

June 2023

# FX Market Structure Monthly

## CHANGES IN SPREAD AND VOLATILITY FOR MAJOR MARKET PAIRS

FX spreads widened across the board in June. For 21 out of the 23 pairs that we monitor, including six out of the seven majors, spreads widened in the 12:00-16:00 GMT trading window. Volatility also increased, although not to the same extent as, fifteen out of 21 pairs experienced wider hourly volatility during the pre-WMR fixing trading window. However, spreads are still narrower compared to three months ago. Among the 23 pairs we monitor, only the EUR/USD pair traded with a wider spread across Tokyo, London, and New York trading hours.

## READING THE RESULTS

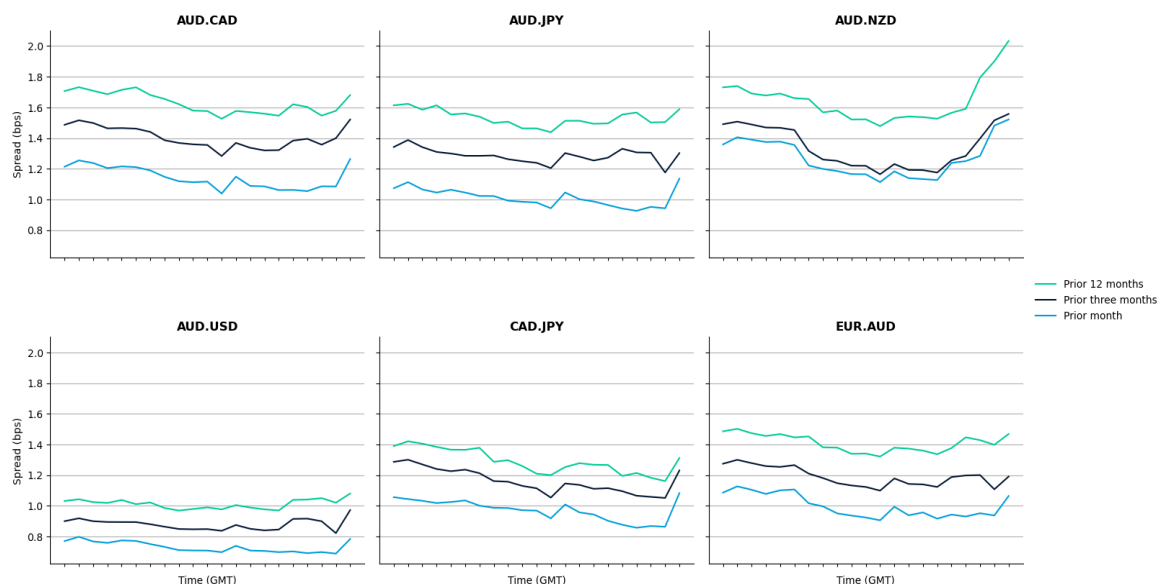
On the intraday charts, the green line represents the average spread or volatility for the past 12 months, the black line represents the past three months, and the blue line represents the past month. On the daily charts, the green area represents the 95<sup>th</sup> percentile confidence interval for the spread and volatility, showing the stability of the calculated median value.

## SPREADS

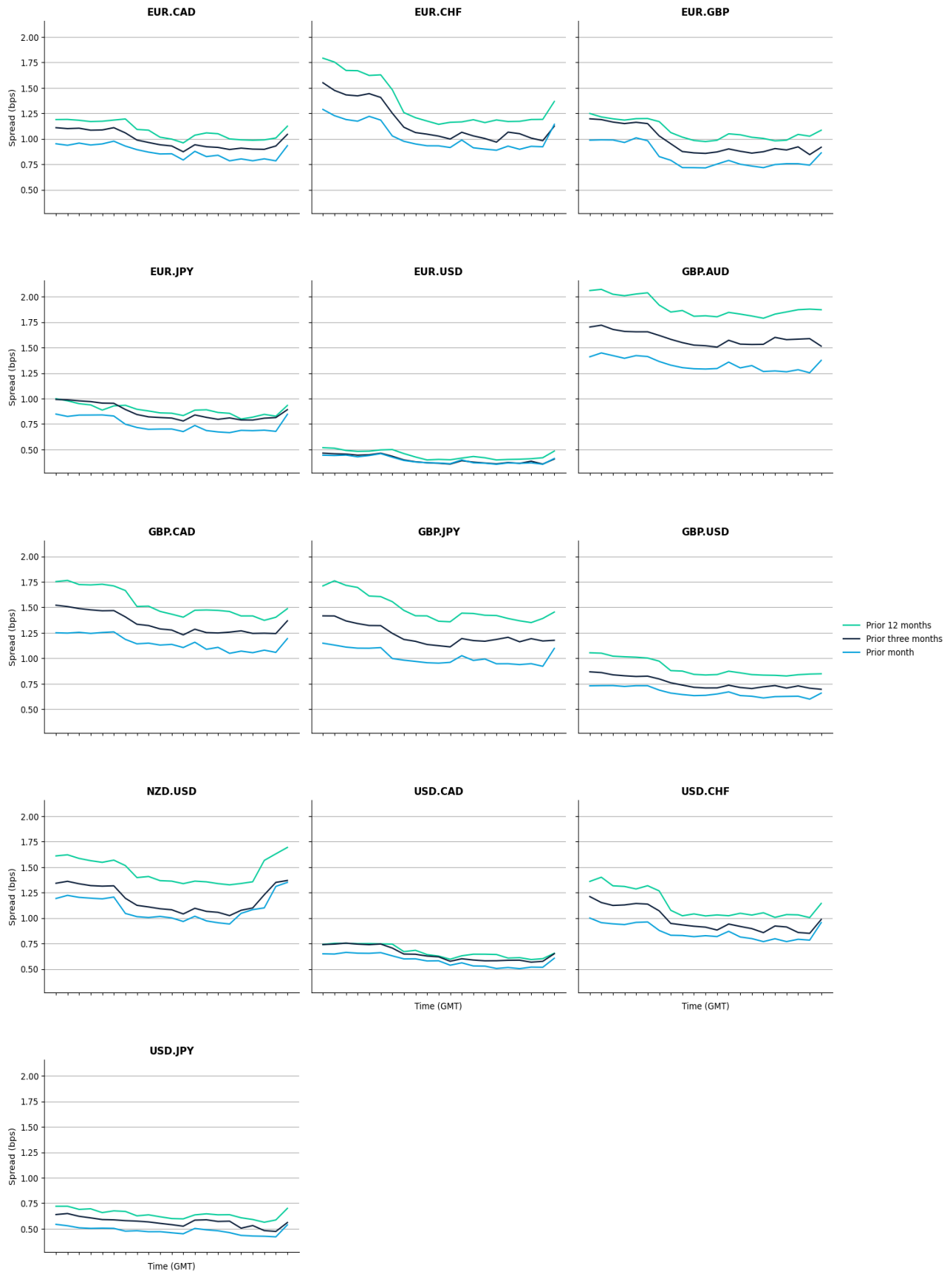
Last month, we suggested that interest rate uncertainty, could be a significant factor influencing FX spreads, which affects dealer inventory costs. Recent central bank announcements or pre-announcing planned rate hikes, could contribute to such uncertainty. Given this context, the charts for this month that indicate a sharp decrease in spreads compared to the three-month average for AUD and GBP pairs might seem contradictory. However, this is not the case, since spreads significantly narrowed in May and saw a modest increase in June. The three-month average does not yet account for the large movement that occurred in May.

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

Comparison over the past month, three months and year



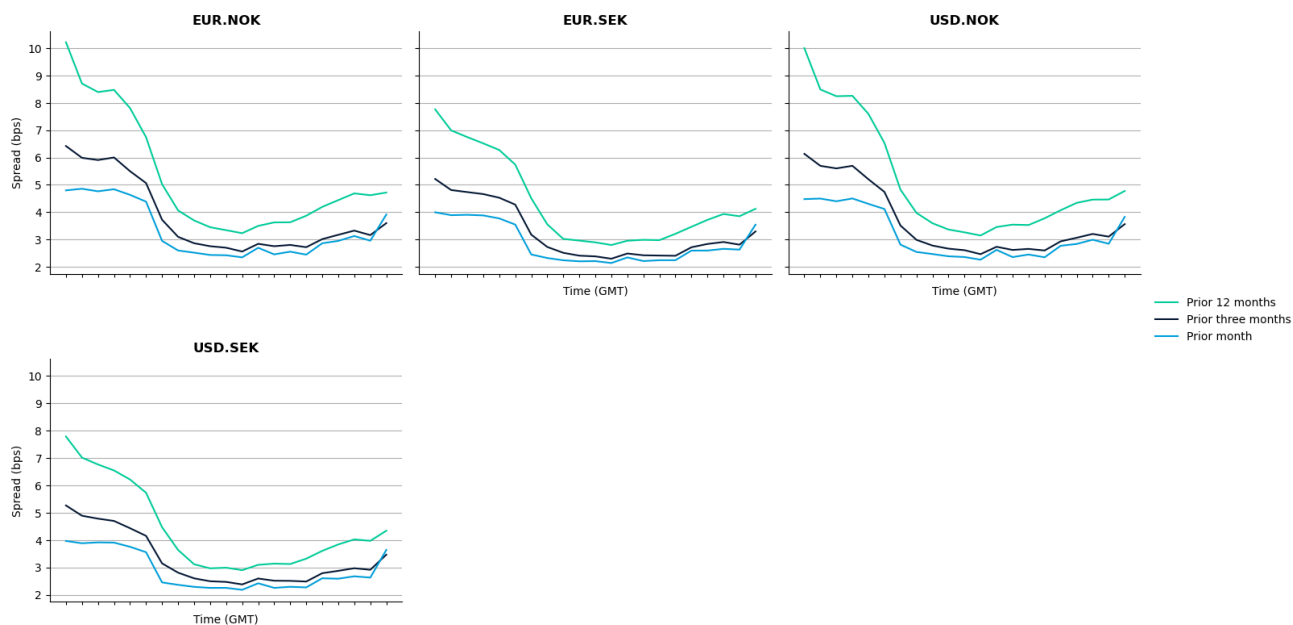
Continued next page...



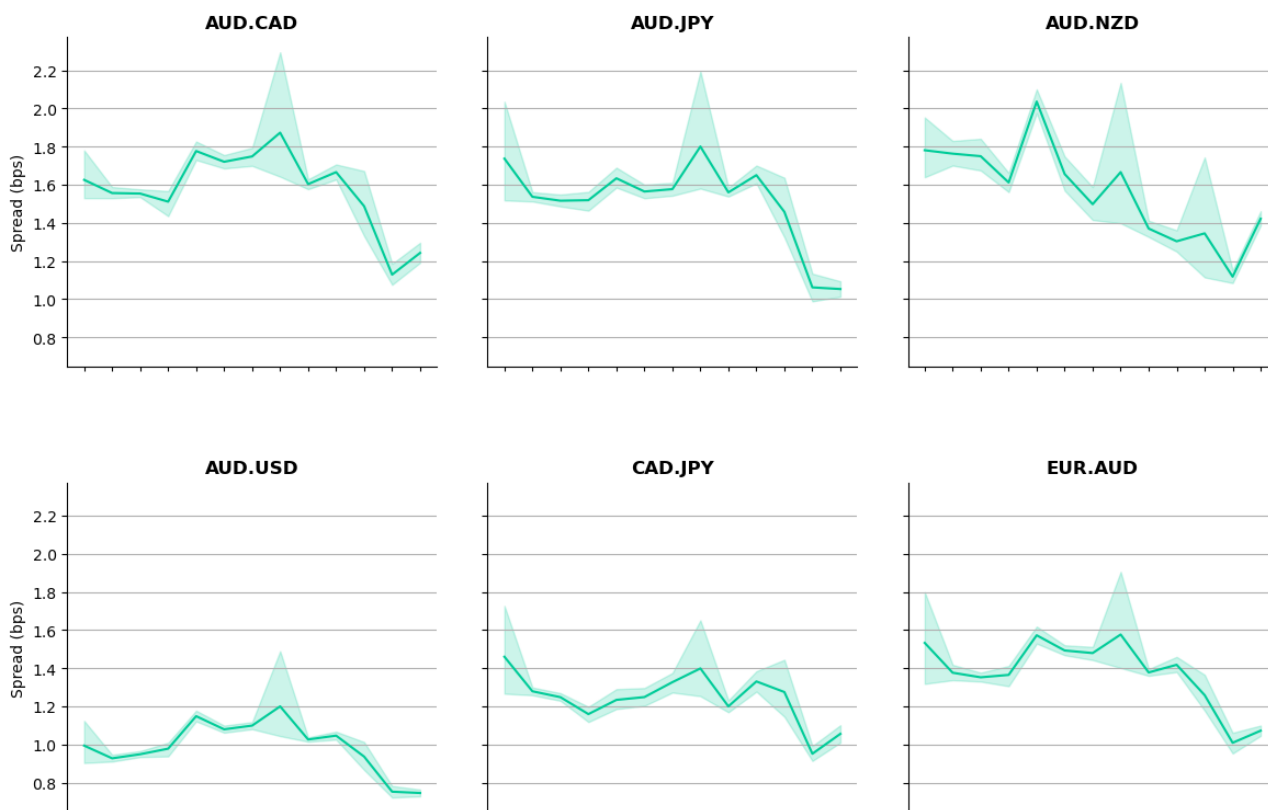
All chart sources: Virtu Financial, 2023. Spread and volatility calculations are derived from sources that Virtu believes to be reliable, but Virtu does not make any claims to its accuracy. USD.NOK, USD.SEK, EUR.NOK and EUR.SEK are shown in separate exhibits.



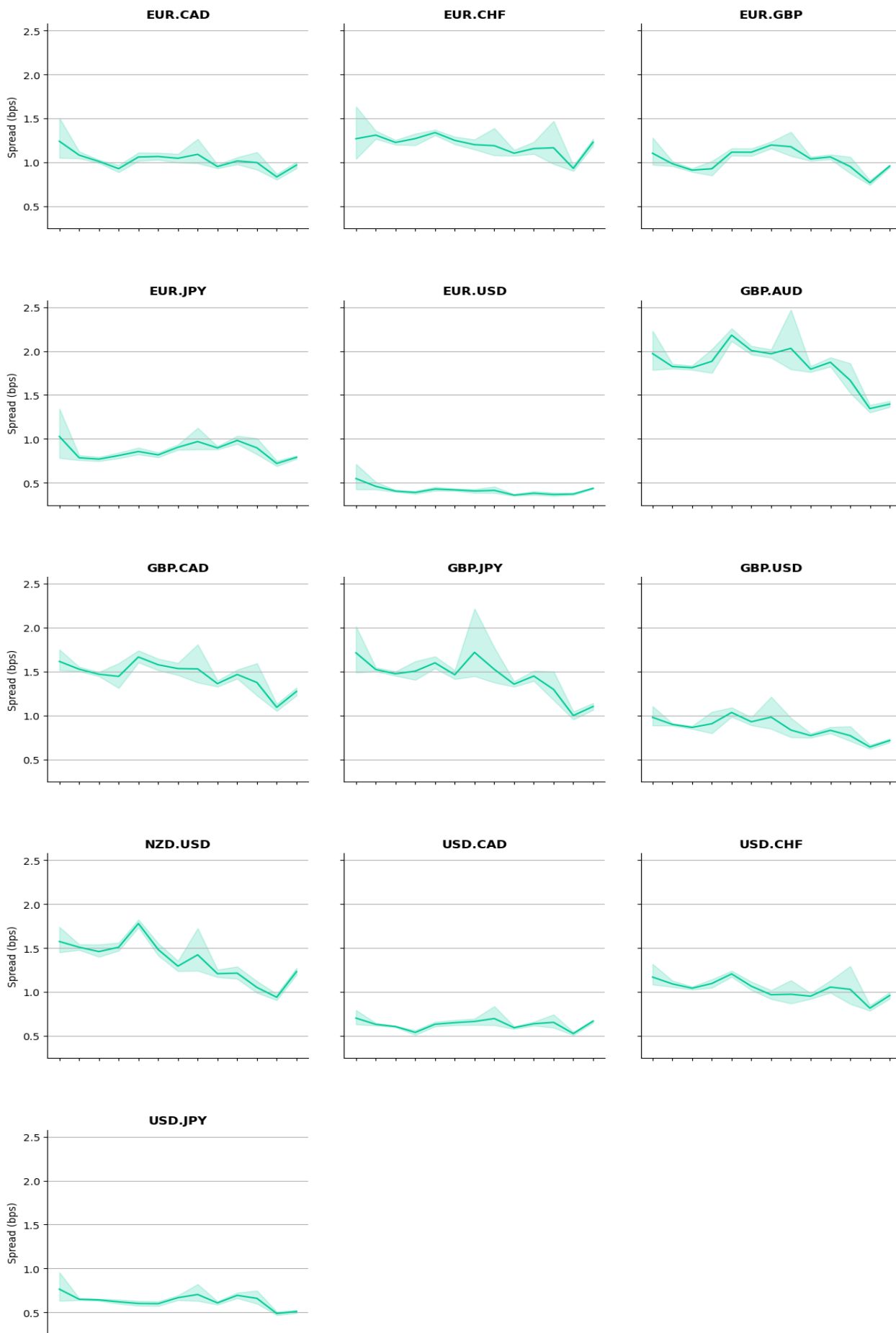
## Scandinavian G-10 Currencies: Average Hourly Spread, 00:00-20:00 GMT Comparison over the past month, three months and year



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



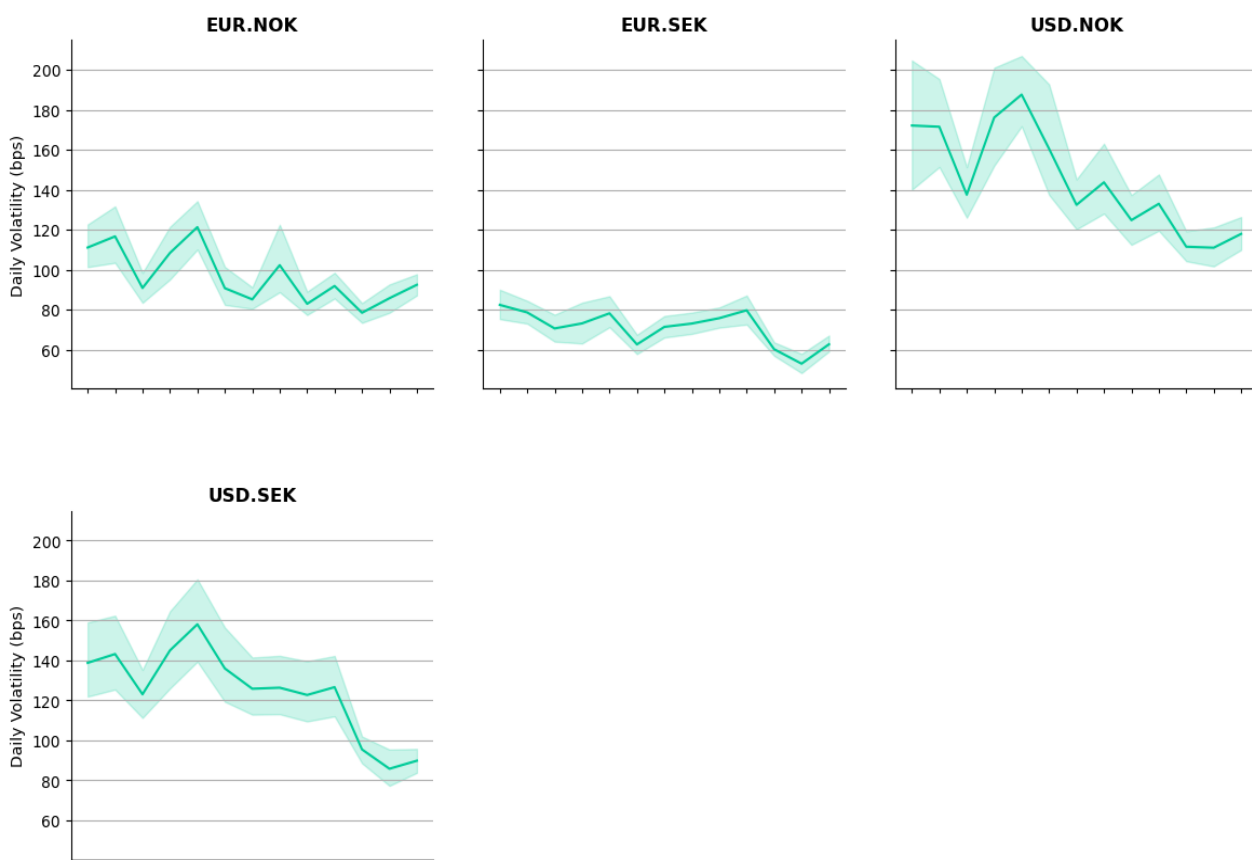
Continued next page...



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 Daily Spread, 12:00-16:00 GMT June 2022- June 2023





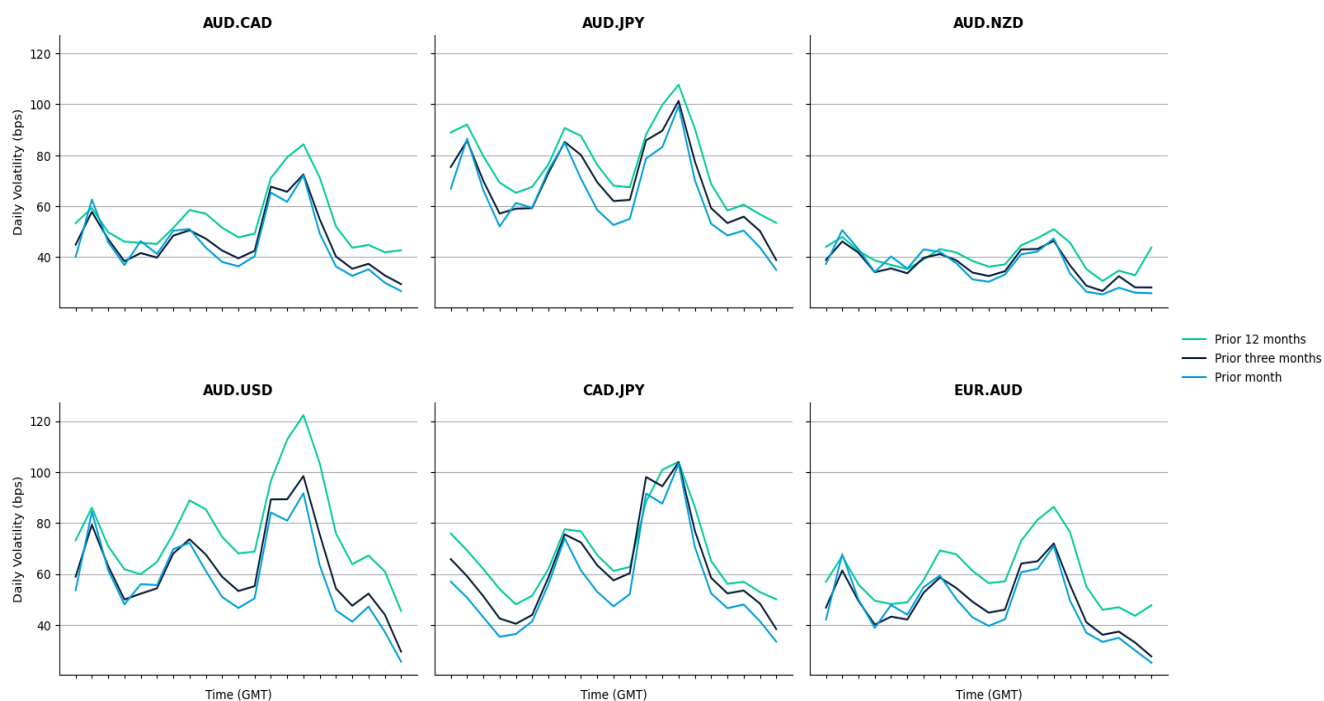
## VOLATILITY

FX spread volatility increased in June reversing April and May's declines. Volatility in the 12:00-16:00 GMT pre-WMR trading window rose for 15 pairs in June, compared to an increase in six pairs in May and only two pairs in April. Two major pairs, GBP/USD and USD/CAD, experienced lower volatilities in this window. These pairs also had lower volatilities three months ago. When compared to the volatility levels of 12 months ago, all pairs showed lower volatility in the pre-WMR window.

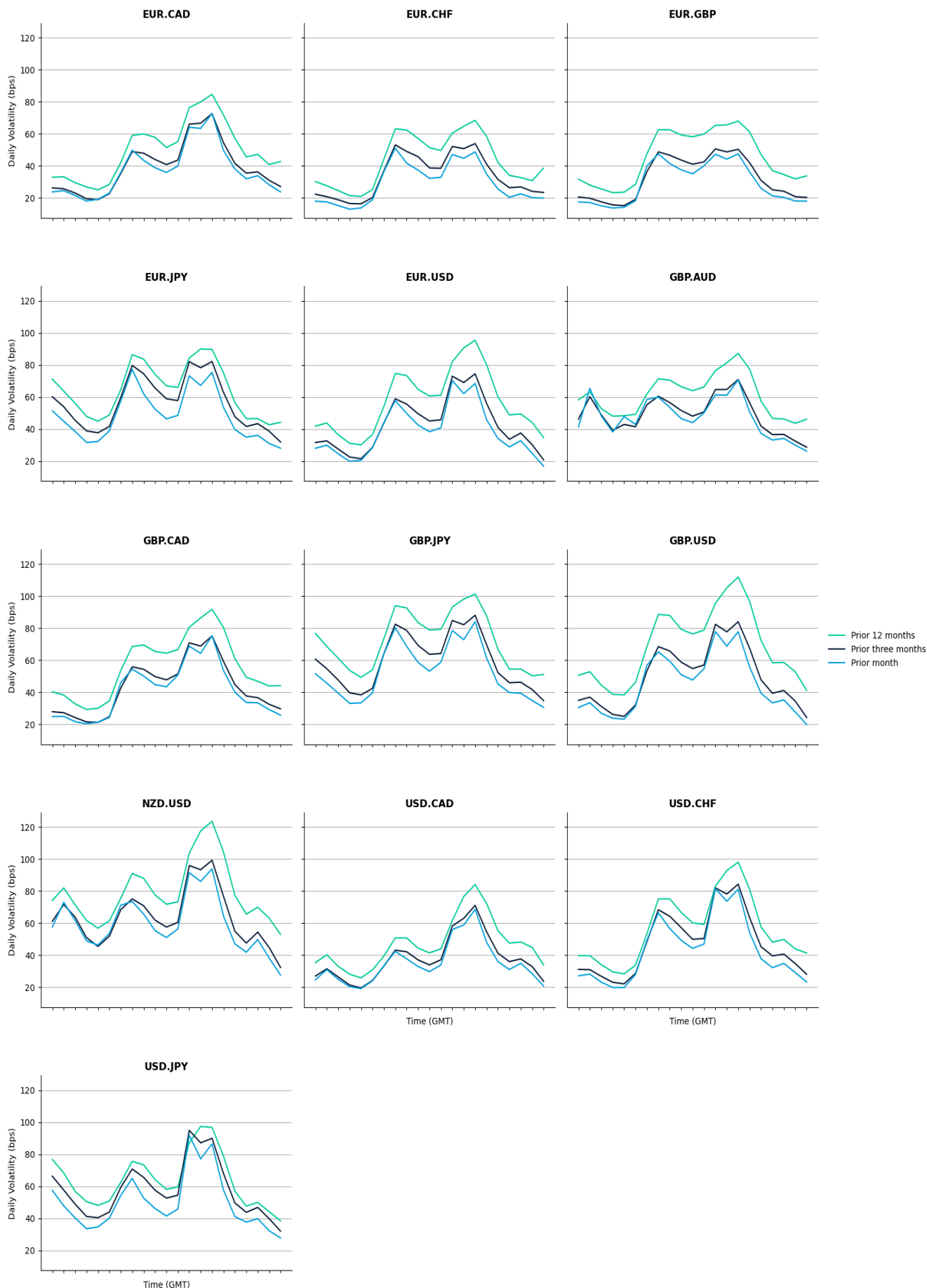
On an intraday basis, we observed two periods of heightened volatility. During the Tokyo desk hours of 02:00-06:00 GMT, 18 pairs recorded higher volatility. As mentioned previously, volatility increased again from 12:00-16:00 GMT compared to the previous month. Across global markets, spread volatility was lower compared to three or six months ago. Only in two hours, from 05:00-06:00 and 12:00-13:00 GMT, were spreads more volatile last month compared to three or six months ago.

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

Comparison over the past month, three months and year



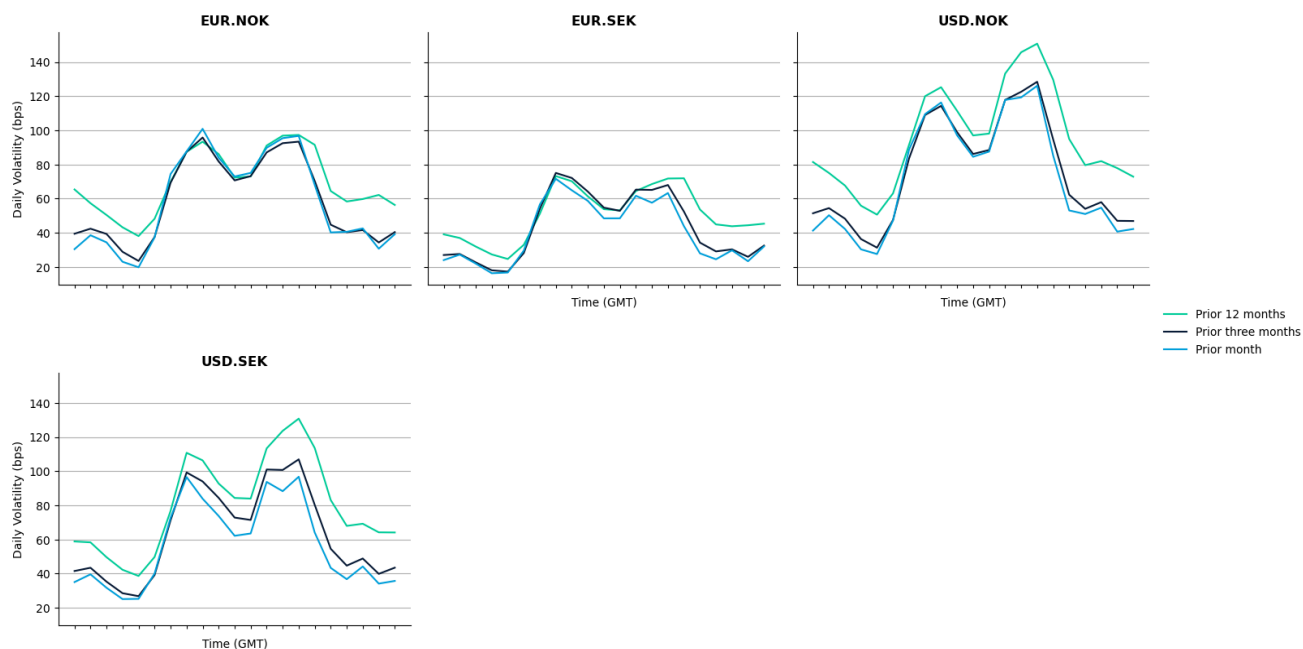
Continued next page...



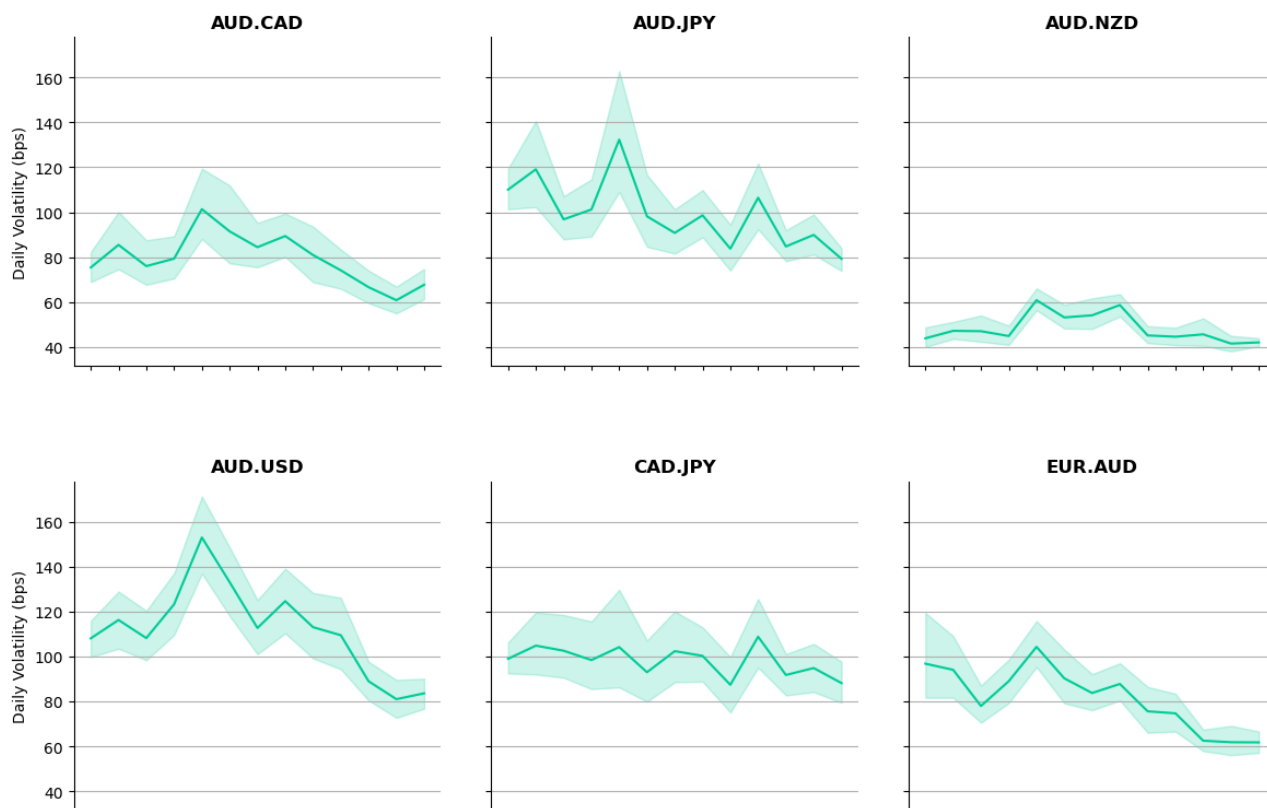
All chart sources: Virtu Financial, 2023. Spread and volatility calculations are derived from sources that Virtu believes to be reliable, but Virtu does not make any claims to its accuracy. USD.NOK, USD.SEK, EUR.NOK and EUR.SEK are shown in separate exhibits.



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



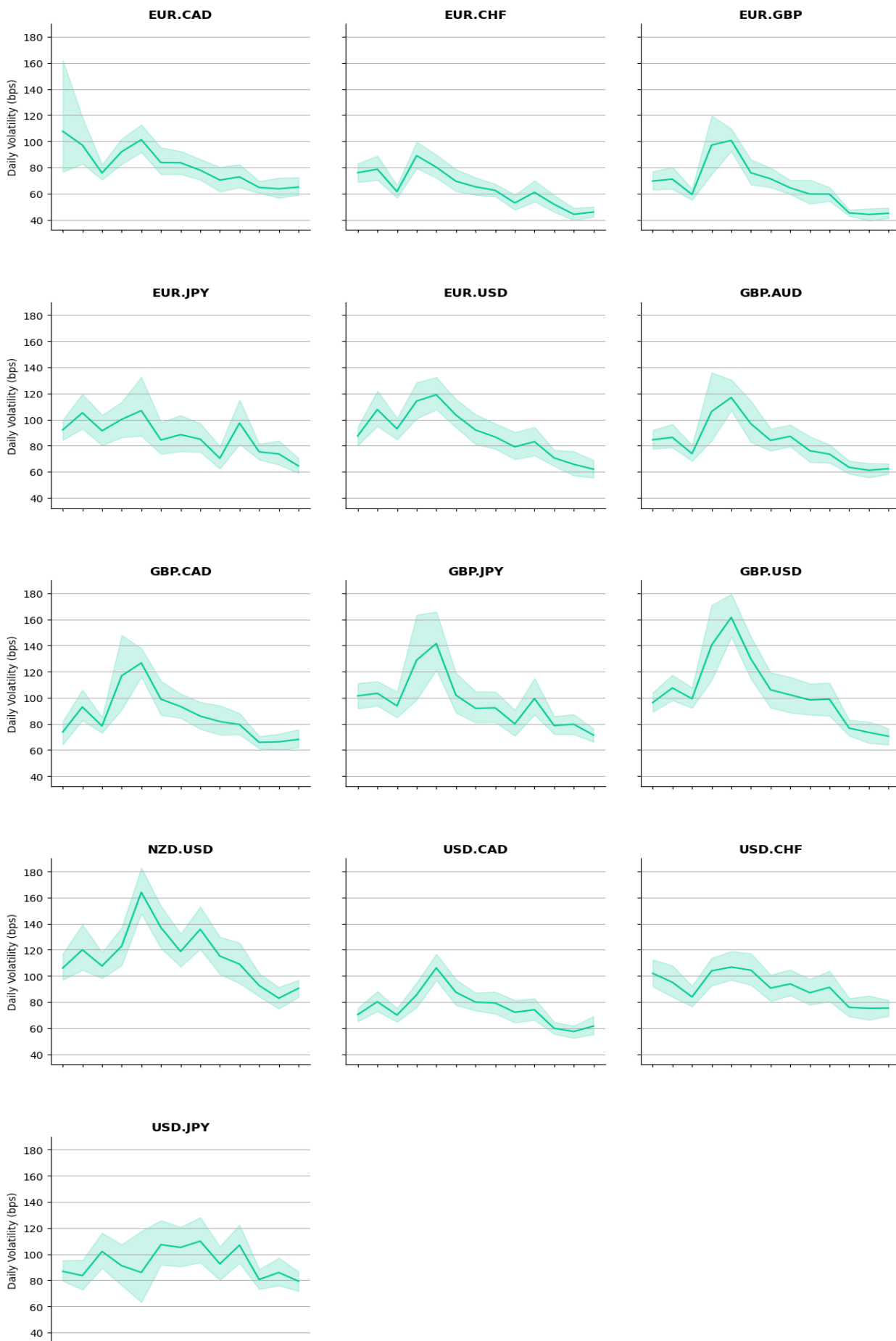
## G-10 Currencies: Average Daily Volatility, 12:00-16:00 GMT June 2022-June 2023



Continued next page...

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.

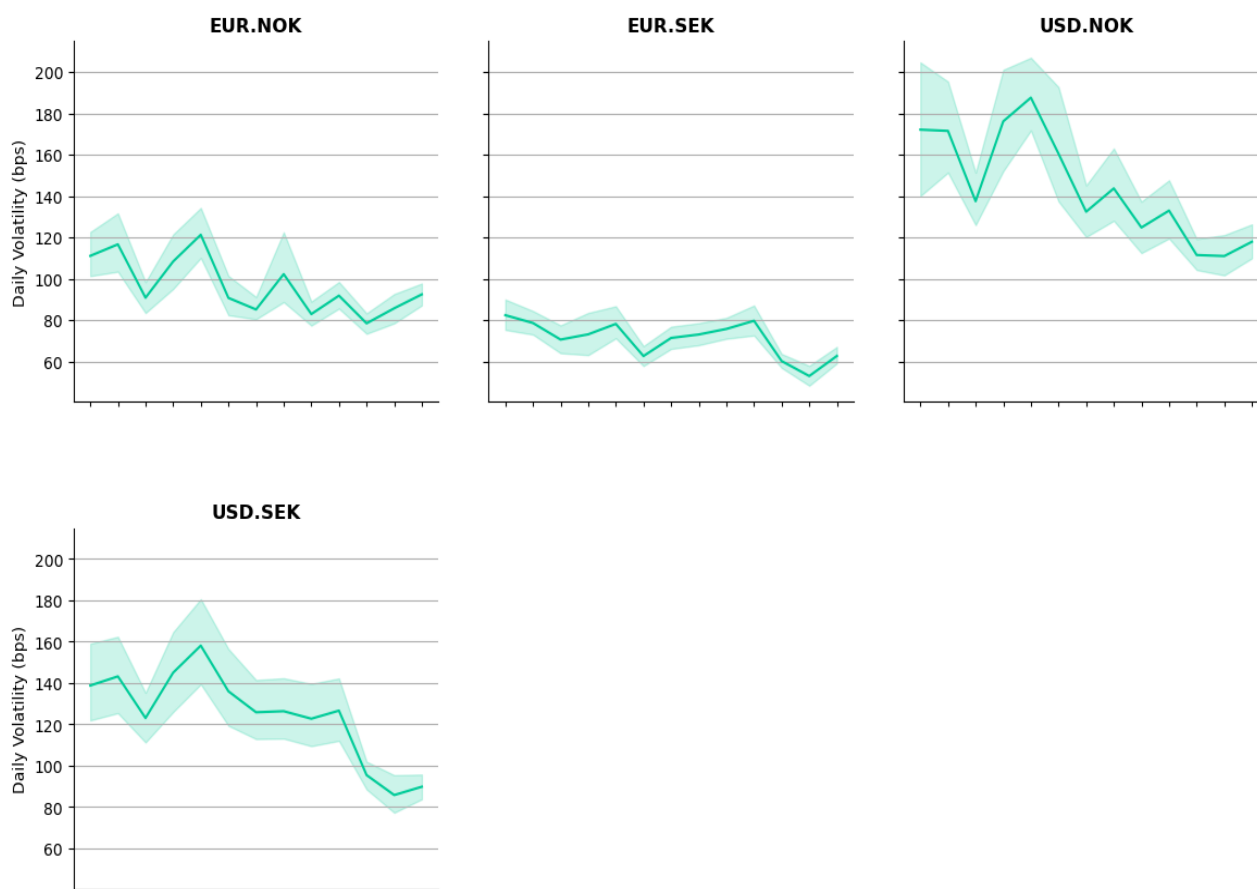




All chart sources: Virtu Financial, 2023. Spread and volatility calculations are derived from sources that Virtu believes to be reliable, but Virtu does not make any claims to its accuracy. USD.NOK, USD.SEK, EUR.NOK and EUR.SEK are shown in separate exhibits.



## Scandinavian G-10 Currencies: Average Daily Volatility, 12:00-16:00 GMT June 2022-June 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](mailto:analytics@virtu.com) | [www.virtu.com](http://www.virtu.com)

© 2023 Virtu Financial, Inc. All rights reserved. Not to be reproduced or retransmitted without permission. These materials are for informational purposes and are not intended to be used to make trading or investment decisions, they are not intended as an offer to sell or the solicitation of an offer to buy any security or financial product, and are not intended as advice (investment, tax or legal). The information contained herein includes Virtu proprietary information and/or has been taken from sources we believe to be reliable, but we do not represent or warrant that such information is accurate or complete and it should not be relied upon as such.

Analytics products and services referenced herein may not be subject to oversight by regulatory authorities in one or more jurisdictions, including in Europe, Hong Kong or Australia, where such products and services are offered by Virtu ITG Ventures Limited, registered in Ireland No. 295549 ("VIVL"), Virtu ITG Hong Kong Limited registered in Hong Kong CE No. AHD810 ("VIHK") or Virtu ITG Australia Limited, registered in Australia AFSL No. 219582 ("VIAU"). VIVL does not engage in regulated activity.

Securities products and services are offered by the following subsidiaries of Virtu Financial, Inc. In the U.S., Virtu Americas LLC, member FINRA and SIPC; in Canada, Virtu Canada Corp., member Canadian Investor Protection Fund and Investment Industry Regulatory Organization of Canada; in Europe, Virtu Europe Trading Limited, registered in Ireland No. 283940 ("VETL") (VETL is authorized and regulated by the Central Bank of Ireland), and Virtu Financial Ireland Limited, registered in Ireland No. 471719 ("VFIL") (VFIL is authorized and regulated by the Central Bank of Ireland). The registered office of VETL and VFIL is North Dock One, Fifth Floor, 91-92 North Wall Quay, Dublin 1, Ireland, D01 H7V7; in Asia, Virtu ITG Hong Kong Limited (SFC License No. AHD810), Virtu ITG Singapore Pte Limited (CMS License No. 100138-1), and Virtu ITG Australia Limited (AFS License No. 219582).

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.