CDS level, the current properties/ratings/attributes now will be different fundamentally than historically. Historical data is adjusted by a ratio based off the current ticker's attributes. (Ratings are key coupled with a rating lag adjustment. Where a company's rating change is priced in a few months before the announcement)

Duration weighted: Scaling the notional legs of the trade to make net CR01 risk equal to 0. Set to No, as beta adjustment is more important given the mutually exclusive relationship

Duration product variance: Difference in years to maturity of the pairs. Set to <1yr given beta prioritized over duration mismatch

Maturity range: Range of years to maturities required

Beta calculation method/Sub method/Data filter: Set to Historic (vs CDS level). 'Sub method' set to rolling tenor to exact, which takes the same tenor of the generic product historically until the actual product becomes live for historic regression/beta. Beta 'Data Filter' excludes certain dates for certain regions (ie EU gas crisis/Ukraine war)

Pair sub direction matters: Given mismatches in maturities, the CR01s don't cancel out after beta adjustment. Trades are selected where the direction of the long shorts are in the right direction and profitable

Forward momentum: Assign and incorporate the scores to countries, sectors and tickers of CDS that make up the index and tranches for discretionary views and momentum spreads. Those that work in line with the direction signal provide a stronger signal and target return

2. Data Collection, Cleaning and Adjustments:

Steps removed to keep confidential:

3. Generate Index/Tranche Properties:

Steps removed to keep confidential:

Example Results: Simplified Tab (the essentials):

Quoted in basis points to any notional put one. Returns are shown as outright percentages (10 = 10%)

pricedate	index short name	index series	tenor	index maturity	index maturity years	attachme nt	detachme nt	index ref spread mid	bid	liquid notional	spread ranges	upfront bps	margin bps	moment um spread	basis	RC bps	RC % Rtn	RC SIGNAL	carry cash usage to maturity bps	net carry to maturity bps	net carry to maturity % Rtn	net carry to maturity default bps	net carry to maturity default % Rtn	basis hedges
2025-12-10	CDX IG	45	5Y	2030-12-20	5	0.03	0.07	51.4	198	15,000,000	[185 - 433] 17 %ile	-502	1060	0	106	412	74	6.4	113	887	152	887	152	[(12.5-CAES
2025-12-10	CDX IG	43	5Y	2029-12-20	4	0.03	0.07	41.2	138	10,000,000	[115 - 343] 21 %ile	-175	599	0	64	269	64	5.5	69	490	110	490	110	[(12.5-CLINC
2025-12-10	CDX IG	44	5Y	2030-12-20	5	0.07	0.15	51.4	70	25,000,000	[57 - 141] 41 %ile	134	145	0	-5	143	51	5.5	56	297	101	297	101	[(5.9-CRDN
2025-12-10	CDX IG	44	5Y	2030-12-20	5	0.03	0.06	52.9	168	10,000,000	[173 - 435] 1 %ile	-369	816	0	82	297	66	5	90	758	162	758	162	[(16.7-CX3
2025-12-10	CDX IG	44	5Y	2030-12-20	5	0	1	97.9	96	50,000,000	[91 - 236] 5 %ile	10	247	0	3	166	65	4.9	52	433	161	31	12	
2025-12-10	CDX IG	45	5Y	2030-12-20	5	0.15	0.25	324.4	402	5,000,000	[331 - 947] 27 %ile	434	1861	0	0	801	35	4.9	463	1567	65	1567	65	
2025-12-10	CDX IG	44	5Y	2030-12-20	5	0	0.1	256.5	1933	5,000,000	[1878 - 3894] 4 %ile	-7136	12771	0	1377	3279	58	47	1138	8621	146	53	1	[(8.3-CY87E
2025-12-10	CDX IG	41	5Y	2028-12-20	3	0.03	0.07	29.7	77	5,000,000	[65 - 244] 13 %ile	49	224	0	23	144	53	4.6	33	202	71	202	71	[(11.7-CY19
2025-12-10	CDX IG	42	5Y	2029-12-20	4	0.03	0.06	42	124	5,000,000	[129 - 361] 1 %ile	-123	476	0	54	215	61	4.6	57	445	121	445	121	[(7.7-CY19
2025-12-10	CDX IG	44	5Y	2030-12-20	5	0.06	0.12	52.9	92	20,000,000	[92 - 222] 3 %ile	24	264	0	19	160	55	4.6	58	406	135	406	135	[(5.9-CY85
2025-12-10	CDX IG	43	5Y	2029-12-20	4	0.07	0.15	41.2	50	15,000,000	[34 - 101] 49 %ile	188	85	0	-9	95	35	4.4	44	158	55	158	55	[(16.7-CWF
2025-12-10	CDX IG	43	5Y	2029-12-20	4	0.15	0.25	286.9	247	5,000,000	[224 - 785] 4 %ile	969	928	0	62	465	25	4.2	307	693	35	693	35	[(11.7-CY19
2025-12-10	CDX IG	40	5Y	2028-12-20	3	0.03	0.06	30	75	5,000,000	[79 - 283] 4 %ile	56	225	0	26	126	45	3.9	34	195	66	195	66	[(11.7-CY19
2025-12-10	CDX IG	44	5Y	2030-12-20	5	0	1	52.9	52	300,000,000	[48 - 114] 10 %ile	233	67	0	-1	88	30	3.9	34	195	66	195	66	[(11.7-CY19
2025-12-10	CDX IG	42	5Y	2029-12-20	4	0.06	0.12	42	64	10,000,000	[65 - 176] 1 %ile	132	143	0	7	107	39	3.9	45	214	74	214	74	[(11.7-CY19

Example Results: Full Data Tab:

1	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	pricedate	index short name	ig	hy	end	series	vers	index maturity	tenor	attachme nt	detachme nt	index ref spread mid	bid	ask	liquid notional	spread ranges	+C-Same	me Series	Same Ser	Uprfront	balised	net	basis	hedg	momentum	net	spread	
2	2025-06-1	CDX IG	HY	38	3	2027-12-20	5Y	0	1	181.7	181.7	index	EMEA	2.5	181	182	5000000	[135 - 534] 17 %ile	166	0.91	20	850	0.025[2]	-147	0	0		
3	2025-06-1	CDX IG	HY	38	3	2027-12-20	5Y	0	1	157.5	157.5	index	EMEA	0.5	156	158	5000000	[44 - 564] 33 %ile	-6	0.94	-2	254	0.025[2]	-171	0	0		
4	2025-06-1	CDX IG	HY	38	3	2027-12-20	10Y	0	1	252.3	252.3	index	EMEA	7.5	251	252	5000000	[252 - 563] 0 %ile	274	1.09	16	1758	0.025[2]	-76	0	0		
5	2025-06-1	CDX IG	HY	38	3	2027-12-20	5Y	0.1	0.2	181.7	162.2	tranche	EMEA	2.5	150	173	5000000	[152 - 1227] 3 %ile	224	1.38	25	902	0.025[2]	-42	[(8.3-CY3	0	0	
6	2025-06-1	CDX IG	HY	38	3	2027-12-20	5Y	0.2	0.35	181.7	45.9	tranche	EMEA	2.5	34	57	5000000	[36 - 355] 13 %ile	25	0.55	2	1213	0.025[2]	-80	[(5.6-CY7	0	0	
7	2025-06-1	CDX IG	HY	38	3	2027-12-20	5Y	0	0.1	181.7	214.8	tranche	EMEA	2.5	2133	2163	5000000	[1617 - 5375] 23 %ile	3622	1.69	100	-4403	0.025[2]	442	[(9.1-CY1	0	0	
8	2025-06-1	CDX IG	HY	38	3	2027-12-20	5Y	0.35	1	181.7	21.8	tranche	EMEA	2.5	14	29	5000000	[13 - 87] 34 %ile	-16	-0.74	-1	1277	0.025[2]	-15	[(3.1-CSY	0	0	
9	2025-06-1	CDX IG	HY	35	3	2026-06-20	5Y	0	1	163.8	163.8	index	EMEA	1	163	164	5000000	[68 - 510] 20 %ile	152	0.93	37	414	0.025[2]	-17	0	0		
10	2025-06-1	CDX IG	HY	35	3	2026-06-20	7Y	0	1	177.1	177.1	index	EMEA	3	176	177	5000000	[146 - 617] 7 %ile	150	0.85	15	1014	0.025[2]	-30	0	0		
11	2025-06-1	CDX IG	HY	35	3	2026-06-20	10Y	0	1	241.3	241.3	index	EMEA	6	240	241	5000000	[112 - 677] 4 %ile	373	1.5	37	1508	0.025[2]	-64	0	0		
12	2025-06-1	CDX EM	EM	36	3	2026-12-20	5Y	0	1	66	66	index	EM	1.5	65	66	5000000	[44 - 406] 13 %ile	87	1.31	152	57	0.109[3]	-15	0	0		
13	2025-06-1	CDX HY	HY	34	13	2025-06-20	5Y	0	1	863.4	863.4	index	AMERICA	0	861	865	5000000	[0 - 1826] 98 %ile	-70	1	-78	-90		863	0	0		
14	2025-06-1	CDX HY	HY	37	3	2027-06-20	5Y	0	1	168.2	168.2	index	AMERICA	2	167	168	5000000	[104 - 554] 20 %ile	224	1.33	31	729	0.025[2]	-2	0	0		
15	2025-06-1	CDX HY	HY	39	3	2028-06-20	5Y	0	1	197.1	197.1	index	EMEA	3	196	197	5000000	[146 - 617] 21 %ile	189	0.96	20	951	0.025[2]	-143	0	0		
16	2025-06-1	CDX HY	HY	39	3	2033-06-20	10Y	0	1	273.7	273.7	index	EMEA	8	273	274	5000000	[254 - 566] 8 %ile	313	1.14	18	1699	0.025[2]	-66	0	0		
17	2025-06-1	CDX HY	HY	39	3	2026-06-20	3Y	0	1	167.2	167.2	index	EMEA	1	166	167	5000000	[68 - 510] 23 %ile	156	0.93	38	410	0.025[2]	-172	0	0		
18	2025-06-1	CDX HY	HY	39	4	2027-12-20	5Y	0	1	248.5	248.5	index	AMERICA	2.5	247	250	5000000	[172 - 519] 41 %ile	373	1.5	37	1508	0.028[3]	-42	0	0		
19	2025-06-1	CDX HY	HY	39	4	2027-12-20	5Y	0.15	0.25	248.5	170.2	tranche	AMERICA	2.5	164	176	5000000	[81 - 1706] 29 %ile	279	1.64	33	857	0.028[3]	-42	[(5.9-CY3	0	0	
20	2025-06-1	CDX HY	HY	39	4	2027-12-20	5Y	0.25	0.35	248.5	64.3	tranche	AMERICA	2.5	59	68	5000000	[29 - 437] 29 %ile	87	1.35	8	1132	0.028[3]	-40	[(5.9-CY1	0	0	
21	2025-06-1	CDX HY	HY	39	4	2027-12-20	5Y	0.35	1	248.5	30.9	tranche	AMERICA	2.5	27	33	5000000	[14 - 80] 44 %ile	27	0.88	2	1219	0.028[3]	-21	[(2.4-CY1	0	0	
22	2025-06-1	CDX HY	HY	39	4	2027-12-20	5Y	0	0.15	248.5	1974.9	tranche	AMERICA	2.5	1959	1999	5000000	[1379 - 7498] 26 %ile	2585	1.31	100	-3832	0.028[3]	1025	[(4.8-CY1	0	0	
23	2025-06-1	CDX HY	HY	39	4	2025-12-20	3Y	0	0.15	145.3	1376.7	tranche	AMERICA	0.5	1356	1396	5000000	[519 - 7980] 34 %ile	-55	-102	-8	-644	0.028[3]	427	[(4.8-CY1	0	0	
24	2025-06-1	CDX HY	HY	39	4	2025-12-20	3Y	0.15	0.25	145.3	-17.5	tranche	AMERICA	0.5	-25	-9	5000000	[2 - 279] 0 %ile	1	1.87	0	380	0.028[3]	-230	[(5.9-CY3	0	0	
25	2025-06-1	CDX HY	HY	39	4	2025-12-20	3Y	0.25	0.35	145.3	-24.8	tranche	AMERICA	0.5	-30	-18	5000000	[1 - 82] 0 %ile	2	1.63	0	385	0.028[3]	-129	[(5.9-CY3	0	0	
26	2025-06-1	CDX HY	HY	39	4	2025-12-20	3Y	0.35	1	145.3	-28.1	tranche	AMERICA	0.5	-32	-24	5000000	[1 - 35] 0 %ile	2	1.55	0	388	0.028[3]	-80	[(2.4-CY1	0	0	

4. Index/Tranche Pair Trade Analysis:

- Using -> Index/Tranche Properties generated from the above process

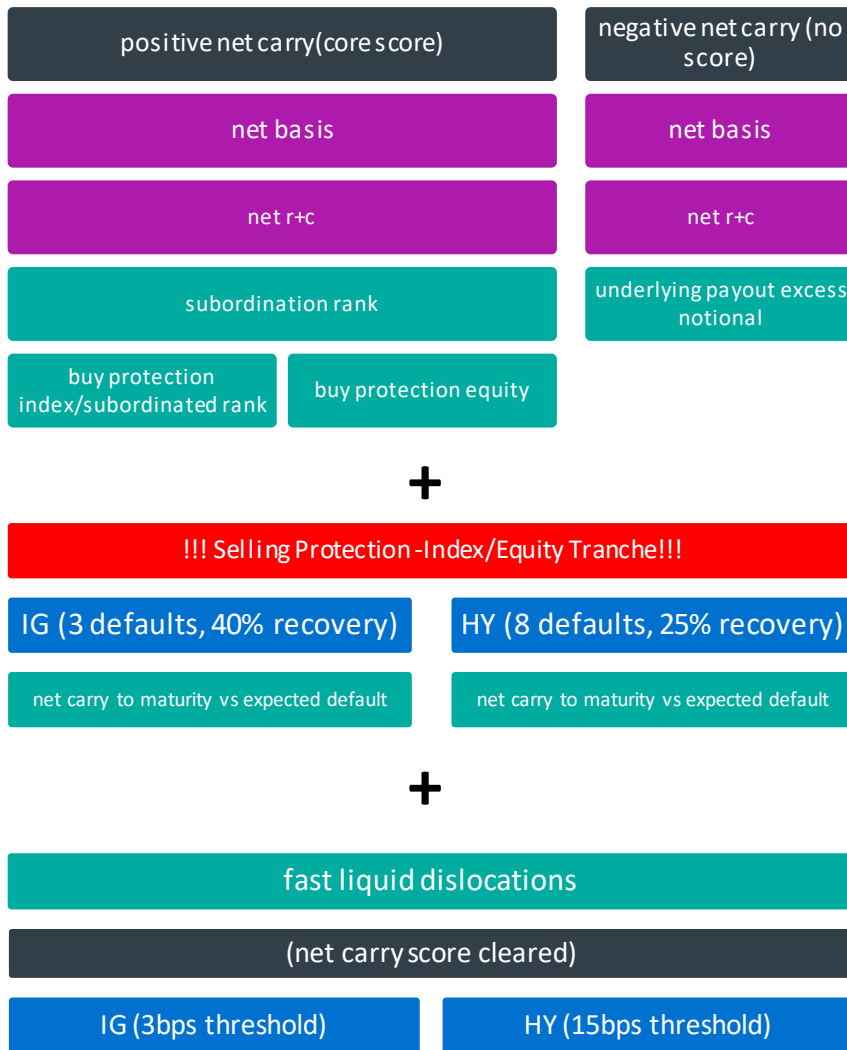
Steps removed to keep confidential:

Example Results:

Index	Series	12m	10m	5Y	3Y	1Y	Index	Series	12m	10m	5Y	3Y	1Y	Index	Series	12m	10m	5Y	3Y	1Y	Index	Series	12m	10m	5Y	3Y	1Y	Index	Series	12m	10m	5Y	3Y	1Y					
1	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
2	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
3	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
4	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
5	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
6	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
7	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
8	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
9	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
10	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
11	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
12	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
13	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
14	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
15	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
16	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
17	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
18	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
19	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
20	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
21	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
22	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
23	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
24	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
25	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
26	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
27	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
28	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
29	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
30	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
31	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
32	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
33	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
34	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote
35	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0	10Y	9.0/2034	Buy	Prote	196	CDX IG	39	0.0-1.0</				

5. Results evaluation and trade selection:

The Results Evaluator Pillars - Scoring Methodology



Results signaling: Algorithmically evaluate and generate the signal scores on the strength of all the pair trades that has been picked up. Markov Chain methodology is used:

- Net Carry = Base Score x (net carry/ABS(net carry))
- +/- Net Basis = Base Score x (net basis/(ABS(net basis)+10/(ABS(net basis))))
- +/- Net R+C = Net Score x (net r+c/net carry)
- +/- Default Payout from Excess Notional = Net Score * (Target Return x min(duration)/Target Return)
- +/- Fast Liquid Dislocations = Carry signal reset, min threshold for IG is 3bps and HY is 15bps for index-to-index pair trades. Require immediate pair trade closure when target returns are met
- Long Risk Index or Equity Tranche (default risk): carry signal reset
 - Expected defaults based on index weights, cds recoveries, expected number of defaults
 - Expected Net Return = Net carry to maturity – Expected default loss
 - +/- (Target Return + Expected Net Return)/Target Return x Base Score

Example Signal Results:

➔ Signals over 50 from back testing provide the best results. The note section explains where the signal comes from

Index-1	Att - Det 1	Trade 1	Quote 1	Index-1	Att - Det 2	Trade 2	Quote 2	Beta Ratio	Type	%ile	T Cost	Target Return	Net Carry	Net 12m R+C	Net 12m % Rtn	Net Basis	Notional 1	Notional 2	Net Upfront	Signal	Note
CDX HY 43 5Y	0.0-1.0	Sell	291	CDX HY 43 5Y	0.35-1.0	Buy	44	0.34	compres	91	14.9	46.1	127.9	382	100	60	11,800,000	35,000,000	-3854	52.7	<net carry><net basis><net r+c>
ITRAXX XOVER 43 3Y	0.0-1.0	Buy	165	CDX HY 42 5Y	0.0-1.0	Sell	262	1.04	compres	5	8.1	27	55.2	113	100	101	26,000,000	25,000,000	-211	37.8	<net carry><net basis><net r+c>
CDX HY 42 5Y	0.0-1.0	Sell	259	CDX HY 43 5Y	0.35-1.0	Buy	44	0.31	compres	91	15.69	57.7	91.5	322	100	58	11,000,000	35,000,000	-4157	24.2	<net carry><net basis><net r+c>
ITRAXX XOVER 42 3Y	0.0-1.0	Buy	176	CDX HY 41 5Y	0.0-1.0	Sell	240	1.08	compres	8	7.98	32.2	18.8	53	100	222	16,200,000	15,000,000	-79	17.2	<net carry><net basis><net r+c>

6. Portfolio and Risk Management:

1. Portfolio recorded in Excel (Trade notional, counterparties, traded spreads...)
2. Risk and PnL is generated ad hoc (Module of script created) over the excel. Risk and PnL can be seen in different ways such as portfolio, constituent tickers, or even on an individual trade level
3. Monitor and exit trades with 'exceptional' PnL (exceeds the total net carry to maturity PnL):
 - 'CLOSE ME!' flag: Current return \geq Total net carry to maturity return
 - 'Y' flag: Current return < Total net carry to maturity return

W	X	Y	Z	AA	AB	AC	AD	AE
cash usage	max_pnl	min_pnl	current_pnl	target_reached	matured	target_return_pnl	pnl_to_maturity	pnl_to_maturity_post_defaults
763,180	311,196 [23d]	-99,061 [2d] [-1045.0%]	128,851 [52.0%] [profitable:81.0%]	Y (1,358,396)		120,000	1,487,247	1,779,841
648,432	316,894 [110d] 10,723 [7d] [34.0%]		299,427 [143.0%] [profitable:100.0%]	Y (1,337,263)		141,400	1,636,691	1,816,298
- 4,100,854	52,422 [89d] [-30,777 [7d] [-43.0%]		30,038 [100.0%] [profitable:86.0%]			102,828	763,571	64,241
- 3,785,484	-6,478 [41d] [-68,698 [1d] [-704.0%]		-27,802 [-4.0%] [profitable:0.0%]			64,055	710,770	14,228
1,008,935	100,825 [29d] -98,724 [3d] [-704.0%]		74,828 [39.0%] [profitable:35.0%]			124,250	1,465,265	1,732,140
- 4,015,585	8,073 [41d] [1 -59,828 [1d] [-573.0%]		-34,300 [-4.0%] [profitable:6.0%]			64,528	336,480	289,511
- 3,778,427	15,288 [21d] [-24,111 [3d] [-82.0%]		-4,661 [-1.0%] [profitable:49.0%]			65,424	750,559	51,774
1,044,828	123,847 [9d] [-63,982 [1d] [-1562.0%]		101,577 [71.0%] [profitable:78.0%]			150,500	1,540,527	1,786,212
761.287	226.630 [15d] -32.687 [1d] [-967.0%]		207.972 [200.0%] [forprofitable:92.0%]			219.800	1.688.046	1.744.769

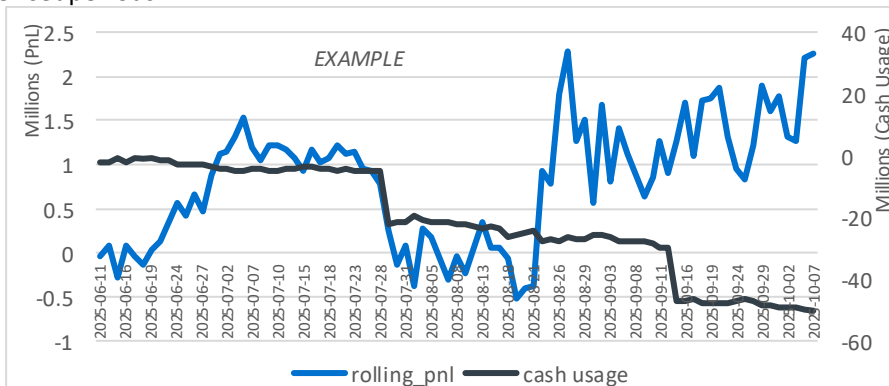
4. Risk can be managed through multiple views, and the portfolio can be tailored (but not limited to the below):
 - Portfolio Level by product sector: Delta adjusted CR01 is shown by duration buckets. Total carry, cash usage (upfront and margin), annualized expected default losses and the current index equivalent hedge is shown and calculated

index	0-2	2-4	4-6	6-9	9-11	carry	upfront	cash usage	annual default loss	index hedge notional
CDX HY	0 -	20,281 -	89,577	-	-	15,208,174 -	47,188,789 -	11,049,658 -	7,908,039	559,800,000
CDX IG	0	103,644	-	-	-	1,722,000 -	7,780,596 -	7,780,596	1,479,578 -	420,000,000
ITRAXX M.	0	103,644	-	-	-	1,680,000 -	8,973,972 -	8,973,972	1,479,578 -	420,000,000
ITRAXX XC	0	46,265	-	-	-	5,152,500 -	22,451,394 -	22,451,394	4,697,073 -	225,000,000

- Single name CDS exposures: Index and tranche (based on net asset value methodology) constituents are aggregated to show net total CR01 and notional exposures for each issuer. Note, views on single name CDS can be taken here for hedging or additional alpha. A pair trade finder has also been developed which can be modified to neutralize single name CDS exposures

bbg_cds_ticker	cr01	notional	ticker	issuer
CAMR1U5	- 1,516 -	3,680,500	AAL	American Airlines Group Inc
CASH1U5	- 1,516 -	3,680,500	ASH	Ashland Global Holdings Inc
CBOMB1U5	- 1,516 -	3,680,500	BBDN	Bombardier Inc
CBZH1U5	- 1,516 -	3,680,500	BZH	Beazer Homes USA Inc

- Portfolio performance to date: Daily PnL, cash usage, cr01 and so forth can be charted to see the portfolios performance over set periods



EXAMPLE PORTFOLIO TRADES:

Index-1	Series-1	Alt-Details-1	Tenor-1	Trade-1	Index-2	Series-2	Alt-Details-2	Tenor-2	Trade-2	Y	Beta Ratio	Net Carry	Target R-Return	Signal	Notional-1	Notional-2	Net Upfront	Quote-1	Qty	max_pnl	min_pnl	current_pnl	target_return_d	target	pnl to maturity
CDX HY	41.0.35-1.0	5Y	Buy	Protect/I TRAXX MAIN	40.0.0-1.0	5Y	Sell	Protect/I	0.16	23.0	116.4	26.7	5.000.000	31.600.000	25.900.000	-1562.919	557	101	47	127.390 [1.35.0d] [6.889.0%]	-157.140 [93.0d] [-1.08111.491] [41791.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	Y (329.317)	58.200	387.518
CDX HY	41.0.35-1.0	5Y	Buy	Protect/I TRAXX MAIN	40.0.0-1.0	5Y	Sell	Protect/I	0.58	46.5	37.1	24.7	15.000.000	21.400.000	-14189.57	42	47	146.120 [1.35.0d] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	Y (329.317)	58.200	387.518		
CDX HY	41.0.35-1.0	5Y	Buy	Protect/I TRAXX MAIN	40.0.0-1.0	5Y	Sell	Protect/I	0.7	19.6	43.7	17.3	15.000.000	21.400.000	-14189.57	42	14	111.218 [9.0d] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	Y (329.317)	58.200	387.518		
CDX HY	41.0.35-1.0	5Y	Buy	Protect/I TRAXX MAIN	40.0.0-1.0	5Y	Sell	Protect/I	0.98	41.7	31.7	33	25.000.000	25.600.000	-30291.51	229	271	293.476 [76.0d] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	Y (329.317)	58.200	387.518		
CDX HY	41.0.35-1.0	5Y	Buy	Protect/I TRAXX MAIN	40.0.0-1.0	5Y	Sell	Protect/I	0.58	5.9	38.5	1.1	29.000.000	5.000.000	-349.86	412	246	453.452 [138.0d] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	Y (329.317)	58.200	387.518		
CDX HY	41.0.35-1.0	5Y	Buy	Protect/I TRAXX MAIN	40.0.0-1.0	5Y	Sell	Protect/I	0.74	17.7	16.6	0.4	5.000.000	6.800.000	-617.80	150	129	31.033 [138.0d] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	Y (329.317)	58.200	387.518		
CDX HY	41.0.35-1.0	5Y	Buy	Protect/I TRAXX MAIN	40.0.0-1.0	5Y	Sell	Protect/I	1	5	34.6	61.4	14.900.000	15.000.000	-4293.14	227	131	31.783 [69.0d] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	Y (329.317)	58.200	387.518		
CDX HY	41.0.35-1.0	5Y	Buy	Protect/I TRAXX MAIN	40.0.0-1.0	5Y	Sell	Protect/I	0.59	17	35.5	1.4	29.000.000	5.000.000	-349.86	412	246	453.452 [138.0d] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	Y (329.317)	58.200	387.518		
CDX HY	41.0.35-1.0	5Y	Buy	Protect/I TRAXX MAIN	40.0.0-1.0	5Y	Sell	Protect/I	0.74	17.7	16.6	0.4	5.000.000	6.800.000	-617.80	150	129	31.033 [138.0d] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	Y (329.317)	58.200	387.518		
CDX HY	41.0.35-1.0	5Y	Buy	Protect/I TRAXX MAIN	40.0.0-1.0	5Y	Sell	Protect/I	0.74	17.7	16.6	0.4	5.000.000	6.800.000	-617.80	150	129	31.033 [138.0d] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	Y (329.317)	58.200	387.518		
CDX HY	41.0.35-1.0	5Y	Buy	Protect/I TRAXX MAIN	40.0.0-1.0	5Y	Sell	Protect/I	0.74	17.7	16.6	0.4	5.000.000	6.800.000	-617.80	150	129	31.033 [138.0d] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	Y (329.317)	58.200	387.518		
CDX HY	41.0.35-1.0	5Y	Buy	Protect/I TRAXX MAIN	40.0.0-1.0	5Y	Sell	Protect/I	0.74	17.7	16.6	0.4	5.000.000	6.800.000	-617.80	150	129	31.033 [138.0d] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	Y (329.317)	58.200	387.518		
CDX HY	41.0.35-1.0	5Y	Buy	Protect/I TRAXX MAIN	40.0.0-1.0	5Y	Sell	Protect/I	0.74	17.7	16.6	0.4	5.000.000	6.800.000	-617.80	150	129	31.033 [138.0d] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	Y (329.317)	58.200	387.518		
CDX HY	41.0.35-1.0	5Y	Buy	Protect/I TRAXX MAIN	40.0.0-1.0	5Y	Sell	Protect/I	0.74	17.7	16.6	0.4	5.000.000	6.800.000	-617.80	150	129	31.033 [138.0d] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	Y (329.317)	58.200	387.518		
CDX HY	41.0.35-1.0	5Y	Buy	Protect/I TRAXX MAIN	40.0.0-1.0	5Y	Sell	Protect/I	0.74	17.7	16.6	0.4	5.000.000	6.800.000	-617.80	150	129	31.033 [138.0d] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	-100.056 [93.0d] [-25.0] [143.511] [100.0%]	Y (329.317)	58.200	387.518		
CDX HY	41.0.35-1.0	5Y	Buy	Protect/I TRAXX MAIN	40.0.0-1.0	5Y	Sell	Protect/I	0.74	17.7	16.6	0.4	5.000.000	6.800.000	-617.80	150	129	31.033 [138.0d] [100.0%]							

Back Testing – Index/Tranche

Analysis Procedure

1. Automated trade selection process: Dates are inputted to find and select, if possible, the top 10 trades as per the signaler logic (dates picked at unoptimized scenarios!). Note: No single pair trade is repeated/grown for any specified date. Max trade size and traded levels are based off the liquidity and transaction cost algorithm
2. **Standard parameters set for trade selection universe:**
 - Pricing Source: Markit,
 - Target Return: Min 10bps (on notional 1), Minimum Absolute Return >50k
 - Cash Benchmarked: Yes,
 - Duration Weighted: No,
 - Forward Momentum='N',
 - Duration Product Variance: 1.25yrs,
 - Maturity Range: 3.3-7.2yr,
 - Equity Tranche: 'N',
 - CDS Series Inclusion: Ignore 6 years or older,
 - Beta Calculation Method: Historic,
 - Beta Sub Method: rolling tenor to exact to exact,
 - beta data filter='Y'
 - CDS Exclusion = CDX EM
 - Index Products Included: iTraxx Main/Xover/Fins Snr/Fins Sub, CDS IG/HY
 - FX Conversion = 'EUR'
3. PnL life (traded date) to now is calculated (Max, Min, Current PnL, and % profitable in period)
 - Realized default losses/gains (actual recovery prices used)
 - Cash Usage Cost (Net of Upfront and Margin)
 - Carry
 - Rolldown/Spread Move (Current Duration x Spread Δ)
4. Daily Cumulative PnL/Risk/Upfront/Cash Usage is charted for two situations in each systematic framework:
 - Portfolio Pairs -> no trades closed
 - Closing Pairs -> trades closed when the target return is met. Trades aren't replaced

Note: Annualized returns below:

- Log returns are used given the portfolio is scaled up over time without closing trades
- Closing pairs do not have pairs replaced with new trades. More pairs on average are added then closed by nature
- Returns are based off PnL against cash usage (Net Upfront + Margin Requirements)
- Any pair trades with negative cash usages are automatically given returns of 100% if the PnL is greater than 0, and PnL less than 0 is given -100%

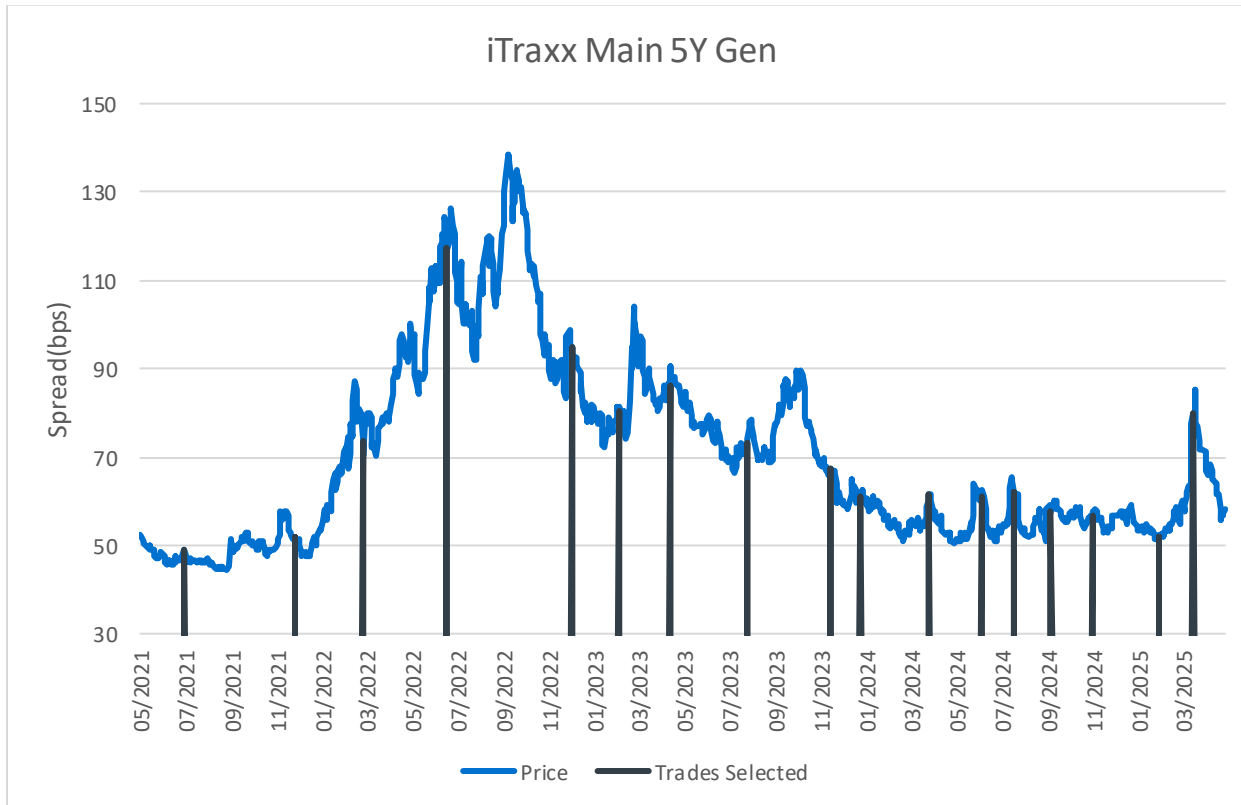
Other considerations:

- IG: 0.6 Recovery, HY:0.2 Recovery
- Defaults: CDX IG (3/125), CDX HY (8/100), ITRX MAIN (3/125), ITRX XOVER (8/75), ITRX SNR FIN (2/30), ITRX SUB FIN (2/30)
- Cash Usage will have a 4% benchmark rate. Margin requirements are always greater than or equal to 0
- Portfolio comparisons against vanilla long only index/tranche are based off annualized returns with no spread movement. Assuming held to maturity and notional sized to match the current snapshot carry of 'my portfolio as of now'. Negative cash will be converted to positive to work out returns

Back Testing: between 2021-2025

- ➔ Dates picked: ['2021-02-15', '2021-07-20', '2021-12-15', '2022-03-16', '2022-05-22', '2022-07-07', '2022-12-22', '2023-02-23', '2023-05-03', '2023-08-15', '2023-12-05', '2024-01-15', '2024-04-16', '2024-06-25', '2024-08-08', '2024-09-27', '2024-11-21', '2025-02-19', '2025-04-07']
- ➔ Purposely didn't pick many dates in 2022, as there would have been lots of trades with dislocations which you want and then would have generated significantly higher PnL in the long run
- ➔ Realistically, more trades should be selected in volatile moments with big spreads moves
- ➔ Purpose is to show a worst-case trading of this strategy that still delivers performance. 2021-2025 had remarkable macro events and conditions to test my systematic model

iTraxx Main 5Yr + Dates the trades are selected:



Note, the significant macro events that occurred between 2021 to now:

1. The Russian invasion of Ukraine (2022)
2. EU Gas Crisis (Summer 2022)
3. Stagflation and huge base rate hiking
4. UK/France/Germany/US elections. Votes of no confidence, far right fears, Trump Elected (2024 3/4Q)
5. Trump Tariff Crisis (Back and forth, rollbacks and delays) and US Recession Risks (1H 2025). Extraordinary levels of volatility only ever been seen a handful of times, clustered around selloffs driven by recession fears (2008, 2011 - 2012), COVID (2020), and the EU Gas Crisis (2022)

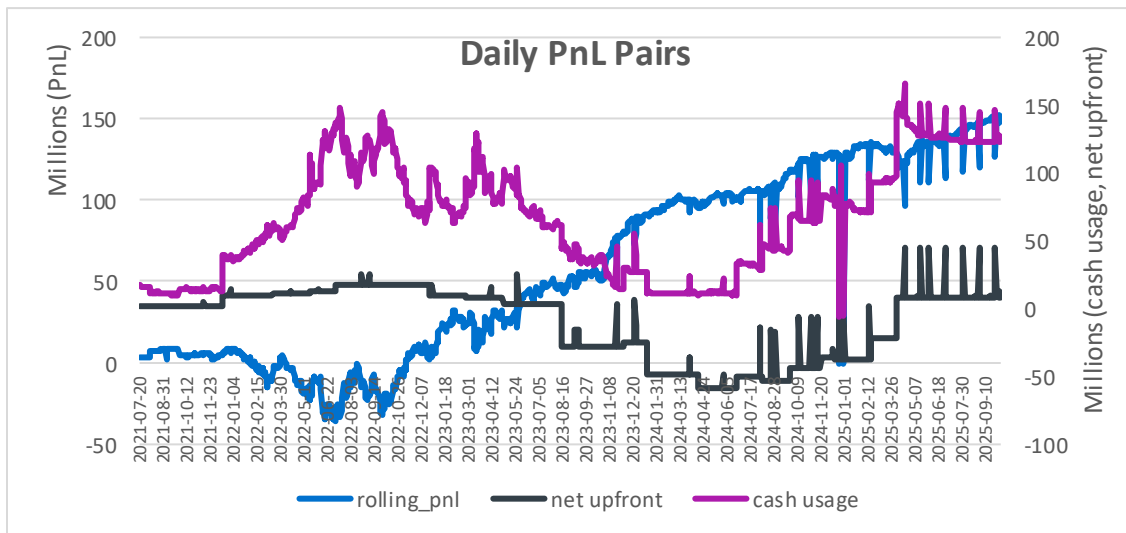
Positive Carry Trades (2021-2025):

Only trades with net carry greater than 0 are selected from the standard parameters and dates picked

Annualized PnL	Annualized Return	PnL Growth Rate (Log, per mm)	Drawdown
31.6mm	85%	115%	Temporary, 100% of Annual PnL

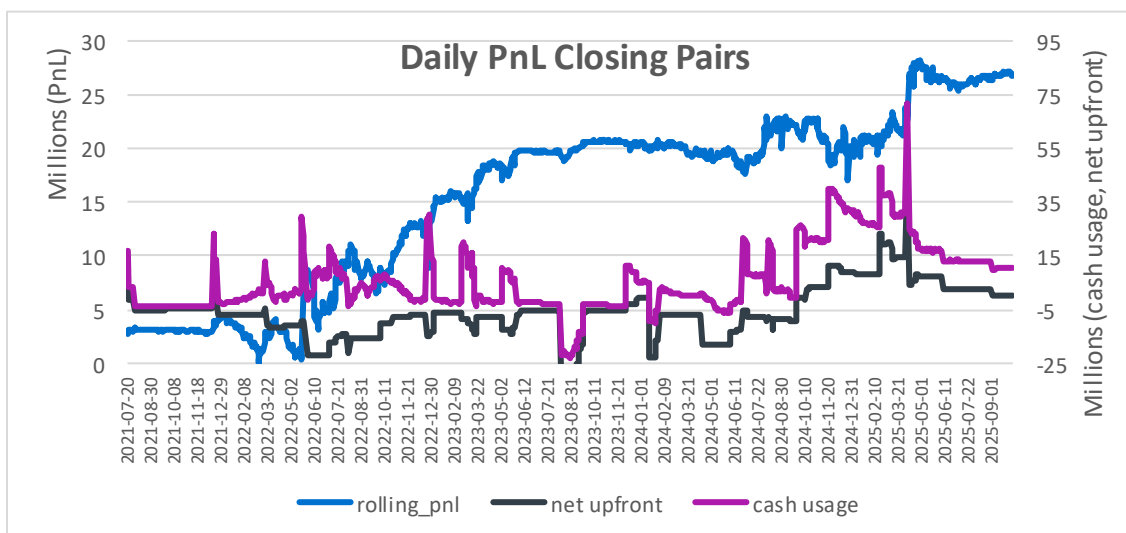
Holding Pairs:

	Carry	Upfront	Raw Return	CR01	Notional	Cash	Default Loss (exp)	Return (post loss vs cash)
My Portfolio	40.1mm	6.4mm	627%	0	n/a	131mm	-10.4mm	22.7%
vs								
IG Index (~60bps, Cpn 100bps 2 Defaults, 40% Recovery)	40.1mm	120mm	33.4%	-3mm	6.7bn	250mm	-12.8mm	10.9%
HY Index (~270bps, Cpn 500bps 5 Defaults, 20% Recovery)	40.1mm	145mm	27.7%	-670k	1.5bn	280mm	-16mm	8.6%



In 2022, betas broke. Positive carry trades tend to be positive gamma and explains temporary mark to market impacts and variable margin increases. As carry accumulates and pairs revert, PnL makes a strong recovery. PnL generation becomes significant as the portfolio grows

Closing Pairs:



Closing trades when the target return is met, shows PnL makes a mechanical and more transitioned increase, albeit less than keeping them open. Trades closed aren't replaced, so PnL plateaus and makes jumps as the years go by. Signaler works. Majority trades get closed out

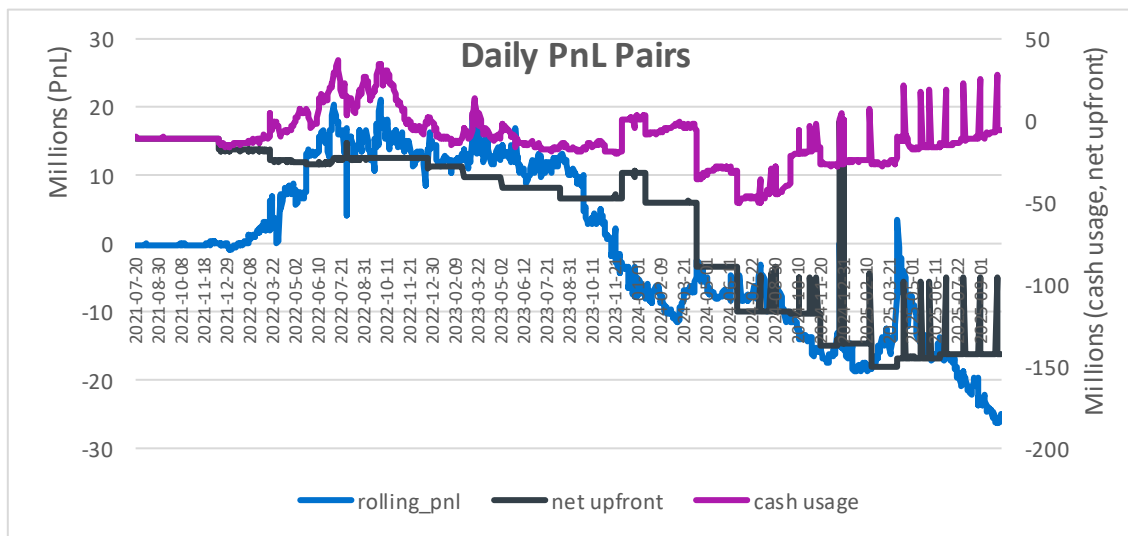
Negative Carry Trades (2021-2025):

Only trades with net carry less than 0 are selected from the standard parameters and dates picked

Holding Pairs:

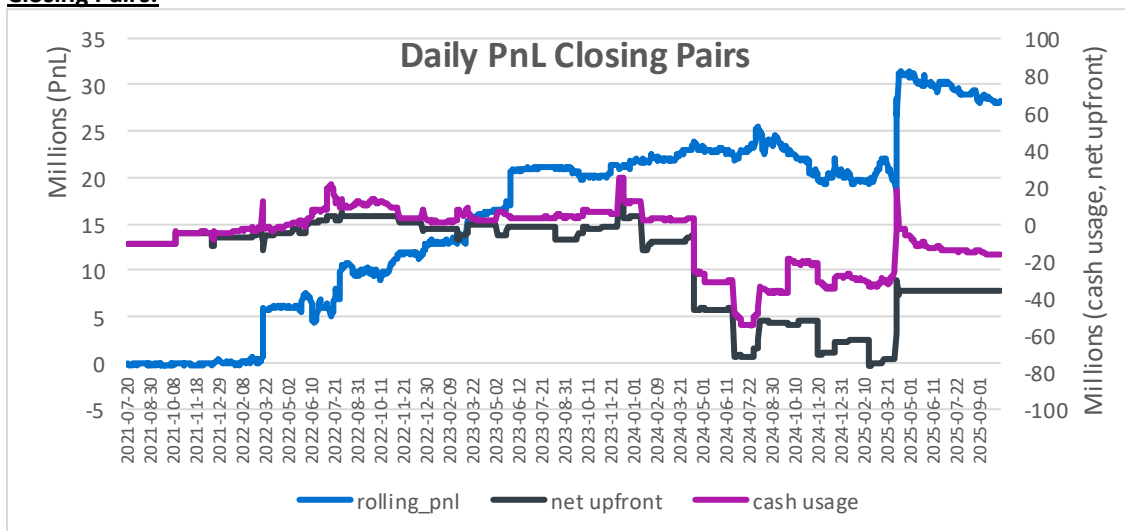
Annualized PnL	Annualized Return	PnL Growth Rate (Log, per mm)	Drawdown
-5.5mm	-81%	n/a	Temporary, +20mm Spike

	Carry	Upfront	Raw Return	CR01	Notional	Cash	Default Loss (exp)	Return (post loss vs cash)
My Portfolio	-10.7mm	-150.5mm	-7.1%	0	n/a	-155mm	+5.4mm	-3.5%
vs								
IG Index (~60bps, Cpn 100bps 2 Defaults, 40% Recovery)	-10.7mm	-32mm	-33.4%	+802k	1.8bn	4mm	+3.4mm	-182.5%
HY Index (~270bps, Cpn 500bps 5 Defaults, 20% Recovery)	-10.7mm	-39mm	-27.4%	+178k	400mm	-3mm	+4.2mm	-216.7%



As trades are systematically added, PnL is positive at the start showing trades have mean reversions. Since trades aren't closed, negative carry then starts to eat at the PnL as you would expect

Closing Pairs:



The upward cumulative PnL indicates that the model to find pair trades works. The target returns are being met, and the pair trades are closed out despite the negative carry bleed that could have occurred

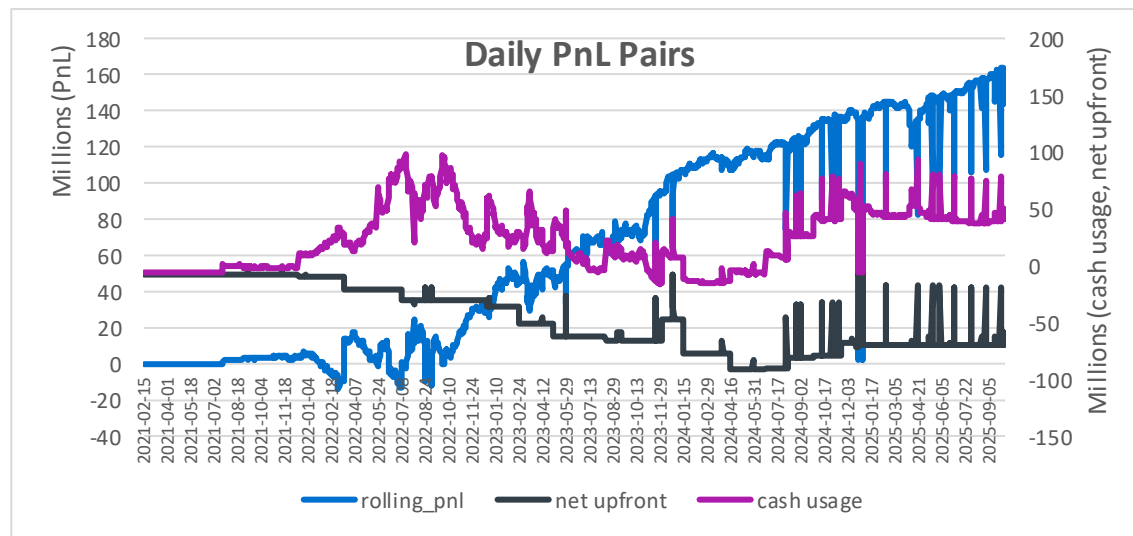
Greater than >-25bps Carry Trades (2021-2025):

Only trades with net carry greater than -25bps are selected from the standard parameters and dates picked. We don't want to exclude potential neg gamma/certain trades that could have high signals despite some negative carry

Holding Pairs:

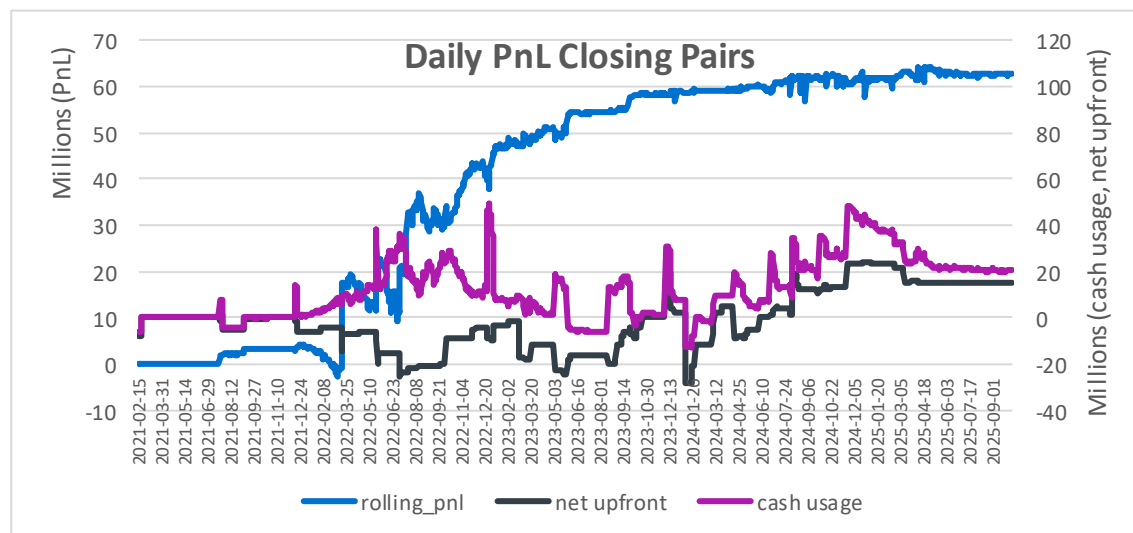
Annualized PnL	Annualized Return	PnL Growth Rate (Log, per mm)	Drawdown
33mm	254%	107%	Temporary, 100% of Annual PnL

	Carry	Upfront	Raw Return	CR01	Notional	Cash	Default Loss (exp)	Return (post loss vs Cash)
My Portfolio	36.6mm	-72mm	>100%	0	n/a	-30mm	-7.5mm	>100%
vs								
IG Index (~60bps, Cpn 100bps 2 Defaults, 40% Recovery)	36.6mm	110mm	33.3%	-2.75mm	6.1bn	232mm	-11.8mm	10.7%
HY Index (~270bps, Cpn 500bps 5 Defaults, 20% Recovery)	36.6mm	133mm	27.5%	-610k	1.4bn	259mm	-14.4mm	8.6%



Less volatility while maintaining super strong returns when compared to all positive carry trades

Closing Pairs:



Targets are being met from the pair trades found and selected given the positive PnL growth. Trades aren't replaced, which explains the PnL plateauing

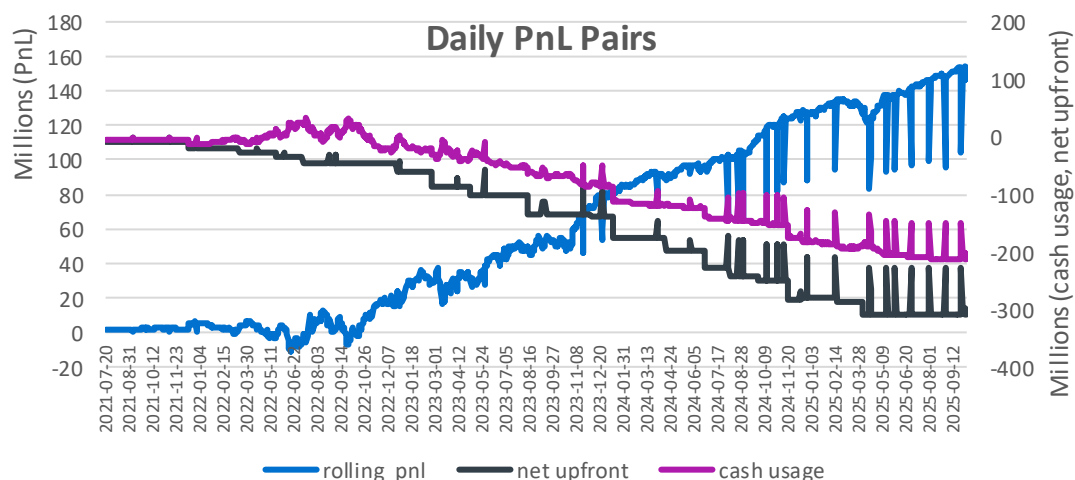
Optimum Trades (2021-2025):

- > -25bps Net Carry
- > 10% Return (vs cash usage)
- CDS Inclusion: Recent 3 Series at the time

Holding Pairs:

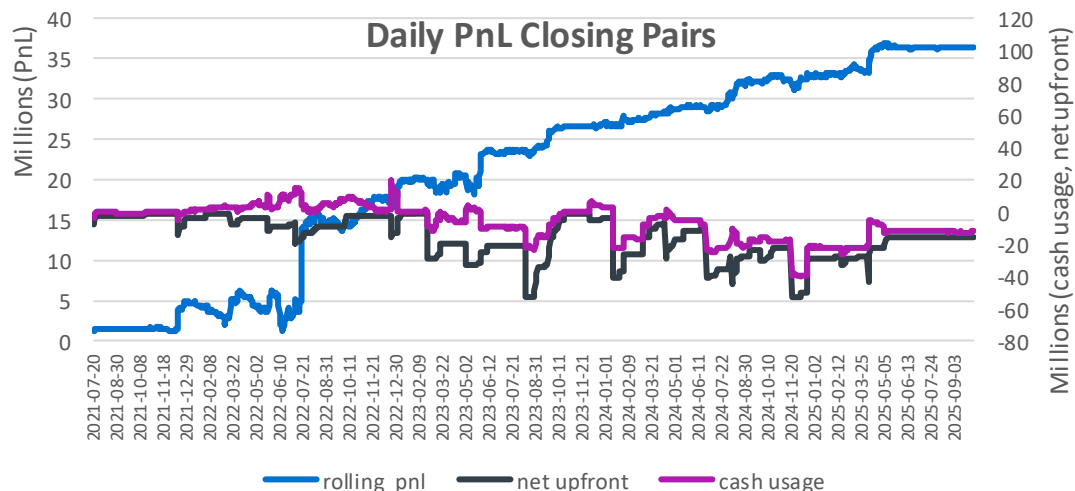
Annualized PnL	Annualized Return	PnL Growth Rate (Log, per mm)	Drawdown
33mm	100% (infinite)	116%	Temporary, 75% PnL

	Carry	Upfront	Raw Return	CR01	Notional	Cash	Default Loss	Return (post loss vs cash)
My Portfolio	35.7mm	-322mm	>100%	0	n/a	-210mm	-8.6mm	>100%
vs								
IG Index (~60bps, Cpn 100bps 2 Defaults, 40% Recovery)	35.7mm	107mm	33.4%	-2.7mm	5.95bn	226mm	-11.5mm	10.7%
HY Index (~270bps, Cpn 500bps 5 Defaults, 20% Recovery)	35.7mm	130mm	27.5%	-600k	1.3bn	247mm	-14mm	8.8%
IG 3-6% Tranche (~160bps, Cpn 100bps)	35.7mm	-53mm	>100%	1mm x 2.1 delta	2.4bn	48mm	0	74%
HY 10-20% Tranche (~440bps, Cpn 500bps)	35.7mm	22mm	162%	365k x 2.4 delta	811mm	197mm	0	18.1%



Compared with 'positive carry' and 'optimum >-25bps' trades only, these additionally filtered optimum trades provide less mark to market volatility while providing higher annualized PnL

Closing Pairs:

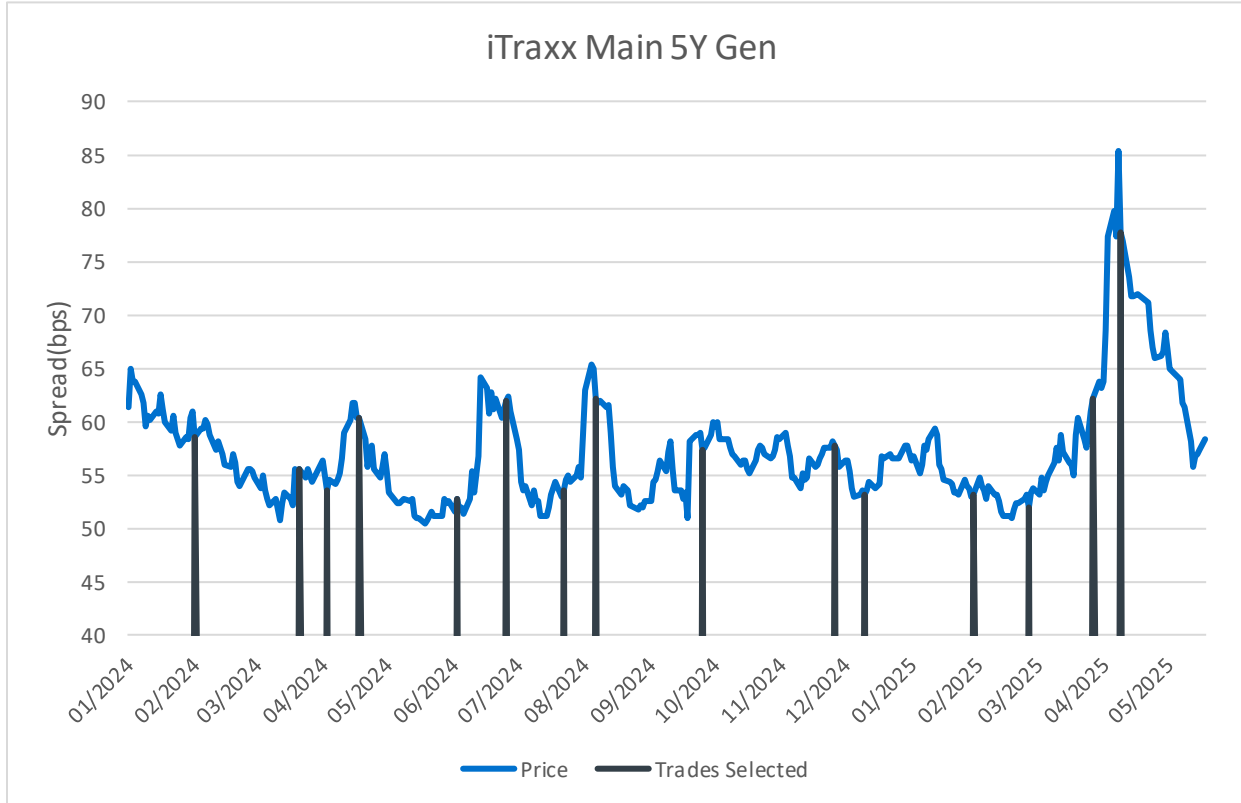


Targets are being met from the pair trades found and selected given the positive PnL growth

Back Testing: between 2024-2025

- ➔ Using the same parameters set as mentioned earlier like in the 2021-2025 back tests
- ➔ The purpose of this analysis, is to show when many trades are put on in a low volatile environment where dislocations are smaller, the strategy and algorithm still generates positive performance and results
- ➔ Dates picked: ['2024-02-02', '2024-03-22', '2024-04-19', '2024-06-04', '2024-06-26', '2024-07-23', '2024-08-07', '2024-09-26', '2024-11-27', '2024-12-11', '2025-01-31', '2025-02-26', '2025-03-28', '2024-04-04', '2025-04-10']

iTraxx Main 5Yr + Dates the trades are selected:



Note, the significant macro events that occurred between 2021 to now:

1. US Recessional Fears (1H 2024)
2. Rounds of far-right fears in the French Elections (2h 2024)
3. Trump presidency win (October 2024)
4. 'Post Liberation Day' sell off. Reciprocal Tariffs implemented globally. Followed by de-escalation with trade talks and 90-day reliefs. (30-40bps Main move)
5. French parliamentary volatility (PM Lecornu stepping down)

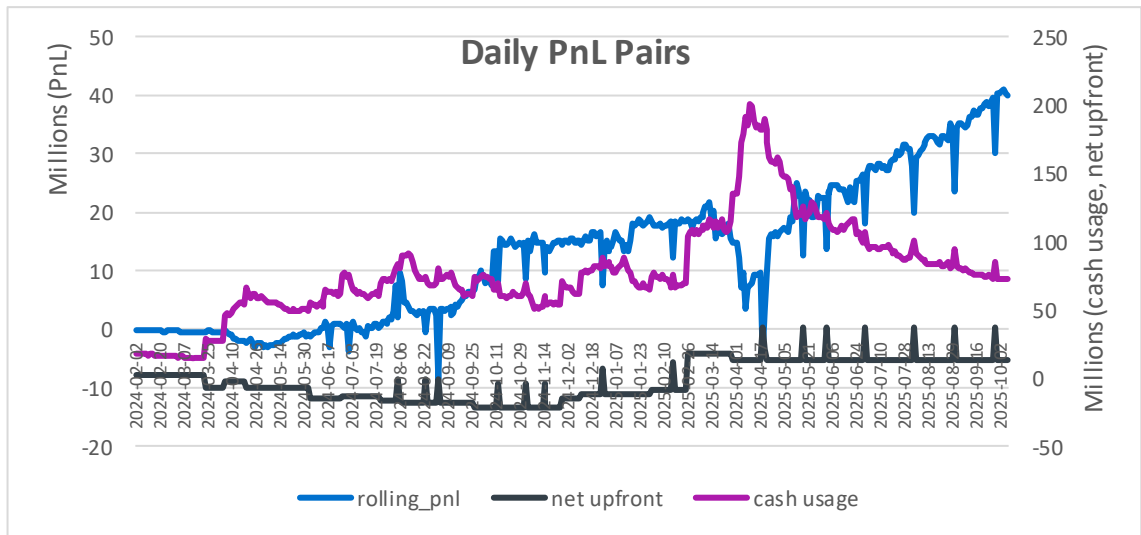
Positive Carry Only Trades (2024-2025):

Only trades with net carry greater than 0 are selected from the standard parameters and dates picked

Holding Pairs:

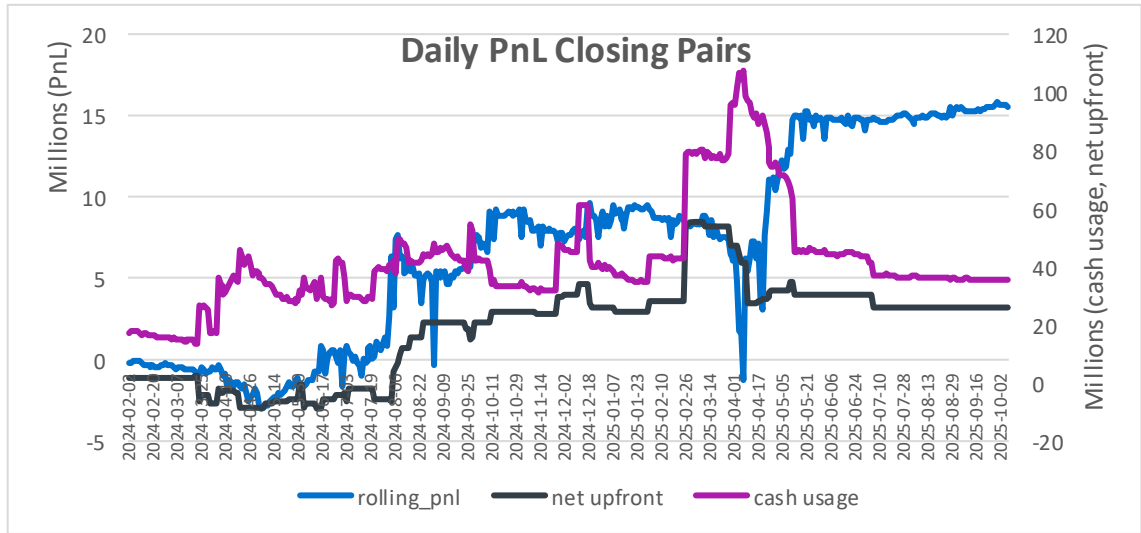
Annualized PnL	Annualized Return	PnL Growth Rate (Log, per mm)	Drawdown
23mm	30%	210%	Temporary, 200% of Annual PnL

	Carry	Upfront	Raw Return	CR01	Notional	Cash	Default Loss (exp)	Return (post loss vs cash)
My Portfolio	20.5mm	14mm	146%	0	n/a	75mm	-7.6mm	17.2%
vs								
IG Index (~60bps, Cpn 100bps 2 Defaults, 40% Recovery)	20.5mm	61.5mm	28.3%	-1.5mm	3.4bn	130mm	-6.5mm	10.8%
HY Index (~270bps, Cpn 500bps 5 Defaults, 20% Recovery)	20.5mm	74mm	22.7%	-341k	760mm	143mm	-8mm	8.7%



Strong positive PnL growth. Skewed toward long gamma explaining the temporary unrealized mark to market impact in April 2025, equivalent to up to 100% PnL generated in a year

Closing Pairs:



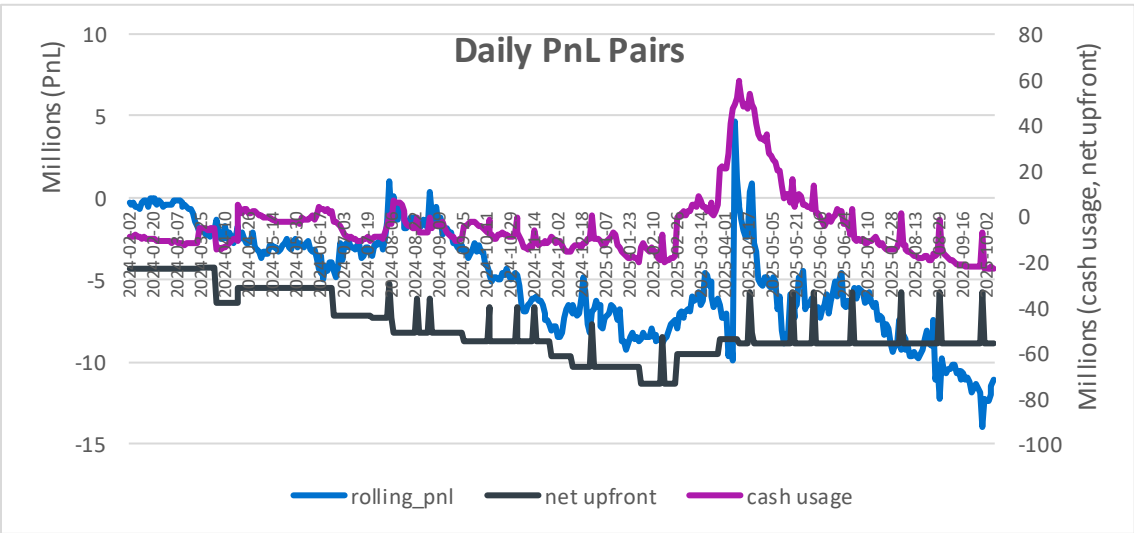
Negative Carry Only Trades (2024-2025):

Only trades with net carry less than 0 are selected from the standard parameters and dates picked

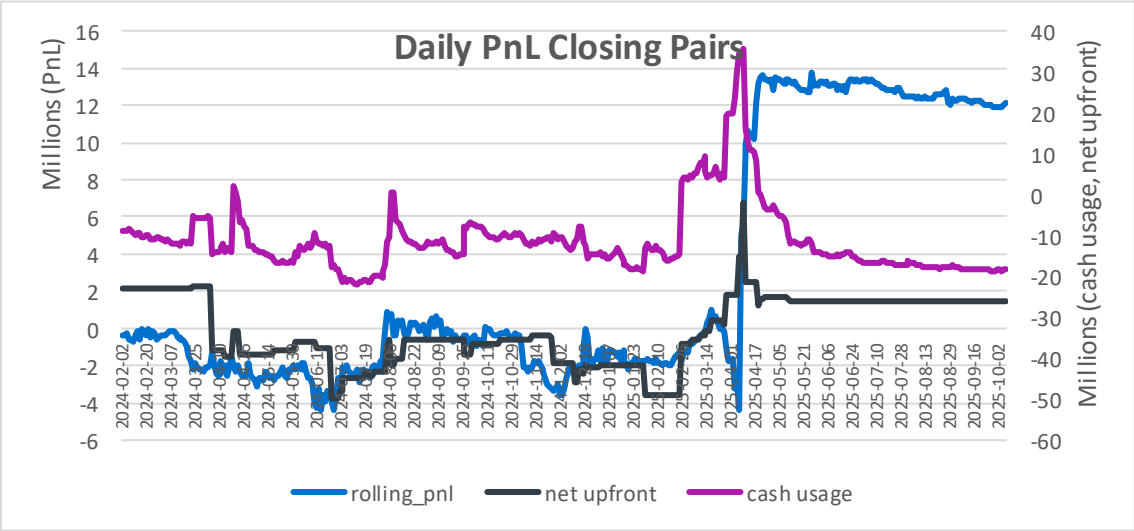
Holding Pairs:

Annualized PnL	Annualized Return	PnL Growth Rate (Log, per mm)	Drawdown
-6.2mm	-100%	n/a	Temporary, +15mm spike

	Carry	Upfront	Raw Return	CR01	Notional	Cash	Default Loss	Return (post loss vs cash)
My Portfolio	-6.6mm	-57mm	-11.6%	0	n/a	-23mm	2.3mm	-18.7%
Vs								
IG Index (~60bps, Cpn 100bps 2 Defaults, 40% Recovery)	-6.6mm	-19.8mm	-33.3%	495k	1.1bn	2.2mm	2.1mm	-204%
HY Index (~270bps, Cpn 500bps 5 Defaults, 20% Recovery)	-6.6mm	-24mm	-27.5%	110k	245mm	-2mm	2.6mm	-200%



Closing Pairs:



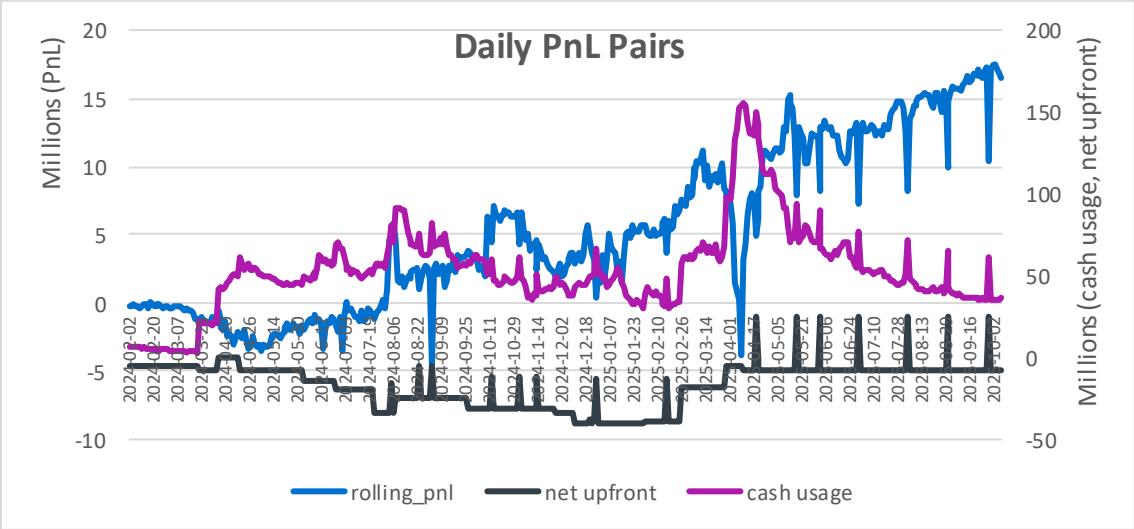
Despite the negative carry bleed, the model targets are being reached. PnL remain flat lined, until a big sell off in April 2025. Majority of the negative carry trades are short gamma, explaining PnL spike, and trades closed out

Greater than -25bps Carry Trades (2024-2025):

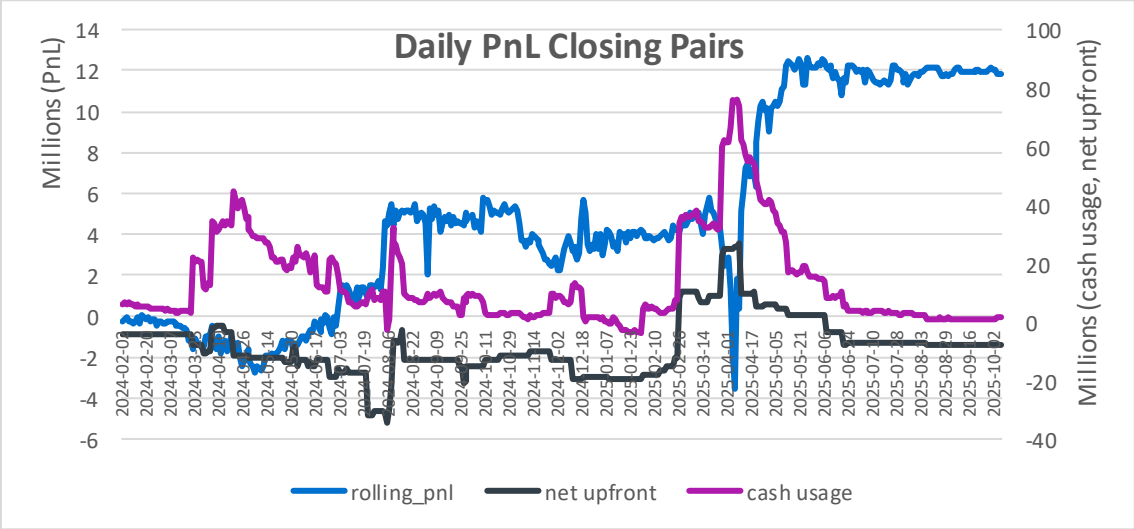
Only trades with net carry greater than -25bps are selected from the standard parameters and dates picked. We don't want to exclude potential neg gamma/certain trades that could have high signals despite some negative carry

Holding Pairs:

Annualized PnL	Annualized Return	PnL Growth Rate (Log, per mm)		Drawdown				
9.8mm	27%	160%		Temporary, 150% of Annual PnL				
	Carry	Upfront	Raw Return	CR01	Notional	Cash	Default Loss	Return (post loss vs cash)
My Portfolio	7.1mm	-7.7mm	>100%	0	n/a	36mm	-3.4mm	>100%
vs								
IG Index (~60bps, Cpn 100bps 2 Defaults, 40% Recovery)	7.1mm	21.3mm	33.3%	-533k	1.18bn	45mm	-2.3mm	10.7%
HY Index (~270bps, Cpn 500bps 5 Defaults, 20% Recovery)	7.1mm	25.7mm	27.6%	-118k	263mm	50mm	-2.8mm	8.6%



Closing Pairs:



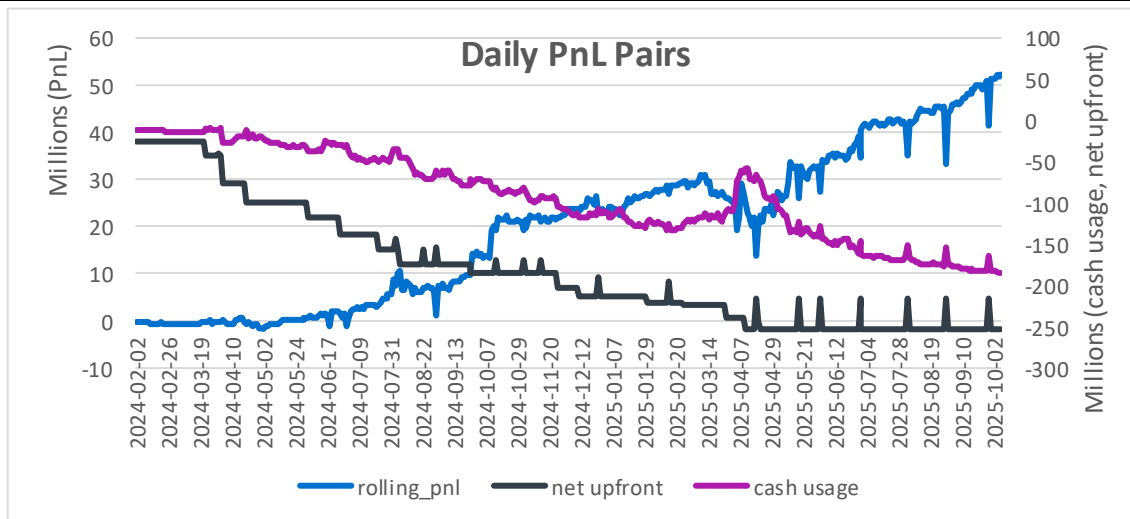
Optimum Trades (2024-2025):

- > -25bps Net Carry
- > 10% Return (vs cash usage)
- CDS Inclusion: Recent 3 Series at the time

Holding Pairs:

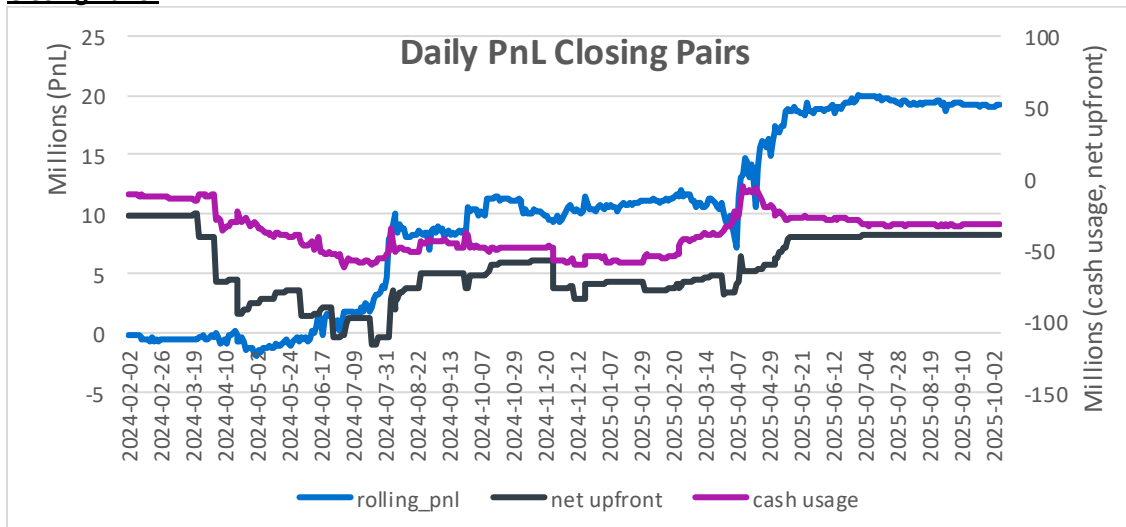
Annualized PnL	Annualized Return	PnL Growth Rate (Log, per mm)	Drawdown
30mm	100%	225%	Temporary, 100% of Annual PnL

	Carry	Upfront	Raw Return	CR01	Notional	Cash	Default Loss	Return (post loss vs cash)
My Portfolio	19.5mm	-263mm	>100%	0	n/a	-184mm	-5.7mm	>100%
vs								
IG Index (~60bps, Cpn 100bps 2 Defaults, 40% Recovery)	19.5mm	58.5mm	33.3%	-1.4mm	3.25bn	124mm	-6.2mm	10.7%
HY Index (~270bps, Cpn 500bps 5 Defaults, 20% Recovery)	19.5mm	70.5mm	27.7%	-325k	722mm	135.5mm	-7.7mm	8.7%
IG 3-6% Tranche (~160bps, Cpn 100bps)	19.5mm	-33mm	>100%	548k x 2.1 delta	1.2bn	18mm	0	
HY 10-20% Tranche (~440bps, Cpn 500bps)	19.5mm	12mm	157%	200k x 2.4 delta	444mm	108mm	0	



PnL performance is a lot more consistent, durable and upward trending in this trade selection process when compared to the other cases in 2024-2025

Closing Pairs:



Back Testing Takeaways:

Note:

1. In most cases, cash usage requirements are relatively low. Starting cash needs are between -50mm to +50mm, then later trending towards negative as PnL grows. Mark to market volatility may make margin demands temporarily spike up to 150mm when the book is large (built over many years) and are all positive carry trades. Otherwise, the optimum trade structure demands far less
2. PnL is based on EOD prices. Traded levels can be better than the EOD marks
3. Only the selected top pairs chosen are put on uniquely. It is possible to grow the same pair, taking advantage of the higher projected return and strong signal which hasn't been displayed here
4. Drawdowns are temporary: April 2024 had one of the most extreme levels of volatility from unnatural causes (as big as GFC 2008, COVID 2020, EU/Gas Crisis 2022). Market to market swings were temporary and PnL reverts over the long term
5. FX Impacts are relatively small, +/- 2-3mm when carry is 30mm per year. Smaller the portfolio, smaller the FX impacts if unhedged
6. No hedging or discretionary views or historic data adjustments or bias trades were made in the analysis. If so, then additional alpha could have been generated
7. Buying protection on super low spread (<50bps) indices/tranches or single name CDS were not used. Otherwise, it could have reduced the upfront/margin/cash usage needs generating greater average annual returns in the years needed

Summary of back test results:

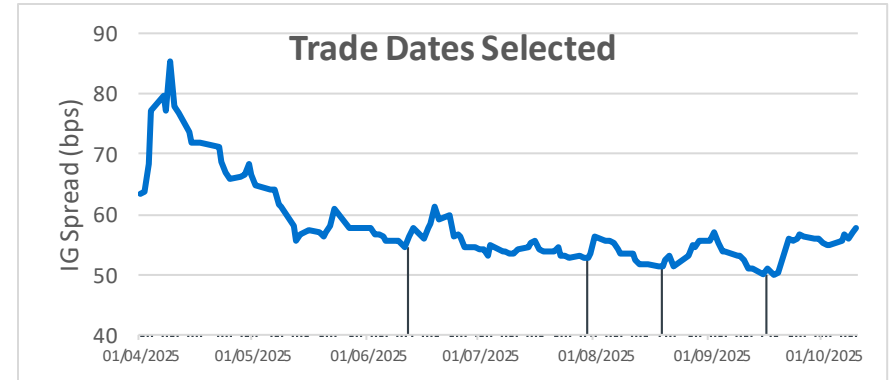
		Optimum Trades, > -25bps Carry, >10% Rtn, Recent 3 Series	All Carry Positive	All Carry Negative
1- Pairs Held	PnL #1	High	High	Negative
	PnL Volatility	Medium	High	Low
	Cash Usage	Neutral	Positive-Low	Negative-High
	Level of Ease	High	High	High
2-Close Pairs on Target Return	PnL #1	Medium	Medium	Low
	PnL Volatility	Low-Medium	Low-Medium	Low
	Cash Usage	Negative-Low	Positive-Low	Negative-Low
	Level of Ease	Low	Low	Low

In depth back test: Starting off mid-year + Worst timing for adding trades in 2025:-

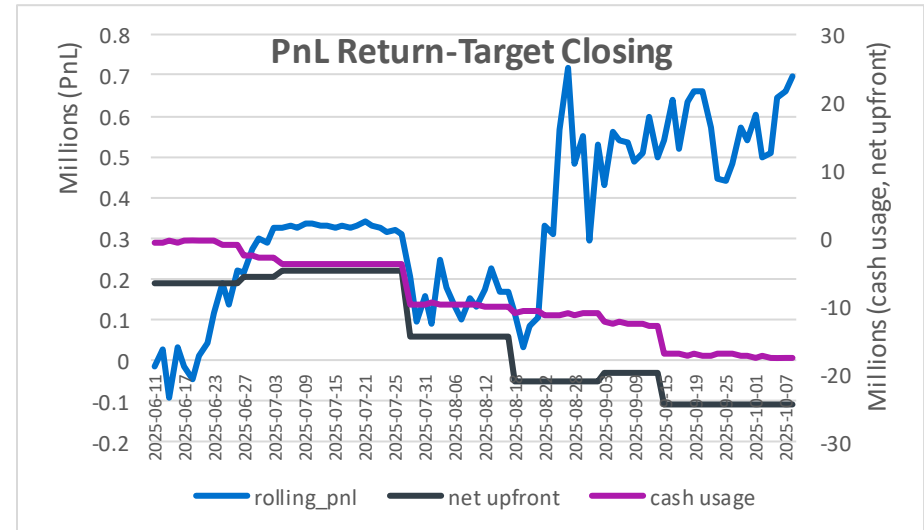
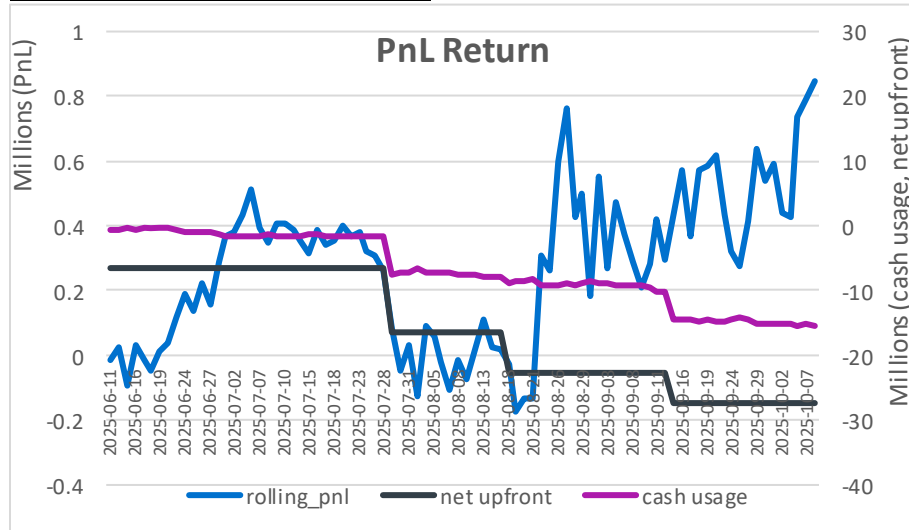
- Parameters: > -25bps Net Carry, >100k Net carry to maturity, Recent 3 series. Rest is the same
- Ad hoc trades selected from results. PnL generated to 10/10/2025
- This example is used as if the strategy was to be implemented in the most non ideal timing possible. Showcasing my strategies profitability**

Portfolio Summary (as of 10/10/2025):

	Duration Buckets (absolute CR01)													
Product Level	0-2	2-4	4-6	6-9	9-11	upfront	cash usage	carry (annual)	expected default loss (annual)	expected net carry return (annual)	index hedge notional	spread	hedge carry (annual)	Final Net Return (annual)
CDX HY	-	- 8,099	- 52,392	-	-	- 14,282,263	- 2,264,443	5,029,691	- 4,476,063	553,628	387,800,000	330	- 12,797,400	- 12,243,772
CDX IG	-	51,783	-	-	-	- 2,606,219	- 2,606,219	- 574,000	1,479,578	905,578	- 420,000,000	53	2,226,000	3,131,578
ITRAXX MAIN	-	51,783	-	-	-	- 2,990,854	- 2,990,854	- 560,000	1,479,578	919,578	- 420,000,000	57	2,394,000	3,313,578
ITRAXX XOVER	-	27,741	-	-	-	- 7,482,591	- 7,482,591	- 1,717,500	4,697,073	2,979,573	- 225,000,000	280	6,300,000	9,279,573
									PnL	5,358,357			PnL (If fully hedged):	3,480,957



Performance to date (10/10/2025):



Trades selected:

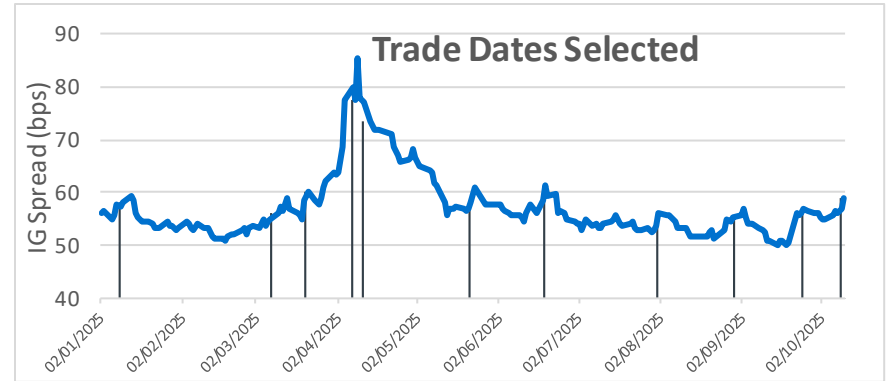
Trade #	Trade Date	Trade 1	Att-Detach 1	B/S 1	Trade 2	Att-Detach 2	B/S 2	Net Carry	Notional 1	Notional 2	Quote 1	Quote 2	Cash usage	current_pnl	target reached	target return pnl	pnl to maturity	pnl to maturity post defaults
1	11 June 2025	ITRAXX XOVER 41 5Y	0.0-1.0	Buy	CDX HY 43 5Y	0.0-1.0	Sell	65.6	25,000,000	26,900,000	243	323	799,769	146,988 [56.0%] [profitable:81.0%]	Y (1,340,259)	120,000	1,487,247	1,779,841
2	11 June 2025	CDX IG 42 5Y	0.0-1.0	Buy	CDX HY 43 5Y	0.0-1.0	Sell	18.6	140,000,000	27,000,000	41	323	672,050	299,435 [137.0%] [profitable:100.0%]	Y (1,337,255)	141,400	1,636,691	1,816,298
3	11 June 2025	CDX HY 43 5Y	0.0-1.0	Sell	CDX HY 43 5Y	0.35-1.0	Buy	126.4	11,400,000	35,000,000	323	57	- 4,127,075	34,583 [100.0%] [profitable:86.0%]		102,828	763,571	64,241
4	29 July 2025	CDX HY 43 5Y	0.0-1.0	Sell	CDX HY 43 5Y	0.35-1.0	Buy	124.5	11,500,000	35,000,000	305	54	- 3,803,514	-23,454 [-3.0%] [profitable:0.0%]		64,055	710,770	14,228
5	29 July 2025	ITRAXX XOVER 41 5Y	0.0-1.0	Buy	CDX HY 43 5Y	0.0-1.0	Sell	71.5	25,000,000	27,200,000	224	305	1,046,465	91,951 [45.0%] [profitable:37.0%]		124,250	1,465,265	1,732,140
6	29 July 2025	CDX HY 42 5Y	0.0-1.0	Sell	CDX HY 43 5Y	0.35-1.0	Buy	89	10,900,000	35,000,000	275	54	- 4,038,410	-26,229 [-3.0%] [profitable:6.0%]		64,528	336,480	-289,511
7	18 August 2025	CDX HY 43 5Y	0.0-1.0	Sell	CDX HY 43 5Y	0.35-1.0	Buy	126	11,600,000	35,000,000	306	52	- 3,788,648	-231 [-0.0%] [profitable:47.0%]		65,424	750,559	51,774
8	18 August 2025	ITRAXX XOVER 41 5Y	0.0-1.0	Buy	CDX HY 43 5Y	0.0-1.0	Sell	75.4	25,000,000	27,500,000	220	306	1,082,703	118,533 [78.0%] [profitable:79.0%]		150,500	1,540,527	1,786,212
9	18 August 2025	ITRAXX MAIN 41 5Y	0.0-1.0	Buy	CDX HY 43 5Y	0.0-1.0	Sell	14.5	140,000,000	28,900,000	40	306	801,142	215,361 [193.0%] [profitable:92.0%]		219,800	1,688,046	1,744,769
10	15 Sept 2025	CDX HY 42 5Y	0.0-1.0	Sell	CDX HY 43 5Y	0.35-1.0	Buy	89.6	11,000,000	35,000,000	261	48	- 3,988,589	-10,159 [-4.0%] [profitable:33.0%]		61,600	363,859	-258,251

Additional trade details:

Trade #	Trade Date	Trade 1	Att-Detach 1	B/S 1	Trade 2	Att-Detach 2	B/S 2	Type	Beta Ratio	Signal	Net Upfront	max_pnl	min_pnl	current_pnl
1	11 June 2025	ITRAXX XOVER 41 5Y	0.0-1.0	Buy	CDX HY 43 5Y	0.0-1.0	Sell	compression	0.93	39.5	- 782,947	311,194 [23d] [408.0%]	-99,061 [2d] [-1040.0%]	146,988 [56.0%] [profitable:81.0%]
2	11 June 2025	CDX IG 42 5Y	0.0-1.0	Buy	CDX HY 43 5Y	0.0-1.0	Sell	compression	5.18	38.3	- 916,550	317,199 [110d] [148.0%]	10,743 [7d] [34.0%]	299,435 [137.0%] [profitable:100.0%]
3	11 June 2025	CDX HY 43 5Y	0.0-1.0	Sell	CDX HY 43 5Y	0.35-1.0	Buy	compression	0.32	30.2	- 4,819,379	52,355 [20d] [100.0%]	-30,782 [7d] [-43.0%]	34,583 [100.0%] [profitable:86.0%]
4	29 July 2025	CDX HY 43 5Y	0.0-1.0	Sell	CDX HY 43 5Y	0.35-1.0	Buy	compression	0.33	39.9	- 4,551,770	-6,511 [41d] [-2.0%]	-68,699 [1d] [-700.0%]	-23,454 [-3.0%] [profitable:0.0%]
5	29 July 2025	ITRAXX XOVER 41 5Y	0.0-1.0	Buy	CDX HY 43 5Y	0.0-1.0	Sell	compression	0.92	26.3	- 723,323	100,822 [29d] [90.0%]	-98,724 [3d] [-700.0%]	91,951 [45.0%] [profitable:37.0%]
6	29 July 2025	CDX HY 42 5Y	0.0-1.0	Sell	CDX HY 43 5Y	0.35-1.0	Buy	compression	0.31	21.8	- 4,568,264	8,041 [41d] [100.0%]	-59,829 [1d] [-569.0%]	-26,229 [-3.0%] [profitable:6.0%]
7	18 August 2025	CDX HY 43 5Y	0.0-1.0	Sell	CDX HY 43 5Y	0.35-1.0	Buy	compression	0.33	42.7	- 4,559,703	15,271 [21d] [100.0%]	-24,114 [3d] [-82.0%]	-231 [-0.0%] [profitable:47.0%]
8	18 August 2025	ITRAXX XOVER 41 5Y	0.0-1.0	Buy	CDX HY 43 5Y	0.0-1.0	Sell	compression	0.91	35.2	- 745,228	123,846 [9d] [348.0%]	-63,983 [1d] [-1553.0%]	118,533 [78.0%] [profitable:79.0%]
9	18 August 2025	ITRAXX MAIN 41 5Y	0.0-1.0	Buy	CDX HY 43 5Y	0.0-1.0	Sell	compression	4.85	28.3	- 1,119,847	226,628 [15d] [453.0%]	-32,687 [1d] [-959.0%]	215,361 [193.0%] [profitable:92.0%]
10	15 September 2025	CDX HY 42 5Y	0.0-1.0	Sell	CDX HY 43 5Y	0.35-1.0	Buy	compression	0.31	22.5	- 4,574,916	9,800 [8d] [100.0%]	-29,103 [14d] [-19.0%]	-10,159 [-4.0%] [profitable:33.0%]

In depth back test: How I would have traded 2025 starting off:

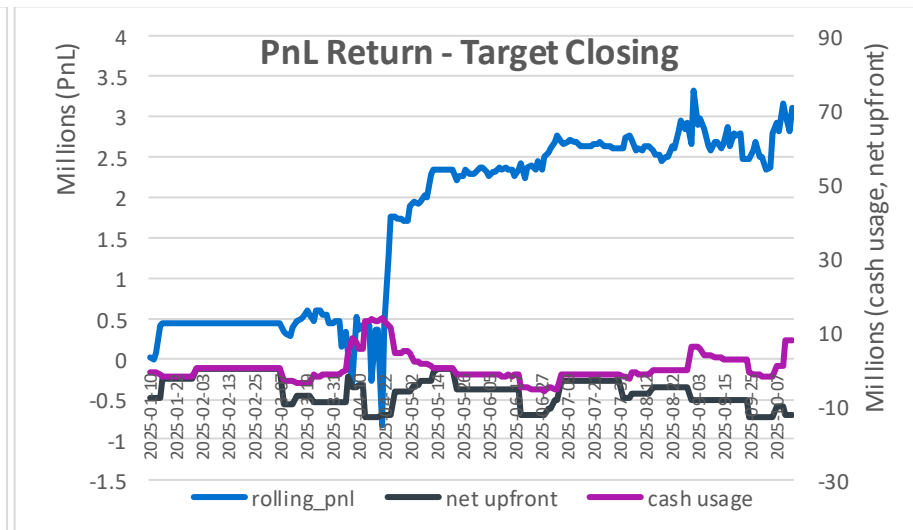
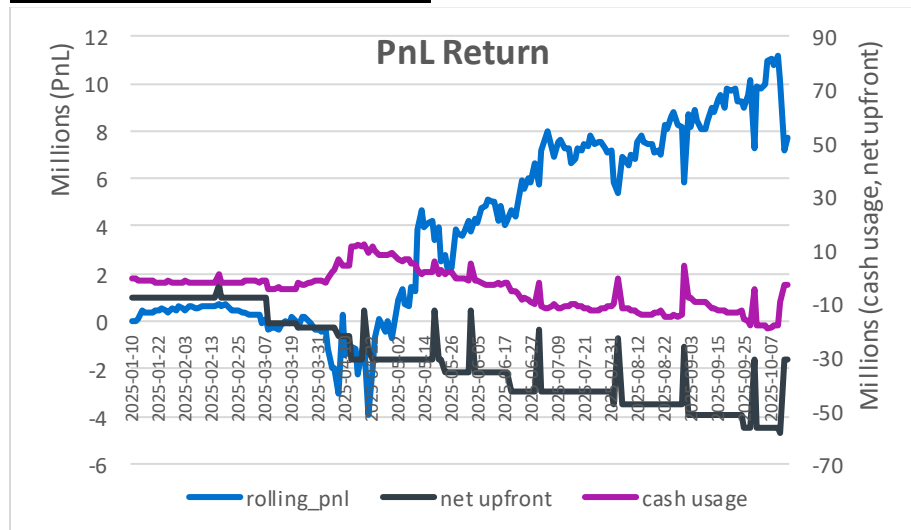
- Parameters: > -25bps Net Carry, >100k Net carry to maturity, Recent 3 series. Rest is the same
- Top 3 trades for each date. PnL generated to 10/10/2025
- This shows how you should have traded 2025 starting off**
- Note: Hedging(using index) below right isnt required as the expected net carry return is after any defaults



Portfolio Summary (as of 10/10/2025):

	Duration Buckets (absolute CRO1)														
Product Level	0-2	2-4	4-6	6-9	9-11	upfront	cash usage	carry (annual)	expected default loss (annual)	expected net carry return (annual)	index hedge notional	spread	hedge carry (annual)	Final Net Return (annual)	
CDX HY	-	16,008	- 164,605	-	-	2,788,247	28,455,292	11,927,606	- 10,480,152	1,447,454	758,300,000	330	- 25,023,900	- 23,576,446	
CDX IG	-	26,332	- 248,523	-	-	5,553,795	10,977,352	2,571,829	980,205	3,552,034	- 248,100,000	53	1,314,930	4,866,964	
ITRAXX MAIN	-	-	97,682	-	-	- 11,038,899	- 8,462,962	- 1,157,479	2,046,550	889,071	- 636,300,000	57	3,626,910	4,515,981	
ITRAXX XOVER	-	2,228	76,125	-	-	- 44,547,912	- 40,740,687	- 4,499,240	5,188,650	689,410	- 287,100,000	280	8,038,800	8,728,210	
ITRAXX FINS SUB	-	9,206	-	-	-	- 108,802	- 108,802	- 227,500	379,512	152,012	- 50,000,000	105	525,000	677,012	
									PnL:	6,729,981				PnL (If fully hedged):	- 4,788,279

Performance to date (10/10/2025):



Trades selected:

Trade #	Trade Date	Trade 1	Att-Detach 1	B/S 1	Trade 2	Att-Detach 2	B/S 2	Net Carry	Notional 1	Notional 2	Quote 1	Quote 2	cash usage	current pnl	target reached	target return pnl	pnl to maturity	pnl to maturity post defaults
1	10 January 2025	ITRAXX MAIN 42 5Y	0.03-0.06	Sel	CDX HY 41 5Y	0.35-1.0	Buy	38.2	2,900,000	15,000,000	215	34	- 2,040,486	115,652 [100%] [profitable:100.0%]	CLOSE ME!	59,363	107,055	107,055
2	10 January 2025	ITRAXX XOVER 42 5Y	0.35-1.0	Buy	CDX HY 43 5Y	0.0-1.0	Sel	366.9	34,500,000	50,000,000	92	318	- 465,491	1,410,977 [100.0%] [profitable:72.0%]	Y (4,877,983)	108,330	6,288,961	3,104,669
3	10 January 2025	CDX HY 43 5Y	0.15-0.25	Sel	CDX HY 41 5Y	0.35-1.0	Buy	163.2	2,300,000	15,000,000	395	34	- 1,853,632	118,289 [100.0%] [profitable:93.0%]	Y (129,607)	63,986	247,897	247,897
4	10 March 2025	CDX IG 43 5Y	0.03-0.07	Sel	ITRAXX XOVER 42 5Y	0.35-1.0	Buy	4.3	15,000,000	34,200,000	218	86	- 5,193,500	273,153 [100.0%] [profitable:88.0%]	CLOSE ME!	79,800	157,176	157,176
5	10 March 2025	CDX IG 43 5Y	0.03-0.07	Sel	CDX IG 41 5Y	0.0-1.0	Buy	10.8	15,000,000	82,700,000	218	37	- 360,911	321,359 [100.0%] [profitable:97.0%]	Y (84,855)	81,000	406,214	1,460,970
6	10 March 2025	CDX IG 43 5Y	0.07-0.15	Sel	ITRAXX XOVER 40 5Y	0.0-1.0	Buy	2.8	25,000,000	7,000,000	72	229	- 153,973	116,086 [100.0%] [profitable:85.0%]		140,250	254,362	783,417
7	21 March 2025	CDX HY 43 5Y	0.15-0.25	Sel	CDX HY 41 5Y	0.15-0.25	Buy	142.6	5,000,000	4,500,000	447	325	- 480,805	149,871 [56.0%] [profitable:76.0%]	Y (363,229)	60,850	513,101	513,101
8	21 March 2025	ITRAXX XOVER 42 5Y	0.35-1.0	Buy	CDX IG 43 5Y	0.07-0.15	Sel	201.2	6,000,000	25,000,000	87	71	- 573,374	222,160 [100.0%] [profitable:78.0%]	Y (373,036)	76,740	595,196	595,196
9	21 March 2025	ITRAXX FINS SUB 41 5Y	0.0-1.0	Buy	CDX IG 43 5Y	0.03-0.07	Sel	6.7	25,000,000	11,300,000	91	215	- 815,234	72,664 [16.0%] [profitable:65.0%]		89,250	187,374	1,120,035
10	08 April 2025	ITRAXX XOVER 42 5Y	0.2-0.35	Buy	ITRAXX XOVER 42 5Y	0.1-0.2	Sel	188.3	7,500,000	5,000,000	346	776	- 399,067	382,981 [189.0%] [profitable:97.0%]	Y (221,083)	70,725	604,064	604,064
11	08 April 2025	ITRAXX XOVER 42 5Y	0.2-0.35	Buy	ITRAXX MAIN 42 5Y	0.06-0.12	Sel	180.5	5,600,000	20,000,000	346	140	- 192,935	143,855 [100.0%] [profitable:96.0%]	Y (261,549)	76,104	405,405	405,405
12	08 April 2025	ITRAXX MAIN 42 5Y	0.12-1.0	Buy	ITRAXX MAIN 42 5Y	0.03-0.06	Sel	317.4	7,400,000	10,000,000	37	252	- 438,418	502,517 [226.0%] [profitable:97.0%]	Y (553,396)	174,048	1,055,914	1,055,914
13	14 April 2025	ITRAXX XOVER 42 5Y	0.35-1.0	Buy	CDX HY 44 5Y	0.0-1.0	Sel	427.6	34,700,000	50,000,000	115	420	- 1,347,396	2,489,848 [100.0%] [profitable:93.0%]	Y (6,524,595)	91,261	9,014,443	5,766,081
14	14 April 2025	CDX IG 43 5Y	0.03-0.07	Sel	ITRAXX MAIN 42 5Y	0.12-1.0	Buy	110.1	15,000,000	51,100,000	262	35	- 199,283	509,952 [100.0%] [profitable:93.0%]	Y (493,225)	79,050	1,003,178	1,003,178
15	14 April 2025	CDX HY 44 5Y	0.0-1.0	Sel	ITRAXX MAIN 42 5Y	0.12-1.0	Buy	292	50,000,000	110,000,000	420	35	- 1,466,086	2,367,116 [329.0%] [profitable:94.0%]	Y (6,713,144)	110,000	9,080,260	5,831,897
16	22 May 2025	CDX IG 43 5Y	0.07-0.15	Sel	ITRAXX XOVER 42 5Y	0.35-1.0	Buy	2.7	25,000,000	17,500,000	68	82	- 2,551,769	63,052 [100.0%] [profitable:75.0%]	Y (58,329)	57,000	121,381	121,381
17	22 May 2025	CDX IG 43 5Y	0.03-0.07	Sel	ITRAXX XOVER 42 5Y	0.2-0.35	Buy	31.3	14,700,000	10,000,000	205	222	- 83,903	117,021 [361.0%] [profitable:80.0%]	Y (246,435)	56,742	363,457	363,457
18	22 May 2025	CDX HY 43 5Y	0.15-0.25	Sel	ITRAXX XOVER 42 5Y	0.2-0.35	Buy	7.4	5,000,000	7,900,000	405	222	- 132,360	39,763 [100.0%] [profitable:75.0%]		77,750	124,221	124,221
19	19 June 2025	CDX HY 43 5Y	0.0-1.0	Sel	ITRAXX XOVER 42 5Y	0.35-1.0	Buy	139.5	19,400,000	35,000,000	335	84	- 3,910,430	210,281 [100.0%] [profitable:77.0%]	Y (1,392,608)	98,314	1,602,890	415,287
20	19 June 2025	CDX HY 43 5Y	0.0-1.0	Sel	CDX HY 41 5Y	0.35-1.0	Buy	211.4	5,500,000	15,000,000	335	33	- 1,292,476	114,563 [100%] [profitable:100.0%]	Y (541,785)	66,770	656,348	319,657
21	19 June 2025	CDX HY 43 5Y	0.0-1.0	Sel	ITRAXX XOVER 42 5Y	0.2-0.35	Buy	139.2	15,000,000	10,000,000	335	230	- 640,136	27,513 [14.0%] [profitable:17.0%]		94,800	1,227,276	309,026
22	01 August 2025	ITRAXX MAIN 42 5Y	0.0-1.0	Buy	CDX HY 43 5Y	0.0-1.0	Sel	2	212,100,000	40,000,000	52	326	- 905,046	143,205 [78.0%] [profitable:38.0%]		341,481	881,944	1,349,308
23	01 August 2025	CDX HY 41 5Y	0.35-1.0	Buy	CDX IG 43 5Y	0.07-0.15	Sel	49.3	15,000,000	18,200,000	25	61	- 1,341,091	112,473 [100%] [profitable:100.0%]	Y (247,462)	51,900	359,936	359,936
24	01 August 2025	CDX HY 43 5Y	0.0-1.0	Sel	CDX HY 41 5Y	0.35-1.0	Buy	222.8	5,600,000	15,000,000	326	25	- 1,130,722	117,172 [100%] [profitable:100.0%]	Y (556,540)	81,592	673,713	334,802
25	01 September 2025	ITRAXX XOVER 43 5Y	0.0-1.0	Buy	CDX HY 44 5Y	0.0-1.0	Sel	18.3	49,200,000	50,000,000	269	325	- 2,517,701	-14,724 [-5.0%] [profitable:12.0%]		216,480	1,447,131	2,428,431
26	01 September 2025	ITRAXX XOVER 43 5Y	0.0-1.0	Buy	CDX HY 43 5Y	0.0-1.0	Sel	8.7	39,500,000	40,000,000	269	314	- 1,235,997	128,919 [89.0%] [profitable:16.0%]		238,580	302,603	1,215,220
27	01 September 2025	CDX HY 43 5Y	0.0-1.0	Sel	CDX HY 42 5Y	0.0-1.0	Buy	38	25,600,000	25,000,000	314	276	- 1,720,438	118,391 [58.0%] [profitable:97.0%]	Y (716,961)	68,608	835,353	719,474
28	25 September 2025	CDX HY 43 5Y	0.0-1.0	Sel	CDX HY 43 5Y	0.35-1.0	Buy	127.2	11,800,000	35,000,000	297	50	- 3,712,898	-15,301 [-10.0%] [profitable:0.0%]		51,684	743,153	39,800
29	10 October 2025	ITRAXX MAIN 44 5Y	0.12-1.0	Buy	CDX IG 45 5Y	0.03-0.07	Sel	539.1	5,200,000	15,000,000	32	216	- 2,083,380	-48,197 [-845.0%] [profitable:0.0%]		56,784	1,596,337	1,596,337
30	10 October 2025	ITRAXX MAIN 42 5Y	0.12-1.0	Buy	CDX IG 45 5Y	0.03-0.07	Sel	541.2	5,300,000	15,000,000	24	216	- 2,095,035	-48,266 [-841.0%] [profitable:0.0%]		58,989	1,629,407	1,629,407
31	10 October 2025	ITRAXX MAIN 42 5Y	0.12-1.0	Buy	ITRAXX XOVER 44 5Y	0.1-0.2	Sel	187.2	11,800,000	5,000,000	24	480	- 1,691,676	-26,317 [-568.0%] [profitable:0.0%]		73,042	1,127,704	1,127,704

Additional trade details:

Trade #	Trade Date	Trade 1	Att-Detach 1	B/S 1	Trade 2	Att-Detach 2	B/S 2	Type	Beta Ratio	Signal	Net Upfront	max_pnl	min_pnl	current pnl
1	10 January 2025	ITRAXX MAIN 42 5Y	0.03-0.06	Sell	CDX HY 41 5Y	0.35-1.0	Buy	compression	0.19	164.1-	2,382,429	305,205 [273.0d] [100%]	27,008 [89.0d] [100%]	115,652 [100%] [profitable:100.0%]
2	10 January 2025	ITRAXX XOVER 42 5Y	0.35-1.0	Buy	CDX HY 43 5Y	0.0-1.0	Sell	compression	0.69	159.1-	3,105,875	1,544,946 [269.0d] [100.0%]	-2,088,953 [88.0d] [-200.0%]	1,410,977 [100.0%] [profitable:72.0%]
3	10 January 2025	CDX HY 43 5Y	0.15-0.25	Sell	CDX HY 41 5Y	0.35-1.0	Buy	compression	0.15	151.9-	2,128,283	135,817 [262d] [100.0%]	-95,184 [88d] [-30.0%]	118,289 [100.0%] [profitable:93.0%]
4	10 March 2025	CDX IG 43 5Y	0.03-0.07	Sell	ITRAXX XOVER 42 5Y	0.35-1.0	Buy	compression	0.44	971-	7,108,586	626,549 [30d] [100.0%]	-84,482 [2d] [-375.0%]	273,153 [100.0%] [profitable:88.0%]
5	10 March 2025	CDX IG 43 5Y	0.03-0.07	Sell	CDX IG 41 5Y	0.0-1.0	Buy	compression	0.18	603.3-	2,275,997	1,031,615 [214.0d] [100.0%]	-78,408 [29.0d] [-82.0%]	321,359 [100.0%] [profitable:97.0%]
6	10 March 2025	CDX IG 43 5Y	0.07-0.15	Sell	ITRAXX XOVER 40 5Y	0.0-1.0	Buy	compression	3.59	294.2-	433,466	417,819 [214.0d] [100.0%]	-163,276 [29.0d] [-350.0%]	116,086 [100.0%] [profitable:85.0%]
7	21 March 2025	CDX HY 43 5Y	0.15-0.25	Sell	CDX HY 41 5Y	0.15-0.25	Buy	compression	1.11	188.5-	160,325	193,446 [199d] [90.0%]	-258,232 [18d] [-315.0%]	149,871 [56.0%] [profitable:76.0%]
8	21 March 2025	ITRAXX XOVER 42 5Y	0.35-1.0	Buy	CDX IG 43 5Y	0.07-0.15	Sell	compression	0.24	169.2-	861,430	263,171 [199.0d] [100.0%]	-318,790 [18.0d] [-3890.0%]	222,160 [100.0%] [profitable:78.0%]
9	21 March 2025	ITRAXX FINS SUB 41 5Y	0.0-1.0	Buy	CDX IG 43 5Y	0.03-0.07	Sell	compression	2.22	166.1-	624,717	177,322 [19d] [205.0%]	-211,889 [13d] [-361.0%]	72,664 [16.0%] [profitable:65.0%]
10	08 April 2025	ITRAXX XOVER 42 5Y	0.2-0.35	Buy	ITRAXX XOVER 42 5Y	0.1-0.2	Sell	compression	1.5	180.1-	1,171,046	415,614 [178d] [282.0%]	-79,477 [1d] [-1459.0%]	382,981 [189.0%] [profitable:97.0%]
11	08 April 2025	ITRAXX XOVER 42 5Y	0.2-0.35	Buy	ITRAXX MAIN 42 5Y	0.06-0.12	Sell	compression	0.28	123.6-	785,954	155,597 [183d] [100.0%]	-87,245 [1d] [-4026.0%]	143,855 [100.0%] [profitable:96.0%]
12	08 April 2025	ITRAXX MAIN 42 5Y	0.12-1.0	Buy	ITRAXX MAIN 42 5Y	0.03-0.06	Sell	compression	0.74	122.4-	919,190	553,036 [178d] [286.0%]	-164,775 [1d] [-4319.0%]	502,517 [226.0%] [profitable:97.0%]
13	14 April 2025	ITRAXX XOVER 42 5Y	0.35-1.0	Buy	CDX HY 44 5Y	0.0-1.0	Sell	compression	0.69	327.5-	4,511,826	2,820,776 [175.0d] [100.0%]	-1,075,253 [179.0d] [-77.0%]	2,489,848 [100.0%] [profitable:93.0%]
14	14 April 2025	CDX IG 43 5Y	0.03-0.07	Sell	ITRAXX MAIN 42 5Y	0.12-1.0	Buy	compression	0.29	288.6-	2,451,950	557,116 [176d] [100.0%]	-123,921 [7d] [-701.0%]	509,952 [100.0%] [profitable:93.0%]
15	14 April 2025	CDX HY 44 5Y	0.0-1.0	Sell	ITRAXX MAIN 42 5Y	0.12-1.0	Buy	compression	0.45	273.4-	1,685,646	2,722,847 [175d] [540.0%]	-578,112 [7d] [-553.0%]	2,367,116 [329.0%] [profitable:94.0%]
16	22 May 2025	CDX IG 43 5Y	0.07-0.15	Sell	ITRAXX XOVER 42 5Y	0.35-1.0	Buy	compression	1.43	356.3-	2,876,622	71,861 [140d] [100.0%]	-41,476 [26d] [-25.0%]	63,052 [100.0%] [profitable:75.0%]
17	22 May 2025	CDX IG 43 5Y	0.03-0.07	Sell	ITRAXX XOVER 42 5Y	0.2-0.35	Buy	compression	1.47	219.7-	1,798,536	139,913 [140d] [2024.0%]	-56,911 [0d] [-2779.0%]	117,021 [361.0%] [profitable:80.0%]
18	22 May 2025	CDX HY 43 5Y	0.15-0.25	Sell	ITRAXX XOVER 42 5Y	0.2-0.35	Buy	compression	0.63	215.2-	800,179	120,622 [43d] [100.0%]	-40,026 [89d] [-278.0%]	39,763 [100.0%] [profitable:75.0%]
19	19 June 2025	CDX HY 43 5Y	0.0-1.0	Sell	ITRAXX XOVER 42 5Y	0.35-1.0	Buy	compression	0.55	42.3-	5,131,661	218,167 [117d] [100.0%]	-100,489 [1d] [-1101.0%]	210,281 [100.0%] [profitable:77.0%]
20	19 June 2025	CDX HY 43 5Y	0.0-1.0	Sell	CDX HY 41 5Y	0.35-1.0	Buy	compression	0.37	39.4-	1,638,701	124,785 [112d] [100%]	26,083 [1d] [100%]	114,563 [100%] [profitable:100.0%]
21	19 June 2025	CDX HY 43 5Y	0.0-1.0	Sell	ITRAXX XOVER 42 5Y	0.2-0.35	Buy	compression	1.5	32.7-	304,114	54,959 [15d] [168.0%]	-134,584 [63d] [-94.0%]	27,513 [14.0%] [profitable:17.0%]
22	01 August 2025	ITRAXX MAIN 42 5Y	0.0-1.0	Buy	CDX HY 43 5Y	0.0-1.0	Sell	compression	5.3	203-	1,786,498	242,226 [32d] [213.0%]	-239,723 [18d] [-363.0%]	143,205 [78.0%] [profitable:38.0%]
23	01 August 2025	CDX HY 41 5Y	0.35-1.0	Buy	CDX IG 43 5Y	0.07-0.15	Sell	compression	0.83	166.4-	1,612,015	138,961 [59d] [100%]	41,142 [0d] [100%]	112,473 [100%] [profitable:100.0%]
24	01 August 2025	CDX HY 43 5Y	0.0-1.0	Sell	CDX HY 41 5Y	0.35-1.0	Buy	compression	0.37	33.4-	1,510,218	127,779 [69d] [100%]	53,846 [0d] [100%]	117,172 [100%] [profitable:100.0%]
25	01 September 2025	ITRAXX XOVER 43 5Y	0.0-1.0	Buy	CDX HY 44 5Y	0.0-1.0	Sell	compression	0.98	362.7-	1,855,370	134,953 [1d] [1753.0%]	-201,144 [32d] [-110.0%]	-14,724 [-5.0%] [profitable:12.0%]
26	01 September 2025	ITRAXX XOVER 43 5Y	0.0-1.0	Buy	CDX HY 43 5Y	0.0-1.0	Sell	compression	0.99	236.5-	1,616,787	128,919 [43d] [89.0%]	-219,299 [31d] [-236.0%]	128,919 [89.0%] [profitable:16.0%]
27	01 September 2025	CDX HY 43 5Y	0.0-1.0	Sell	CDX HY 42 5Y	0.0-1.0	Buy	compression	1.02	74.3-	105,344	123,916 [28d] [99.0%]	-32,341 [0d] [-595.0%]	118,391 [58.0%] [profitable:97.0%]
28	25 September 2025	CDX HY 43 5Y	0.0-1.0	Sell	CDX HY 43 5Y	0.35-1.0	Buy	compression	0.34	30.6-	4,605,086	-10,873 [19d] [-6.0%]	-42,048 [0d] [-415.0%]	-15,301 [-10.0%] [profitable:0.0%]
29	10 October 2025	ITRAXX MAIN 44 5Y	0.12-1.0	Buy	CDX IG 45 5Y	0.03-0.07	Sell	compression	0.35	621.4-	942,860	-48,197 [0d] [-845.0%]	-48,197 [0d] [-845.0%]	-48,197 [-845.0%] [profitable:0.0%]
30	10 October 2025	ITRAXX MAIN 42 5Y	0.12-1.0	Buy	CDX IG 45 5Y	0.03-0.07	Sell	compression	0.35	609.2-	931,206	-48,266 [0d] [-841.0%]	-48,266 [0d] [-841.0%]	-48,266 [-841.0%] [profitable:0.0%]
31	10 October 2025	ITRAXX MAIN 42 5Y	0.12-1.0	Buy	ITRAXX XOVER 44 5Y	0.1-0.2	Sell	compression	2.36	306.1-	339,252	-26,317 [0d] [-568.0%]	-26,317 [0d] [-568.0%]	-26,317 [-568.0%] [profitable:0.0%]

My Playbook + Requirements:

Base Set Up:

Resources:

Staff: Myself and possibly 1 required. Experienced standard back-end data programmer. Extracting data from sources and saving it to a database

Data sources: Markit and Bloomberg

Software: Python, SQL, Excel, Visual Basics

Starting cash usage: 50-100mm. For margin, upfronts and t costs. Thereafter running cash usage will fall (Less cash than 2024-2025 Optimum Trades back test)

Margin Call: In severe market conditions, temporary access to up to 100mm variable margin may be required (worst case). (Less cash than 2024-2025 Optimum Trades back test)

Systematic model:

- **Standard parameters (same as optimum trades above):** Net Carry > -25bps, most recent 3 series as of trade date (liquidity and sizing), Expected return trades > 10%, Minimum return > 100k, PnL to maturity safe, Duration Range: 3-7yr (exclude 10yr tenors)
- **Risk tolerance:** Initially allow for up to 5-10mm negative PnL without forcefully getting closed out. As explained, it is unrealized mark to market shocks. These synthetic structures will pay out to maturity
- **Minimum strategy runtime:** For at least 2 years

Live Management:

- **Hybrid model:** Best of both from holding pairs and closing pairs. Only close trades where the current PnL is greater than the total PnL held to maturity (exceptional PnL'). Expect to mirror 2024-2025 optimum trade performances
- **Trade selection:** In times of volatility, greater volumes of trades are put on, especially when the signal is above 50. Tight Markets: default returns high, carry low). Wide Markets: default returns low, carry high. Therefore a selection optimizes the portfolio
- **Risk management:** Hedging can be done with liquid index using the calculated equivalent index hedge required to smooth PnL but may limit overall PnL harvested if defaults don't occur
- **Cash balances:** Any cash upfronts received post margin requirements are to be daily invested in overnight swaps or equivalent. Or for funding to charge or interest my account daily
- **Cash Management:** Buy Protection on single name CDS/Indices/Tranches with low spreads. 30bps IG or 180bps HY or less to reduce margin requirements/cash usage while minimizing carry cost. The overall portfolio will still have significant net carry minus expected defaults after hedging/margin reducing. Breakeven Rate (return on cash received) to counter the carry cost is:
$$(\text{Running CPN} - \text{Traded Spread}) \times (\text{Duration}) \times (\text{Notional}) \times (\text{Breakeven Rate}) = (\text{Notional}) \times (\text{Traded Spread})$$

