



## EUR rates vol: Receiver skew falls as neutral in view

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### KEY MESSAGES

Risk premium in EUR rates vol looks overly compressed, in our view, given the current macro uncertainty and upcoming US election.

Recent declines have also taken prevailing EUR vol levels much closer to their 20-year averages.

We believe 3m5y offers an attractive point of the grid to express a long EUR vol view, as it can participate in either central-bank or US-election-related volatility.

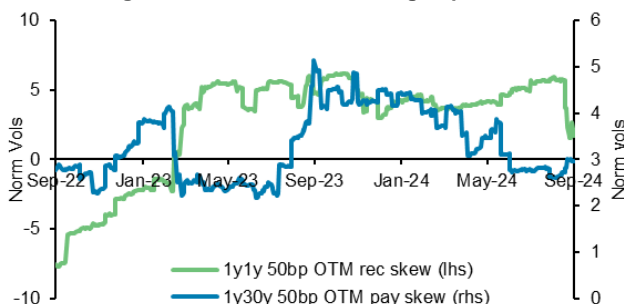
Whilst we have recently taken profit on EUR front-end longs, we consider that higher forwards in GBP leave room for UK yields to decline more than EUR yields in a sharp global risk-off scenario.

**Buy GBP 1y1y rec spread (A/A-75bp) at 26c, target 50c, 3m roll -4c. Notional: GBP125m.**

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Fig. 1: Skew moderates during September



Source: Bloomberg, BNP Paribas

### Receiver skew declines on short-dated underlyings after payer skew moderated on long-dated:

Receiver skew in the top-left declined sharply during September, moving to levels not seen since before the concern fuelled by Silicon Valley Bank in March 2023. One rationale is that the strong rally in front-end EUR rates has moved the market closer to neutral rate and therefore the left side of the distribution has become more truncated. Another factor has been the popularity of receiver spread structures, which have put downward pressure on receiver skew.

On the other side of the grid, a more gradual downward trajectory has been evident in payer skew as central banks have entered cutting cycles and term-premium fears have subsided.

### Risk premium looks compressed given macro uncertainty and US election:

Low realised vol and systematic vol selling have kept EUR gamma near the lows of the 2y range. However, with the US election result and the magnitude of the next Fed cut both priced as a near coin-toss, we believe the risk/reward favours owning EUR gamma at these levels. The ongoing tense geopolitical situation in the Middle East offers another potential source of volatility to the financial markets.

We believe that in EUR rates vol 3m5y offers potentially the most attractive point on the grid to express a long vol view. This area of the grid has a less punitive recent implied/realised ratio than longer-dated tails. Also, the 5y underlying is short enough to benefit from risk-off induced volatility but long enough to capture the potential of renewed term-premium concerns following the US election.

### Take profit on EUR lower yields trades, initiate in GBP:

Given the strength of the front-end rally, we recently took profit on both our [7 Nov expiry 1y strangle](#) and [2s10s conditional bull steepener](#).

The 1y1y €STR forward is now around 1.7%, significantly below our baseline expectation for an ECB cutting cycle that ends at 2.25%. The current EUR forward pricing is also close to the lower end of our estimated range of neutral rate in the eurozone of 1.5–2.5% (see [Global outlook Q4 2024: Cutting it fine](#), dated 6 September).



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Please refer to important information at the end of the report and MAR disclosures.



Given the potential for a sharper slowdown in growth than currently expected by the market to push forward pricing below our estimate of neutral, we do not currently attempt to fade the EUR front-end rally; however, we do believe the time is right to reduce our previous front-end long exposure.

Across the English Channel, the picture looks slightly different, as more robust economic data and stickier inflation have kept 1y1y forwards at 3.45%, above BNPP's estimated neutral range of 2–3%. Whilst recent data may justify this GBP rates divergence, we believe that if the global economy catches a significant cold, then the UK economy will not be immune. With the BoE priced for a slower cutting cycle than the ECB or Fed, and forwards above our expected neutral rate, in this scenario GBP front-end could have more room to rally.

Therefore, we enter a new trade to buy a GBP 1y1y A/A-75bp receiver spread, which aims to gain in the event of a more pronounced slowdown in economic growth leading to a front-loaded BoE cutting cycle. Given the risk of UK data continuing to hold firm, the limited-loss option structure is favoured over an outright position

**Buy GBP 1y1y rec spread (A/A-75bp) at 26c fwd premium, target 50c, 3m roll -4c. Notional: GBP125m.**

**Looking to long-term averages:** We arrived into 2024 with a bearish view on vol, expecting 1y10y to decline by roughly 10–20% (see [Macro vol 2024 outlook](#), dated 11 January). Since then, 1y10y vols have declined significantly, moving to the down by 21%, to the lower end of our expected range.

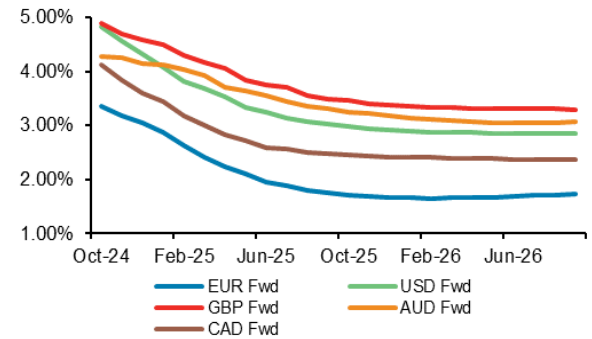
Following the recent move lower, current vol levels are just above the long-term averages of the past 20 years. Given the prevailing macro environment, we believe that EUR vol has likely reached its nadir this year, particularly in the top-right, which looks the cheapest part of the grid versus its 20-year average.

**Fig. 5: Current NV percentile from 2004**

	1y	2y	5y	10y	20y	30y
1m	79%	74%	66%	52%	41%	37%
3m	77%	72%	65%	57%	48%	46%
6m	75%	72%	67%	61%	52%	49%
1y	74%	73%	67%	61%	55%	53%
5y	72%	73%	70%	64%	63%	62%
10y	79%	82%	76%	68%	80%	80%
20y	88%	88%	76%	75%	88%	86%

Source: Bloomberg, BNP Paribas

**Fig. 2: GBP yields priced for slow decline- 1m forwards**



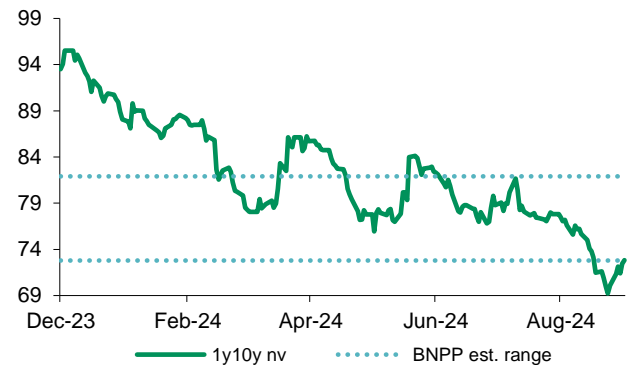
Source: BNP Paribas

**Fig. 3: GBP 1y1y vol near 2y lows**



Source: Bloomberg, BNP Paribas

**Fig. 4: EUR 1y10y norm vol**



Source: BNP Paribas

**Fig. 6: Current NV minus avg from 2004**

	1y	2y	5y	10y	20y	30y
1m	24	22	8	-6	-11	-14
3m	24	21	8	-1	-6	-8
6m	26	23	10	1	-3	-5
1y	27	24	12	4	-0	-1
5y	10	10	7	5	5	4
10y	9	10	7	6	6	7
20y	10	10	6	5	6	6

Source: Bloomberg, BNP Paribas



1. ATM vols (1/2)

ATM vol grid

Current norm vols						
	1y	2y	5y	10y	20y	30y
1m	76	82	76	64	63	61
3m	76	81	77	70	69	68
6m	78	82	77	72	70	69
1y	83	84	78	74	71	70
5y	81	81	77	75	71	70
10y	78	78	74	71	66	64
20y	70	70	65	61	56	54

Source: BNP Paribas

1m change in vol						
	1y	2y	5y	10y	20y	30y
1m	9	10	7	0	0	-1
3m	7	4	3	-1	-1	-1
6m	3	2	0	-2	-2	-2
1y	0	-2	-4	-4	-4	-4
5y	-3	-3	-3	-2	-1	-1
10y	-4	-3	-2	-1	-1	0
20y	-2	-2	-1	0	1	1

Source: BNP Paribas

Current norm vol percentile						
	1y	2y	5y	10y	20y	30y
1m	50%	34%	17%	4%	3%	3%
3m	44%	20%	9%	3%	4%	5%
6m	24%	15%	5%	3%	3%	5%
1y	12%	6%	2%	2%	2%	2%
5y	2%	2%	2%	1%	2%	2%
10y	1%	2%	2%	2%	23%	53%
20y	2%	2%	4%	58%	85%	95%

Percentile based on 2y avg. Source: BNP Paribas



Source: BNP Paribas

Vol grid RV (vs 1y10y tether point)

Current norm vol spread (colour coded by Z-score)						
	1y	2y	5y	10y	20y	30y
1m	-5	2	-2	-12	-14	-15
3m	-3	1	-2	-7	-8	-9
6m	2	6	1	-3	-5	-6
1y	9	10	4	0	-3	-4
5y	8	8	4	2	-2	-3
10y	5	5	1	-1	-6	-8
20y	-2	-3	-8	-11	-17	-19

Z-score colours

-2 StDev

+2 StDev

Z-score based on 2y avg. Red=cheap, green=rich. Source: BNP Paribas

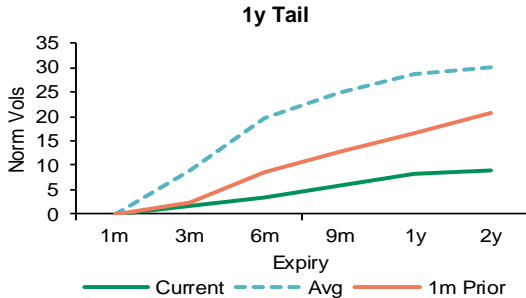
Norm vol spread percentile						
	1y	2y	5y	10y	20y	30y
1m	84%	62%	45%	18%	42%	45%
3m	80%	55%	37%	31%	66%	72%
6m	78%	55%	36%	36%	82%	88%
1y	65%	61%	50%		97%	97%
5y	87%	88%	90%	91%	97%	98%
10y	97%	97%	98%	98%	98%	98%
20y	98%	98%	98%	98%	98%	98%

Percentile based on 2y avg. Source: BNP Paribas

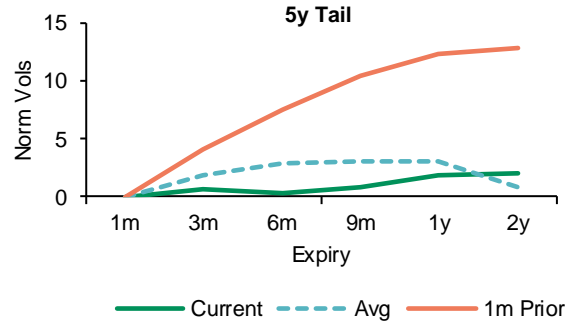


# 1. ATM vols (2/2)

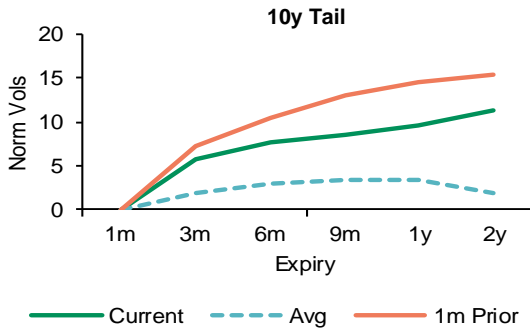
## Gamma steepness



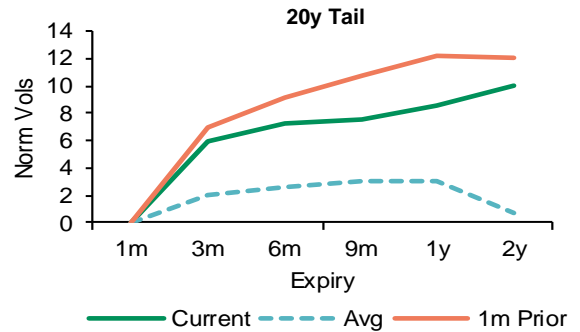
Avg. slopes based on 2y period. Expiry slope relative to 1m expiry level. Sources: Bloomberg, BNP Paribas



Avg. slopes based on 2y period. Expiry slope relative to 1m expiry level. Sources: Bloomberg, BNP Paribas

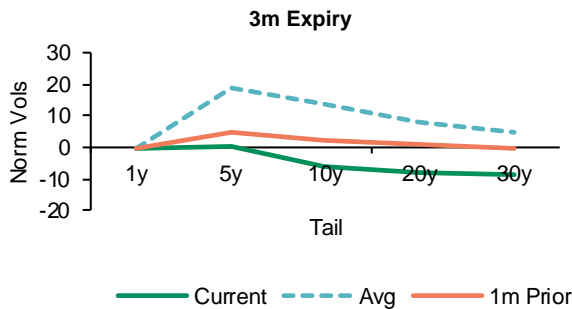


Avg slopes based on 2y period. Expiry slope relative to 1m expiry level. Sources: Bloomberg, BNP Paribas

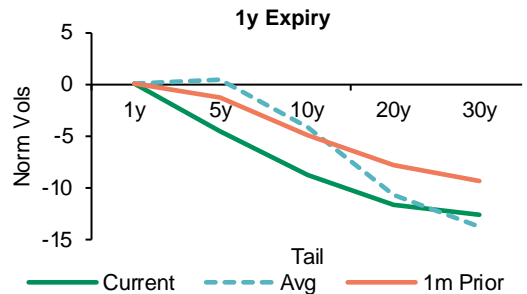


Avg slopes based on 2y period. Expiry slope relative to 1m expiry level. Sources: Bloomberg, BNP Paribas

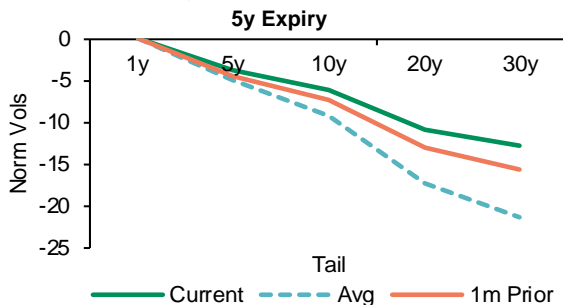
## Tail steepness



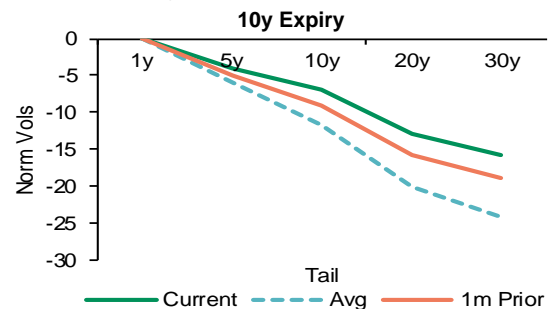
Avg. slopes based on 2y period. Underlying slope relative to 1y underlying level. Sources: Bloomberg, BNP Paribas



Avg. slopes based on 2y period. Underlying slope relative to 1y underlying level. Sources: Bloomberg, BNP Paribas



Avg. slopes based on 2y period. Underlying slope relative to 1y underlying level. Sources: Bloomberg, BNP Paribas



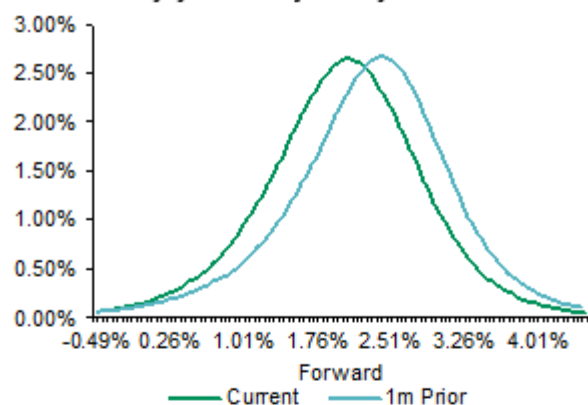
Avg. slopes based on 2y period. Underlying slope relative to 1y underlying level. Sources: Bloomberg, BNP Paribas



# Option implied distributions (1/2)

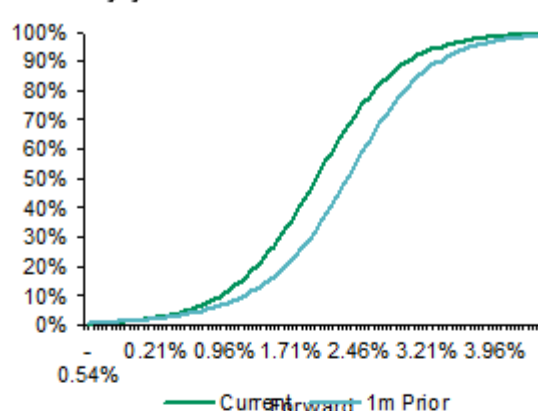
## Probability distributions

### 1y1y Probability Density Function



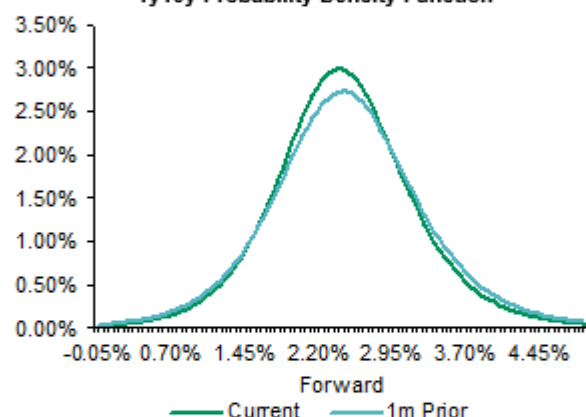
Current 1y1y distribution compared to last month's distribution for a 1y mid-curve option on the 13m fwd 1y swap. Source: BNP Paribas

### 1y1y Cumulative Distribution Function



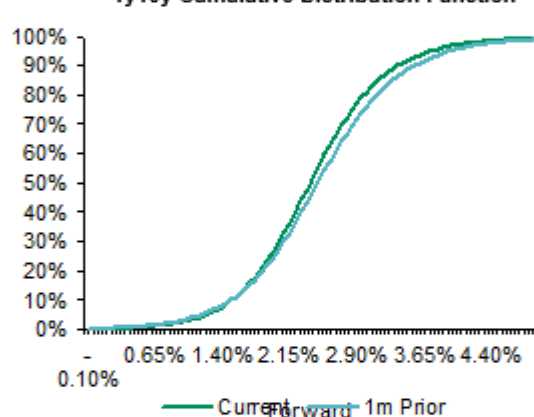
Current 1y1y distribution compared to last month's distribution for a 1y mid-curve option on the 13m fwd 1y swap. Source: BNP Paribas

### 1y10y Probability Density Function



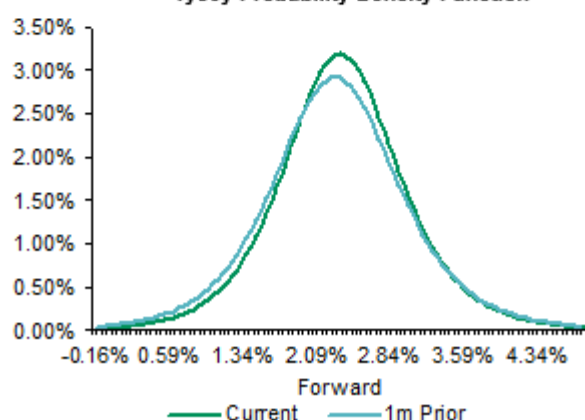
Current 1y10y distribution compared to last month's distribution for a 1y mid-curve option on the 13m fwd 10y swap. Source: BNP Paribas

### 1y10y Cumulative Distribution Function



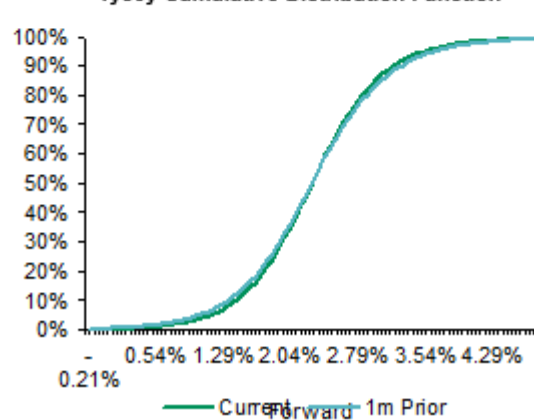
Current 1y10y distribution compared to last month's distribution for a 1y mid-curve option on the 13m fwd 10y swap. Source: BNP Paribas

### 1y30y Probability Density Function



Current 1y30y distribution compared to last month's distribution for a 1y mid-curve option on the 13m fwd 30y swap. Source: BNP Paribas

### 1y30y Cumulative Distribution Function



Current 1y30y distribution compared to last month's distribution for a 1y mid-curve option on the 13m fwd 30y swap. Source: BNP Paribas



# Option implied distributions (2/2)

## European Central Bank upcoming meeting distributions

Yield change vs current ESTR	ECB meeting				
	Oct	Dec	Jan	Mar	Apr
<= -1.25%	0%	2%	15%	45%	65%
-1.00%	0%	5%	22%	27%	18%
-0.75%	0%	23%	35%	18%	10%
-0.50%	9%	49%	22%	7%	4%
-0.25%	75%	19%	6%	2%	2%
0.00%	16%	2%	1%	1%	1%
0.25%	0%	0%	0%	0%	0%
>= 0.5%	0%	0%	0%	0%	0%

Sources: Bloomberg, BNP Paribas



Sources: Bloomberg, BNP Paribas





## 2. Realised vol and correlation

### Realised versus implied

Current implied / realised ratio

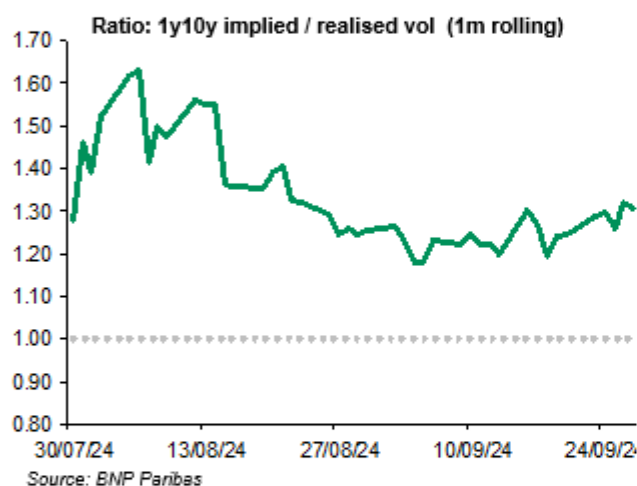
	1y	2y	5y	10y	20y	30y
1m	105%	102%	111%	113%	123%	125%
3m	91%	95%	111%	123%	134%	137%
6m	84%	92%	110%	125%	136%	139%
1y	89%	100%	118%	132%	140%	143%
5y	161%	159%	152%	152%	147%	145%
10y	156%	156%	152%	146%	140%	135%
20y	152%	154%	146%	137%	124%	116%

1m realised vol. Source: BNP Paribas

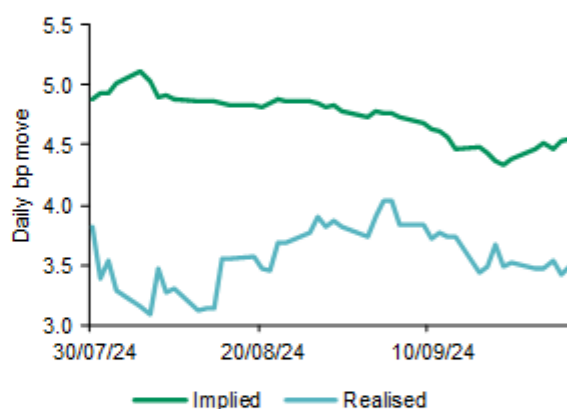
1-month prior implied / realised ratio

	1y	2y	5y	10y	20y	30y
1m	101%	111%	109%	109%	114%	116%
3m	93%	106%	110%	116%	122%	123%
6m	94%	108%	114%	120%	125%	126%
1y	109%	120%	123%	126%	130%	132%
5y	136%	140%	130%	132%	127%	127%
10y	139%	145%	134%	130%	124%	120%
20y	131%	131%	123%	122%	111%	107%

1m realised vol. Source: BNP Paribas



1y10y implied versus realised daily vol (1m rolling)



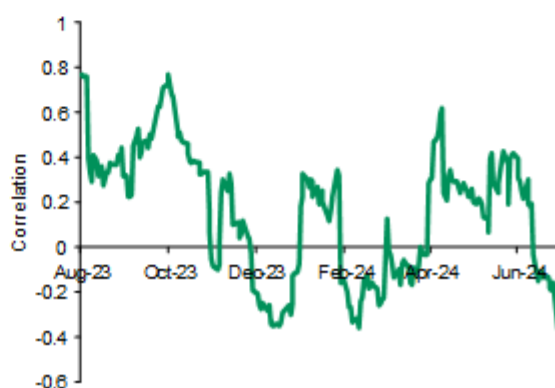
### Rates vs vol correlation

Correlation: vol vs fwd

	1y	5y	10y	20y	30y
6m	-50%	-28%	-28%	-36%	-39%
1y	-28%	-30%	-37%	-44%	-48%
5y	-19%	-26%	-30%	-37%	-39%
10y	-6%	-11%	-11%	-7%	-9%
30y	28%	19%	10%	19%	13%

1m correlation. Sources: Bloomberg, BNP Paribas

1y10y correlation: implied vol versus fwd





## 3. Skew (1/2)

### Current skew

Payer vol (50bp OTM) – ATMf vol

	1Y	5Y	10Y	20Y	30Y
1M	-0.57	2.50	7.14	8.51	7.87
3M	-0.13	2.42	6.15	6.15	
6M	-1.82	1.95	4.48	4.77	4.69
1Y	0.17	2.23	3.44	3.17	2.96
5Y	2.64	2.18	1.78	1.56	1.35
10Y	2.13	1.64	1.30	1.22	1.15
20Y	1.63	1.02	0.97	0.93	0.85

Heat bars show current level relative to 2y range. Source: BNP Paribas

Receiver vol (50bp OTM) – ATMf vol

	1Y	5Y	10Y	20Y	30Y
1M	15.59	11.08	8.78	7.95	7.96
3M	14.54	10.62	5.07	5.75	
6M	10.03	5.70	2.47	3.46	3.72
1Y	2.63	0.98	0.19	0.77	1.30
5Y	-1.83	-1.36	-0.79	-0.42	-0.27
10Y	-1.74	-1.18	-0.81	-0.61	-0.48
20Y	-1.33	-0.75	-0.56	-0.48	-0.36

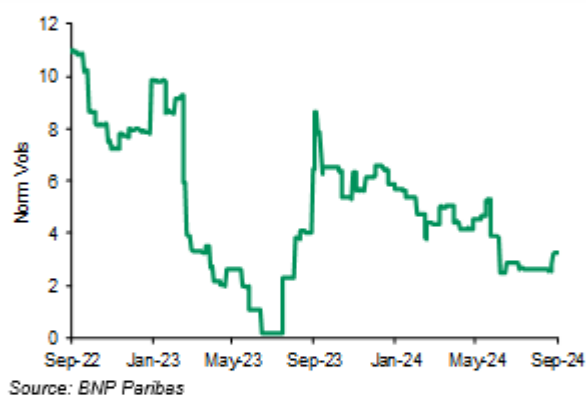
Heat bars show current level relative to 2y range. Source: BNP Paribas

100bp wide collar vol spread

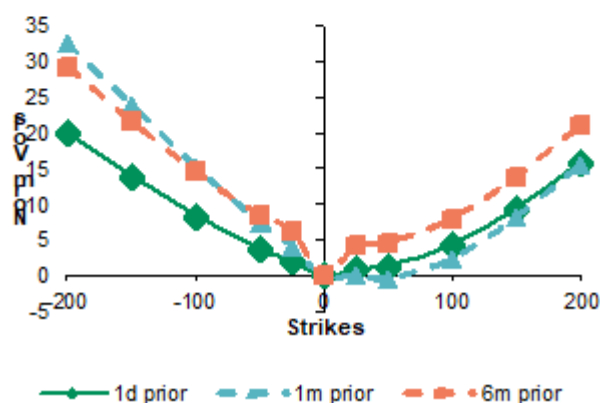
	1Y	5Y	10Y	20Y	30Y
1M	-16.16	-8.58	-1.64	0.57	-0.08
3M	-14.67	-8.20	1.08	0.39	
6M	-11.85	-3.74	2.01	1.30	0.97
1Y	-2.46	1.25	3.26	2.39	1.66
5Y	4.47	3.54	2.57	1.98	1.62
10Y	3.87	2.82	2.11	1.83	1.64
20Y	2.96	1.77	1.53	1.41	1.20

Heat bars show current level relative to 2y range. Source: BNP Paribas

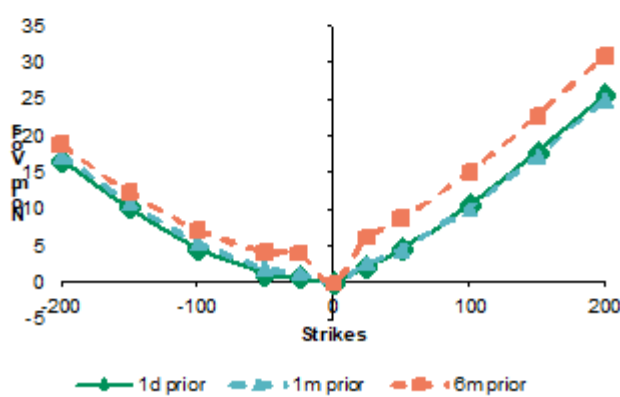
1y10y 100bp wide collar



1y1y skew changes



1y10y skew changes

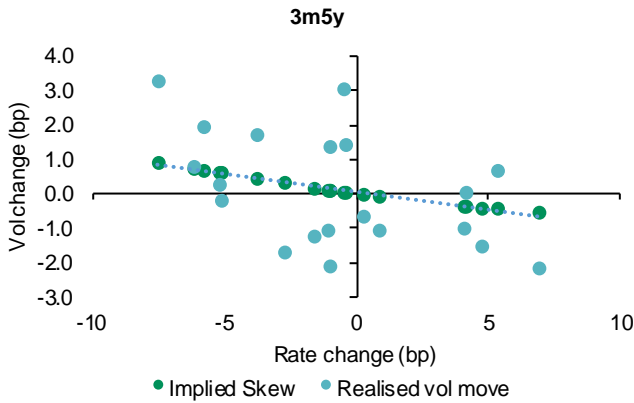




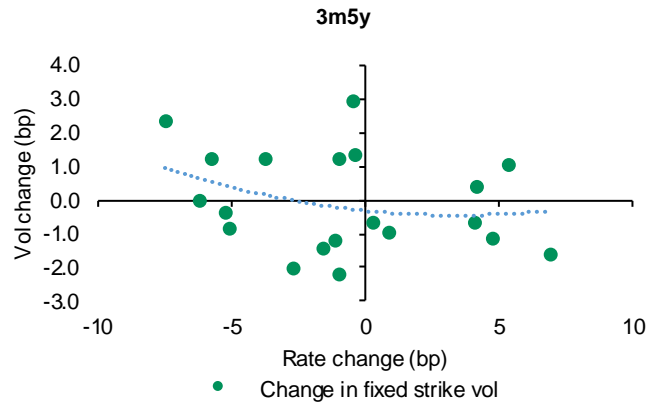


## 3. Skew (2/2)

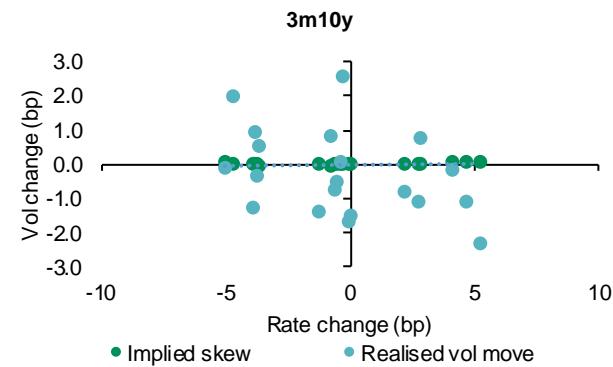
### Implied versus realized skew<sup>1</sup>: 1m history (daily changes)



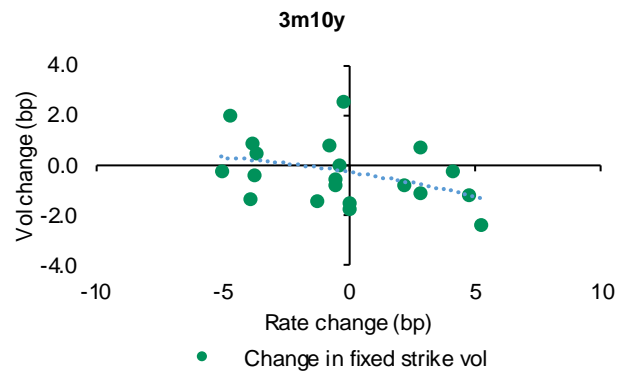
Source: BNP Paribas



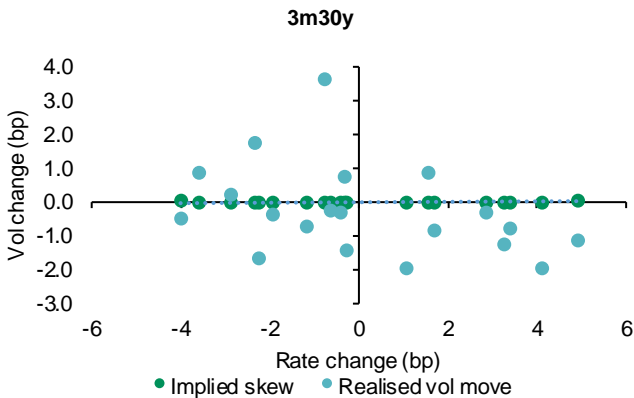
Source: BNP Paribas



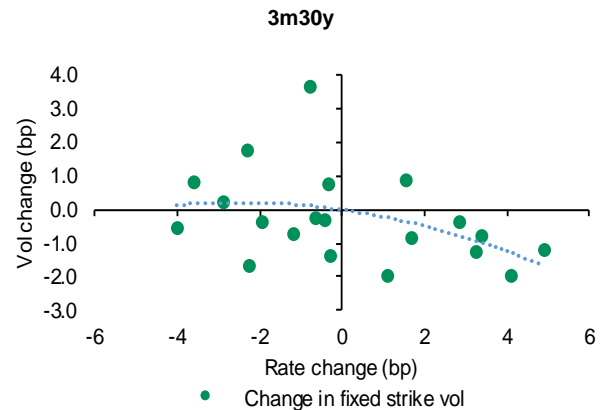
Source: BNP Paribas



Source: BNP Paribas



Source: BNP Paribas



Source: BNP Paribas

<sup>1</sup>Implied skew = Vol skew implied by realized 1d rate move

Realized skew = Realized vol move after 1d rate move (on 1d aged swaption)

Fixed strike vol change = realized - implied skew



# 4. Constant maturity swap curve volatility

## Curve spread vol

Spread implied vol

Maturity	Spread		
	2s10s	5s10s	10s30s
1y	51	26	30
2y	49	26	30
5y	39	24	27

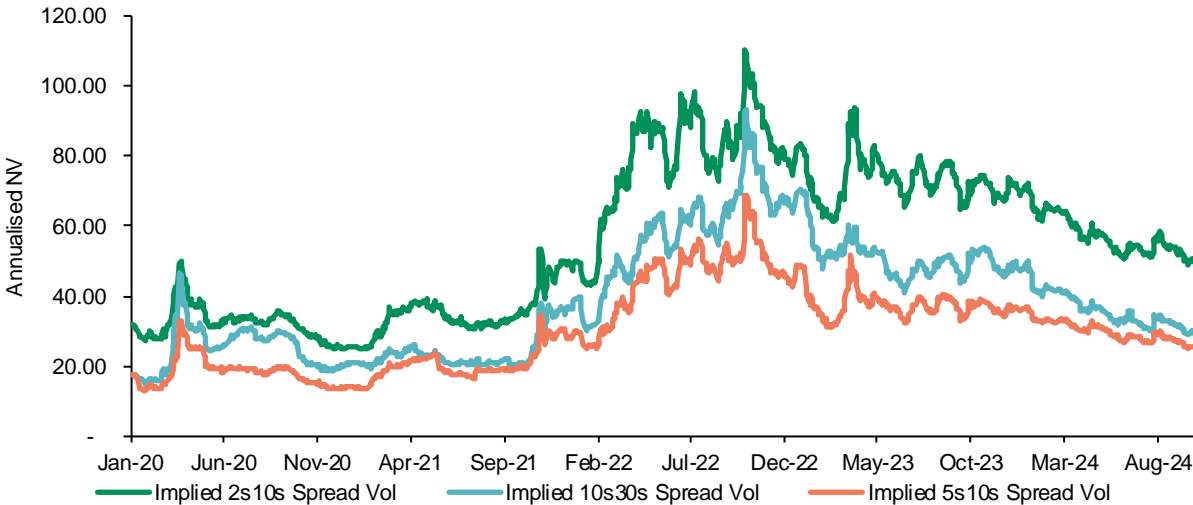
Source: BNP Paribas

Implied – realised (21d)

Maturity	Spread		
	2s10s	5s10s	10s30s
1y	9	7	14
2y	8	8	14
5y	-2	5	11

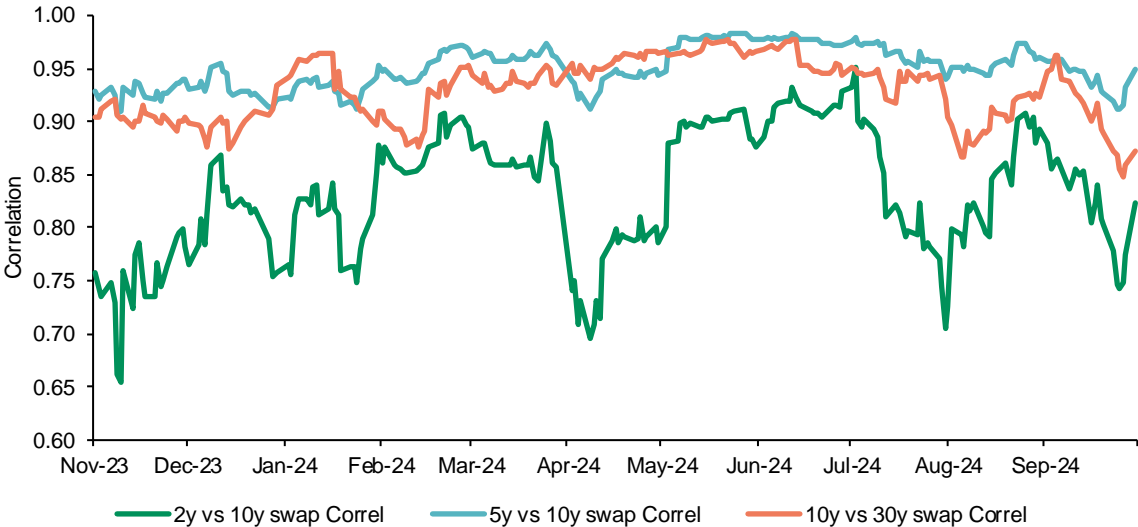
Source: BNP Paribas

CMS spread vol: 1y options



Source: BNP Paribas

Swap curve realised correlation



1m rolling correlation. Sources: Bloomberg, BNP Paribas



5. Inter-currency vol relative value

Inter-currency vol spreads

EUR minus USD: norm vols

Current levels							Z-score						
	1Y	2Y	5Y	10Y	20Y	30Y		1Y	2Y	5Y	10Y	20Y	30Y
1M	-55	-28	-22	-11	-20	-19	1M	-0.7	0.3	-0.2	-0.1	-0.6	-1.1
3M	-41	-32	-30	-29	-21	-19	3M	-0.4	-0.4	-0.7	-1.2	-1.2	-1.2
6M	-26	-31	-31	-16	-13	-19	6M	0.4	-0.4	-1.0	-0.5	-0.6	-1.3
1Y	-38	-31	-27	-23	-19	-19	1Y	-0.5	-0.7	-1.2	-1.5	-1.2	-1.5
5Y	-27	-17	-17	-15	-14	-20	5Y	-1.1	-1.1	-1.2	-1.7	-1.6	-1.6
10Y	-9	-15	-8	-10	-10	-12	10Y	-0.8	-1.5	-0.9	-1.7	-0.9	-0.9
20Y	-3	-2	-4	-5	-9	-12	20Y	-1.7	-1.6	-1.0	-1.6	-1.0	-1.3

Z-score based on 2y avg. Sources: Bloomberg, BNP Paribas

Z-score based on 2y avg. Sources: Bloomberg, BNP Paribas

EUR minus GBP: norm vols

Current levels							Z-score						
	1Y	2Y	5Y	10Y	20Y	30Y		1Y	2Y	5Y	10Y	20Y	30Y
1M	-28	-15	-20	-3	-26	-10	1M	0.4	0.7	0.5	0.6	0.5	1.0
3M	-12	-31	-25	-28	-19	-16	3M	0.9	0.3	0.4	0.4	0.8	0.9
6M	-32	-30	-19	-19	-10	-16	6M	0.4	0.5	0.1	0.6	0.6	1.0
1Y	-27	-28	-22	-19	-27	-18	1Y	0.4	0.8	0.7	0.4	0.2	0.9
5Y	-21	-10	-16	-12	-14	-18	5Y	0.5	0.6	0.0	-0.1	0.4	-0.2
10Y	-8	-12	-7	-8	-10	-9	10Y	1.0	-0.1	0.7	0.3	0.7	0.8
20Y	-3	-2	-7	-10	-13	-12	20Y	0.8	0.4	0.5	0.3	0.6	0.1

Z-score based on 2y avg. Sources: Bloomberg, BNP Paribas

Z-score based on 2y avg. Sources: Bloomberg, BNP Paribas

USD minus GBP: norm vols

Current levels							Z-score						
	1Y	2Y	5Y	10Y	20Y	30Y		1Y	2Y	5Y	10Y	20Y	30Y
1M	27	14	2	7	-7	9	1M	0.7	0.6	0.5	0.7	0.6	1.1
3M	29	1	6	1	2	3	3M	0.8	0.5	0.7	0.8	1.1	1.1
6M	-6	1	11	-3	3	3	6M	-0.1	0.6	0.7	0.7	1.1	1.2
1Y	10	4	5	4	-9	1	1Y	0.6	1.0	1.3	1.3	0.7	1.3
5Y	6	7	1	3	0	1	5Y	1.1	1.1	1.0	1.6	1.7	1.7
10Y	1	3	1	2	-1	4	10Y	1.0	1.5	1.0	1.7	1.1	1.5
20Y	0	-1	-3	-6	-3	-1	20Y	1.6	1.2	1.2	1.3	1.3	1.7

Z-score based on 2y avg. Sources: Bloomberg, BNP Paribas

Z-score based on 2y avg. Sources: Bloomberg, BNP Paribas

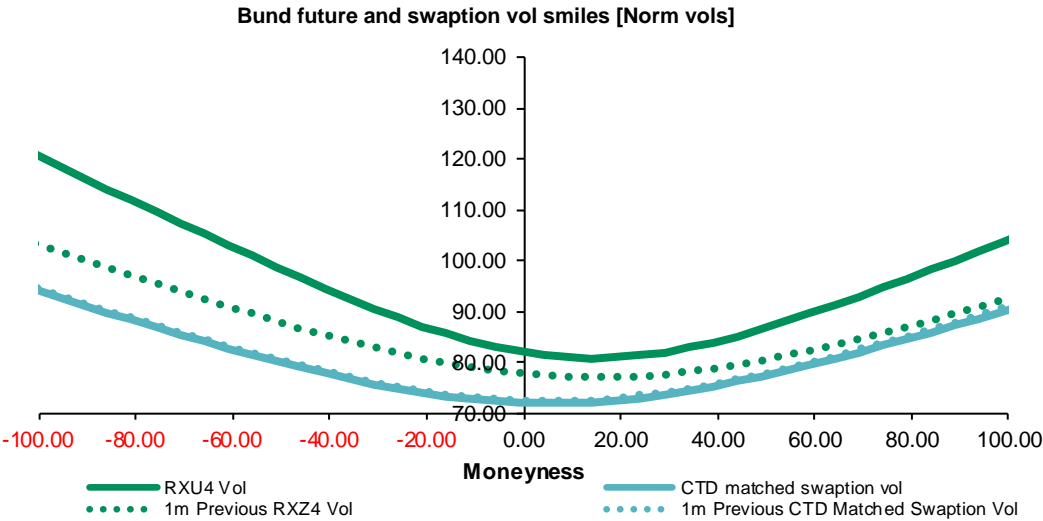


# 6. Bond versus swaption volatility relative value (1/2)

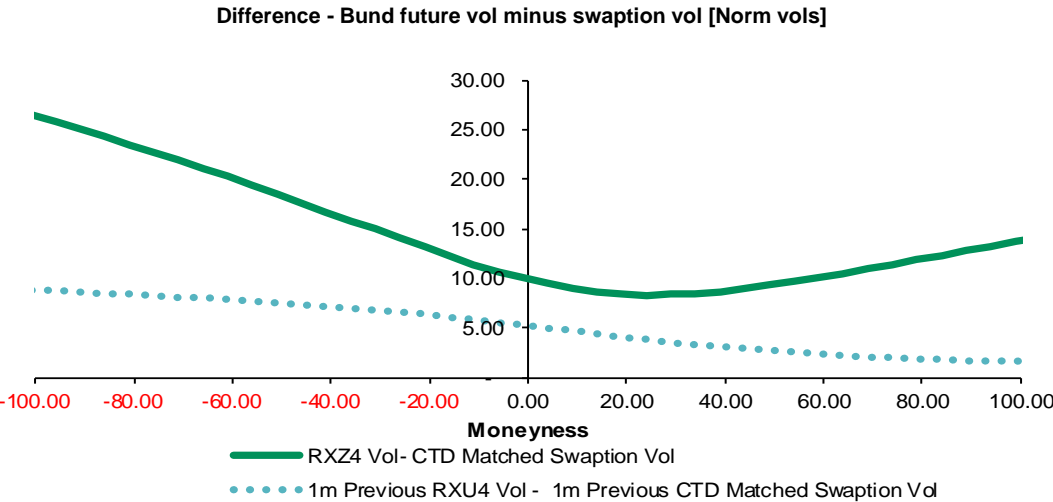
## Bond versus swaption vol and skew

	DUZ4	DUH5	OEZ4	OEH5	RXZ4	RXH5	UBZ4	UBH5	IKZ4	IKH5
Bond future vol	98	80	90	76	82	75	70	71	95	97
1w change	7	3	6	3	5	3	2	2	3	3
1m change	16	-2	10	-0	4	-0	-2	-3	-3	-4
swaption vol (CTD matched)	81	80	79	77	72	72	67	68	72	73
1w change	5	2	4	2	3	2	2	2	3	2
1m change	3	-2	4	-2	-0	-3	-2	-3	-1	-3
Current Bond vs Swaption Vol Ratio	1.20	1.01	1.14	0.99	1.14	1.04	1.05	1.04	1.32	1.34
1w prior Bond vs Swaption Vol Ratio	1.20	1.00	1.13	0.97	1.11	1.03	1.04	1.04	1.34	1.34
1m prior Bond vs Swaption Vol Ratio	1.05	1.00	1.07	0.96	1.07	1.00	1.04	1.04	1.35	1.35

Source: BNP Paribas



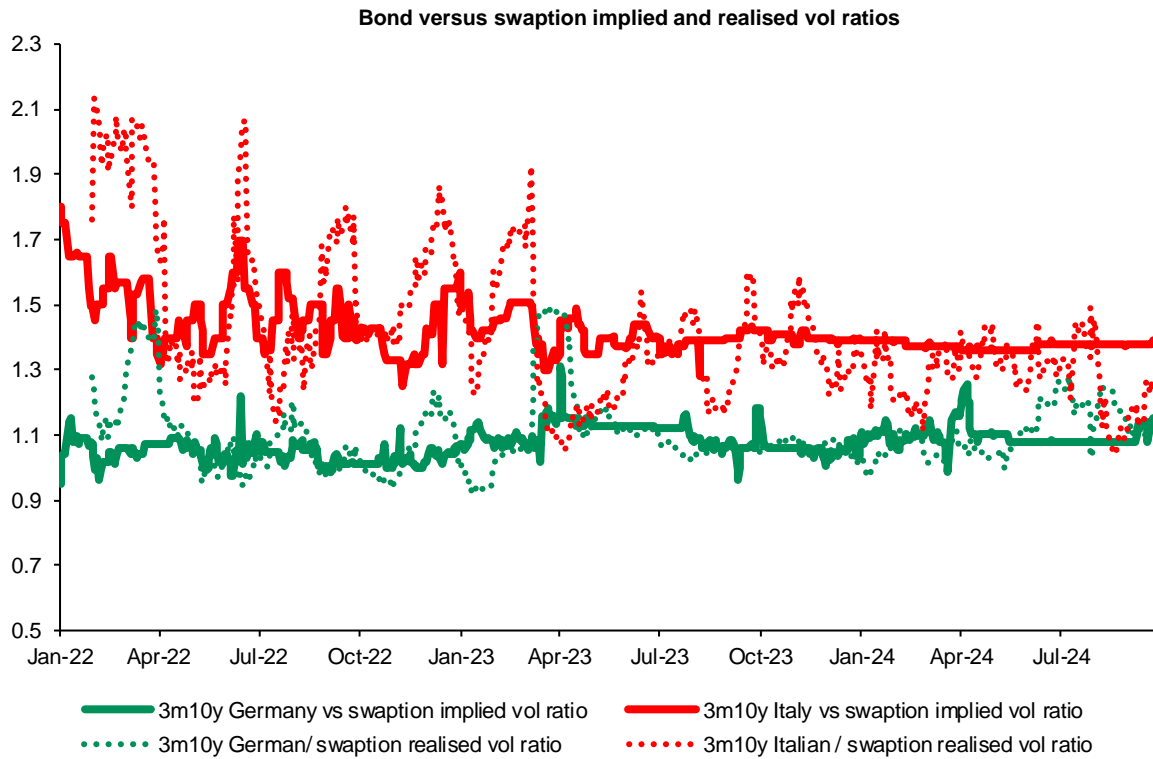
Source: BNP Paribas



Source: BNP Paribas



## 6. Bond versus swaption volatility relative value (2/2)



1-month rolling realised vol.

Source: BNP Paribas



## 7. Swap data repository flows (1/3)

### September reported flows

September total traded straddle notional (m)

	0y-1y	2y-5y	6y-10y	11y-20y	21y-50y
0y-1y	31,882	13,248	3,497	263	1,280
2y-5y	5,148	6,817	1,239	193	508
6y-10y	200	1,387	675	723	138
11y-20y	300	437	121	0	0
21y-50y	0	0	0	0	0

Heat bars show last month's volume compared to the 12 month avg.; if bar is half full then last month's volume = avg.

Sources: DTCC, Bloomberg, BNP Paribas

September total traded straddle vega (m) (1bp NV move)

	0y-1y	2y-5y	6y-10y	11y-20y	21y-50y
0y-1y	1.8	1.8	1.3	0.2	1.2
2y-5y	0.7	2.6	1.4	0.4	1.5
6y-10y	0.0	0.7	1.2	2.1	0.6
11y-20y	0.1	0.3	0.2	0.0	0.0
21y-50y	0.0	0.0	0.0	0.0	0.0

Sources: DTCC, Bloomberg, BNP Paribas

September net traded straddle notional (m)

	0y-1y	2y-5y	6y-10y	11y-20y	21y-50y
0y-1y	-1,060	-1,891	-757	-35	-555
2y-5y	364	-2,687	-345	39	74
6y-10y	0	-704	-235	-19	-30
11y-20y	-300	-329	71	0	0
21y-50y	0	0	0	0	0

Flow directionality estimated based on executed level vs prevailing market mid at the time. Sources: DTCC, Bloomberg, BNP Paribas

September net traded straddle vega (m) (1bp NV move)

	0y-1y	2y-5y	6y-10y	11y-20y	21y-50y
0y-1y	-0.1	-0.2	-0.3	0.0	-0.3
2y-5y	0.0	-1.2	-0.4	0.1	0.2
6y-10y	0.0	-0.4	-0.4	-0.1	-0.1
11y-20y	-0.1	-0.2	0.1	0.0	0.0
21y-50y	0.0	0.0	0.0	0.0	0.0

Flow directionality estimated based on executed level vs prevailing market mid at the time. Sources: DTCC, Bloomberg, BNP Paribas





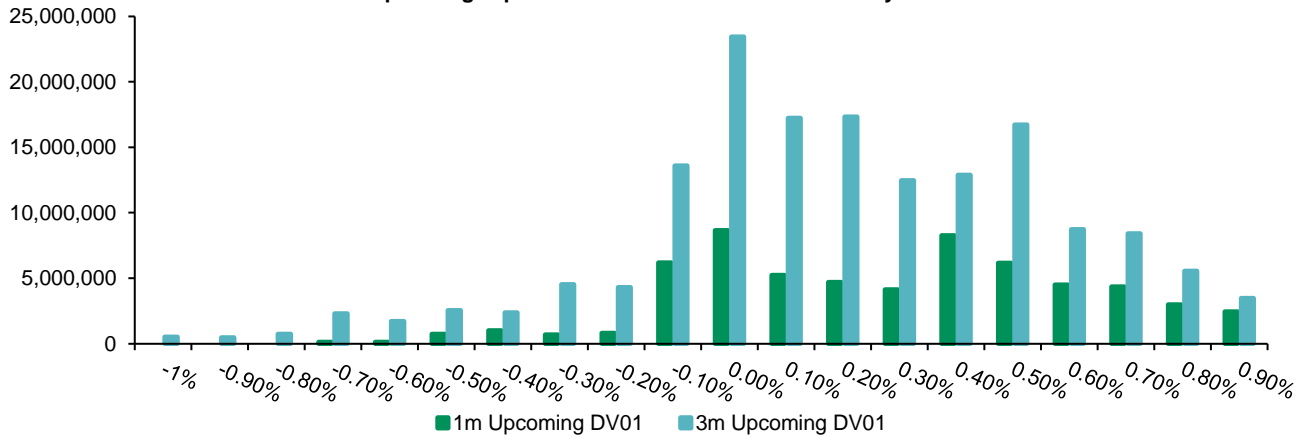
7. Swap data repository flows (2/3)

September traded swaption notional (m) per underlying & strike

	< 1%	1.00%	1.25%	1.50%	1.75%	2.00%	2.25%	2.50%	2.75%	3.00%	3.25%	3.50%	3.75%	4.00%	4.25%	4.50%	>5%
1Y	846	633	2,563	2,380	22,657	14,001	23,159	9,943	8,810	3,450	835	0	400	0	0	200	648
2Y	650	5,657	4,251	4,788	2,896	15,443	11,479	8,113	2,700	437	0	0	0	0	0	0	1,297
5Y	561	560	150	1,943	1,554	7,483	4,267	2,610	576	100	154	0	0	0	0	0	0
10Y	207	109	0	125	158	1,040	10,752	4,626	726	575	108	183	0	0	414	0	0
15Y	0	0	0	0	0	0	485	0	0	0	0	0	0	0	0	0	0
20Y	17	0	207	0	0	262	2,298	149	108	0	315	33	0	6	0	50	322
30Y	136	68	0	67	248	1,990	2,862	252	145	0	0	0	0	0	0	0	0

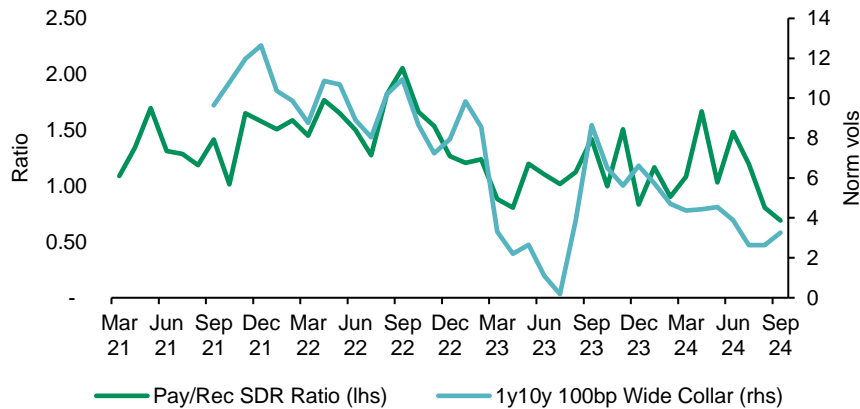
1y-30y swap underlyings shown on the Y axis. No distinction is made by option expiry date. Sources: DTCC, Bloomberg, BNP Paribas

Upcoming expiries in DV01: distance from current yields



Estimated upcoming expiries across all underlyings based on past 2y of SDR flow. X-axis shows the strike distance from current yields. Sources: DTCC, Bloomberg, BNP Paribas

Payer/Receiver ratio per month vs collar



Sources: DTCC, Bloomberg, BNP Paribas



## 7. Swap data repository flows (3/3)

September payer/receiver ratio

	0y-1y	2y-5y	6y-10y	11y-20y	21y-50y
0y-1y	0.72	0.63	1.00	2.24	1.42
2y-5y	0.52	0.50	0.36		0.46
6y-10y	0.00	0.33	1.32	0.72	0.00

Sources: DTCC, Bloomberg, BNP Paribas

September payers minus receivers notional (m)

	0y-1y	2y-5y	6y-10y	11y-20y	21y-50y
0y-1y	-3,809	-8,272	6	268	380
2y-5y	-983	-1,681	-651	0	-178
6y-10y	-306	-216	50	-248	-68

Sources: DTCC, Bloomberg, BNP Paribas



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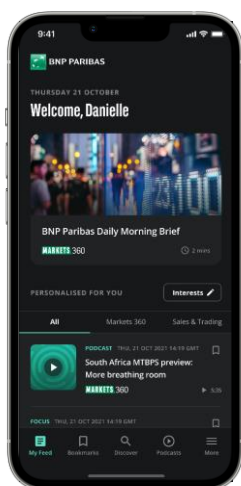
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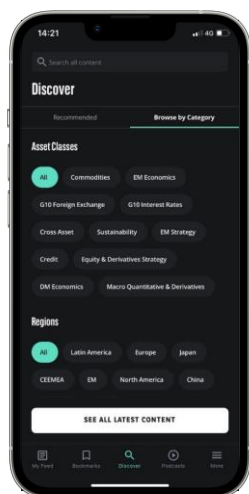
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