

December 2025

# FX Market Structure Monthly

## CHANGES IN SPREAD AND VOLATILITY FOR MAJOR MARKET PAIRS

FX markets remained subdued in December, as the holiday season brought few meaningful changes in spreads or volatility across the 23 FX pairs we monitor. During the pre-WMR trading window (12:00–16:00 GMT), median spreads increased for nine of 23 pairs, while volatility declined for 20 of 23. We did, however, observe an increase in spreads across nearly all pairs during early Tokyo trading hours, without a corresponding rise in volatility. The coming months may indicate whether this pattern marks the beginning of a broader trend.

## 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.

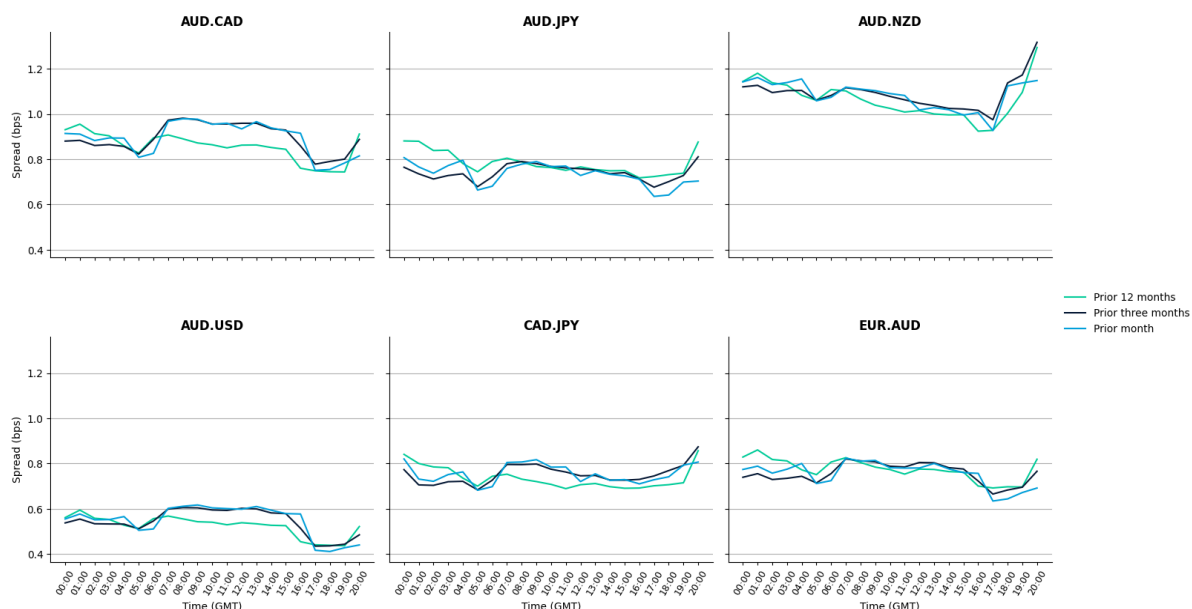
## SPREADS

While median spread levels increased in December for nine of the 23 pairs during the pre-WMR trading window (12:00–16:00 GMT), volatility declined for 20 of 23. Among the major pairs, both pre-WMR spreads and volatility increased for the USD.CAD and USD.JPY. Other minor pairs involving both the JPY (AUD.JPY, CAD.JPY, and GBP.JPY) and CAD (EUR.CAD and GBP.CAD) recorded wider spreads without a corresponding increase in volatility.

On an intraday basis, median spreads increased for most pairs during Tokyo trading hours (23:00–08:00 GMT). Compared to three months ago, spreads widened for 22 of 23 pairs during this window, while volatility declined. This combination of wider spreads and lower volatility likely reflects reduced liquidity and quieter pre-holiday activity.

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

Comparison over the past month, three months, and year

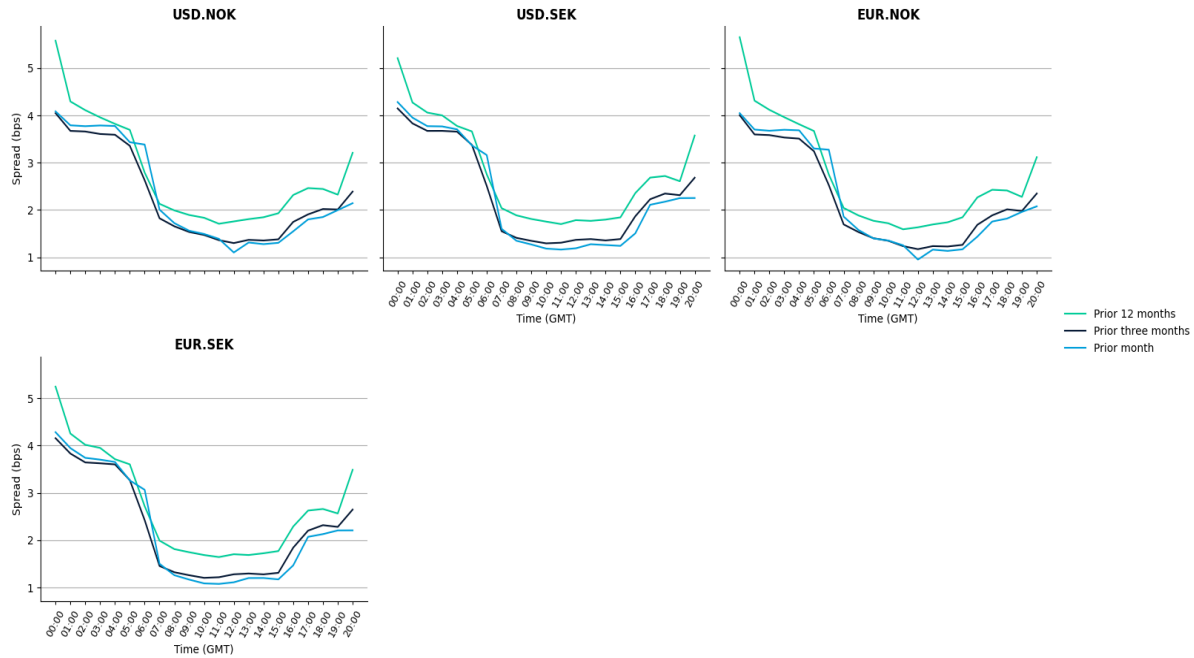


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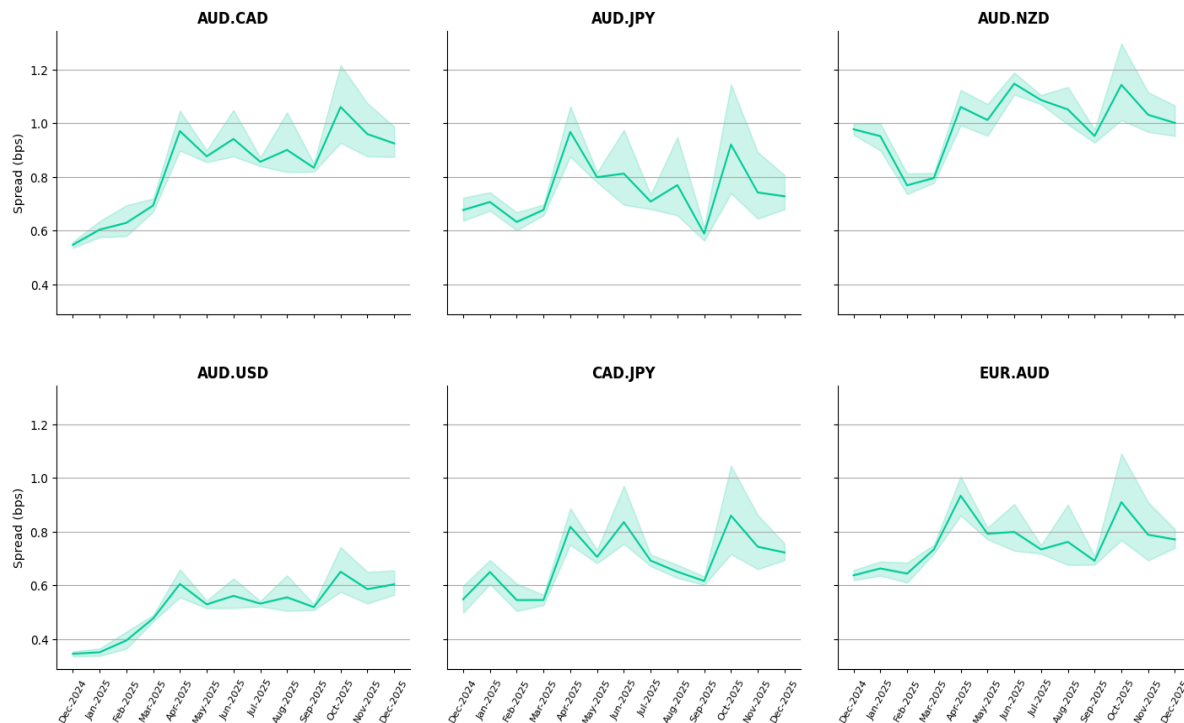




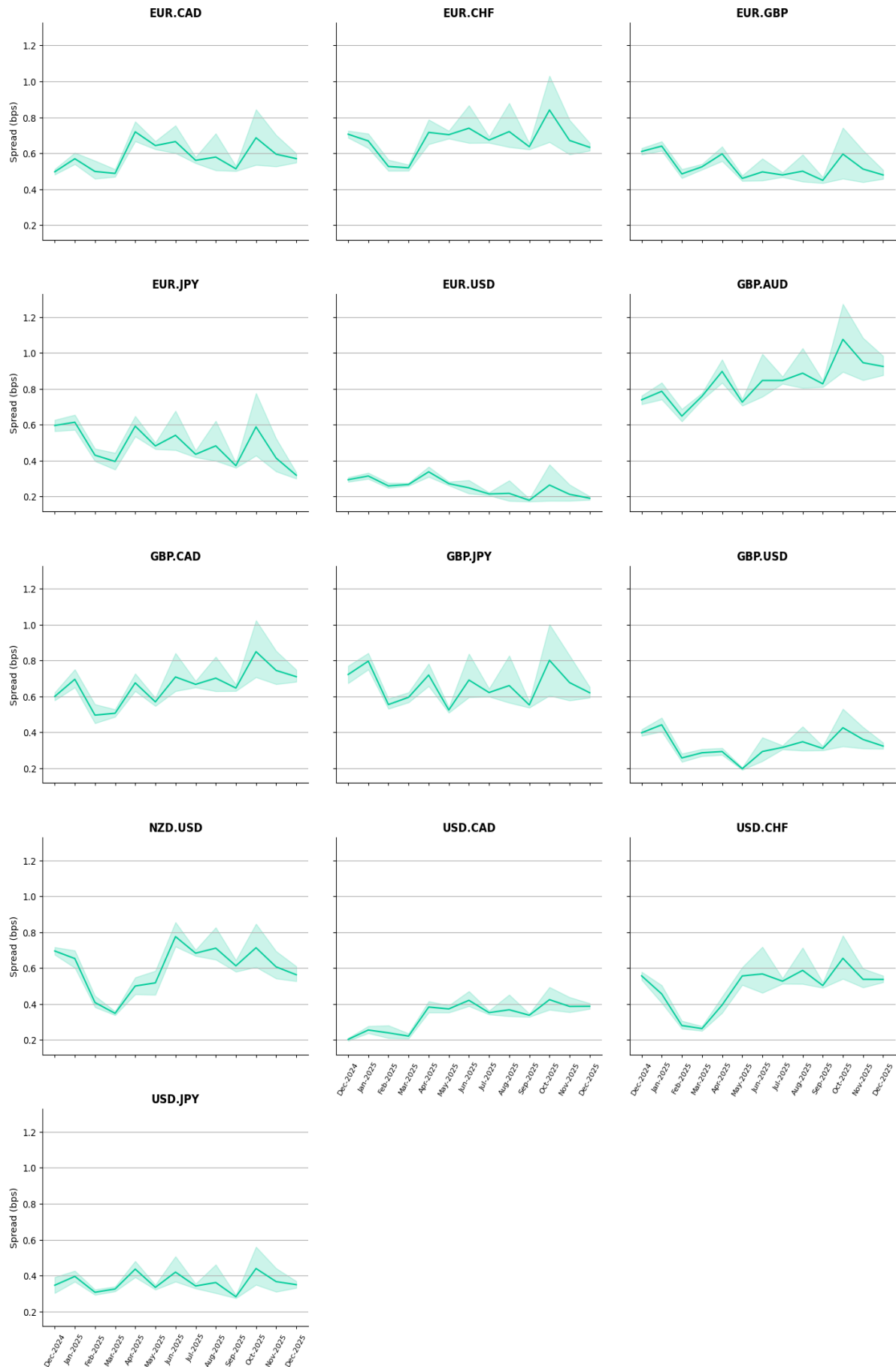
## Scandinavian G-10 Currencies: Average Hourly Spread, 00:00-20:00 GMT Comparison over the past month, three months, and year



## G-10 Currencies: Average Daily Spread, 12:00-16:00 GMT December 2024 – December 2025



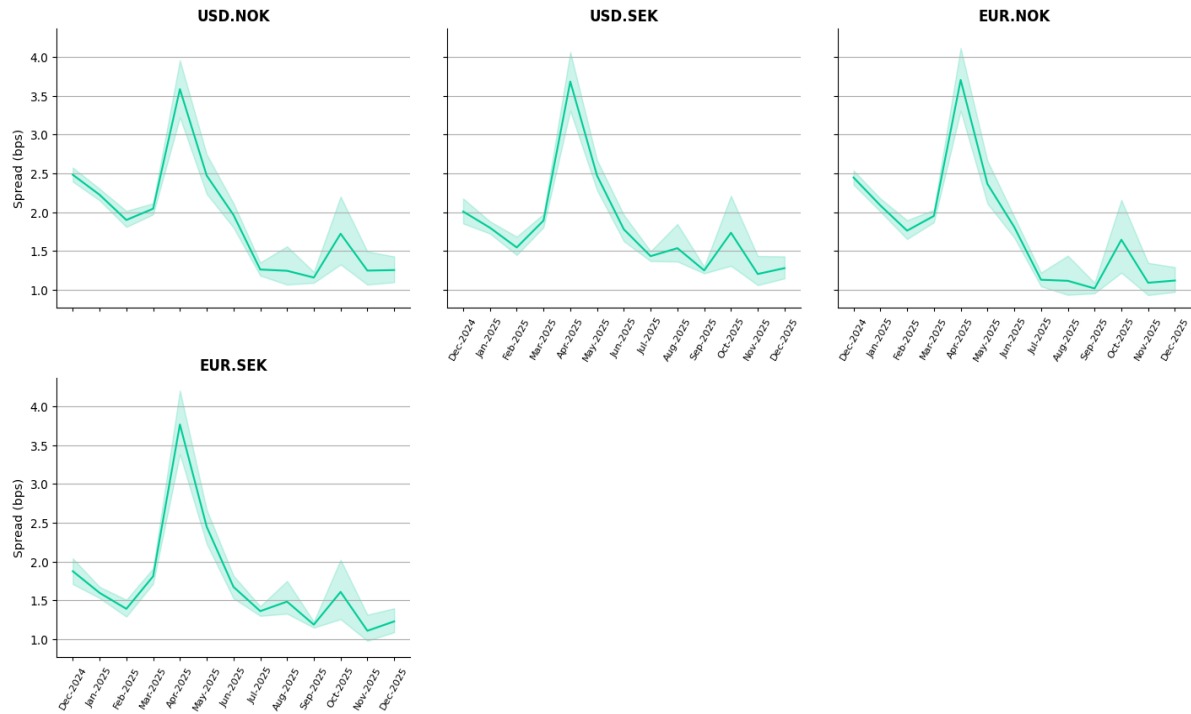
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All chart sources: Virtu Financial, 2026. Spread and volatility calculations are derived from sources that Virtu believes to be reliable, but Virtu does not make any claims to its accuracy. USD.NOK, USD.SEK, EUR.NOK and EUR.SEK are shown in separate exhibits.



## Scandinavian G-10 Currencies: Average Daily Spread, 12:00-16:00 GMT December 2024 – December 2025





## VOLATILITY

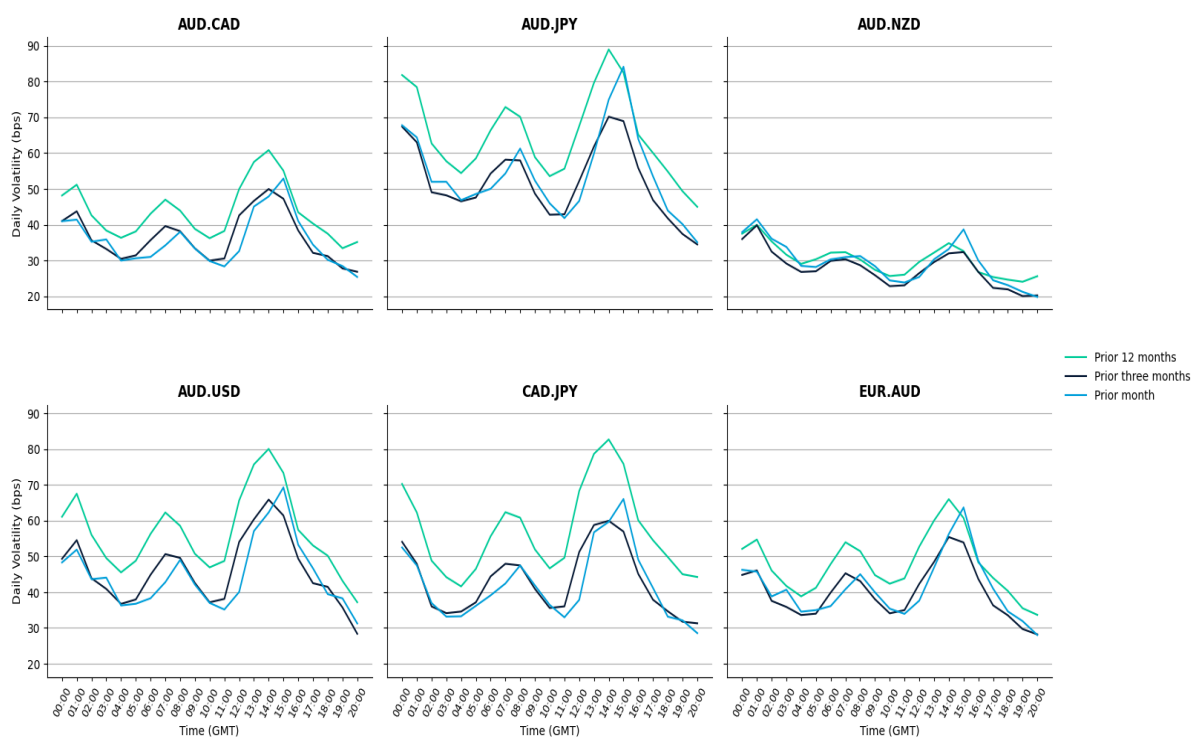
Median volatility in the pre-WMR trading window fell for 20 of 23 pairs last month. Compared to three months ago, volatility was lower for 16 pairs, and relative to six to twelve months ago, volatility declined for 22 of 23 pairs.

Intraday volatility patterns tell a similar story. Median hourly volatility fell for most pairs last month, though levels were modestly higher compared to three months ago. Relative to six and twelve months ago, FX markets appeared to be notably subdued. Outside of the immediate period surrounding the WMR fix, only two pairs recorded higher median hourly volatility in December than in the earlier periods.

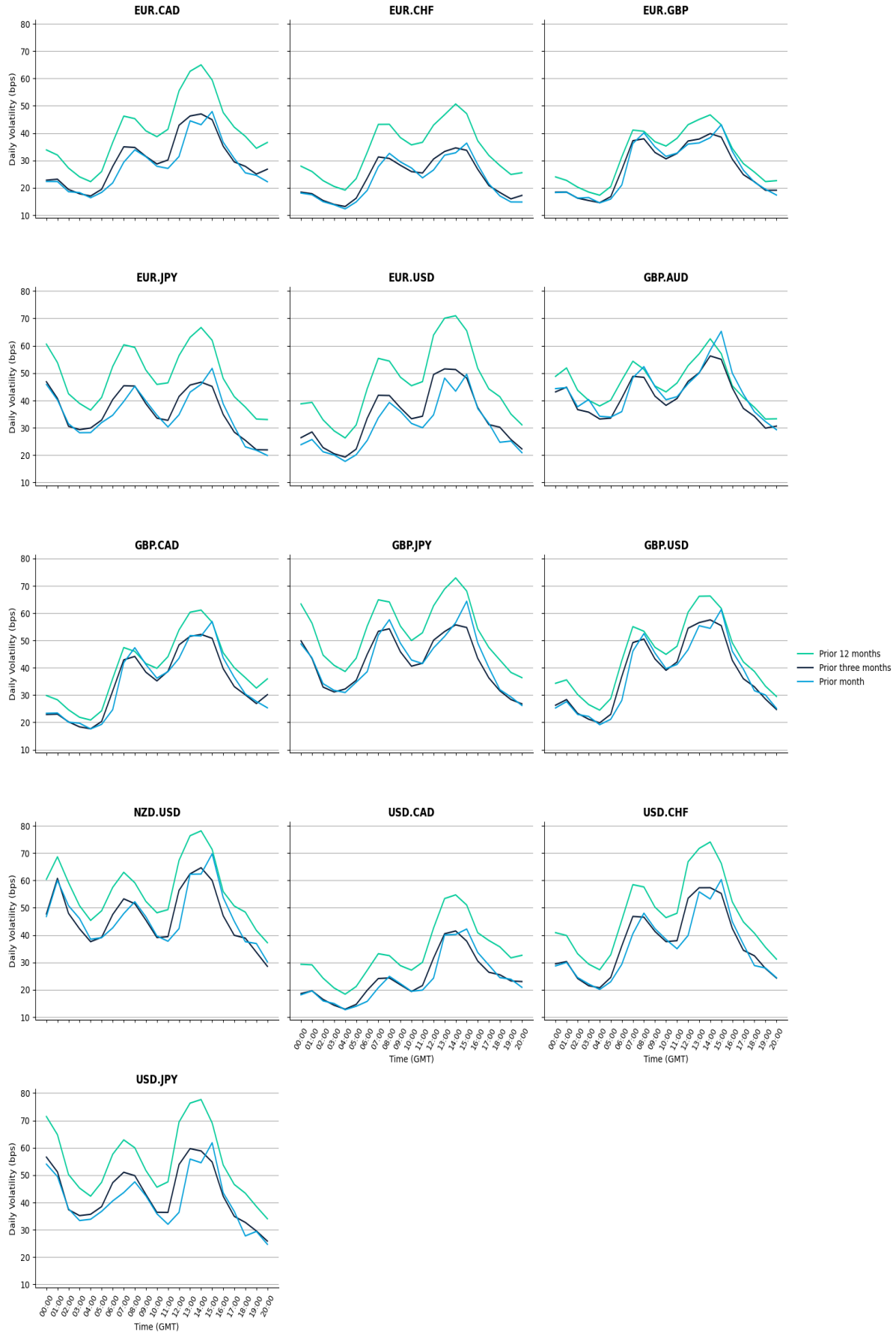
While there was seasonal decline in volatility in December, current levels are notably lower than those observed during the same period last year. The observed increase in spreads during Tokyo trading hours may reflect participants stepping back during less liquid periods and concentrating activity around the WMR fix. We will continue to monitor whether this pattern persists in the coming months.

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

Comparison over the past month, three months, and year

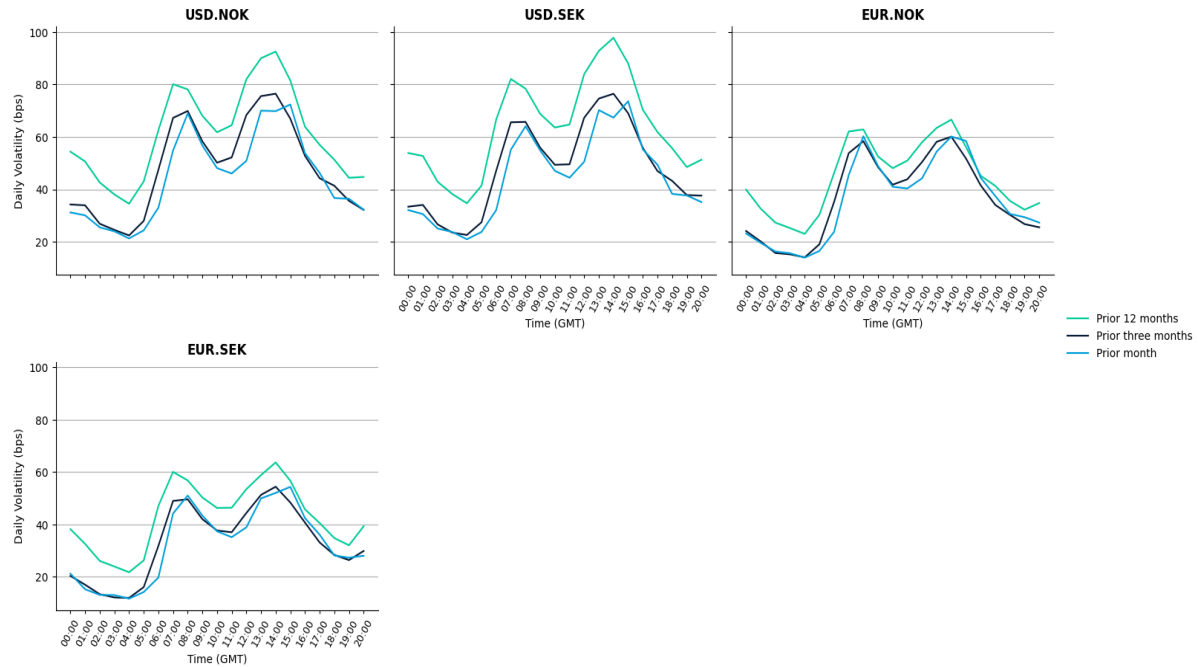


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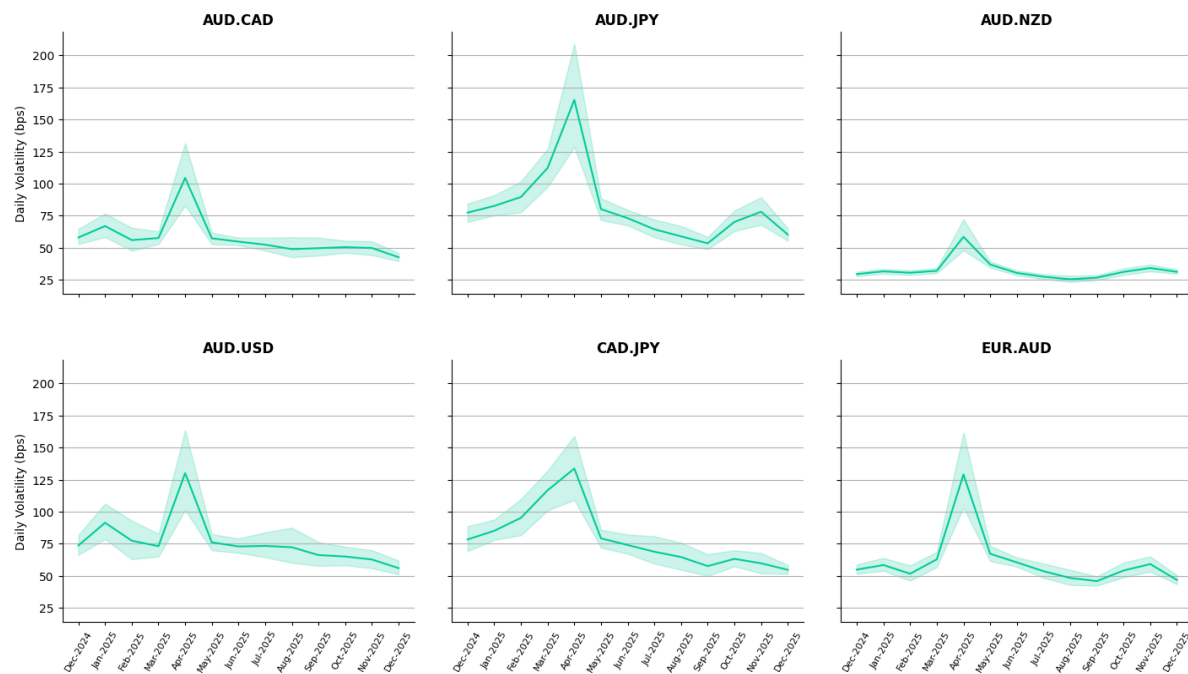




## Scandinavian G-10 Currencies: Average Hourly Volatility, 00:00-20:00 GMT Comparison over the past month, three months and year



## G-10 Currencies: Average Daily Volatility, 12:00-16:00 GMT December 2024 – December 2025



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## Scandinavian G-10 Currencies: Average Daily Volatility, 12:00-16:00 GMT December 2024 – December 2025



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