

October 2023

FX Market Structure Monthly

CHANGES IN SPREAD AND VOLATILITY FOR MAJOR MARKET PAIRS

In October, FX spreads continued to narrow slightly after narrowing marginally in September and recording little change in August. Among the 23 pairs that we monitor, seven, including four majors—AUD.USD, NZD.USD, USD.CAD and USD.CHF—widened during the 12:00-16:00 GMT trading window. Volatility in the pre-WMR trading window increased for 16 of the 23 pairs following modest moves over the past four months. Among the majors pairs, volatility fell only for USD.JPY and NZD.USD in October. Compared to three months ago, only four pairs recorded wider spreads, while eight registered higher volatility. Twelve months ago, all pairs recorded higher spreads and volatility.

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

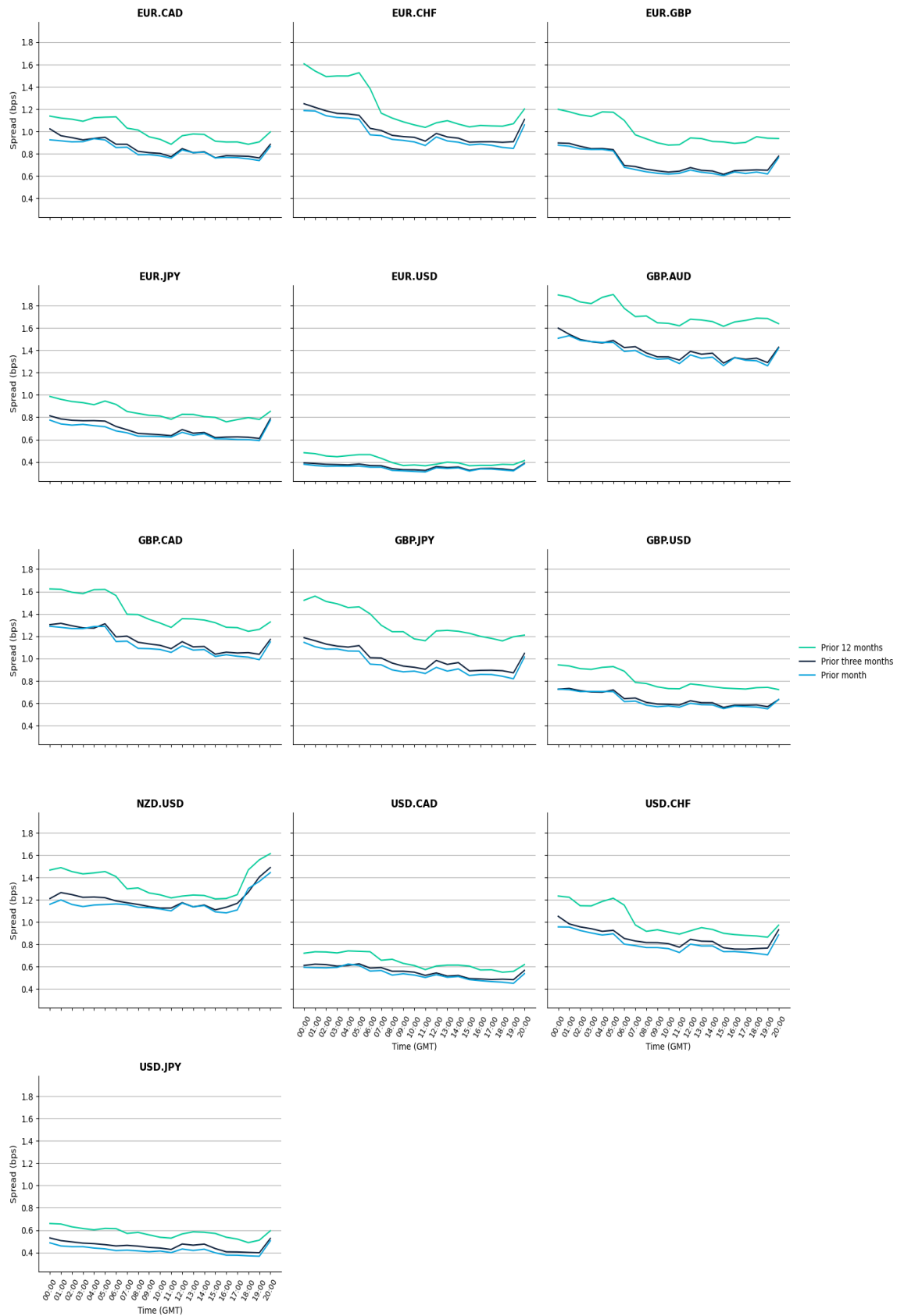
Reviewing October’s changes in intra-day spreads, we now see a familiar pattern. Spreads exhibited minimal changes during early Tokyo desk hours compared to the previous month but began to widen about 12:00 GMT in the run-up to the WMR auction. Between 15:00 and 16:00, spreads for 12 pairs widened on average for the month. After the WMR auction, spreads showed little variation. This pattern is consistent with traders not seeking to take on risky positions during less liquid trading times.

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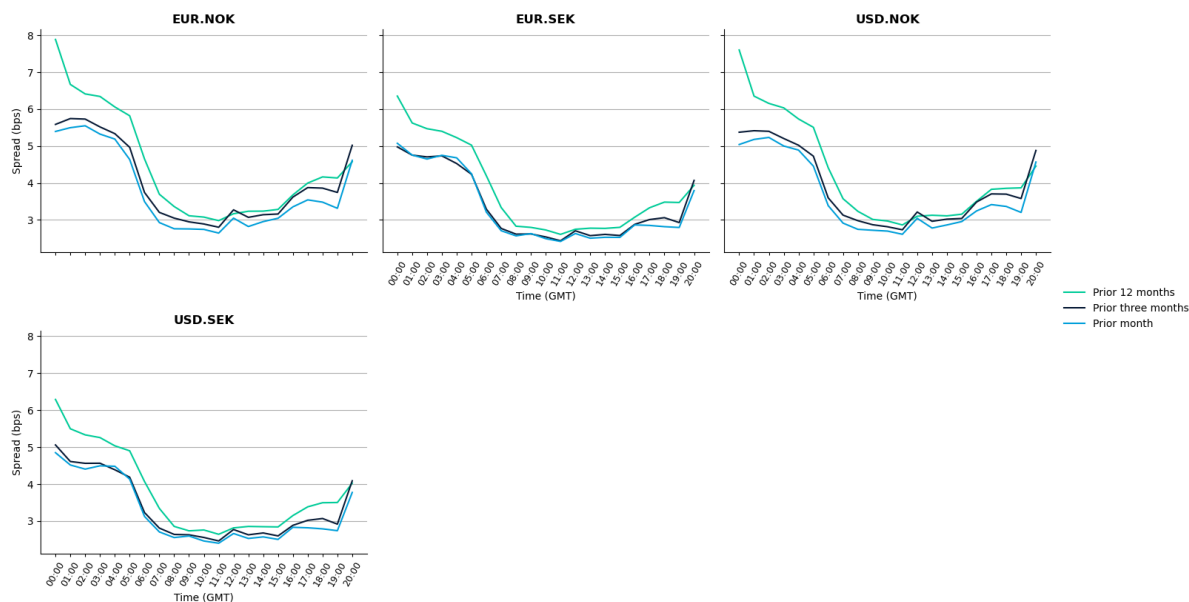
All chart sources: Virtu Financial, 2023. Spread and volatility calculations are derived from sources that Virtu believes to be reliable, but Virtu does not make any claims to its accuracy. USD.NOK, USD.SEK, EUR.NOK and EUR.SEK are shown in the separate exhibits



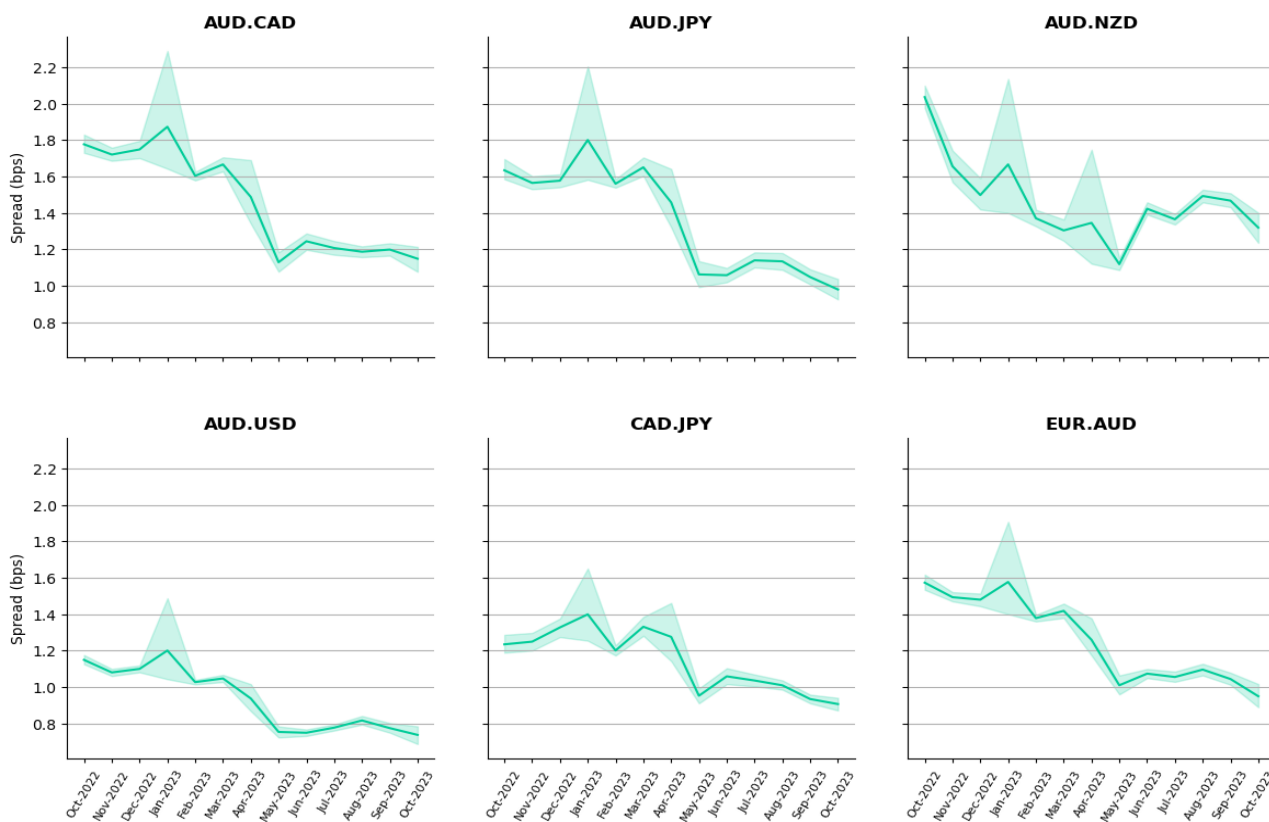
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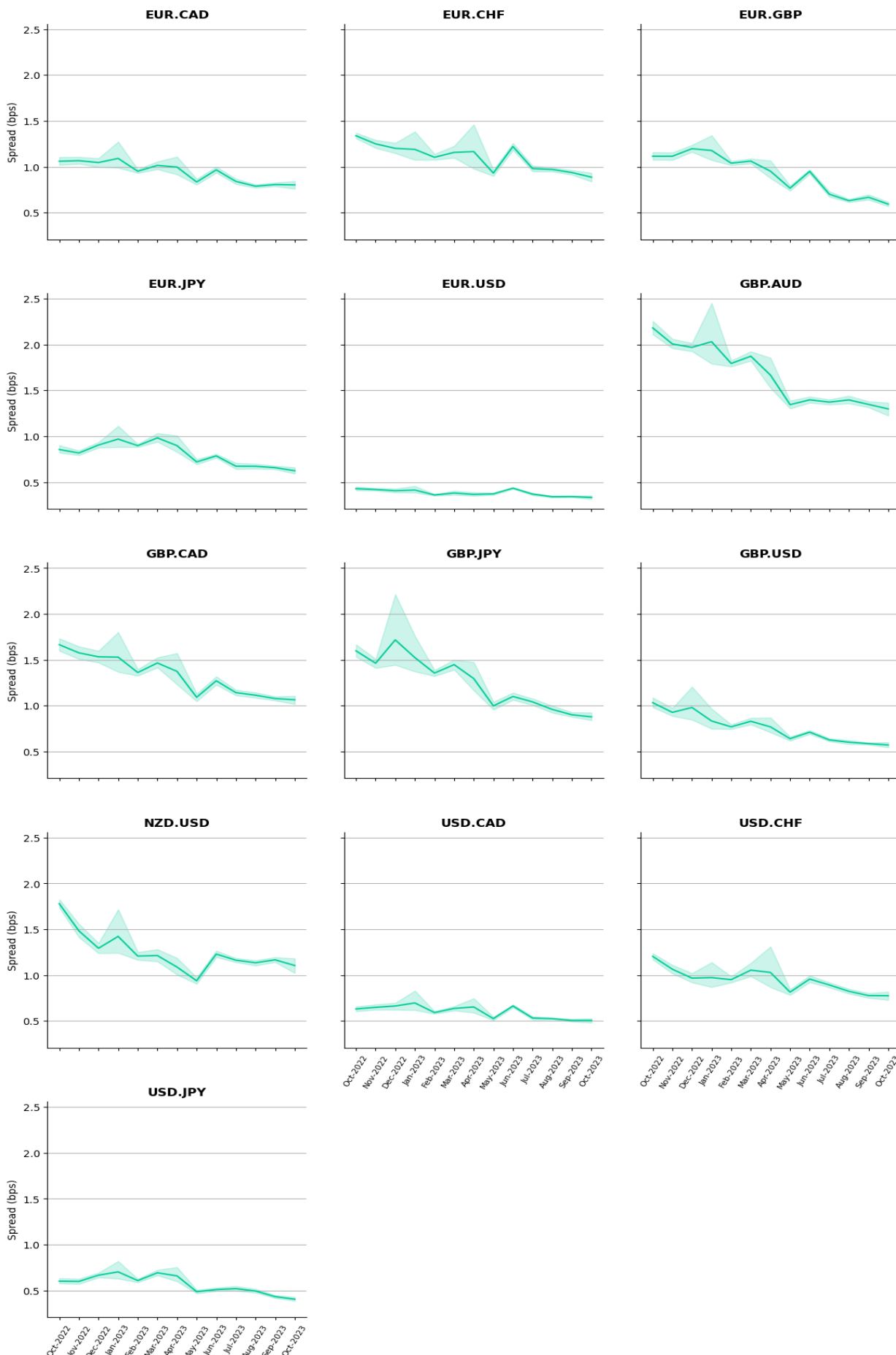
Scandinavian G-10 Currencies: Average Hourly Spread, 00:00-20:00 GMT Comparison over the past month, three months and year



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



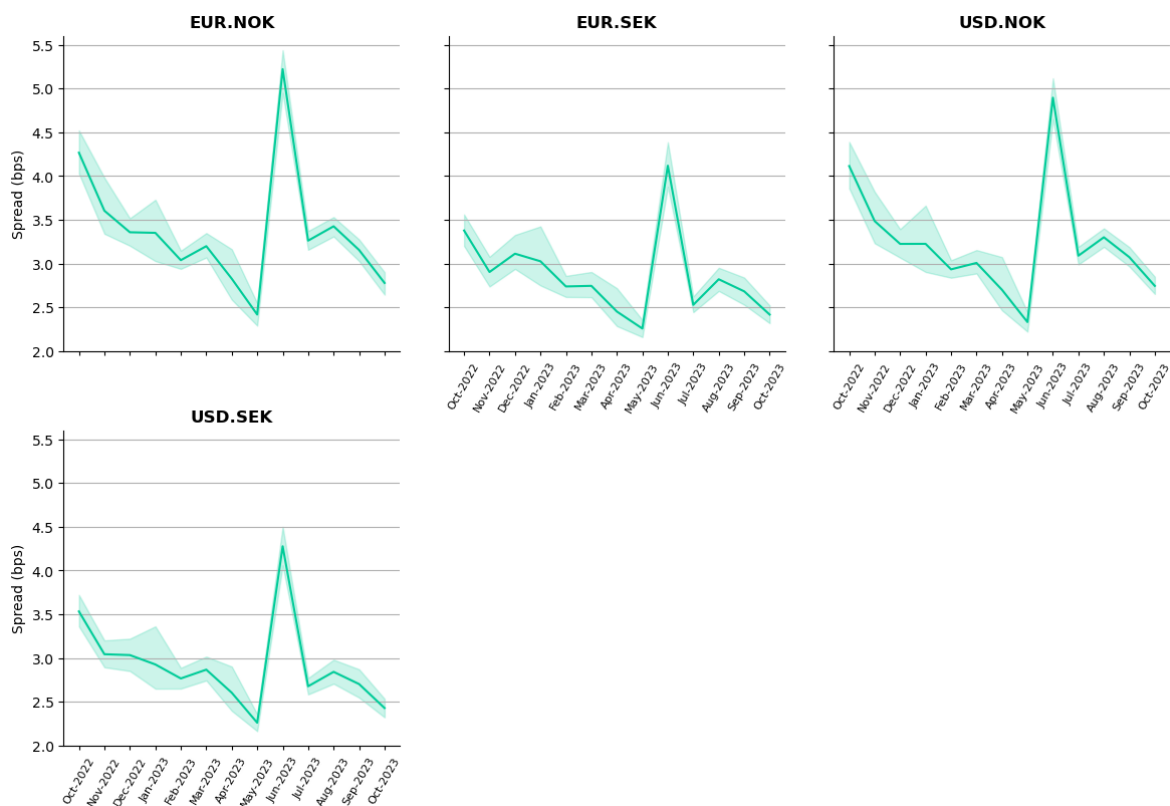
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Scandinavian G-10 Currencies: Average Daily Spread, 12:00-16:00 GMT October 2022- October 2023





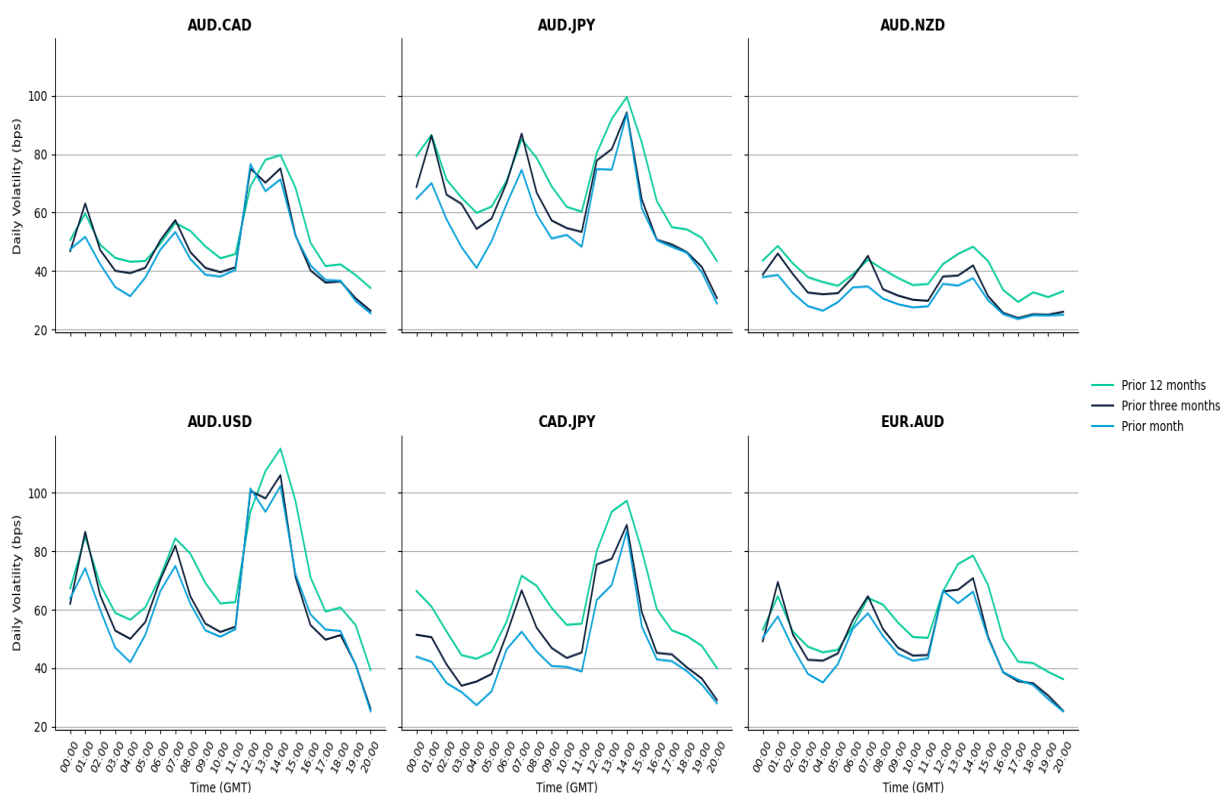
VOLATILITY

In October, FX volatility for the 23 pairs that we monitor increased modestly after falling to its 12-month low in September. Seventeen pairs, including five majors—AUS.USD, EUR.USD, GBP.USD, USD.CAD and USD.CHF—rose compared to September although the movement in October remained relatively small. Volatility was higher for eight pairs three months ago and higher for about half, 13 pairs, six months ago. Twelve months ago, only one pair, EUR.SEK, recorded higher volatility. October's FX volatility was not the lowest registered in 12 months, but it was very close.

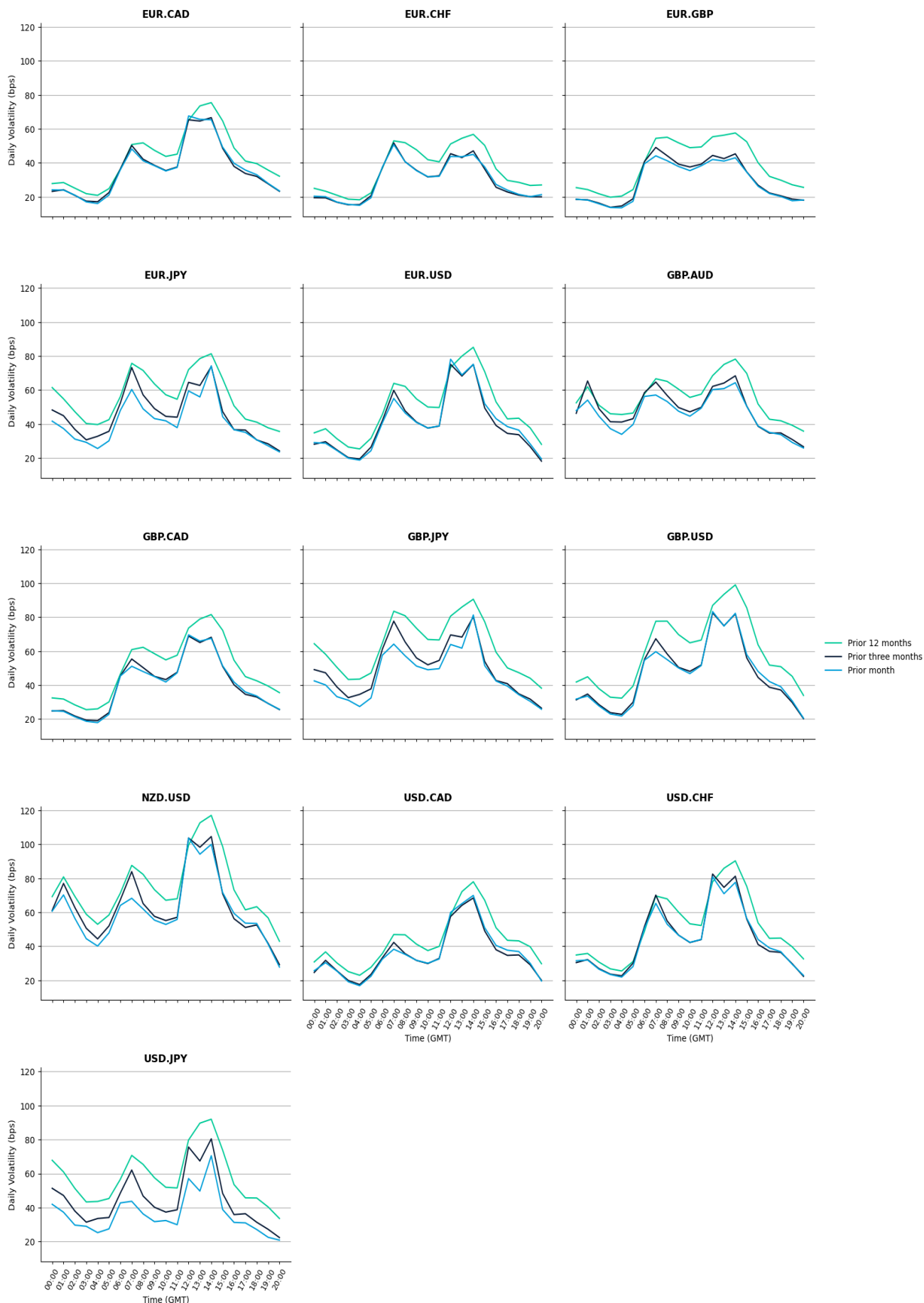
In our discussion of spreads, we highlighted the likelihood of an increase in spreads between 12:00-16:00 GMT as liquidity picks up ahead of the WMR auction. Volatility follows the same intra-day pattern. During Tokyo desk hours, the average intra-day volatility for most pairs moved little. Starting at 9:00 GMT, volatility picked up sharply with 19 pairs registering higher volatility than in September. Volatility increased for nearly all pairs through 16:00 GMT after which changes died down again. It seems that as long as intra-day volatility remains low, traders find little incentive to trade outside of pre-WMR window.

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

Comparison over the past month, three months and year



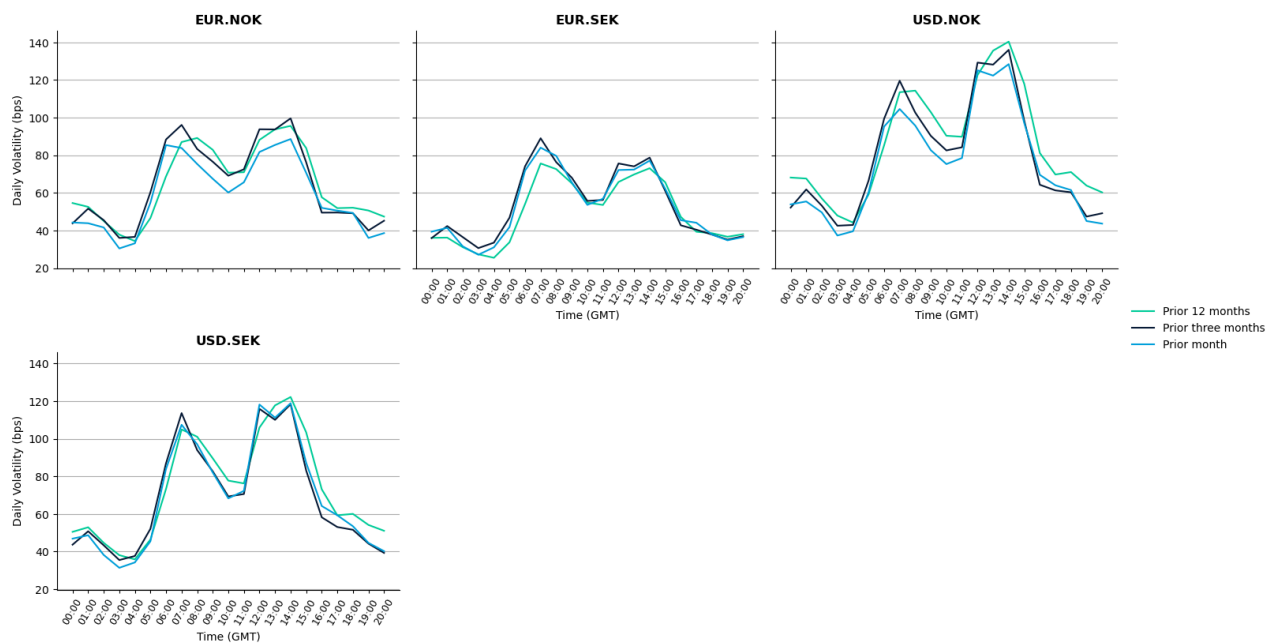
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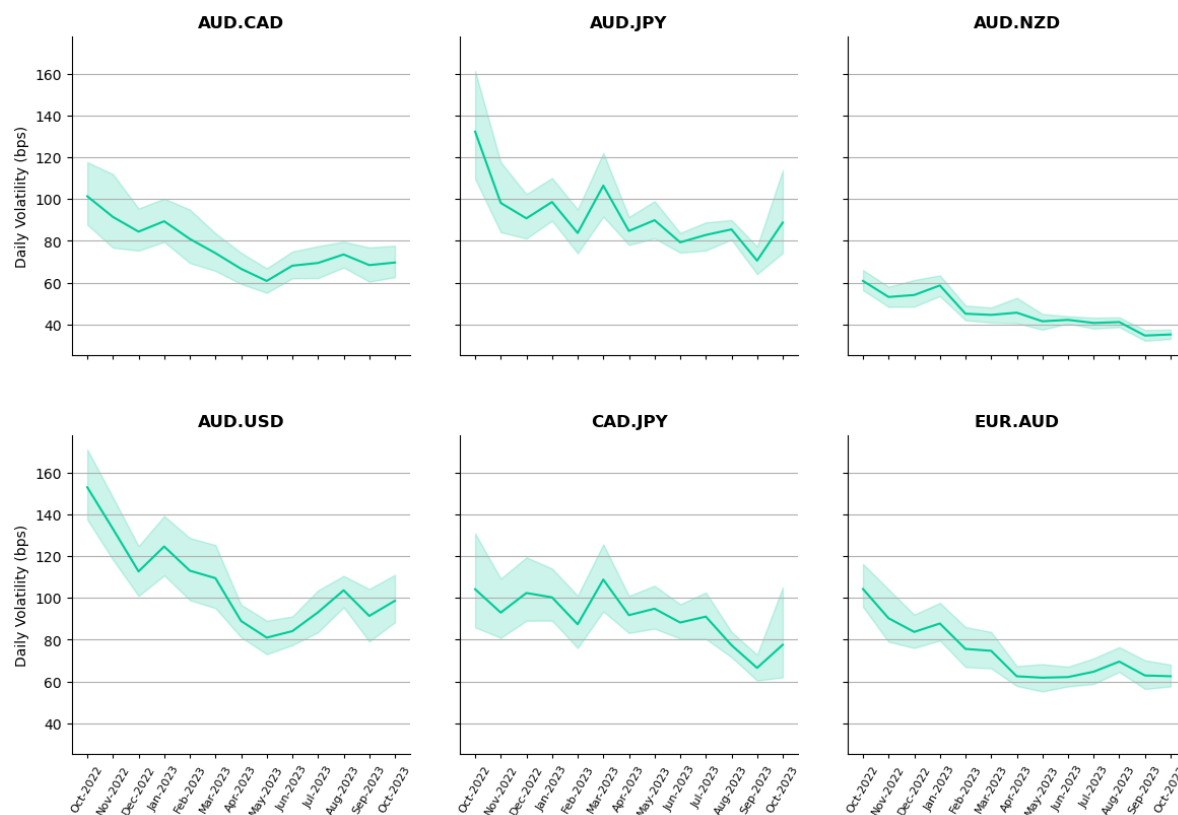
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Scandinavian G-10 Currencies: Average Hourly Volatility, 00:00-20:00 GMT Past month, three months and year

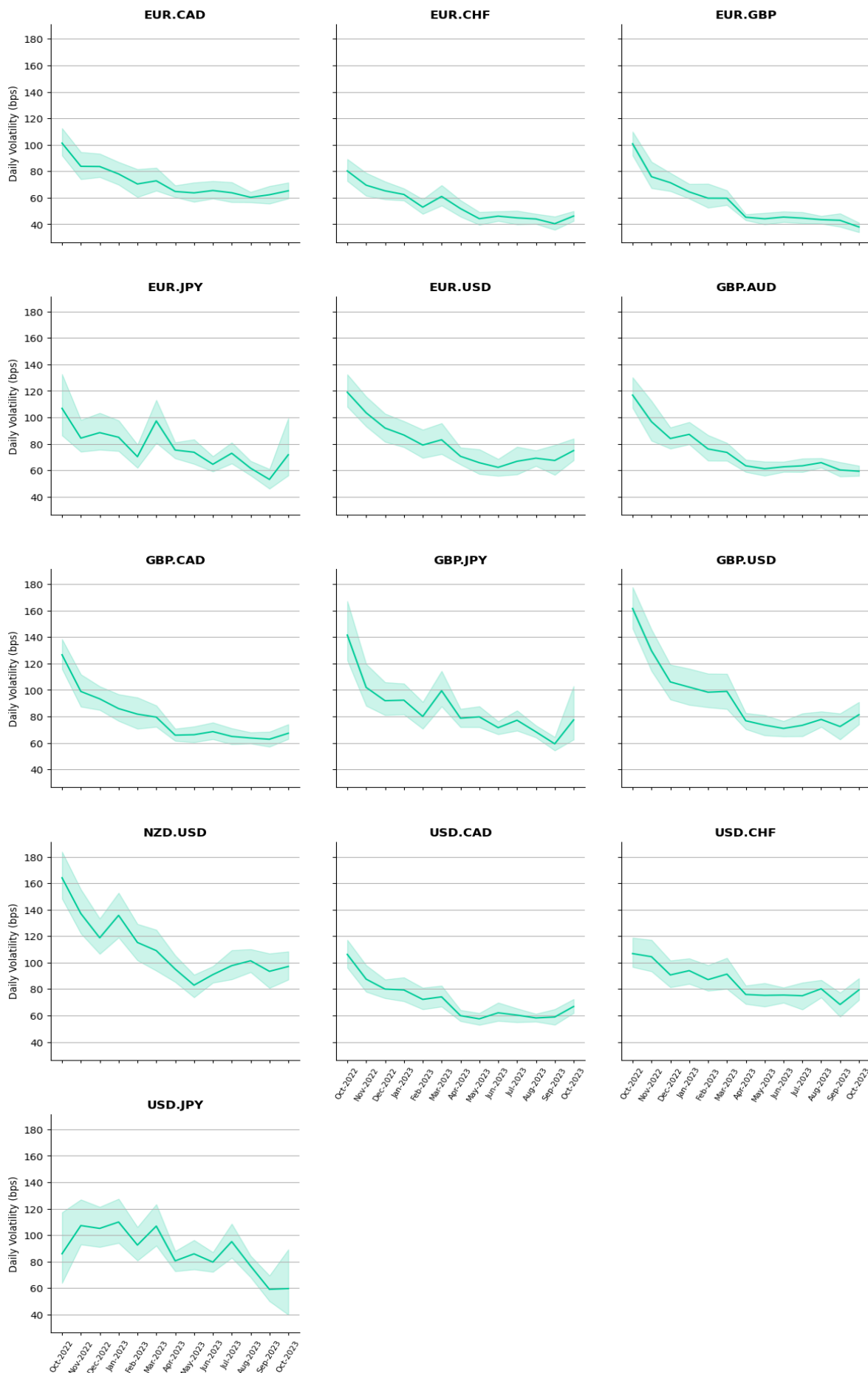


G-10 Currencies: Average Daily Volatility, 12:00-16:00 GMT October 2022-October 2023



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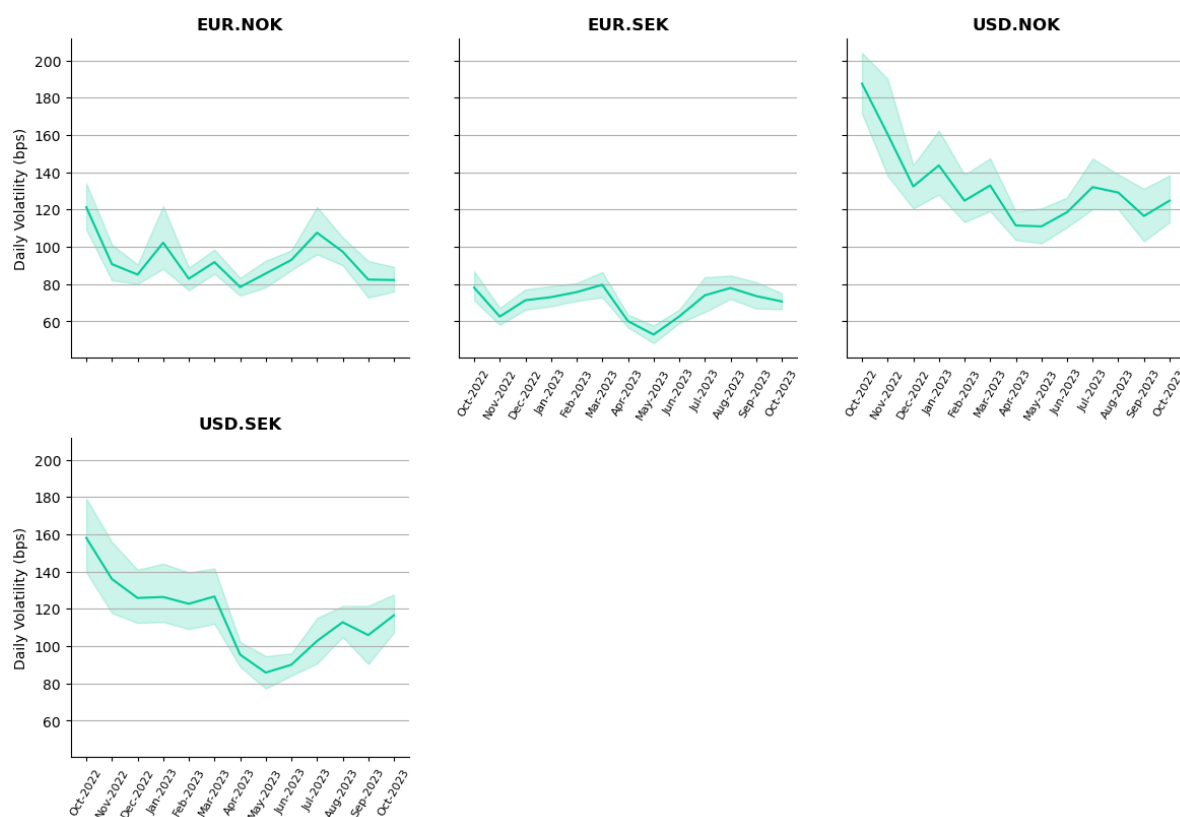
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Scandinavian G-10 Currencies: Average Daily Volatility, 12:00-16:00 GMT October 2022-October 2023



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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