

FX Market Structure Monthly

CHANGES IN SPREAD AND VOLATILITY FOR MAJOR MARKET PAIRS

FX spreads for all 23 currency pairs we observed narrowed in July compared to June, indicating higher volumes and an increase in trading activity. Among the five yen pairs we observed, volatility increased for four in the past month. As the yen continues to weaken following the end of Japan's negative interest rate policy earlier in March, Japanese authorities intervened in July. The Bank of Japan increased interest rates to around 0.25% from the previous rate of around 0.1%, leading to higher volatility.

READING THE RESULTS

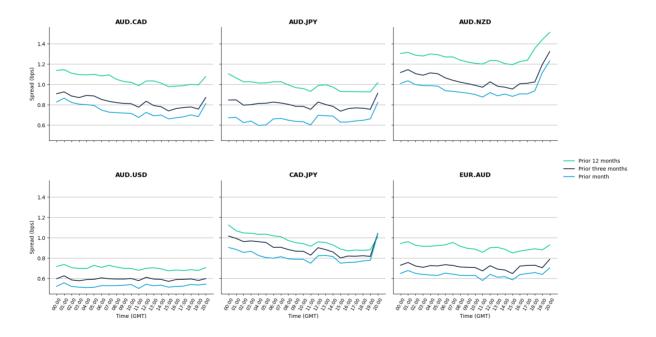
On the intraday charts, the green line represents the average spread or volatility for the past 12 months, the black line represents the past three months, and the blue line represents the past month. On the daily charts, the green area represents the 95th percentile confidence interval for the spread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

SPREADS

Spreads for all pairs that we observed narrowed in July. A close look at trading hours reveal spreads were narrower in July compared to June across all New York, London and APAC trading hours.

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

Comparison over the past month, three months and year

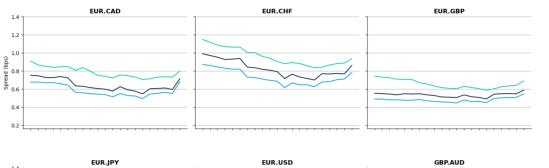


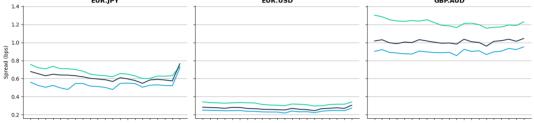
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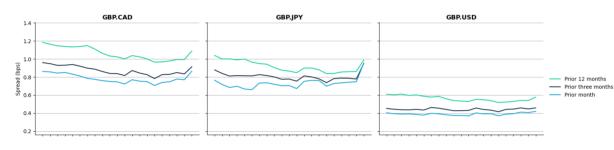
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All chart sources: Virtu Financial, 2024. Spread and volatility calculations are derived from sources that Virtu believes to be reliable, but Virtu does not make any claims to its accuracy. USD.NOK, USD.SEK, EUR.NOK and EUR.SEK are shown in the separate exhibits.

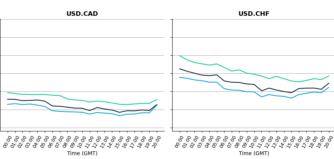


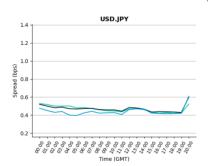








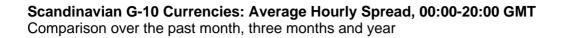


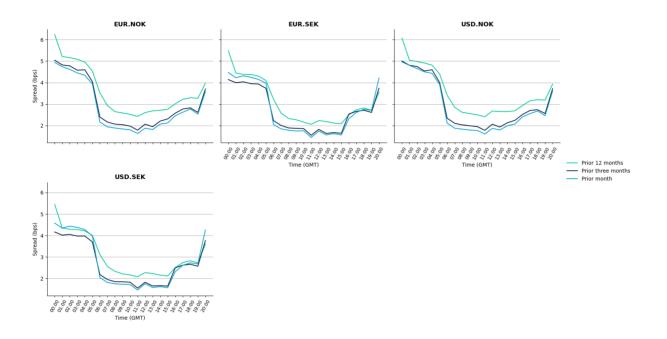


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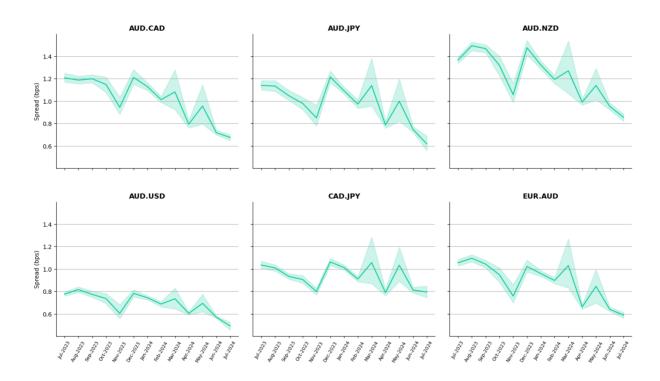
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G-10 Currencies: Average Daily Spread, 12:00-16:00 GMT July 2023 - July 2024



All chart sources: Virtu Financial, 2024. 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, ³ EUR.NOK and EUR.SEK are shown in separate exhibits.

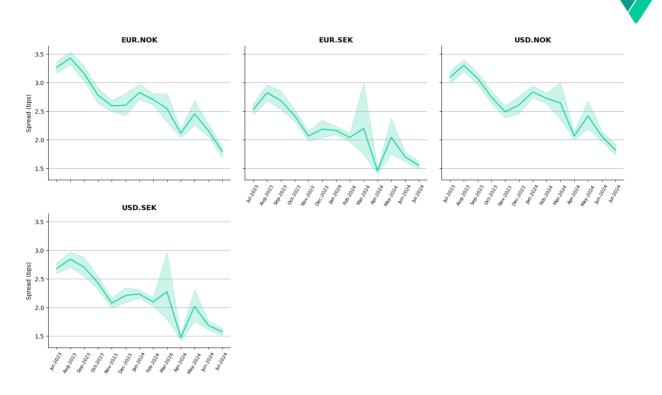


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Scandinavian G-10 Currencies: Average Daily Spread, 12:00-16:00 GMT July 2023 - July 2024



All chart sources: Virtu Financial, 2024. 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.

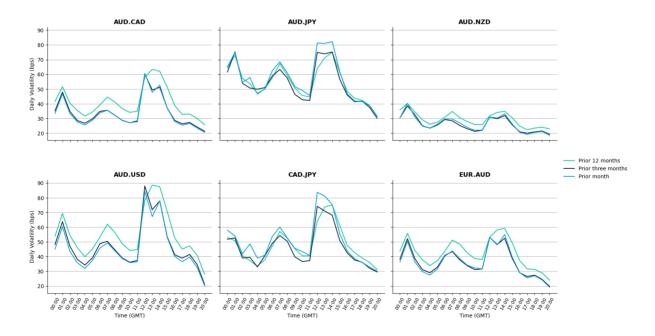


VOLATILITY

Volatility during APAC trading hours was higher in July compared to June for almost all currency pairs we observed. Focusing on the yen, the currency was more volatile in July across all APAC, London and New York trading hours.

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

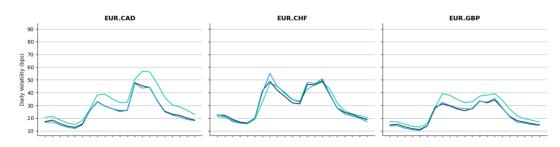
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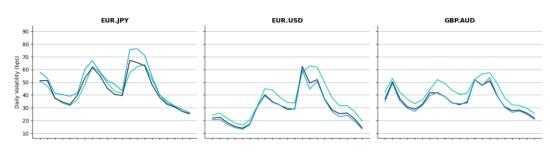


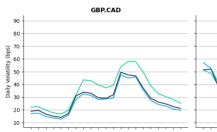
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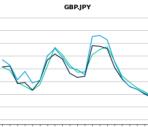
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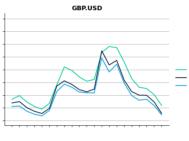






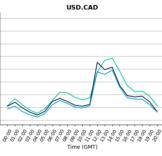












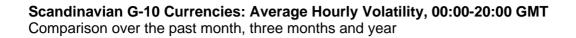


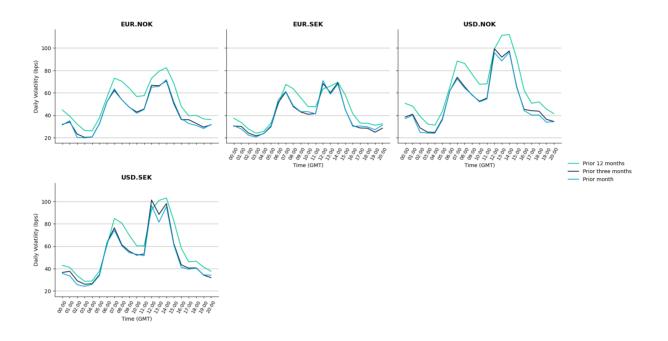


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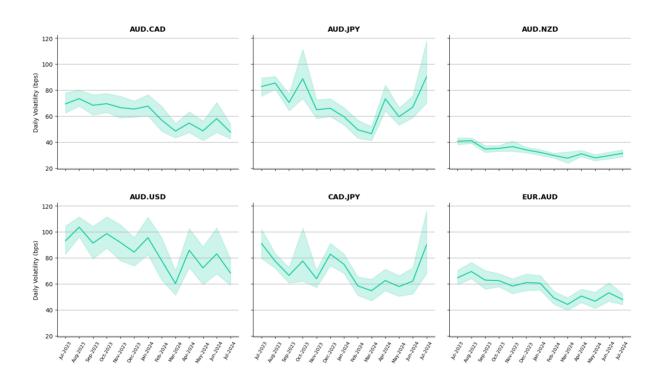
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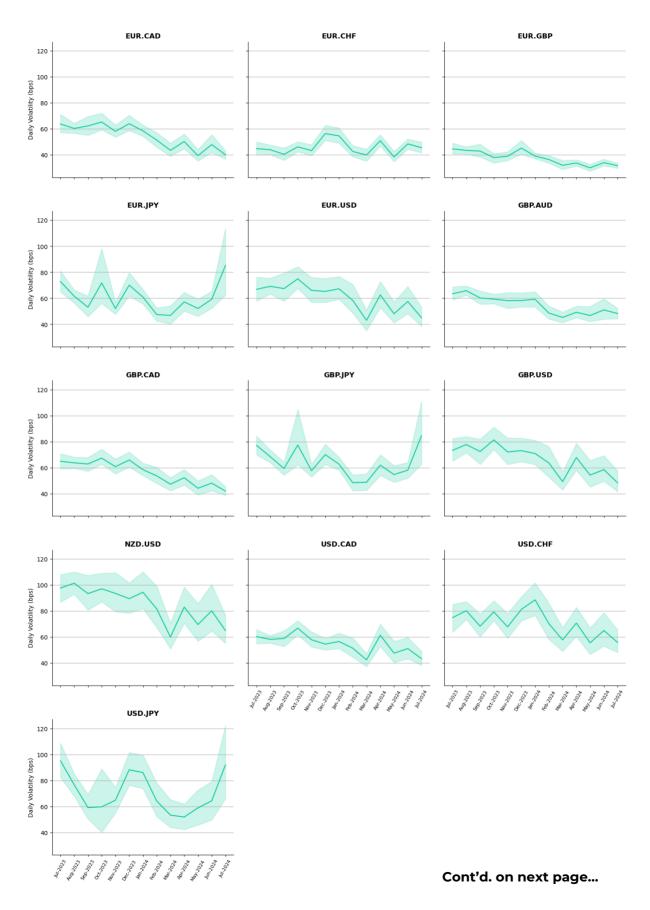
G-10 Currencies: Average Daily Volatility, 12:00-16:00 GMT July 2023 - July 2024



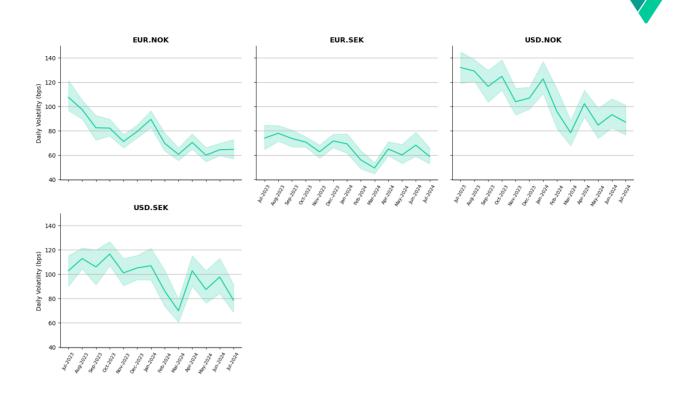
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Scandinavian G-10 Currencies: Average Daily Volatility, 12:00-16:00 GMT July 2023 - July 2024



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