

# Scandi FX Volatility Monitor

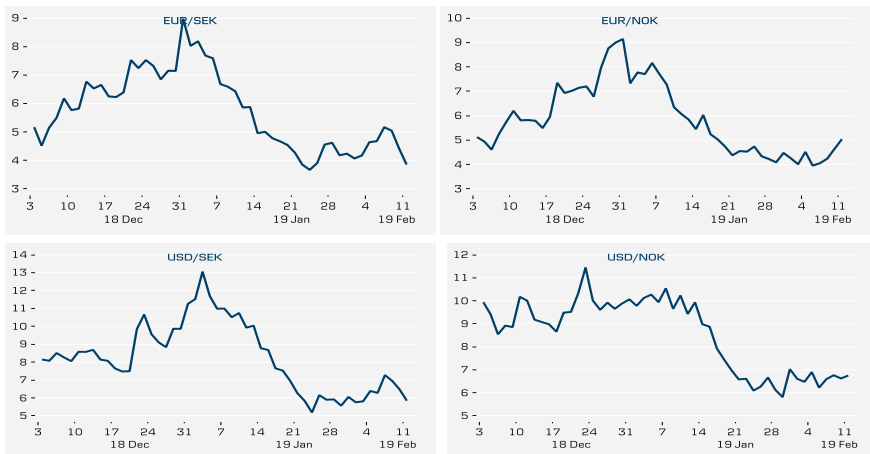
High spot/low vol is an opportunity to buy EUR/SEK put options

Danske Bank FX Volatility Valuation Monitor												
Currency pairs	2W			1M			3M					
	Overall valuation	Implied vol.	Realised vol.	Overall valuation	Implied vol.	Realised vol.	Overall valuation	Implied vol.	Realised vol.			
EUR/NOK	Neutral	5.7%	0.5%	4.8%	Neutral	5.8%	0.5%	4.9%	Neutral	6.3%	0.4%	6.1%
EUR/SEK	Neutral	5.8%	0.7%	4.9%	Cheap	5.5%	0.2%	4.9%	Neutral	5.7%	0.1%	6.2%
USD/NOK	Cheap	7.0%	0.2%	7.3%	Neutral	7.5%	0.5%	7.3%	Cheap	8.1%	0.4%	8.7%
USD/SEK	Neutral	7.3%	0.3%	7.0%	Cheap	7.6%	0.4%	7.3%	Cheap	8.1%	0.3%	8.9%
NOK/SEK	Neutral	5.3%	0.5%	5.2%	Neutral	5.3%	0.5%	5.2%	Cheap	5.6%	0.4%	6.4%

Note: 'Overall Valuation' is based on a weighted average of model outputs  
Source: Bloomberg, Danske Bank

- Implied vol. in the Scandi crosses picked up last week along with a general increase in FX vol. As such, impl. vol. remains in cheap territory and we still see value in adding long NOK/SEK by buying 3M call spreads.
- Especially for EUR/SEK we note an interesting decoupling between spot and impl. vol. -different from EUR/NOK, where impl. vol. has spiked higher along with spot (chart). Divergence in EUR/SEK can be explained by 1) the fact that EUR/SEK vol has been following the general (global) FX vol. pattern and 2) the increase in EUR/SEK spot has been more gradual compared to the recent spike in EUR/NOK. We reckon that it most likely would require a break above 10.60 in EUR/SEK at this stage to trigger a significant isolated increase in EUR/SEK vol.
- We do not expect the Riksbank to deliver new signals this week (See RtM Sweden, 8 February), but we reckon that soft rhetoric could send the EUR/SEK higher. This could provide an attractive opportunity to buy EUR/SEK puts or put spreads.

## High-Low gamma value (2W realised volatility based on HIGH-LOW)



Source: Bloomberg, Danske Bank

## Implied correlation monitor

Currency pairs	1M implied correlation	1M actual correlation	Correlation premia (impl-act. correl)	Z-score*
EURUSD vs. EURSEK	14.5%	22.4%	-8.0%	-0.9
EURUSD vs. USDSEK	-69.4%	-79.6%	10.2%	0.6
EURUSD vs. EURNOK	20.5%	28.4%	-8.0%	-0.6
EURUSD vs. USDNOK	-64.9%	-73.2%	8.3%	0.4
EURSEK vs. USDSEK	61.2%	40.4%	20.8%	1.5
EURSEK vs. EURNOK	55.1%	47.0%	8.1%	0.0
EURSEK vs. NOKSEK	42.8%	40.4%	2.4%	0.5
USDSEK vs. USDNOK	74.5%	75.8%	-1.3%	-0.3
USDSEK vs. NOKSEK	37.0%	35.3%	1.7%	0.5
EURNOK vs. USDNOK	61.2%	44.4%	16.7%	0.9
EURNOK vs. NOKSEK	-51.8%	-61.2%	9.4%	0.6
USDNOK vs. NOKSEK	-34.3%	-34.0%	-0.3%	0.5

\* Z-score based on 260 daily observations of spread between historical and implied correlation.  
Source: Bloomberg, Danske Bank

## Important dates / Event risk monitor

SEK		Event risk pricing (EUR/SEK)				
Important dates		Impl. O/N forward vol.	B/E straddle SEK pips	Chng 1W	Hist. intraday Hi-Lo (pips)*	Hist. Impl. O/N vol.**
Riksbank	CPI	10.8%	472	↑	Ave: 1072 Max: 3101 Min: 267	Ave: 12.7% Max: 25.0% Min: 4.0%
13/02/2019	19/02/2019					
25/04/2019	12/03/2019	10.2%	448	↑	Ave: 797 Max: 2292 Min: 256	Ave: 9.8% Max: 28.0% Min: 4.0%
03/07/2019	11/04/2019					
		19/02/2019				

\* calculated on RB interest rates announcements dates and CPI release dates since 2006

\*\* based on close prices the day before events (Bloomberg)

NOK		Event risk pricing (EUR/NOK)				
Important dates		Impl. O/N forward vol.	B/E straddle NOK pips	Chng 1W	Hist. intraday Hi-Lo (pips)*	Hist. Impl. O/N vol.**
Norges Bank	CPI	12.7%	519	↑	Ave: 1021 Max: 3364 Min: 353	Ave: 12.6% Max: 34.5% Min: 3.5%
21/03/2019	11/03/2019					
09/05/2019	10/04/2019	8.3%	340		Ave: 663 Max: 1989 Min: 164	Ave: 9.8% Max: 30.0% Min: 3.9%
20/06/2019	10/05/2019					
		11/03/2019				

\* calculated on NB interest rate announcements dates and CPI release dates since 2006

\*\* based on close prices the day before events (Bloomberg)

Source: Bloomberg, Danske Bank

## FX option expiry monitor

Date	Monday		Tuesday		Wednesday		Thursday		Friday	
	Strike	Vol(M)	Strike	Vol(M)	Strike	Vol(M)	Strike	Vol(M)	Strike	Vol(M)
EURSEK									10.20	222
EURNOK	9.78	211	9.74	129					9.80	180
NOKSEK	1.08	102	1.10	1564	1.08	741	1.08	1478	1.05	524
	1.07	750	1.05	1905	1.07	1878	1.08	300		
	1.07	221			1.04	1320	1.07	1496		
USDNOK							1.05	2098		
	8.44	261								
	8.38	120								

Based on Swap Data Repository Trade Activity  
Source: Bloomberg, Danske Bank

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