

Rates Volatility Update

USD & EUR Vol

Global Markets
Structured Rates Trading
EMEA & US

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17th June, 2025

0. Structured Rates Market / Client Themes

1. Rates vol QIS strategies:

- Performance drivers?
- Market performed to perfection?
- Change in client flows?

2. Growth of (retail) distributions business

- Private bank / broker distribution to HNWIs, managed accounts => significant move from EQ into FI, and within FI from Credit to Rates / Hybrid
- Structured funds / wrapped insurance products: often containing rates callable features
- Slowdown / shifts in classic institutional structured note demand

3. Growth of repack business, levered asset swaps

- Government bond spreads cheap compared to credit
- Increased appetite for leverage
- Structured feature overlays (callable, CMS)
- Significant pickup available without selling optionality

4. Dutch PF reform

- Timing of expected changes in ALM hedges
- Impact on options and spread options

Contents

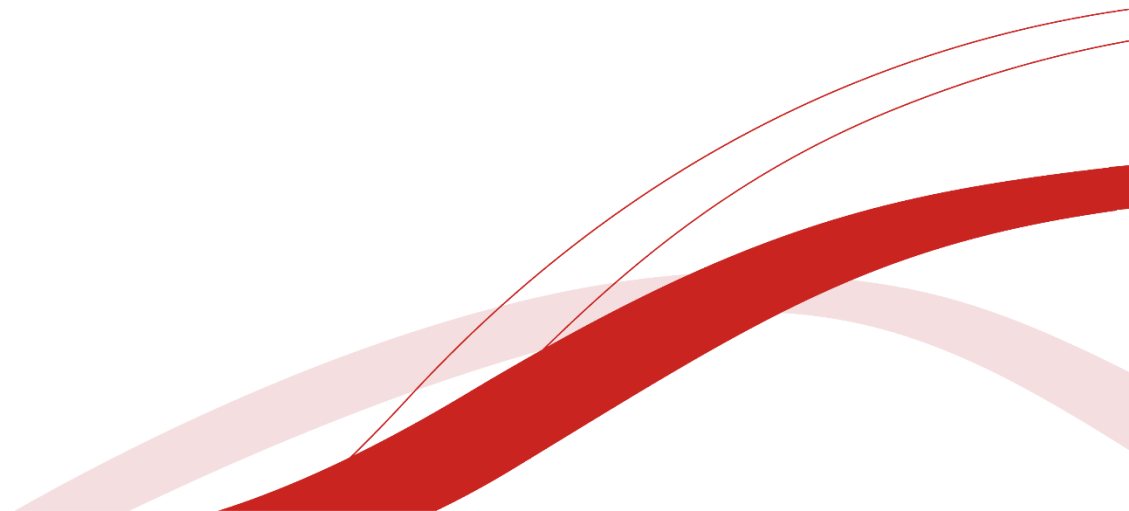
USD Market Update

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EUR Market Update

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3. Curve Vol: The primary instrument of the vol market
4. Dutch Pension Reform: The effect of anticipation
5. EUR Steepener via Covered Caps

USD Vol Update



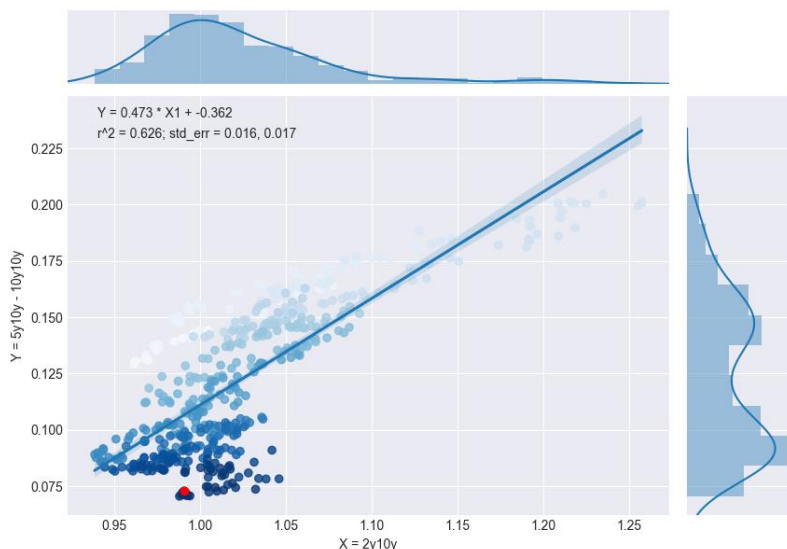
1. USD Market Snapshot

USD							
spot rates				fwd rates			
	Chg(bps)	31-Dec-2024	6-Jun-2025		Chg(bps)	31-Dec-2024	6-Jun-2025
2y	-27.5	4.07	3.80	1y1y	-48.4	3.98	3.50
5y	-27.6	4.02	3.74	2y1y	-41.3	3.98	3.56
10y	-8.7	4.04	3.95	3y1y	-25.9	3.96	3.70
15y	2.6	4.08	4.11	2y2y	-33.8	3.97	3.63
20y	9.6	4.06	4.16	3y2y	-20.7	3.98	3.77
30y	18.1	3.90	4.08	5y5y	13.2	4.07	4.20
				10y10y	39.4	4.09	4.48
				10y20y	45.1	3.74	4.19
				20y10y	51.3	3.25	3.76
spreads							
	Chg(bps)	31-Dec-2024	6-Jun-2025				
2s5s	-0.1	-0.06	-0.06				
2s10s	18.9	-0.04	0.15				
2s30s	45.6	-0.18	0.28				
5s10s	19.0	0.02	0.21				
5s30s	45.8	-0.12	0.34				
10s30s	26.8	-0.14	0.13				
20s30s	8.6	-0.17	-0.08				
Vol Chg	3m	1y	2y	5y	10y	20y	30y
1m	-12.5	1.5	0.0	-2.3	-6.2	-6.2	-5.7
3m	-1.3	-1.3	-4.6	-3.3	-4.5	-2.8	-2.1
6m	-1.3	-2.3	-3.8	-2.3	-3.3	-0.5	0.4
1y	-3.7	-4.5	-5.1	-2.4	-2.9	0.5	1.5
2y	-3.7	-2.4	-2.1	-1.2	-1.6	0.8	1.6
3y	-2.0	-1.5	-2.4	-1.1	-0.5	1.2	1.8
5y	-0.6	-0.6	0.7	0.1	0.9	1.8	2.1
7y	-0.5	-0.5	0.4	1.3	1.9	2.1	2.3
10y	2.4	1.4	1.7	2.4	3.1	2.6	2.8
15y	5.1	4.1	3.8	4.3	5.0	4.1	4.1
20y	5.1	4.1	4.7	4.6	5.5	3.8	3.8

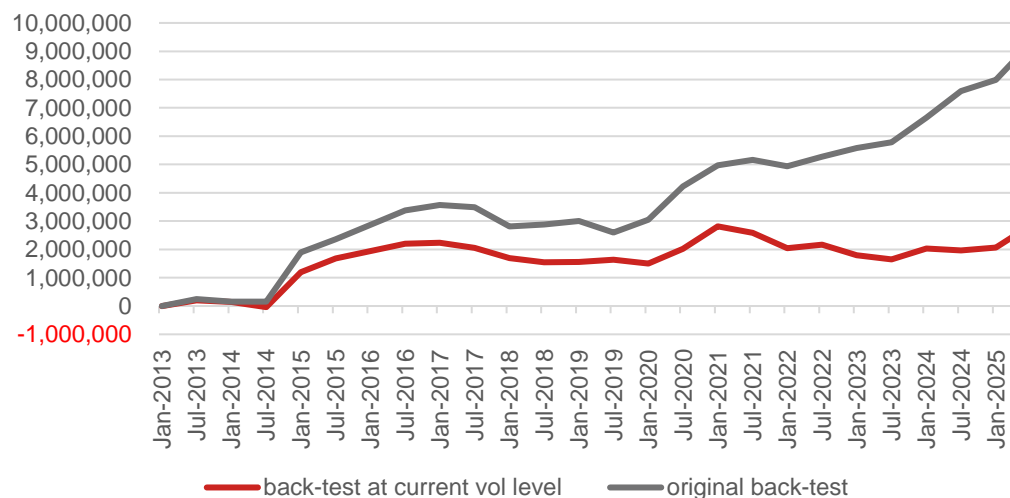
2. Vega Slope: Trading vs. Investing

- Back-Tests of owning USD bottom right vols have looked great over a 10–20-year period where the vol had been kept particularly depressed by callable supply such as Formosa and the PnL performance has been great owing to very good carry/gamma metrics.
- The drying up of supply, new highs in stock markets and new regime in rates meant an interest in this vega from non-traditional accounts.
- 2024 became the year of remarkable QIS demand for vega. This, along with crowded skew positioning meant a significant outperformance by this part of the surface
- With the vols at current levels a lot of the juice from the back-tests have been taken out. How much will this carry on? The battle of “investing” vs. “trading” begins here?
- 5y expiry and 10y expiry have similar characteristics from skew positioning and legacy callable dynamics, the flow that mainly sets the two apart is QIS and dealer positioning around it.
- It seems clear that interests in these strategies is not going to die down suddenly without a trigger at this point even with historically high levels of bottom right vols. What can happen is attempts to tactically time entry points, diversify currencies or potentially even move to shorter expiries.

5y10y – 10y10y vol regressed against 2y10y vol



QIS style back-test of long 10y20y strategy
USD 10y20y straddle back-test for 100k vega

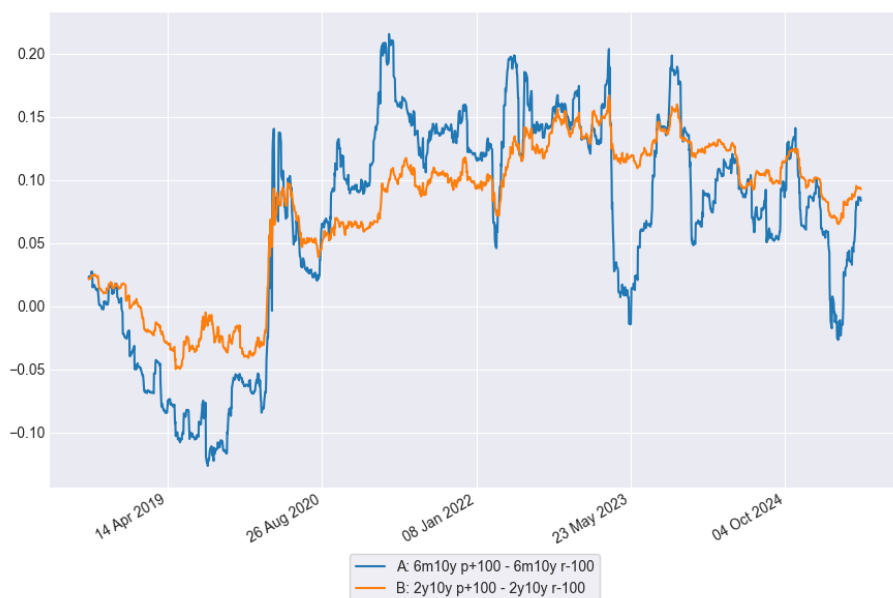


3. Vega Skew: A structural repricing

USD vega skew has been a point of interest over the hiking cycle as it squeezed to all-time highs across the entire vega complex a few times over the past 5 years.

- The skew managed to reach all time highs due to multiple reasons: 1) lack of new Formosa supply 2) re-striking of long vega positions to higher or new atm strikes in the sell off 3) flip in the vanna behavior of Bermudan options as we sold off well beyond the peak vega exposure 4) buying of payers early on during the covid pandemic 5) QIS buying of vega at the current (higher) forwards and rebalancing related to it.
- A few episodes of the skew repricing lower have occurred, most predominantly around this time in 2024 largely on the back of large Insurance receiver buying programs and more recently in Dec 2024 to Feb 2025 on the back of Bessent's focus on rates coupled with general risk off on the turn in sentiment of US exceptionalism.
- The post liberation day move though has once again brought interest in this skew as we are now marching back towards the highs.
- As we repeatedly test 5% on 30y UST and fear a break-out, is it really the 10y expiry skew that should be sought or are shorter expiries (say 6m-2y) better to own?

6m10y and 2y10y +/-100 risk reversals (vol differential)



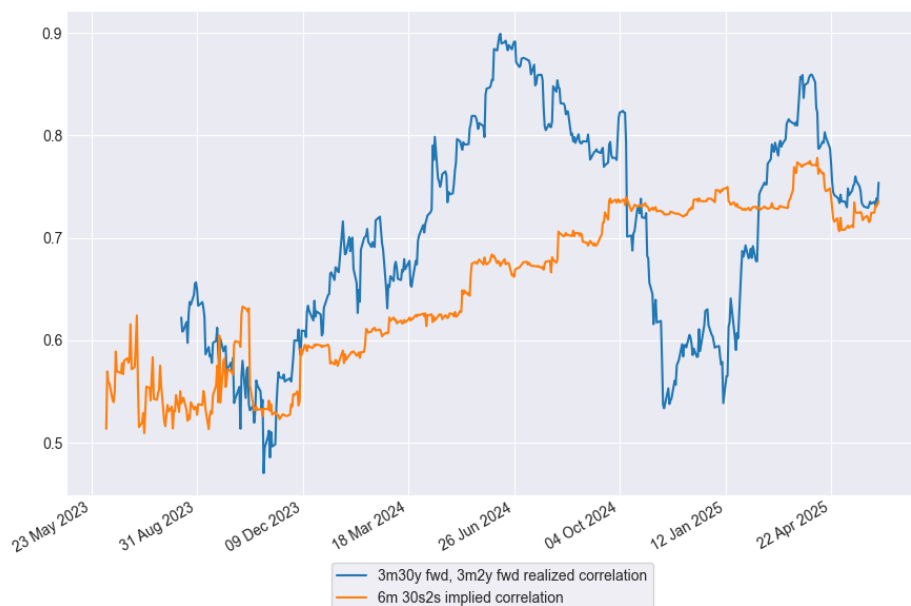
5y30y and 15y10y +/- 100 risk reversals (vol differential)



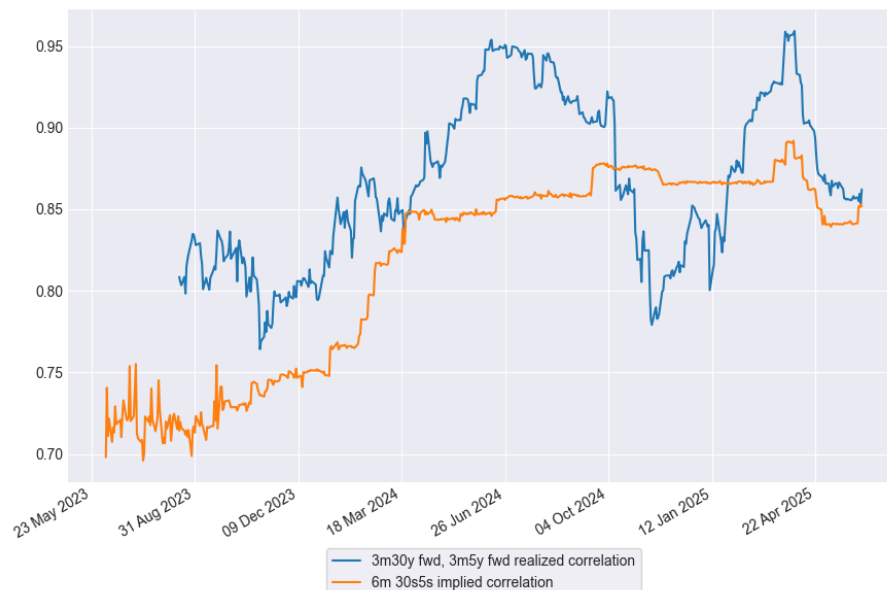
4. USD Curve Vol: Starts from a low base?

- 2024 was probably one of the better years for short curve vol (outright or vs. vanilla vol)
- Liberation day and its aftermath potentially exposed positioning in curve vol from RV players
- We have now had 2 episodes of curve correlation breakdowns in recent months. With Trump tweets changing sentiments, the intraday action has been even more punchy.
- This has coincided with macro accounts buying caps for outsized moves (deep cuts or long end instability) and arguably dealer positioning is now not as long spread vol from the overhang of 2024 flows.
- While markets seem a bit calmer now, correlation break-down can have more extreme impacts in coming months as we start from a low base.

6m 30s2s implied corr and realized corr of 3m30y,3m2y fwds



6m 30s5s implied corr and realized corr of 3m30y,3m5y fwds



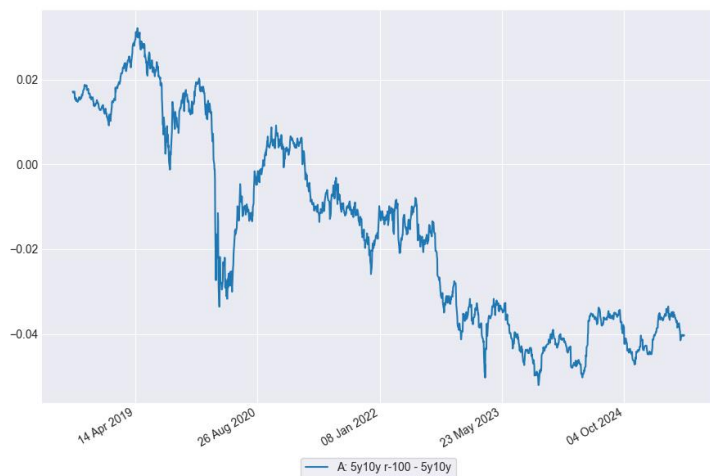
5. USD Vega Receiver: Buy 5y10y Receiver

Buy USD 100mm 5y10y atmf-100 receivers @ 341c FP (fwd ref 4.35%)

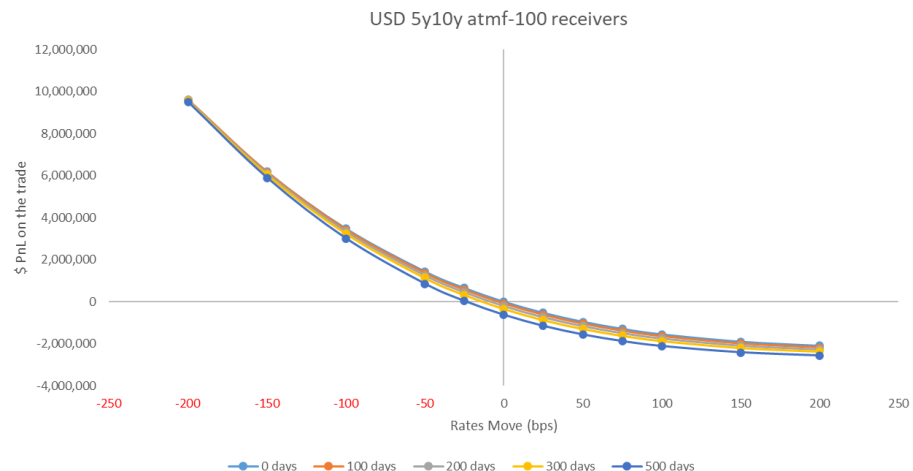
5y10y receiver skew is near all-time lows, a lot of which is justified too. We think though that the low strike inventory might soon get further interest from Insurance companies buying receivers in intermediate expiries.

The argument against it can be that vol would go down in the rally, which is probably true but it is in the skew pricing already. Moreover if a rally in rates comes from some sort of credit crisis and credit widening, then the berm dynamics wouldn't play out and vol may actually not go down or even go up in which case the trade would prove really interesting.

5y10y atmf-100 – atmf vol differential



PnL profile of the trade with rates move and passage of time



PnL profile of the trade with rates move and passage of time

time/rates (bps)	-200	-150	-100	-50	-25	0	25	50	75	100	150	200
0 days	9,596,720	6,191,760	3,482,379	1,441,693	652,170	0	-530,029	-954,216	-1,288,842	-1,549,261	-1,900,789	-2,096,530
100 days	9,611,549	6,169,049	3,425,014	1,359,331	561,957	-95,067	-627,370	-1,051,812	-1,385,277	-1,643,667	-1,990,211	-2,181,432
200 days	9,606,934	6,130,293	3,354,444	1,266,394	462,456	-198,151	-731,490	-1,155,001	-1,486,185	-1,741,502	-2,081,211	-2,266,352
300 days	9,568,047	6,054,757	3,246,619	1,138,459	330,061	-331,551	-863,064	-1,282,694	-1,608,727	-1,858,312	-2,186,766	-2,362,694
500 days	9,509,356	5,902,493	3,011,693	851,888	32,156	-631,794	-1,158,269	-1,567,549	-1,880,011	-2,114,621	-2,414,042	-2,566,610

6. Bear Steepener with protection: 10y 5s30s

Buy USD 100mm 10y30y 5% payer

Sell USD 380mm 10y5y 5% payer

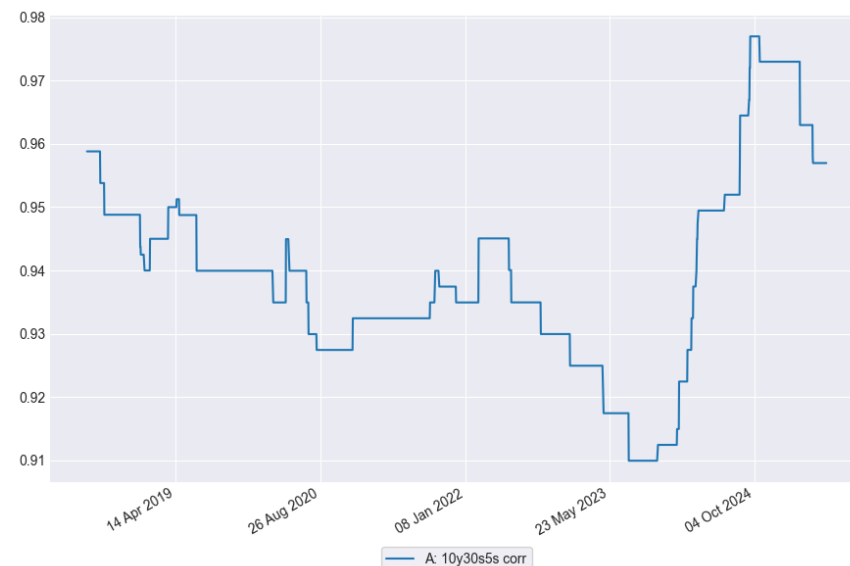
Buy 1375mm 10y SL 5s30s 0% floor

Zero initial cost

Fwd spread ref -61.3bps, spot spread ref +33.7bps

5y carry: +1.5mm

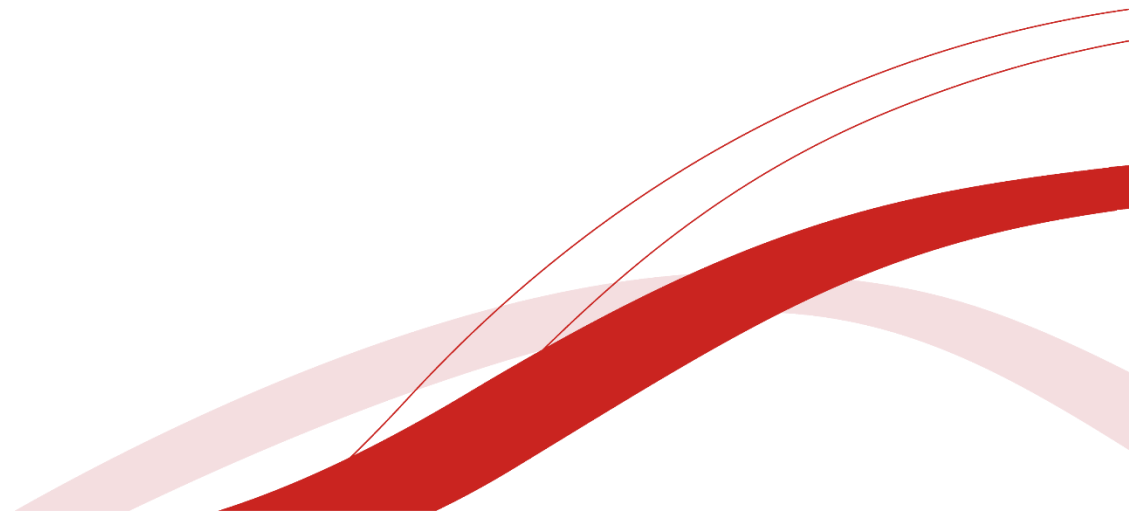
10y 30s5s implied correlation



10y 5s30s bear steep with floor payoff matrix (cash IRR assumption for swaption)

5y rates/30y rates		30													
Payoff (in \$mm)		1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8
1.5		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.27	13.76	19.59	24.82	29.53	33.77
2		6.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.27	13.76	19.59	24.82	29.53	33.77
2.5		13.75	6.88	0.00	0.00	0.00	0.00	0.00	0.00	7.27	13.76	19.59	24.82	29.53	33.77
3		20.63	13.75	6.88	0.00	0.00	0.00	0.00	0.00	7.27	13.76	19.59	24.82	29.53	33.77
3.5		27.50	20.63	13.75	6.88	0.00	0.00	0.00	0.00	7.27	13.76	19.59	24.82	29.53	33.77
4		34.38	27.50	20.63	13.75	6.88	0.00	0.00	0.00	7.27	13.76	19.59	24.82	29.53	33.77
4.5		41.25	34.38	27.50	20.63	13.75	6.88	0.00	0.00	7.27	13.76	19.59	24.82	29.53	33.77
5		48.13	41.25	34.38	27.50	20.63	13.75	6.88	0.00	7.27	13.76	19.59	24.82	29.53	33.77
5.5		46.89	40.01	33.14	26.26	19.39	12.51	5.64	-1.24	-0.85	5.65	11.47	16.70	21.41	25.66
6		45.87	38.99	32.12	25.24	18.37	11.49	4.62	-2.26	-1.87	-2.24	3.58	8.81	13.52	17.77
6.5		45.06	38.19	31.31	24.44	17.56	10.69	3.81	-3.06	-2.67	-3.05	-4.10	1.13	5.84	10.09
7		44.46	37.59	30.71	23.84	16.96	10.09	3.21	-3.66	-3.27	-3.65	-4.70	-6.34	-1.64	2.61
7.5		44.06	37.19	30.31	23.44	16.56	9.69	2.81	-4.06	-3.67	-4.05	-5.10	-6.74	-8.91	-4.66
8		43.86	36.98	30.11	23.23	16.36	9.48	2.61	-4.27	-3.88	-4.25	-5.30	-6.95	-9.12	-11.74

EUR Vol Update



1. EUR Market Snapshot

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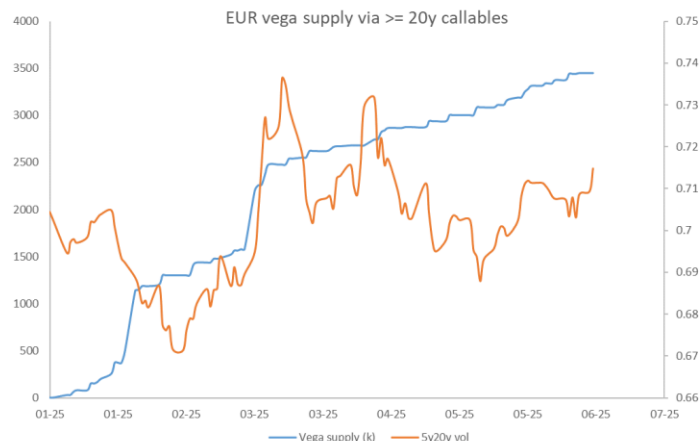
2. EUR CMS Cap: The oxygen of the market and it's vanna

- One consistent theme in the EUR market has been buying of CMS10 caps and cap spreads by Insurance companies for lapse risk.
- The market seems to digest this quite well as clips are not very large and generally balanced by callable issuance, not necessarily at the same time and are well absorbed.
- In big moves higher in rates and/or vol this inventory can have a more meaningful impact. We saw this explicitly in Sep 2022 and again in a smaller way in Feb 2025 post the German fiscal announcement.
- The programs in recent years do have lesser vanna than pre covid as the structures are more cap spreads than outright caps. Nevertheless, it is a risk scenario that can show up. Interestingly, the Feb 2025 episode has caused the collars up to 2y to reprice significantly higher. Longer expiries are still relatively low, also when you look at the corresponding story in the USD market.

An estimate of outstanding CMS cap spread inventory vanna dynamics

expiry/rates move (bps)	25	50	100
1m	0	0	0
3m	-2,620	-6,399	-43,450
6m	-20,020	-30,739	-89,117
1y	-44,493	-53,914	-108,639
18m	-50,708	-53,098	-78,741
2y	-69,224	-64,269	-66,936
3y	-104,370	-75,709	5,071
5y	-64,021	-19,649	146,837
7y	-3,933	1,381	23,257
10y	0	0	0
Total	-359,390	-302,397	-211,719

Estimate of EUR Vega Supply (in k) via $\geq 20y$ maturity callables



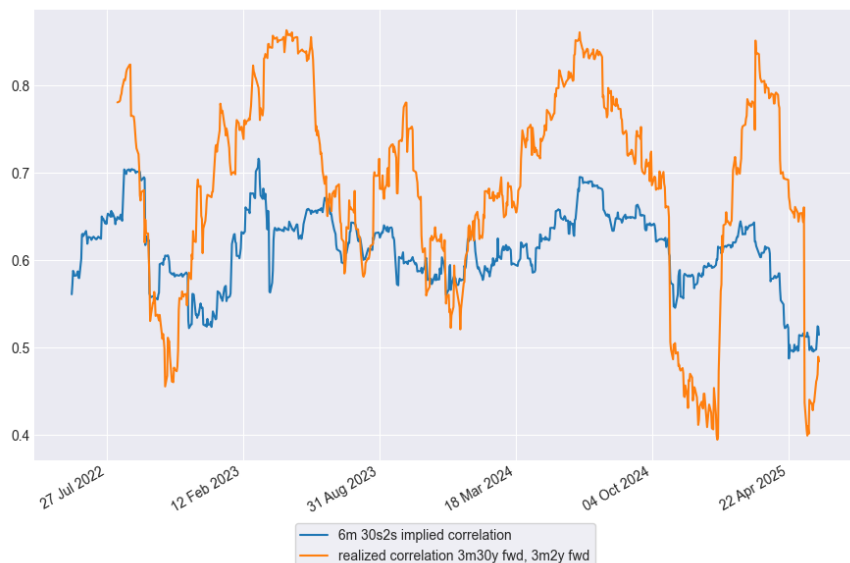
EUR 2y10y +/-100 and 10y10y +/-100 vol differentials



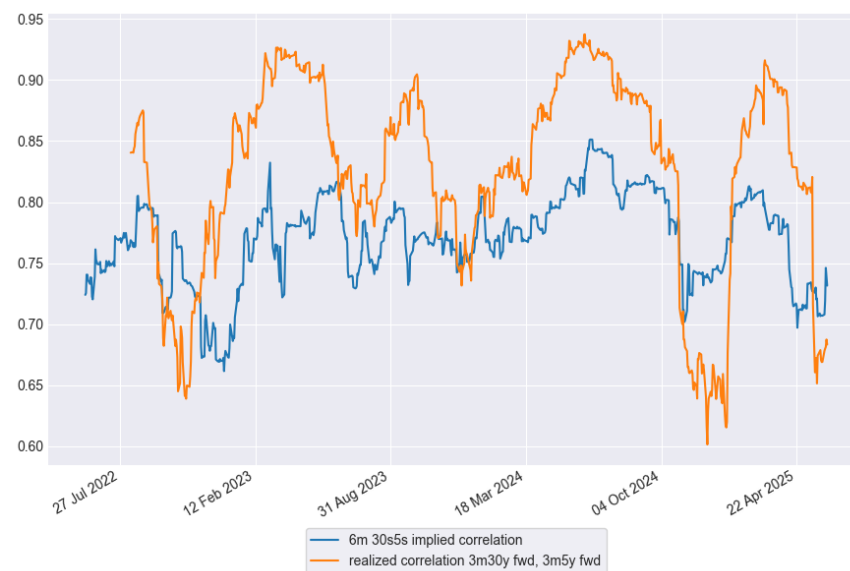
3. EUR Curve Vol: Primary Instrument in the Vol Market

- The EUR curve has had two major shocks in terms of behaviour recently i.e. where factor 2 moves have dominated meaningfully.
- The first one was around the US elections and then in the aftermath of Liberation day and April ECB.
- It is an interesting period in the EUR market where after years we have a situation where both bull steepening via aggressive ECB cuts and bear steepening on German Fiscal situation & Dutch Pension Reform are both serious concerns.
- Macro accounts have had persistent interest in curve caps on both these accounts as the fear of missing out on these two themes have been a primary concern.
- Is the market under-pricing the bull flattening risk, especially ahead of the Dutch pension reform? There are interesting contingent floors available for that scenario.

6m 30s2s implied corr and realized corr of 3m30y,3m2y fwds



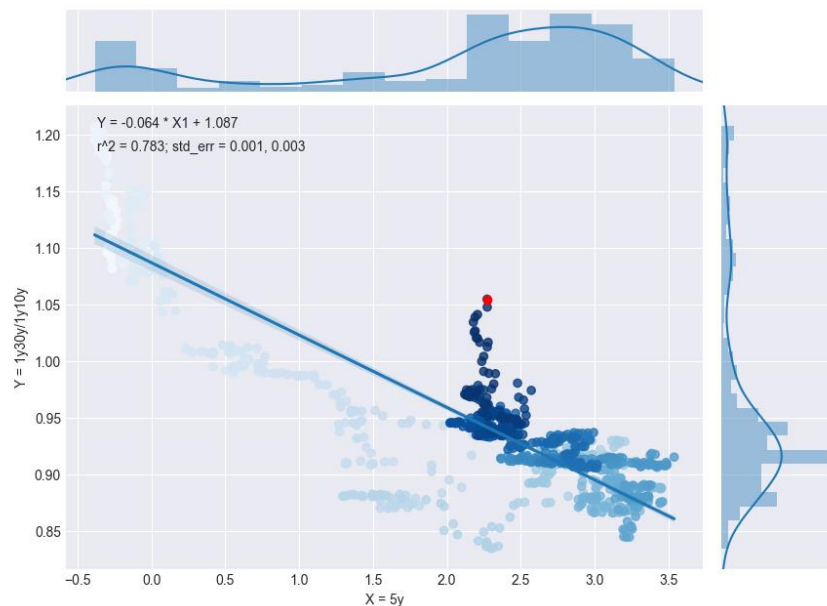
6m 30s5s implied corr and realized corr of 3m30y,3m5y fwds



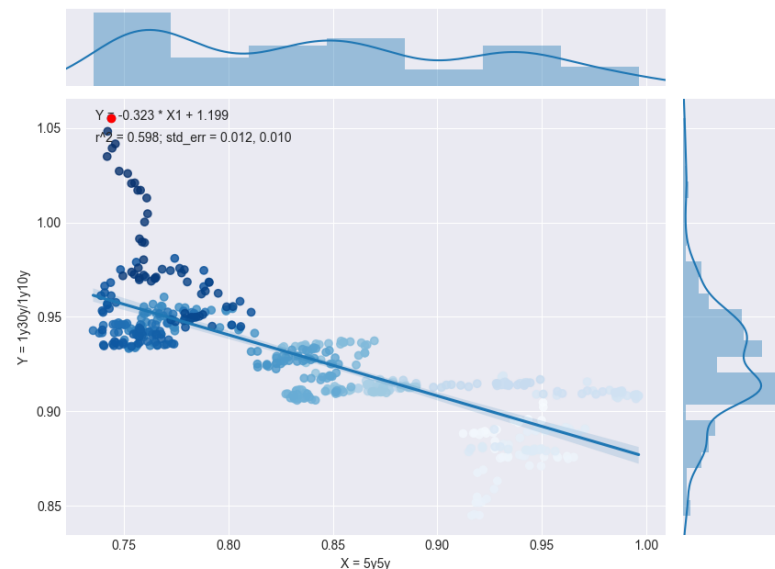
4. Dutch Pension Reform: The effect of anticipation

- The Dutch Pension reform has been one of the most anticipated topic so far this year in both EUR rates and vol market.
- There has been a lot of interest in the theme from vol accounts. Some of the most popular expressions have been
 1. **Buying outright curve caps (1y-2y expiry 2s30s, 5s30s, 10s30s caps)**
 2. **Buying curve cap calendars (selling 2025 expiry vs. buying 2026 expiry caps)**
 3. **Buying 1y30y vs. 6m30y and variations on that theme**
- The risk to bear in mind is any delays or inability to transition due to equity market corrections and/or big bull flattening in the rates curve causing funding ratios to be stressed. Contingent bull flatteners can be interesting trades to have on the book.
- **9m 30s10s 0.1 floor /14.9c FP**
- **9m 30s10s 0.1 floor, contingent on 10y<2.5 /5.5c FP**
- **spot refs: 10s30s 0.105, 10y 2.565**

1y30y/1y10y vol ratio vs. 5y spot rate



1y30y/1y10y vol ratio regression against 5y5y vol



5. EUR Steepener via Covered Caps: 1y fwd 2s30s

Covered EUR 1y 2s30s delta 1 steepener

Pay EUR 100k delta 1y fwd 2s30s @ 56bps

Sell EUR 1bn 1y SL 2s30s 100bp Cap

Receive EUR 1.25mm spot upfront

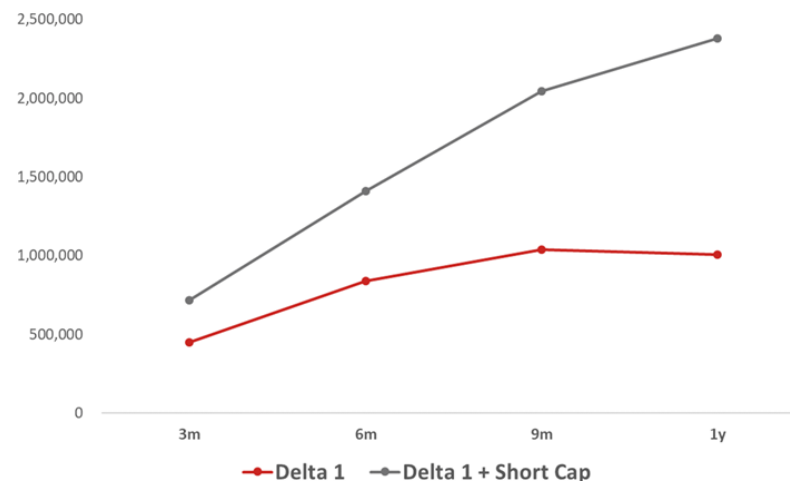
3m Carry +720k (450k coming from delta, remaining from option)

Unadj fwd ref 68bps

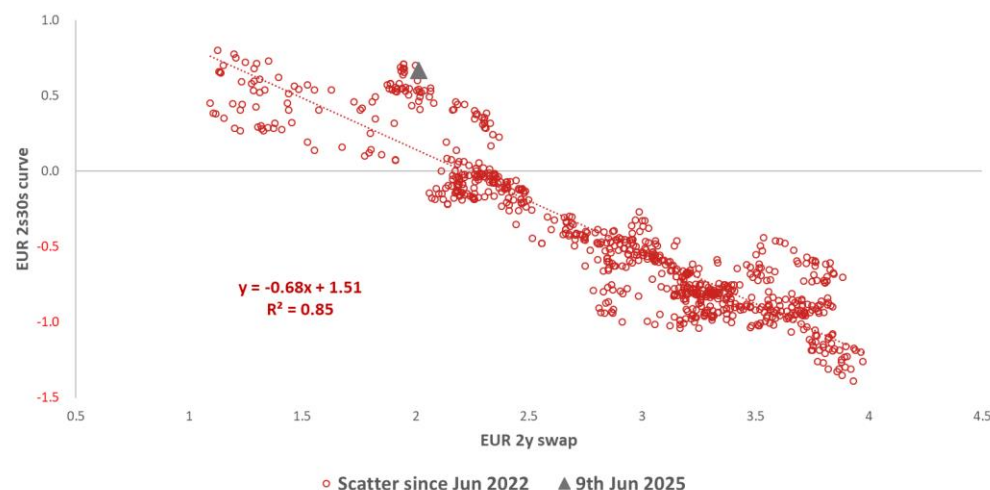
EUR 1y fwd 2s30s Covered cap strategy break-even



Carry Profile over time



EUR 2s30s curve vs. 2y spot rate



5. EUR Steepener via Covered Caps: 1y fwd 2s30s (2)

Break even vs. peak curve 2021 curve level for 1y expiry covered caps for various pairs

1y Expiry , 0.5 Vol OTM EUR Caps

Pair	Price (cents)	Spot level (bps)	Conv Adj Fwd (bps)	OTM by (bps)	Breakeven (bps)	2020 2021 curve peak	Breakeven - peak (bps)
2s10s	9.7	57.3	58.1	25	92.8	95.3	-2.5
2s30s	13.6	66.6	64.3	36	113.9	104.6	9.3
5s30s	10.5	41.1	36.2	27	73.7	81.4	-7.7
10s30s	7.4	9.3	6.1	18	31.5	44.3	-12.8

Break-even minus curve peak shows 2s30s covered caps as the best strategy

