

November 2022

FX Market Structure Monthly

CHANGES IN SPREAD AND VOLATILITY FOR MAJOR MARKET PAIRS

November saw both spreads and volatility narrow from October's jump. In the 12:00-16:00 GMT trading window, only 5 of the 23 pairs we track recorded wider spreads while only 1 pair, USD.JPY, had wider volatility. On an intra-day basis, spreads for JPY pairs increased throughout Tokyo and London desk hours while CAD pairs widened but only during Tokyo desk hours.

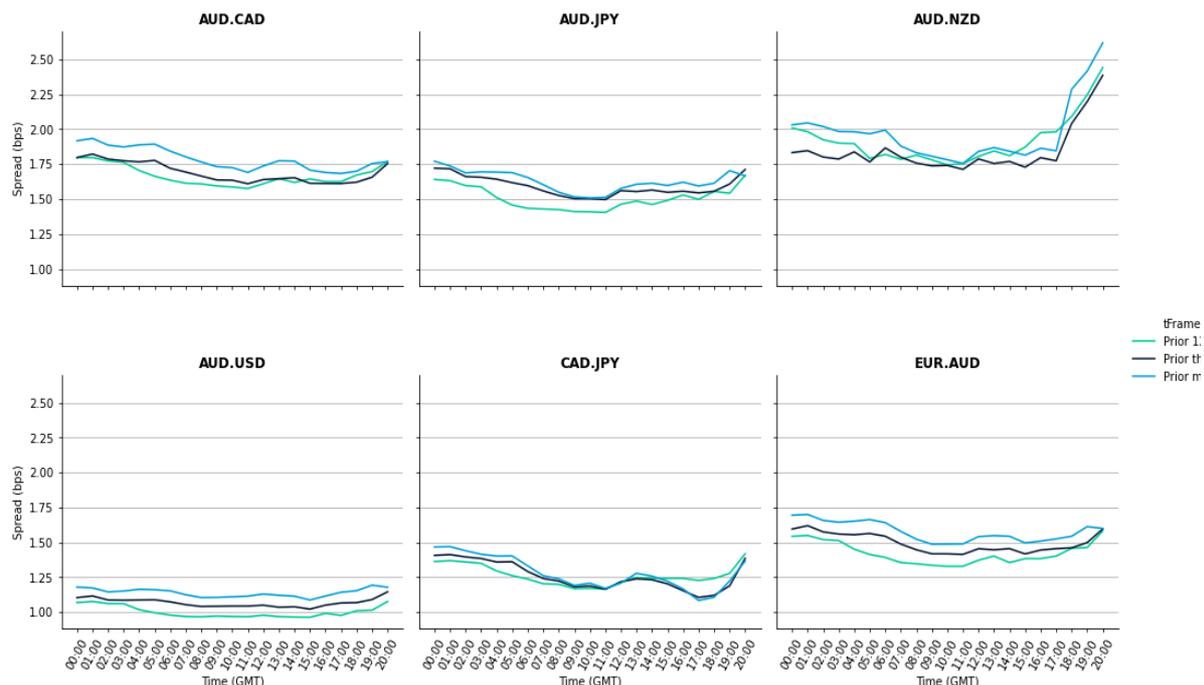
READING THE RESULTS

In 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, showing the stability of the calculated median value.

SPREADS

USDJPY spreads moved in the opposite direction of other majors for the third month in a row, widening throughout the trading day as other majors narrowed. Limiting the analysis to just the 12:00-16:00 GMT pre-WMR fixing trading window, spreads widened for two majors, USD.JPY and USD.CAD. Compared to three or six months ago, spreads during this trading window are mixed with about half of the 23 pairs that we follow widening. Compared to 12 months ago, spreads for all 23 pairs have widened.

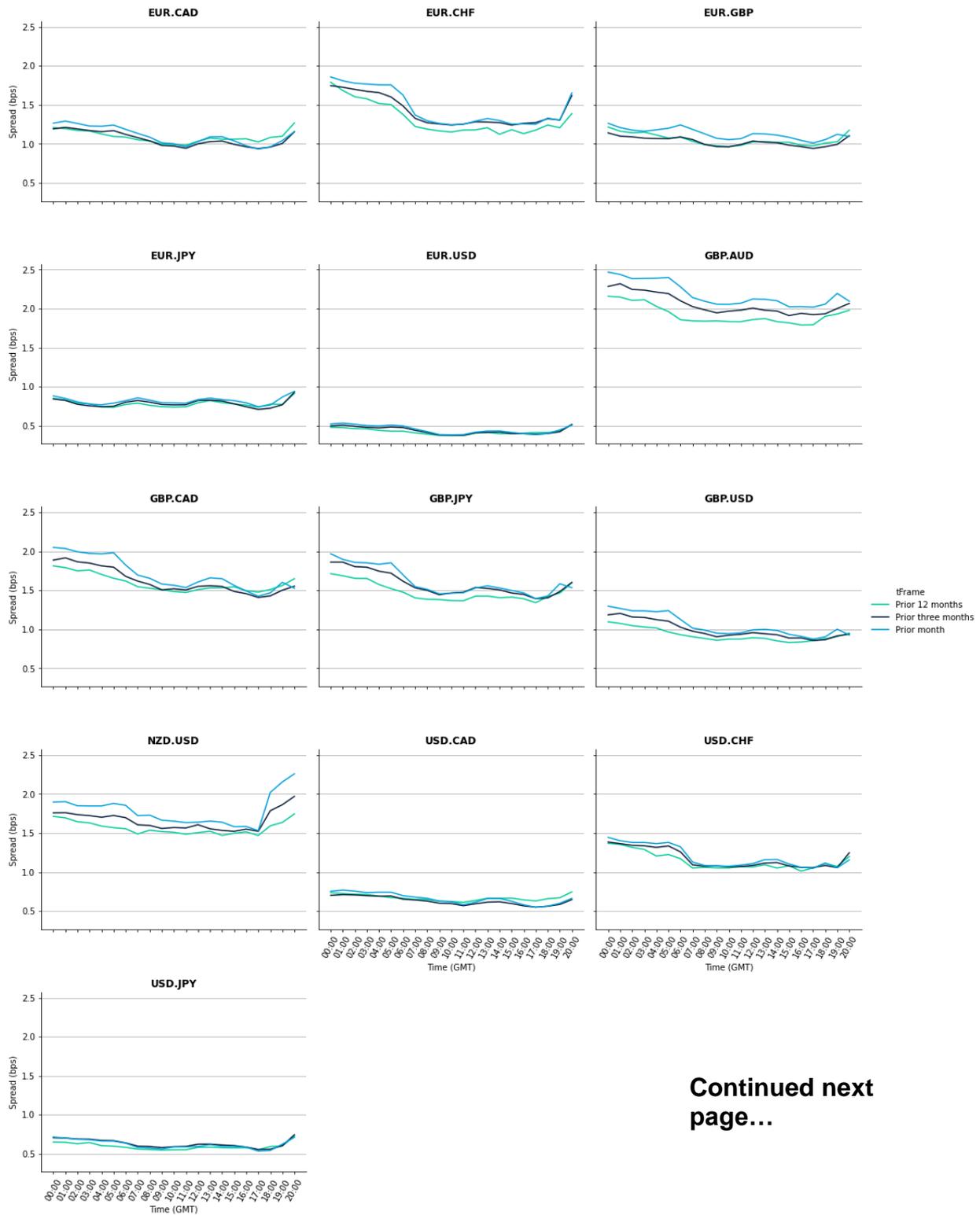
This month, for the first time in six months, all four Scandinavian pairs narrowed relative to last month.



All chart sources: Virtu Financial, 2022. 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 the separate exhibits



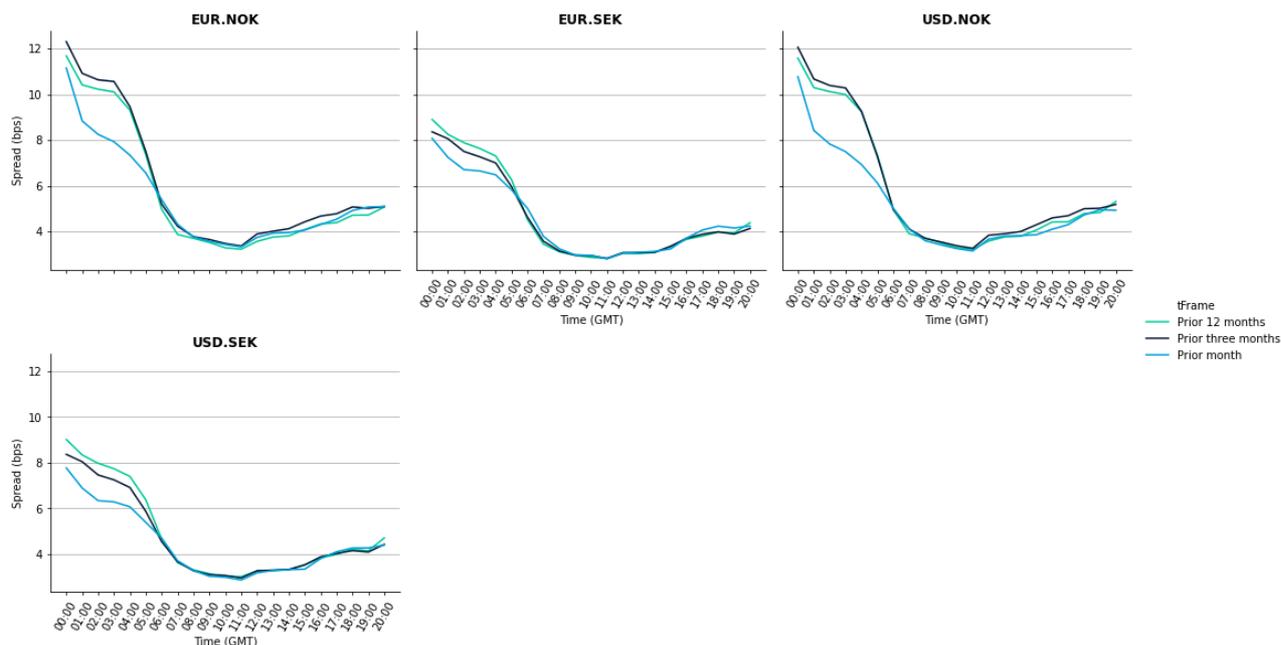
G-10 Currency Pairs: Average Hourly Spread, 00:00-20:00 GMT Comparison over the past month, three months and year



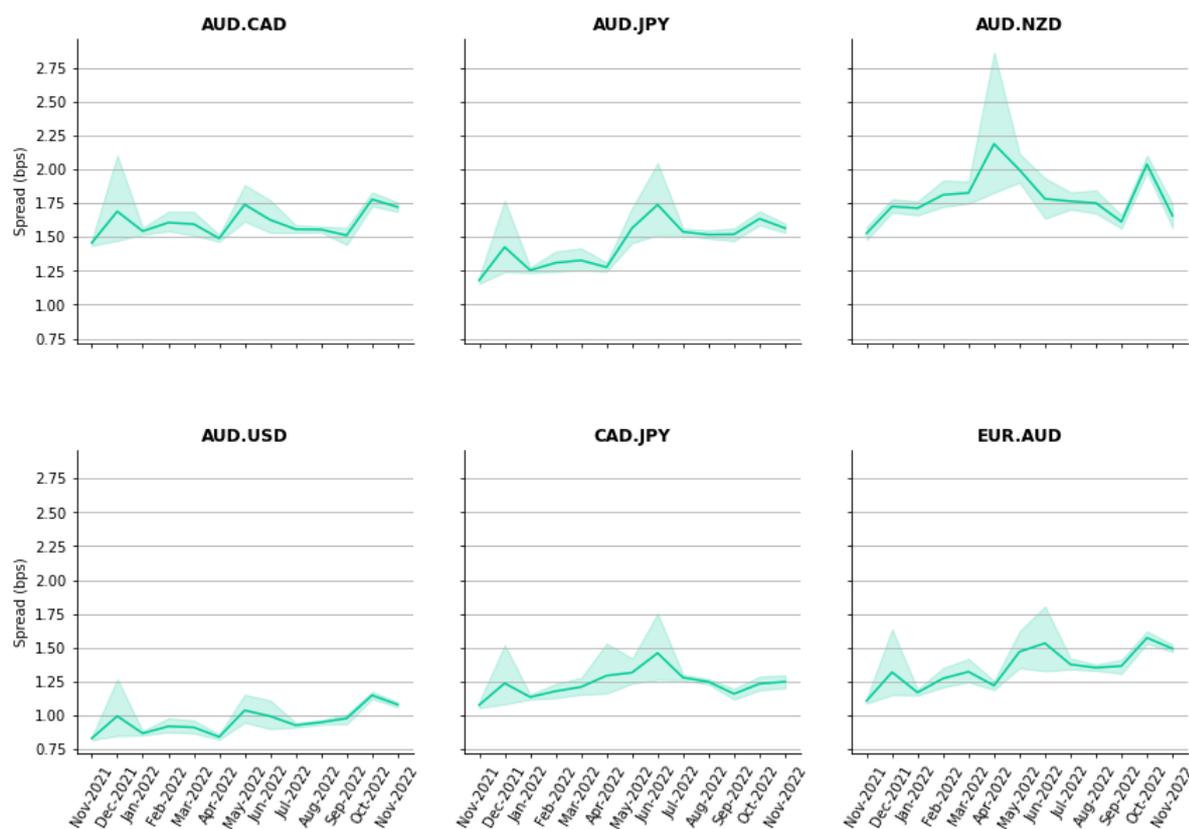
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Scandinavian G-10 Currencies: Average Hourly Spread, 00:00-20:00 GMT Comparison over the past month, three months and year



G-10 Currencies: Average Daily Spread, 12:00-16:00 GMT November 2021- November 2022



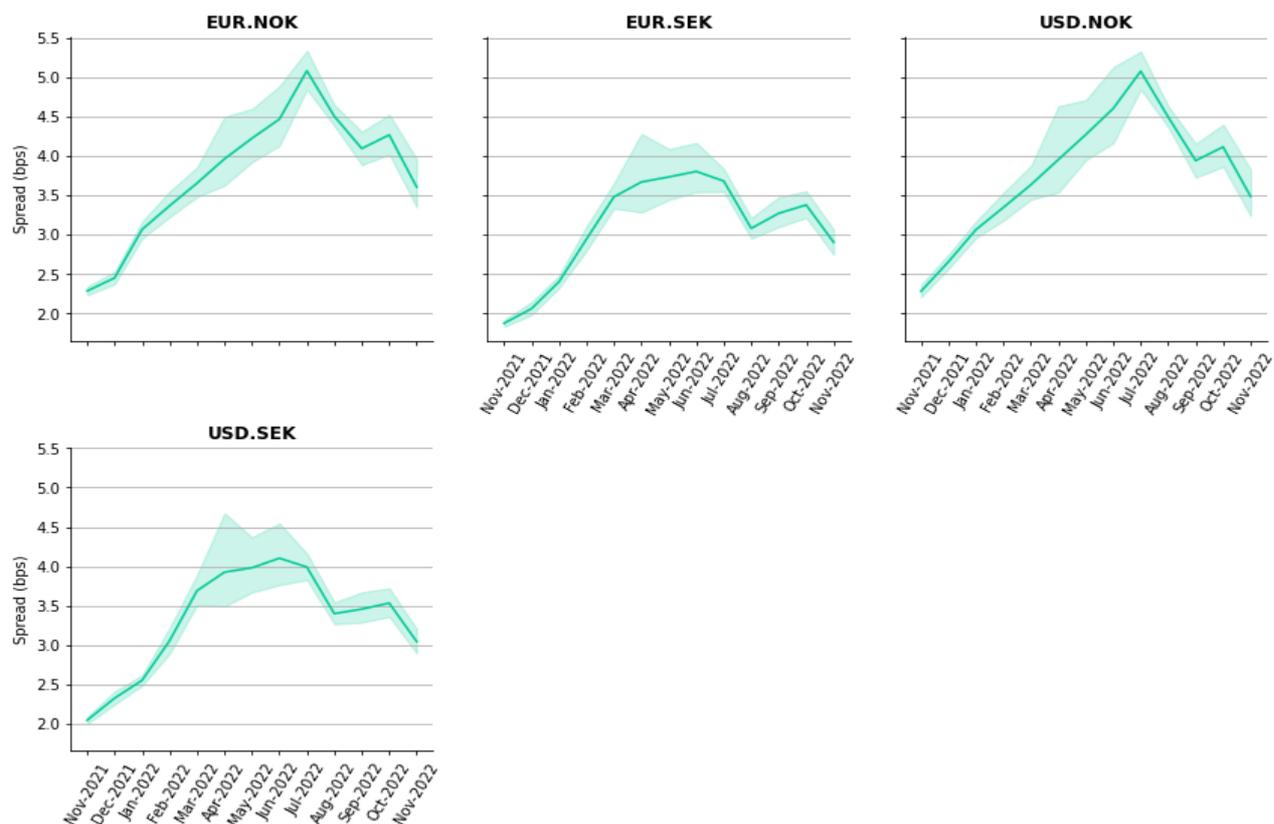
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Scandinavian G-10 Currencies: Average Daily Spread, 12:00-16:00 GMT November 2021-November 2022



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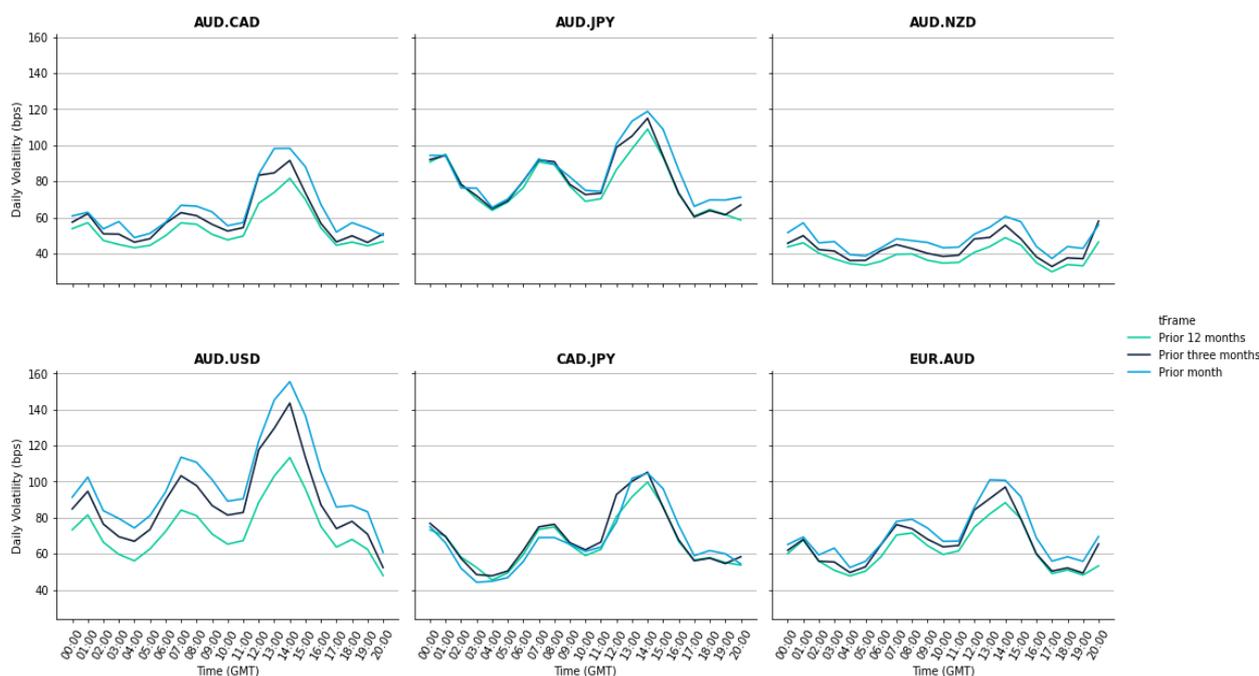
VOLATILITY

Of the 23 pairs we monitor, November's volatility increased during the 12:00-16:00 GMT trading for only one pair. USD.JPY. Over the past two months, USD.JPY volatility has been flat while it increased for other major pairs. As we noted when discussing spreads, while volatility was lower across the board this month, it is higher now than 12 months ago for all 23 pairs.

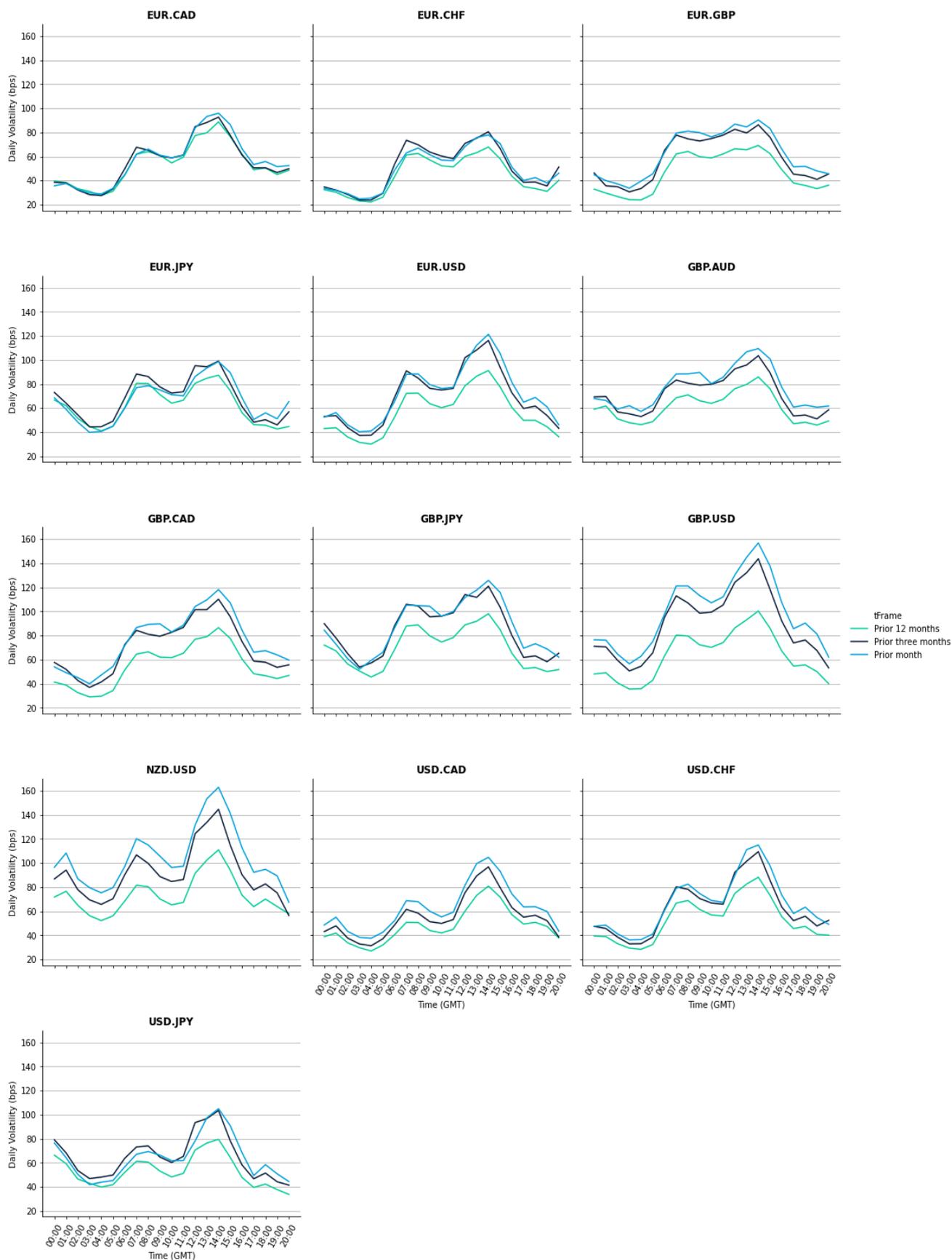
On an intra-day basis, volatility for USD.JPY, CAD.JPY and EUR.JPY increased with the latter two reporting wider volatility only during Tokyo desk hours. Compared to three months ago, we're seeing wider volatility for 19 or more pairs from 00:00 to 4:00 GMT, 8:00-11:00 GMT and 15:00-18:00 GMT. In contrast, from 5:00-8:00 GMT and 12:00-13:00 GMT, we've recorded four or fewer currency pairs with higher volatility.

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

Comparison over the past month, three months and year



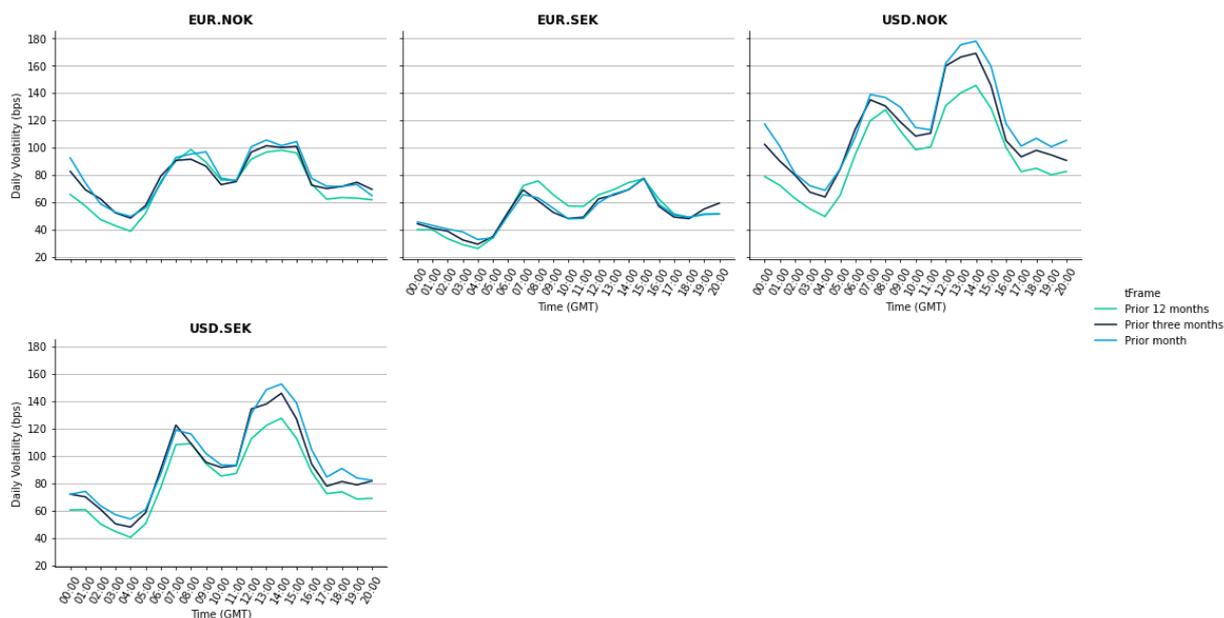
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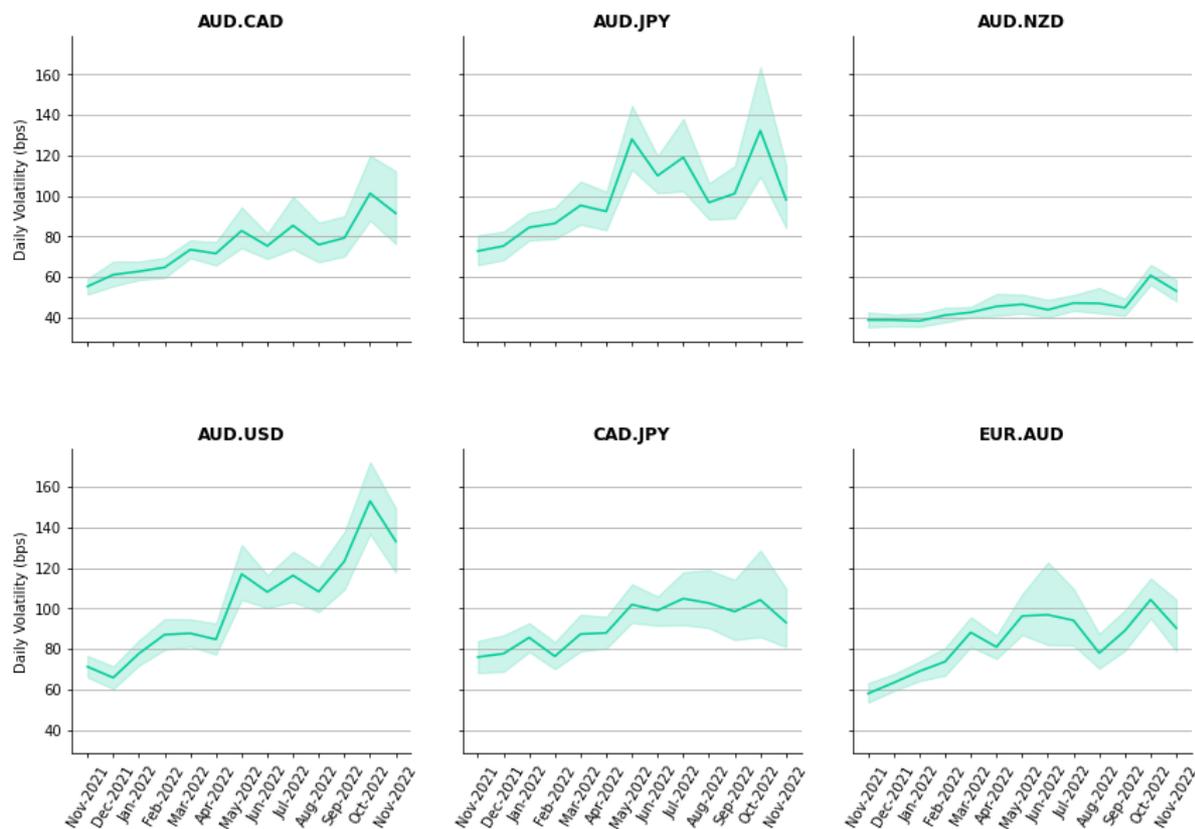
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Scandinavian G-10 Currencies: Average Hourly Volatility, 00:00-20:00 GMT Past month, three months and year



G-10 Currencies: Average Daily Volatility, 12:00-16:00 GMT November 2021-November 2022



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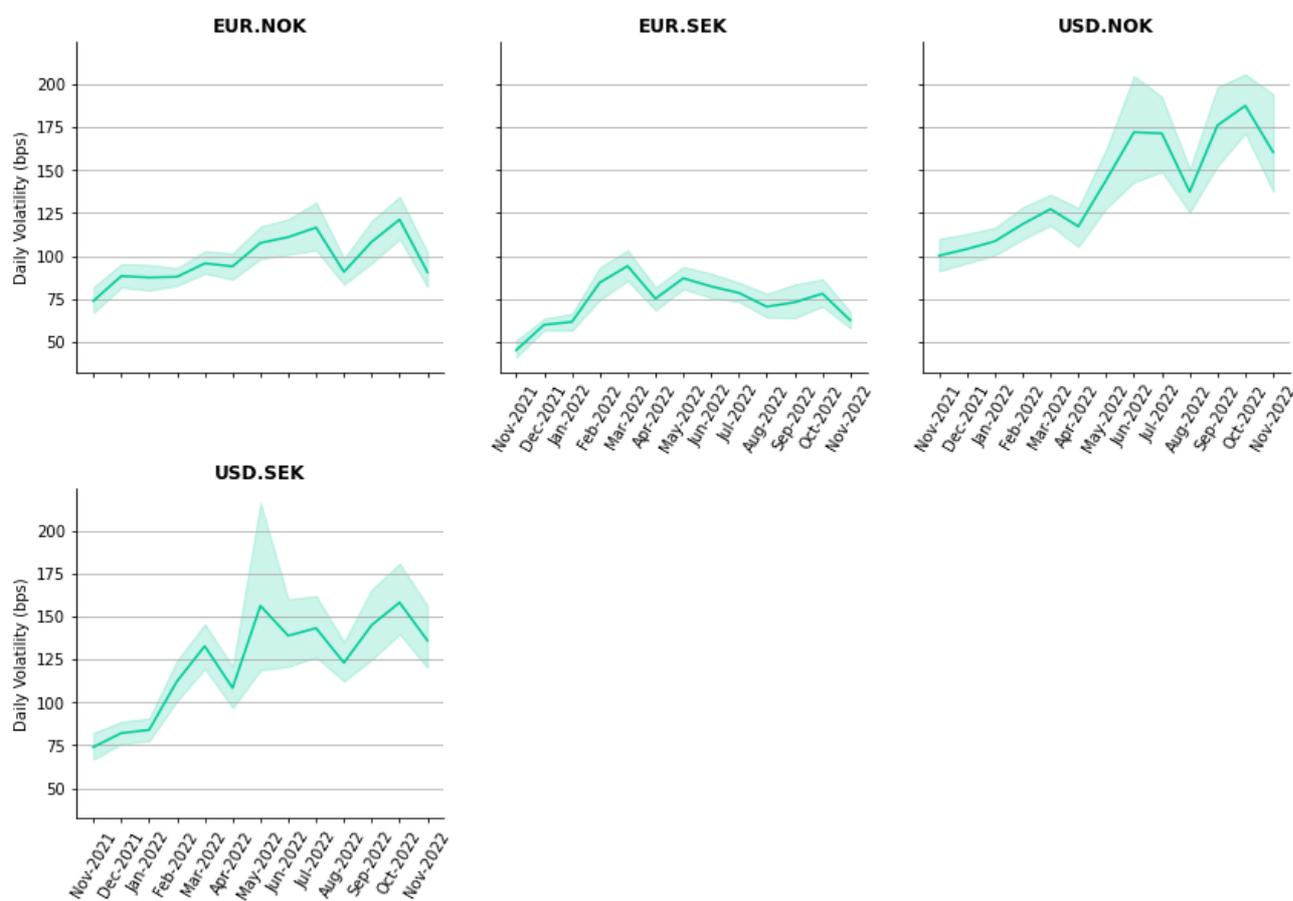
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Scandinavian G-10 Currencies: Average Daily Volatility, 12:00-16:00 GMT November 2021-November 2022



Have questions? To learn more, contact your regional Virtu Analytics representative.
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