

November 2023

FX Market Structure Monthly

CHANGES IN SPREAD AND VOLATILITY FOR MAJOR MARKET PAIRS

FX spreads continued to narrow a small amount in November, continuing a trend that started in September. Although the narrowing movement was small, it's the first time that we've observed all 23 pairs narrowing since we started publishing this chart book two years ago. In the pre-WMR trading window, volatility increased for two of the 23 pairs after modest moves over the past four months. Among the majors, volatility rose only for USD.JPY with AUD.CAD being the second pair to record an increase in volatility for the month.

READING THE RESULTS

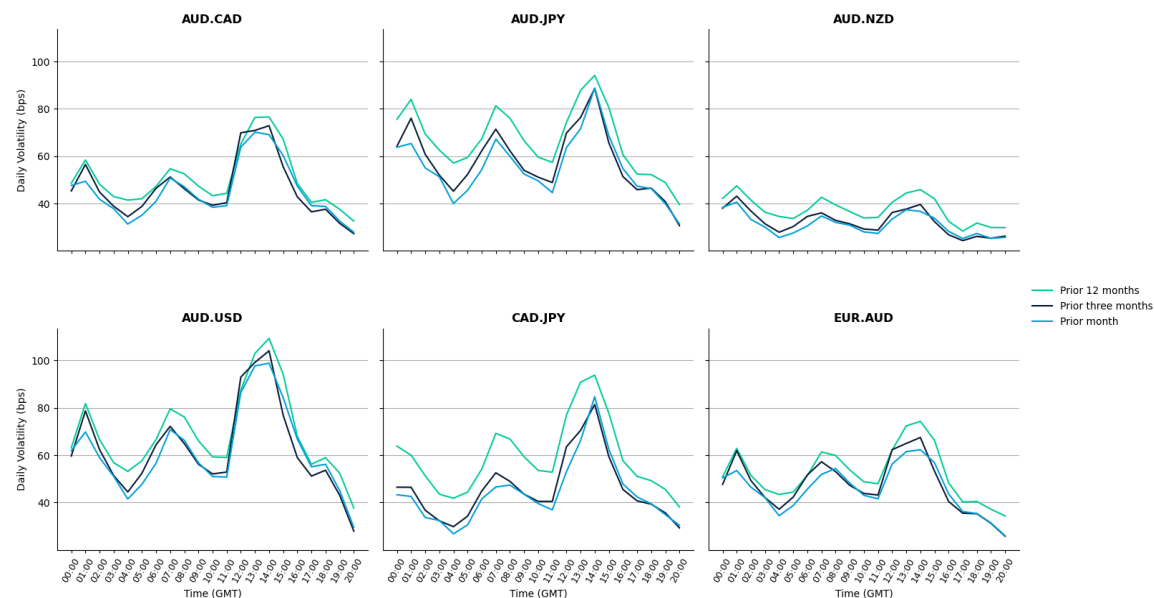
On the intraday charts, the green line represents the average spread or volatility for the past 12 months, the black line represents the past three months, and the blue line represents the past month. On the daily charts, the green area represents the 95th percentile confidence interval for the spread and volatility.

SPREADS

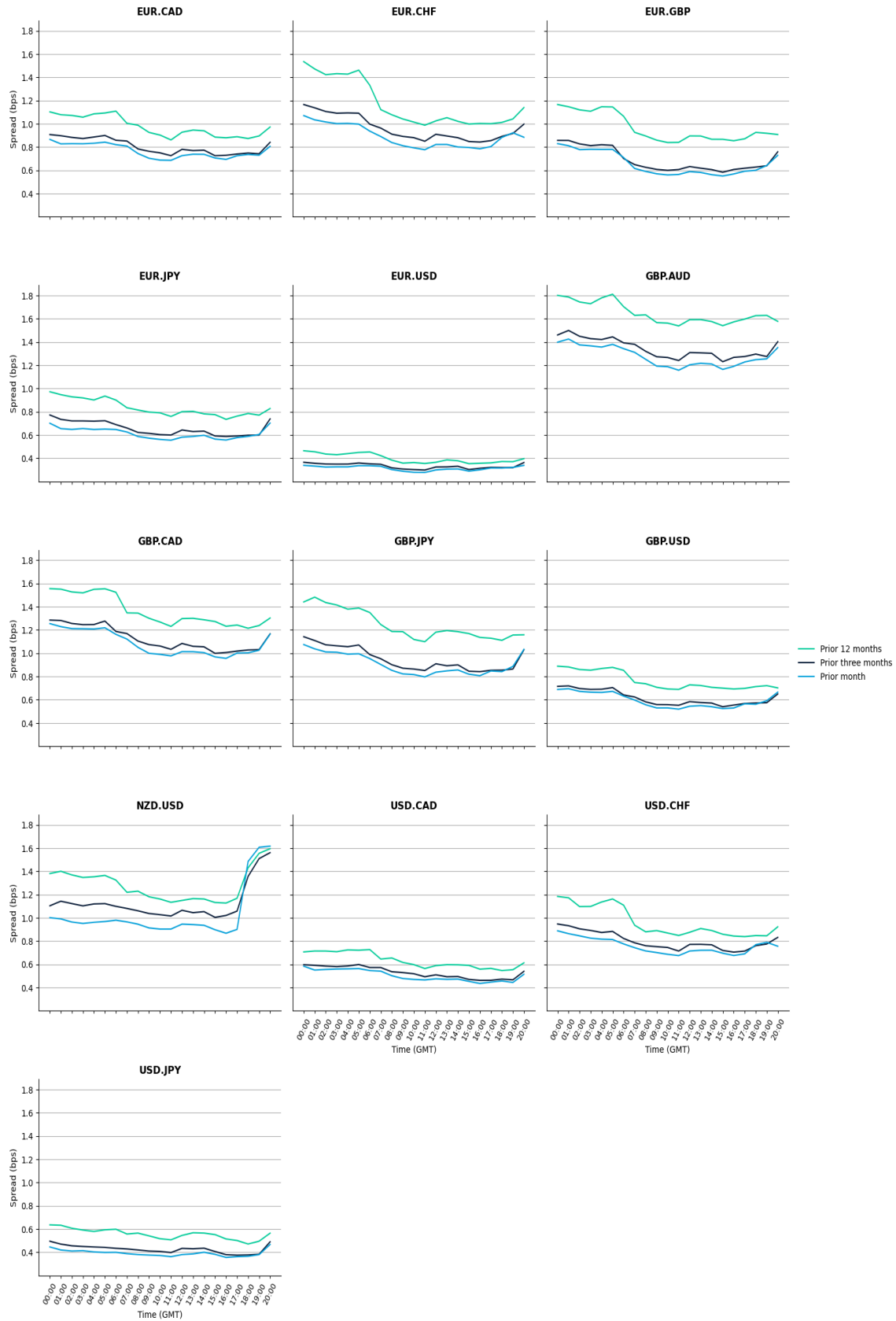
Last month, we noted that spreads remained narrow until about 12:00 GMT as traders prepared for the WMR auction. This month, in contrast, spreads were narrower throughout the day for all 23 pairs. Each pair only recorded a higher monthly average spread for one or two hours during the London and New York desk hours. During the less liquid Tokyo desk hours, spreads widened for five of eight hours for four Scandinavian pairs, but that may just reflect very low liquidity for the names. The cause remains unclear, but FX markets were very quiet in November.

G-10 Currency Pairs: Average Hourly Spread, 00:00-20:00 GMT

Comparison over the past month, three months and year



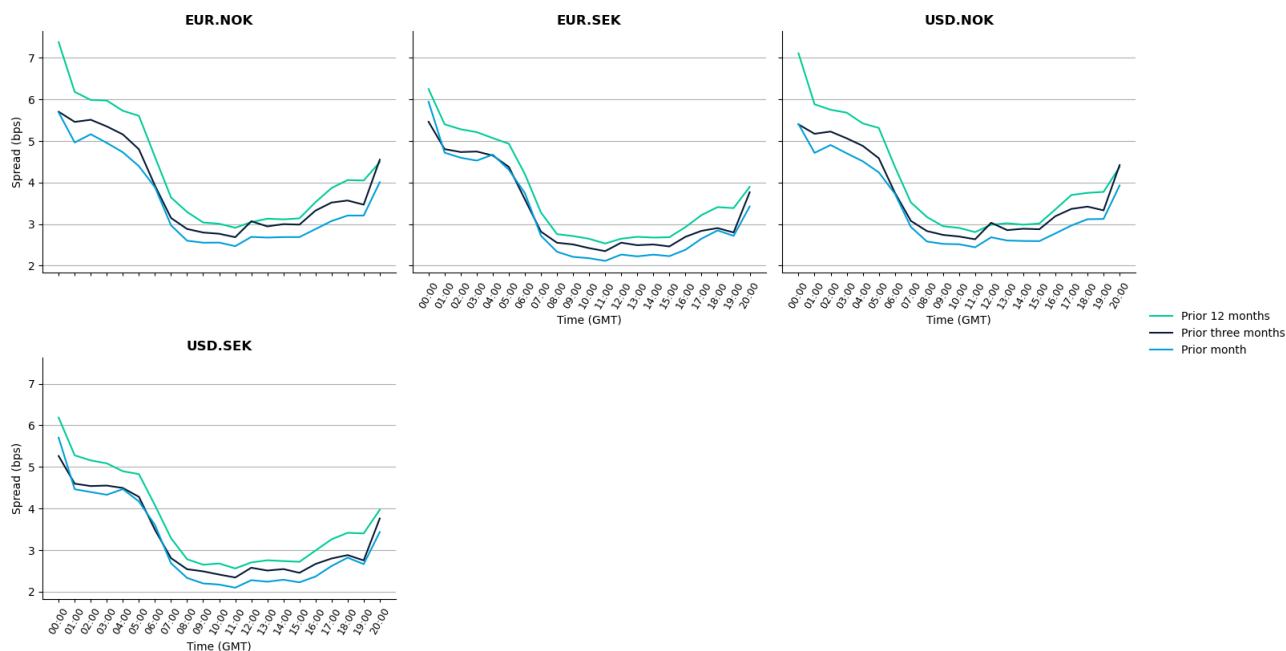
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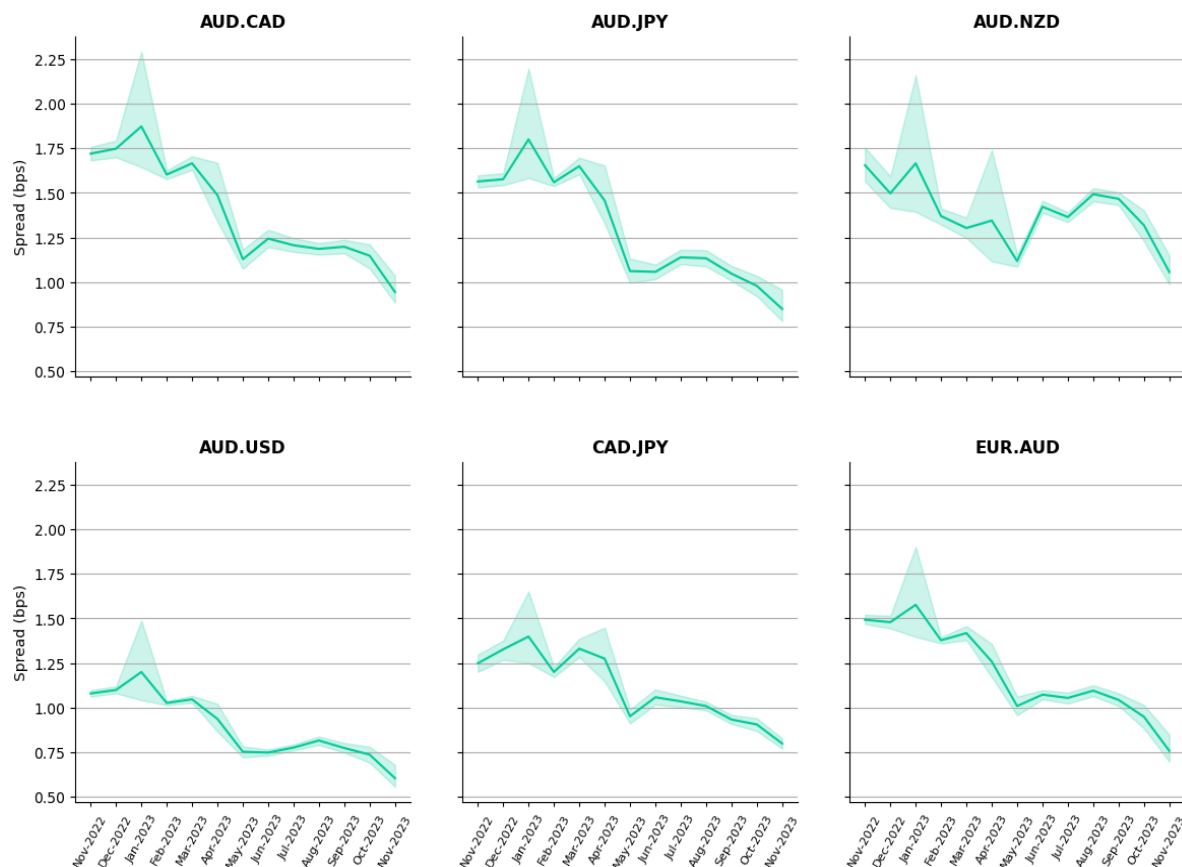
All chart sources: Virtu Financial, 2023. Spread and volatility calculations are derived from sources that Virtu believes to be reliable, but Virtu does not make any claims to its accuracy. USD.NOK, USD.SEK, EUR.NOK and EUR.SEK are shown in separate exhibits.



Scandinavian G-10 Currencies: Average Hourly Spread, 00:00-20:00 GMT Comparison over the past month, three months and year



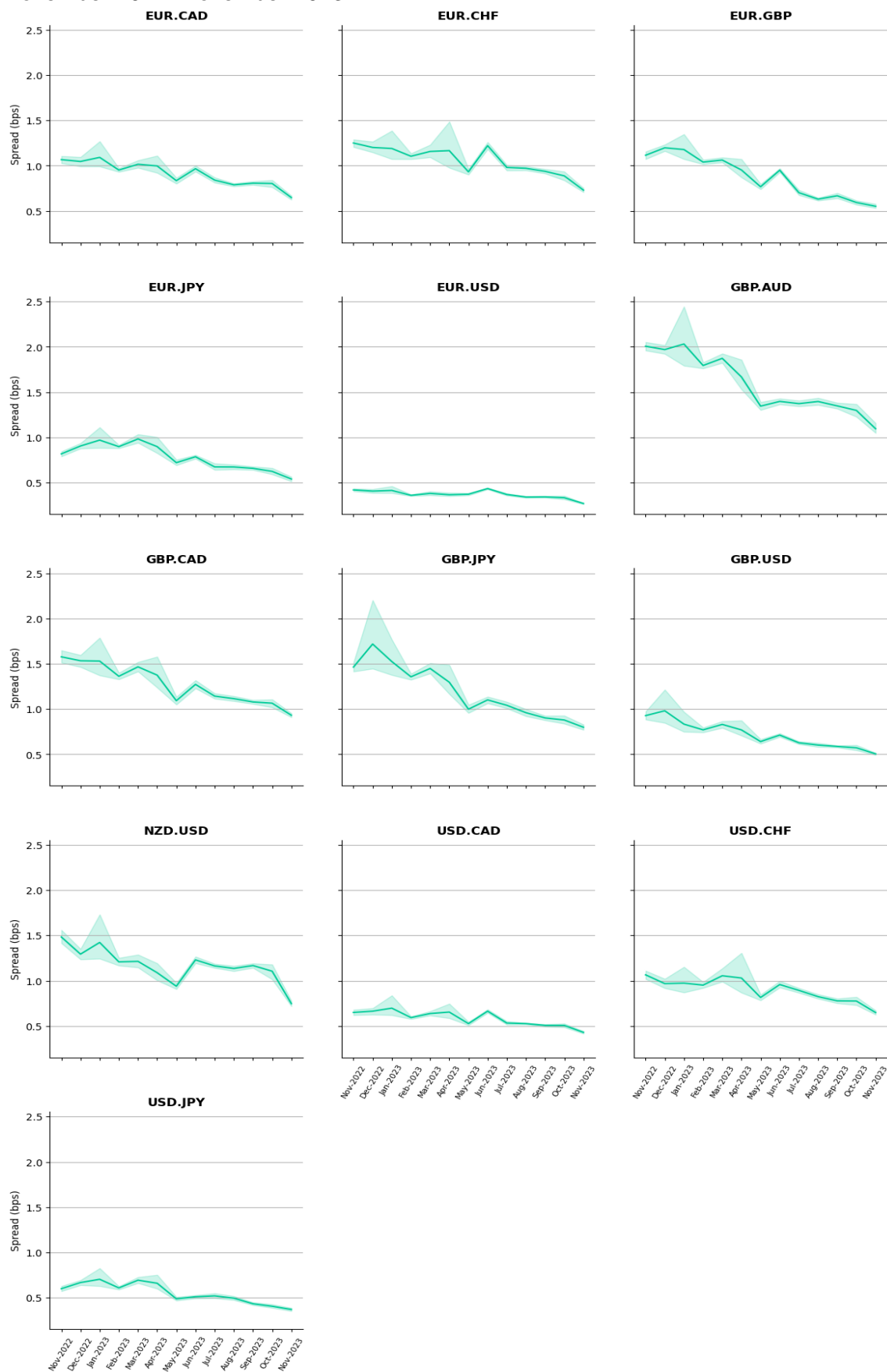
G-10 Currencies: Average Daily Spread, 12:00-16:00 GMT November 2022-November 2023



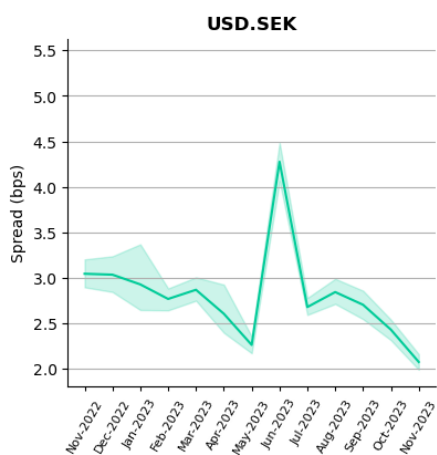
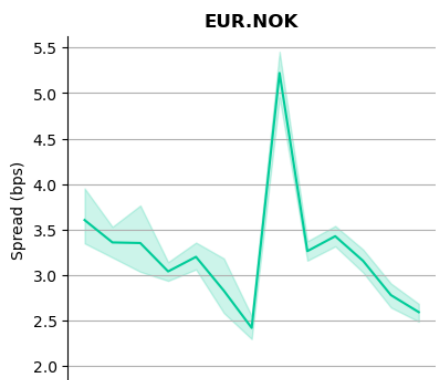
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Scandinavian G-10 Currencies: Average Daily Spread, 12:00-16:00 GMT November 2022- November 2023



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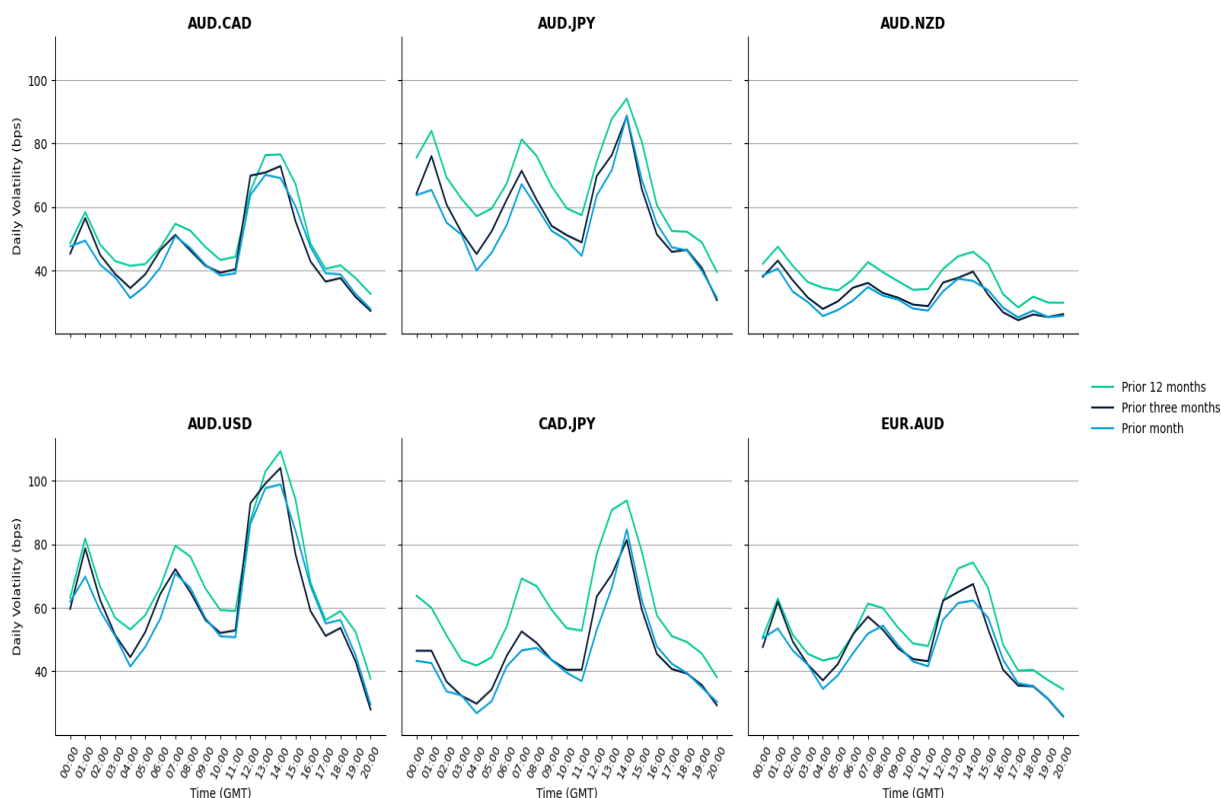
VOLATILITY

In November, FX volatility fell below the 12-month lows recorded in September. Only two of 23 pairs—USD.JPY and AUD.CAD—recorded an increase in FX volatility during the pre-WMR trading window. Compared to three months ago, volatility was lower for all pairs except USD.JPY; compared to six months ago, only USD.SEK recorded lower volatility. Looking back 12 months, hourly volatility was lower for all 23 pairs. November’s volatility was marginally lower than the previous low recorded in September.

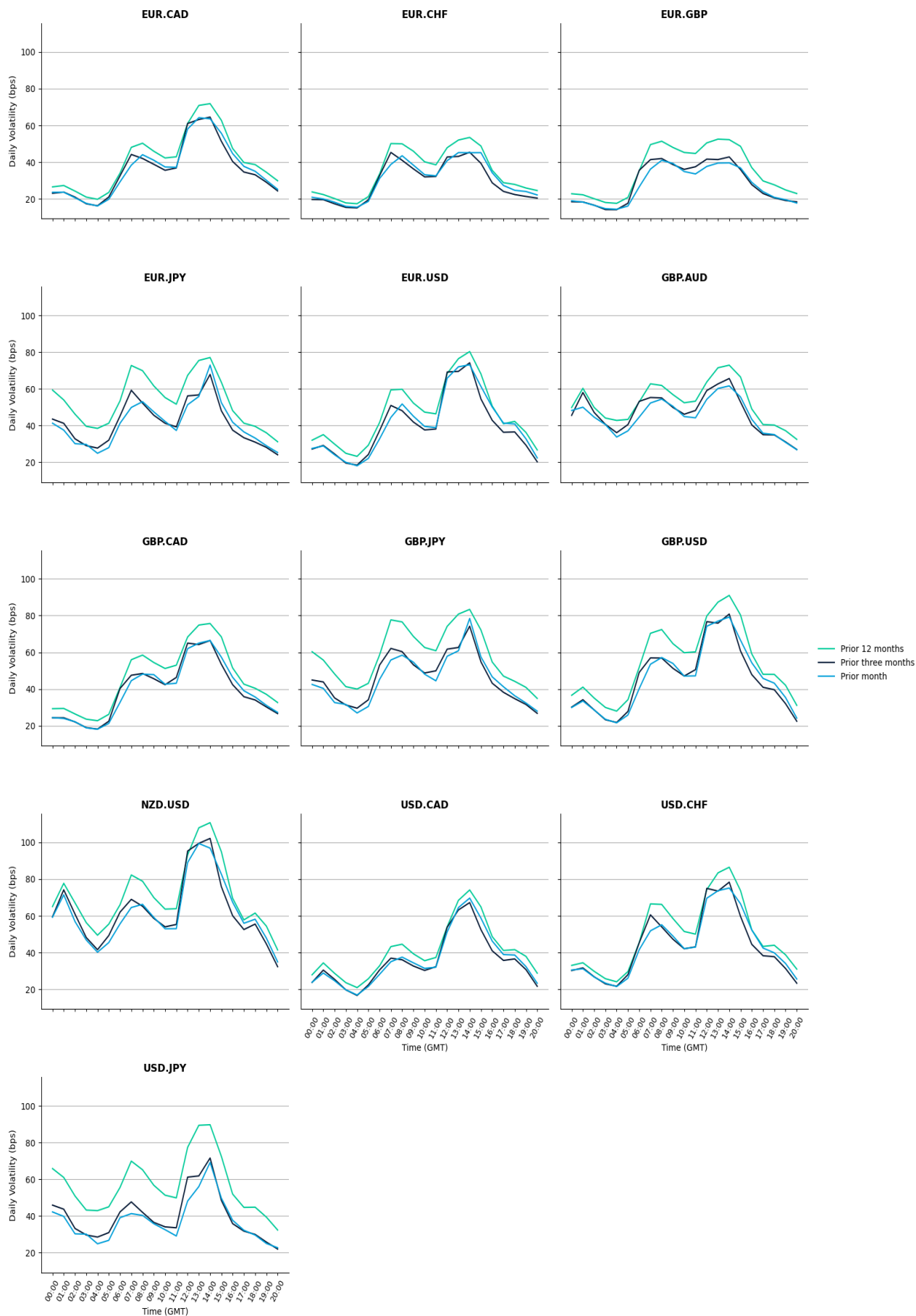
Last month, we concluded with the statement: “It appears that as long as intra-day volatility remains low, traders see little incentive to trade outside of pre-WMR window.” This month, that trading window may have contracted further. Over the past three months, we have observed that monthly volatility ticked up from prior months starting at about 12:00 GMT in the run-up to the auction. However this month, we only recorded an increase in volatility from 15:00-16:00. Furthermore, no pair recorded an increase in average monthly spread between 9:00 and 16:00 GMT. In equity markets, closing volumes spike when markets are quiet. The current lull in FX markets appears to be pushing even more trading to the hour before the WMR auction.

G-10 Currencies: Average Hourly Volatility, 00:00-20:00 GMT

Comparison over the past month, three months and year



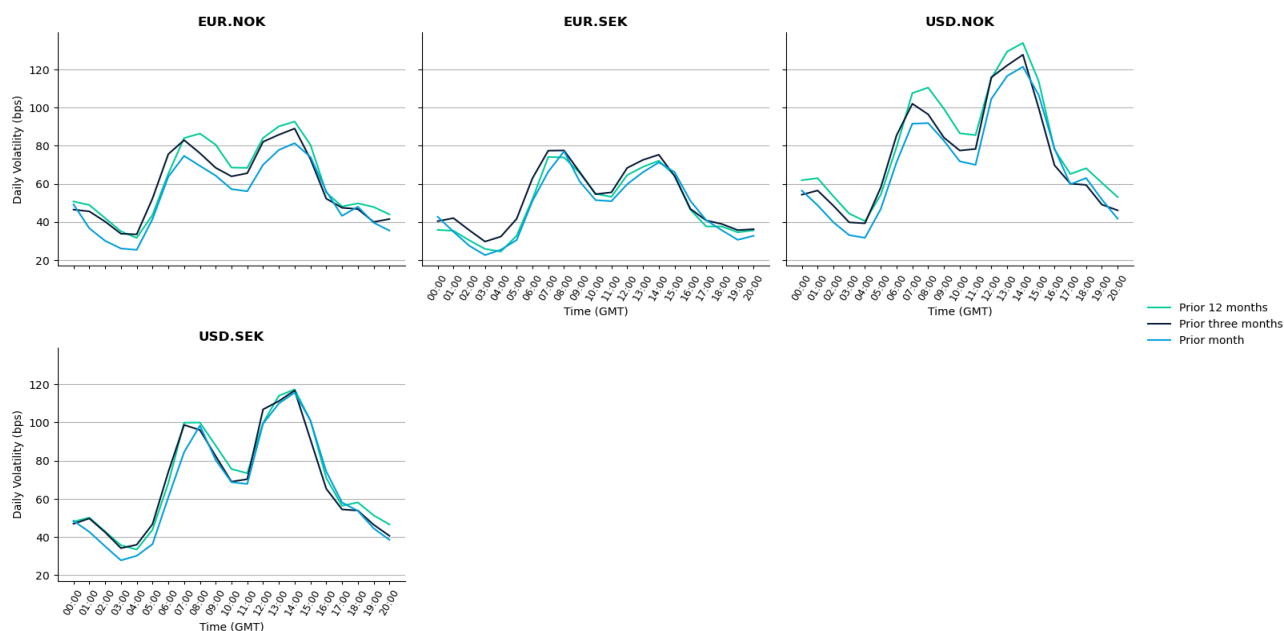
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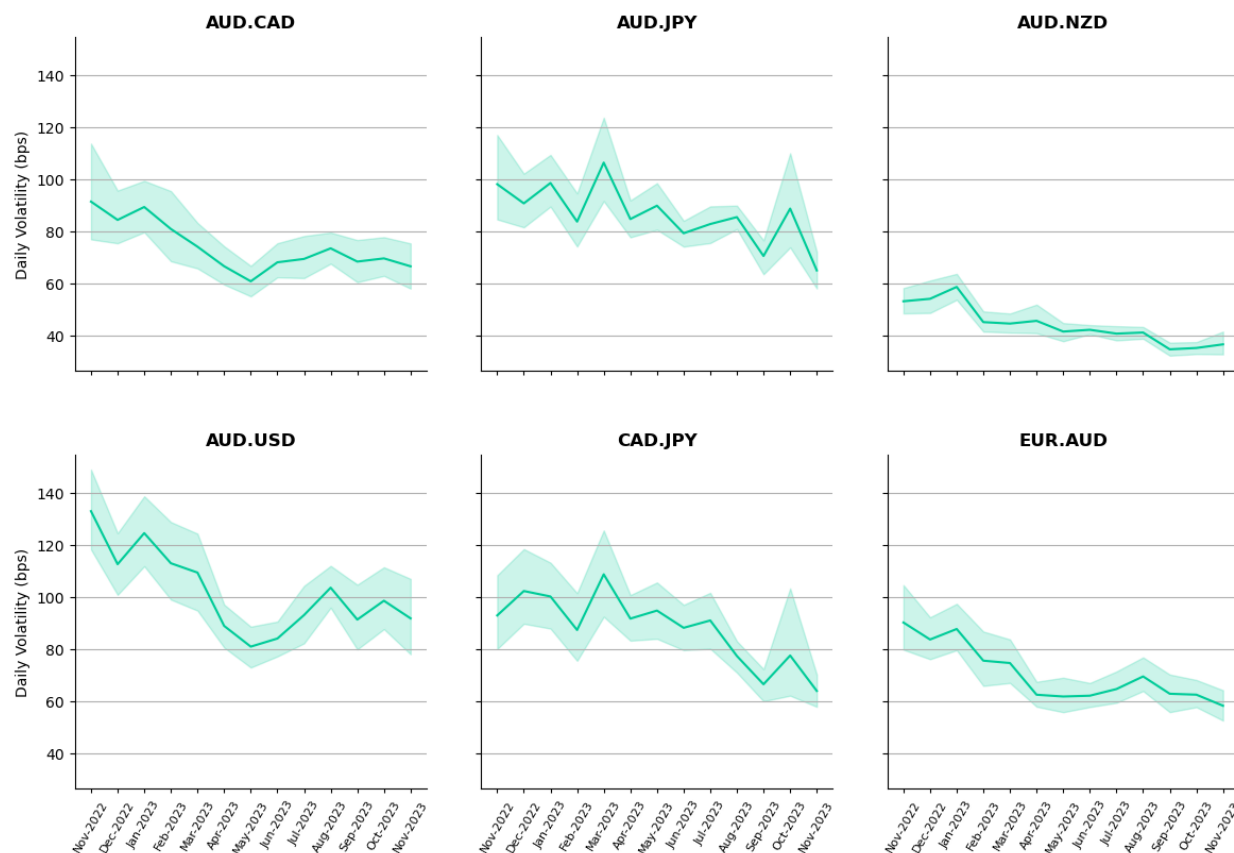
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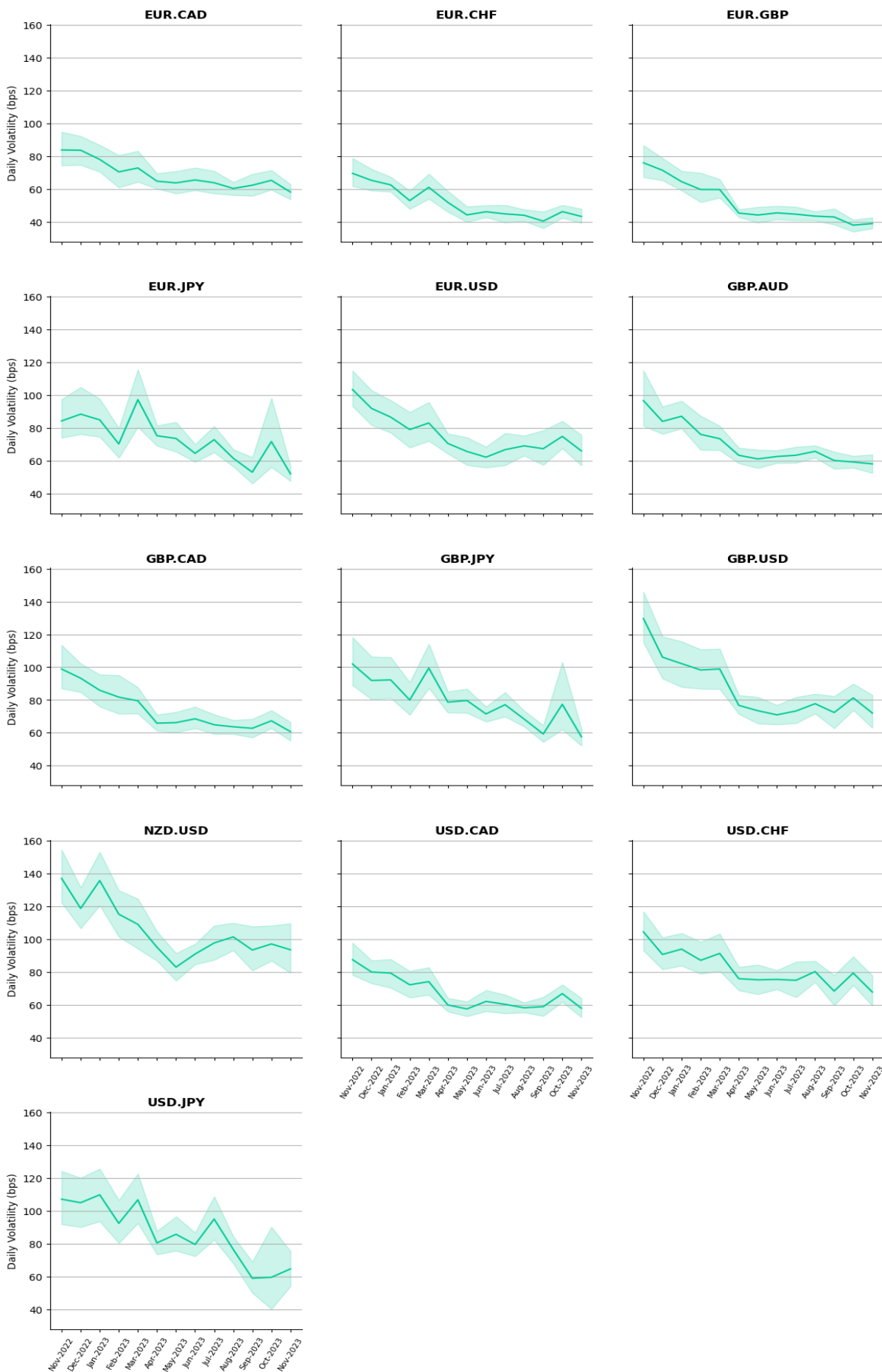
Scandinavian G-10 Currencies: Average Hourly Volatility, 00:00-20:00 GMT Past month, three months and year



G-10 Currencies: Average Daily Volatility, 12:00-16:00 GMT November 2022-November 2023



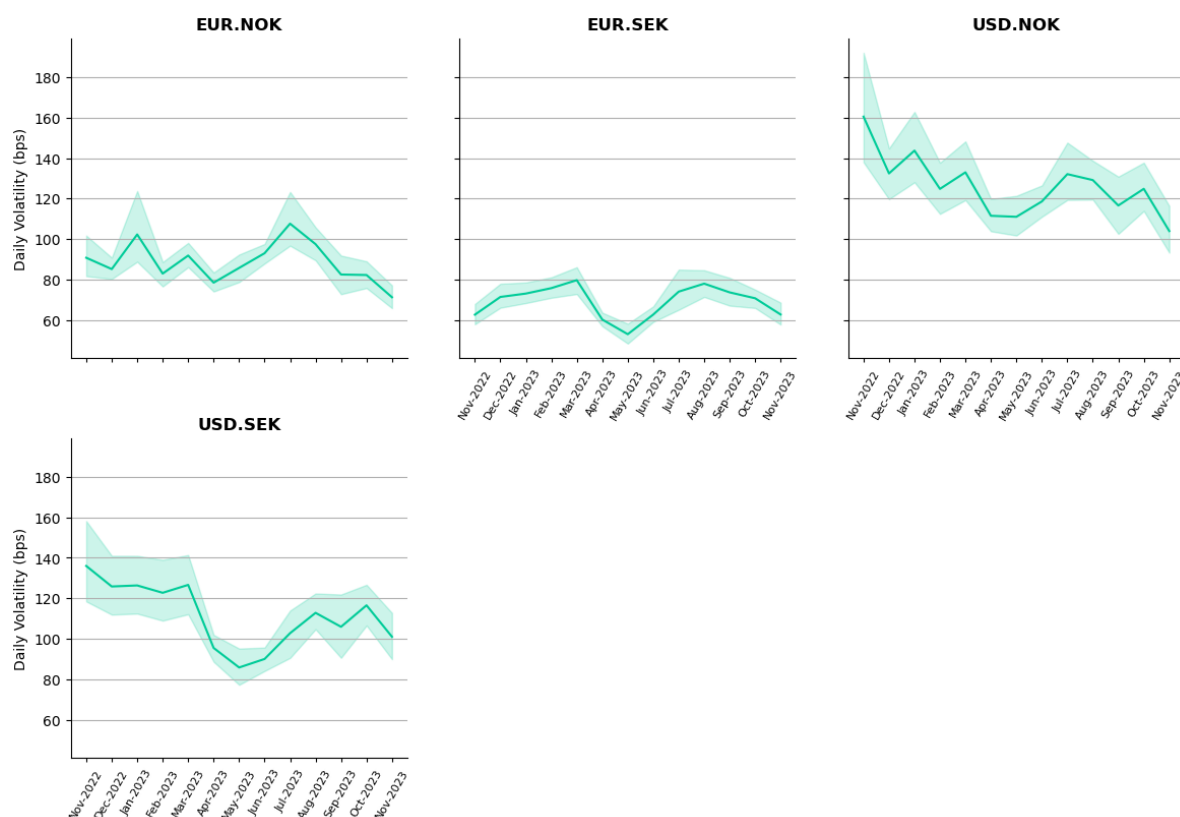
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Scandinavian G-10 Currencies: Average Daily Volatility, 12:00-16:00 GMT November 2022-November 2023



Have questions? To learn more, contact your regional Virtu Analytics representative.
AMERICAS +1.866.265.4519 | **APAC** +852.3405.3755 | **EMEA** +44.20.7670.4000
analytics@virtu.com | www.virtu.com

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