

October 2022

# FX Market Structure Monthly

## CHANGES IN SPREAD AND VOLATILITY FOR MAJOR MARKET PAIRS

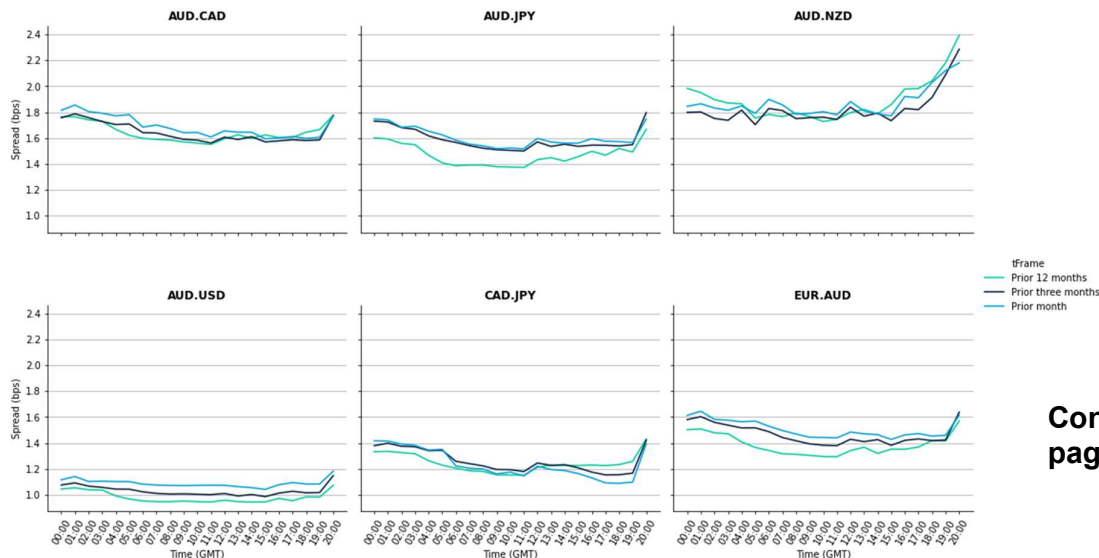
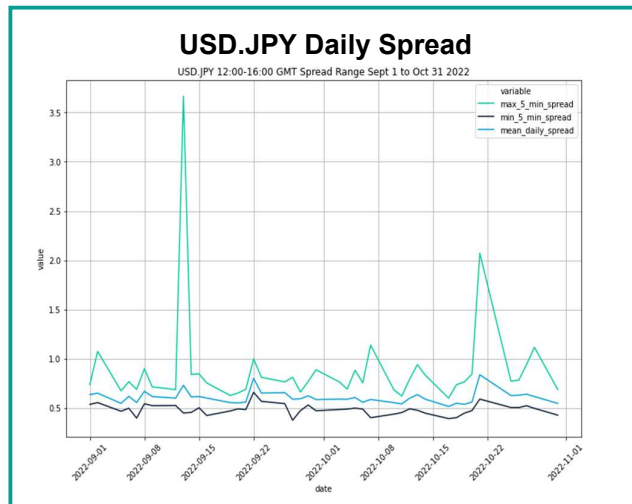
October saw both spreads and volatility jump from September's relative calm. In the 12:00-16:00 GMT trading window, 21 of the 23 pairs we track recorded wider spreads while 19 pairs had wider volatility. On an intra-day basis, spreads for six of the seven majors, all except the USDJPY, recorded wider spreads throughout the day.

### 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 95<sup>th</sup> percentile confidence interval for the spread and volatility, showing the stability of the calculated median value.

### SPREADS

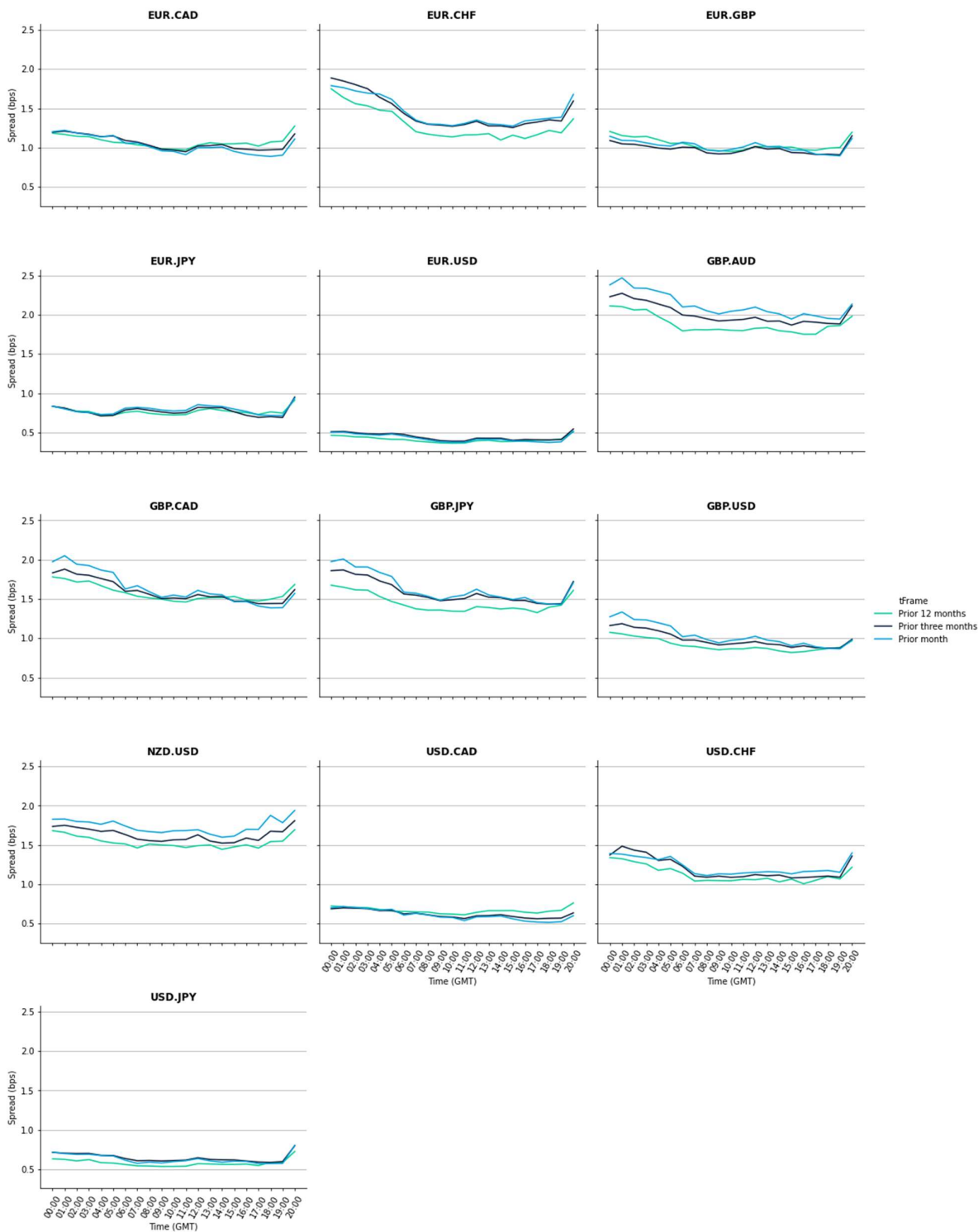
USDJPY spreads have remained flat on average in September and October even though the Bank of Japan has followed a dovish monetary policy and has intervened in the FX market to support the yen. Have the spreads not reacted to the news? If we look at the range in daily spreads during the 12:00-16:00 GMT window, we see a very different story. The range of daily spreads over the two months have spiked sharply when the US Federal Reserve or Bank of Japan have announced rate moves.



Continued next page...



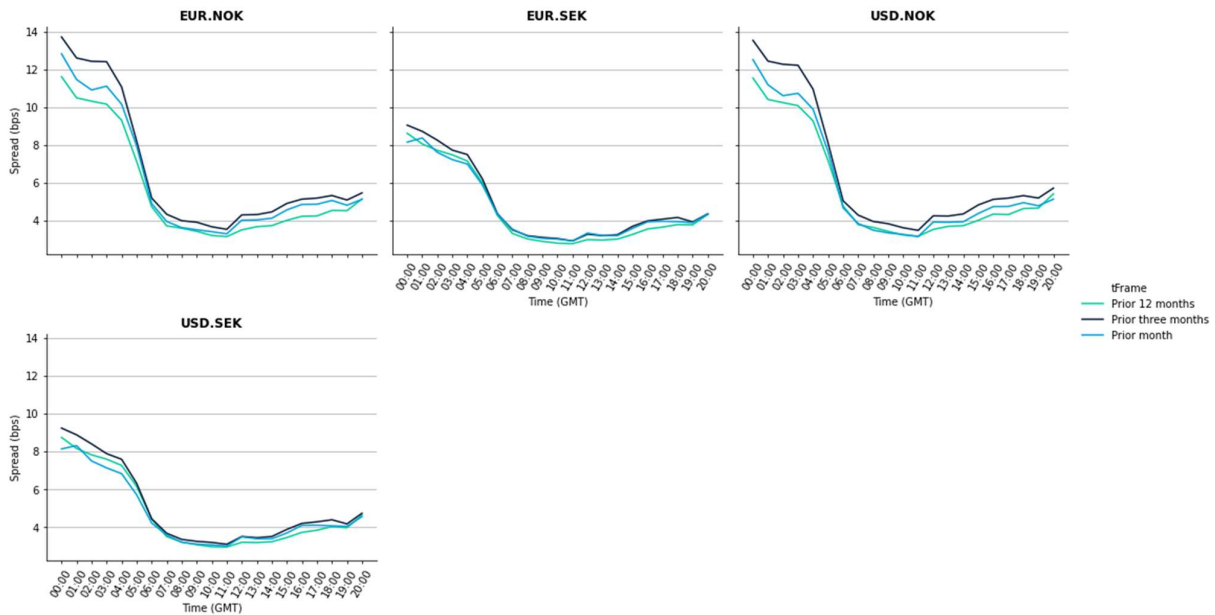
## G-10 Currency Pairs: Average Hourly Spread, 00:00-20:00 GMT Comparison over the past month, three months and year



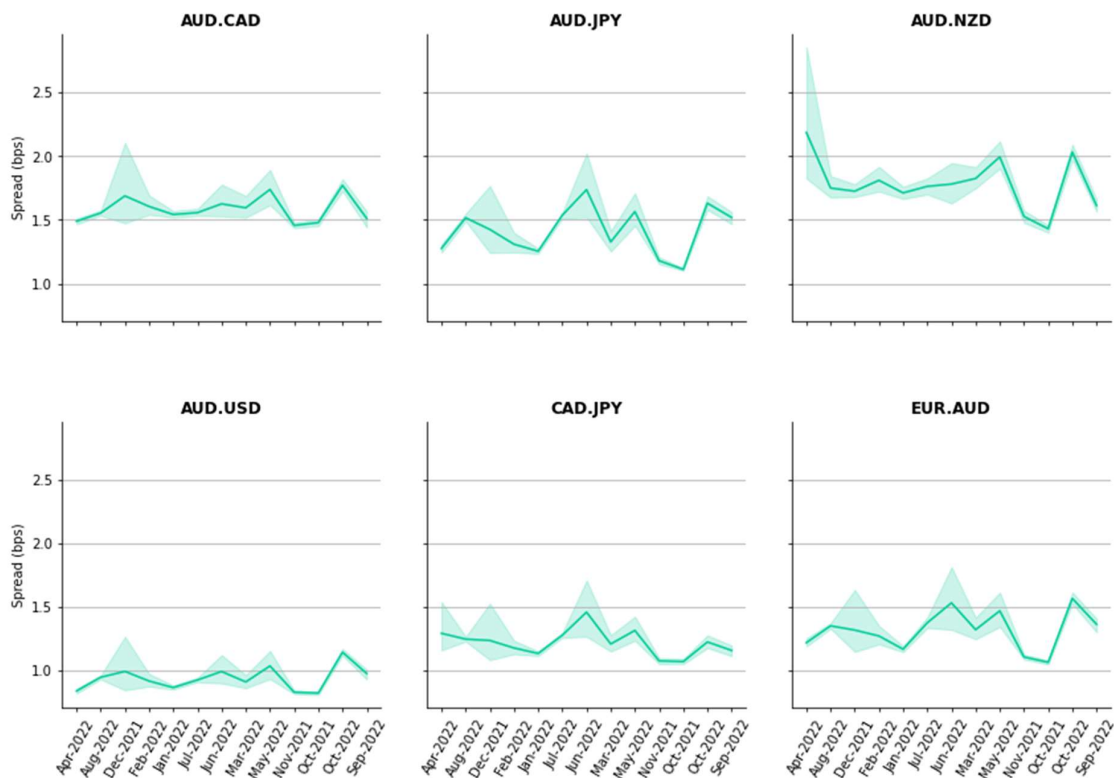
All chart sources: Virtu Financial, 2022. Spread and volatility calculations are derived from sources that Virtu believes to be reliable, but Virtu does not make any claims to its accuracy. USD.NOK, USD.SEK, EUR.NOK and EUR.SEK are shown in separate exhibits.



## 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 October 2021- October 2022



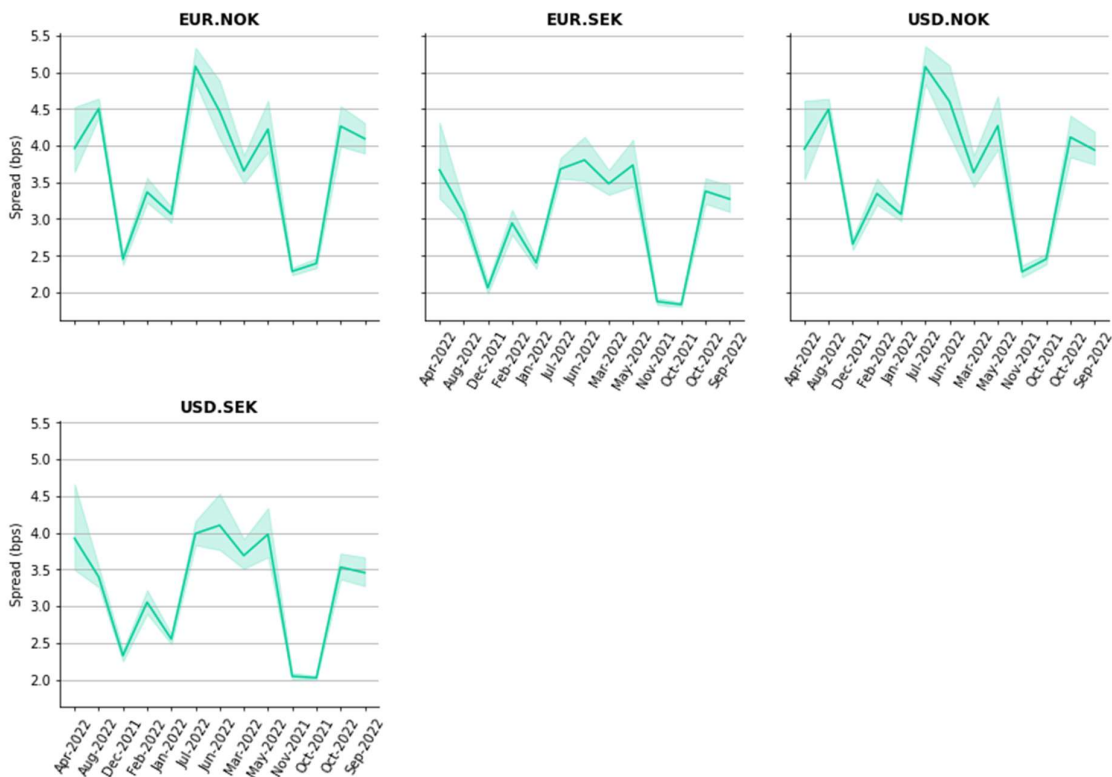
Continued next page ...



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 separate exhibits.



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

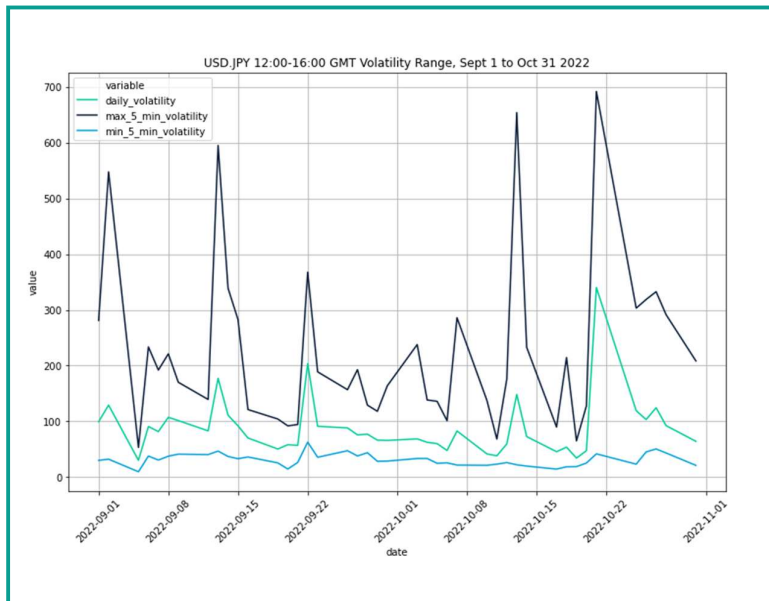




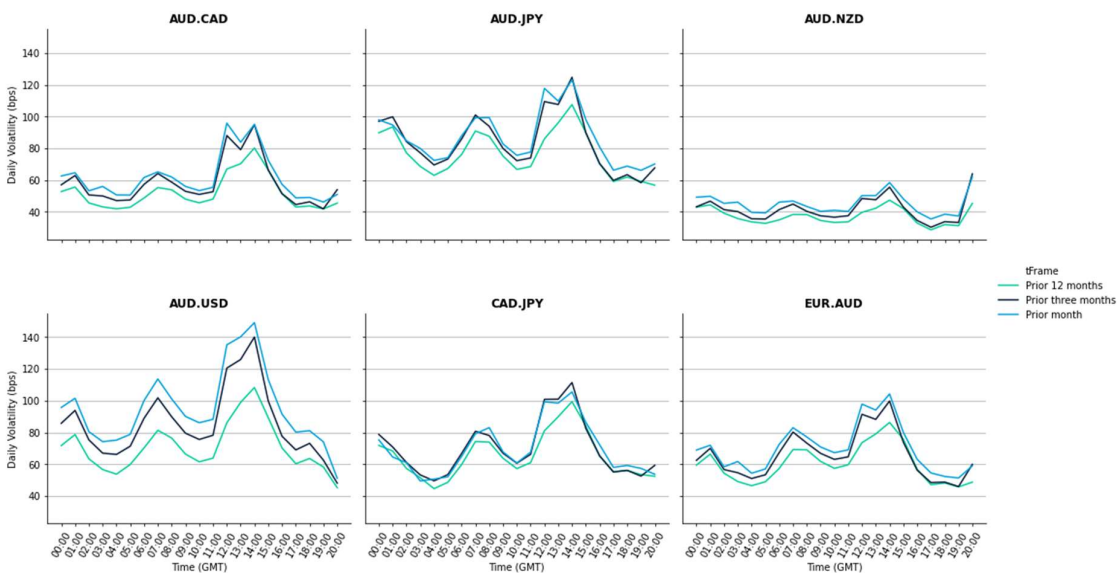
## VOLATILITY

For 19 of the 23 pairs monitored, volatility increased in October during the 12:00-16:00 GMT trading window. Of the majors, only the USD.JPY volatility did not increase on average for the month.

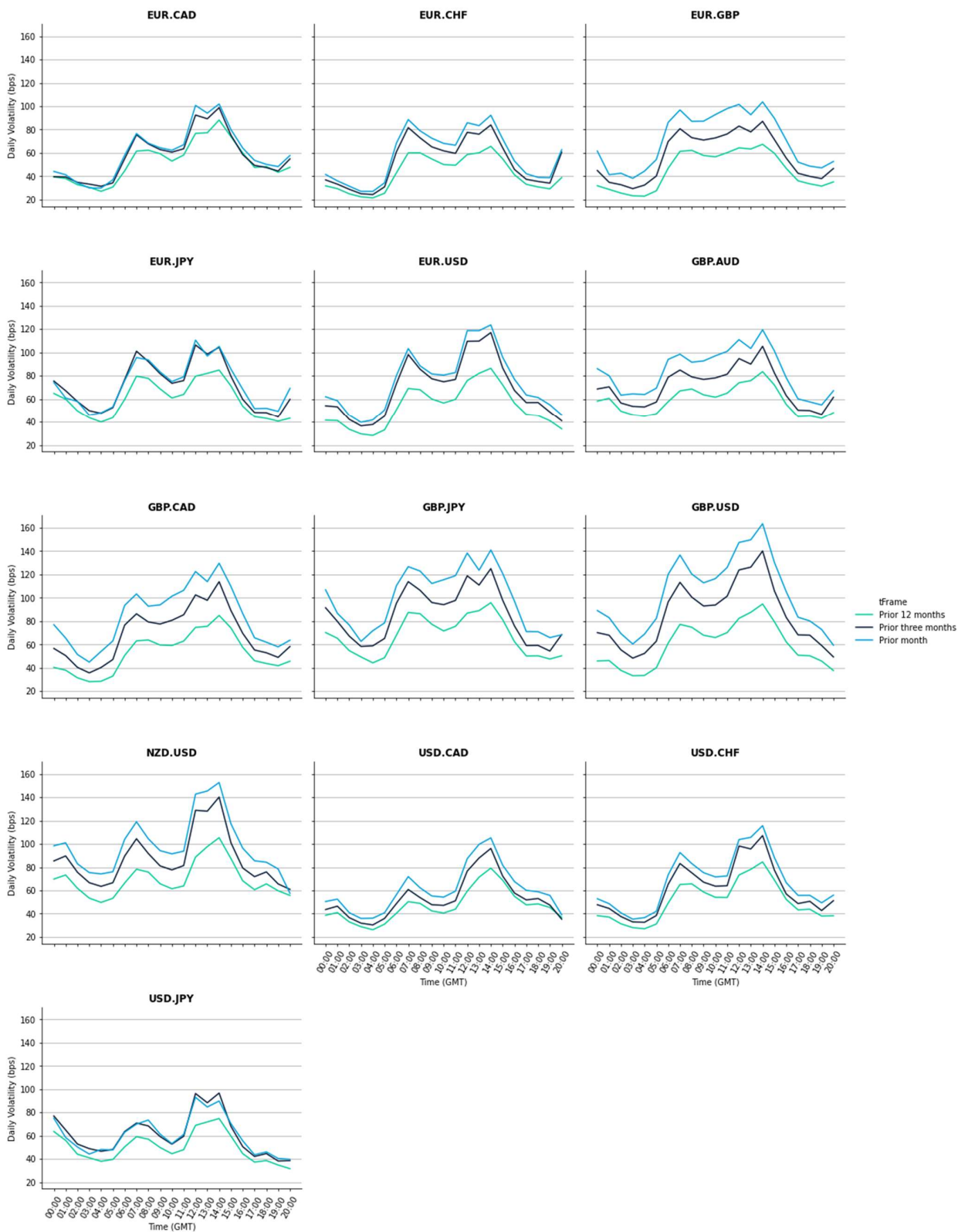
- The Bank of Japan has followed a dovish monetary policy in contrast to most developed economies. Looking at the range of volatility during the 12:00-16:00 GMT volatility, we see a sharp spike in the volatility range whenever the BOJ or US Federal Reserve made interest rate announcements. During some five-minute trading intervals, annualized volatility rose to over 100%.



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



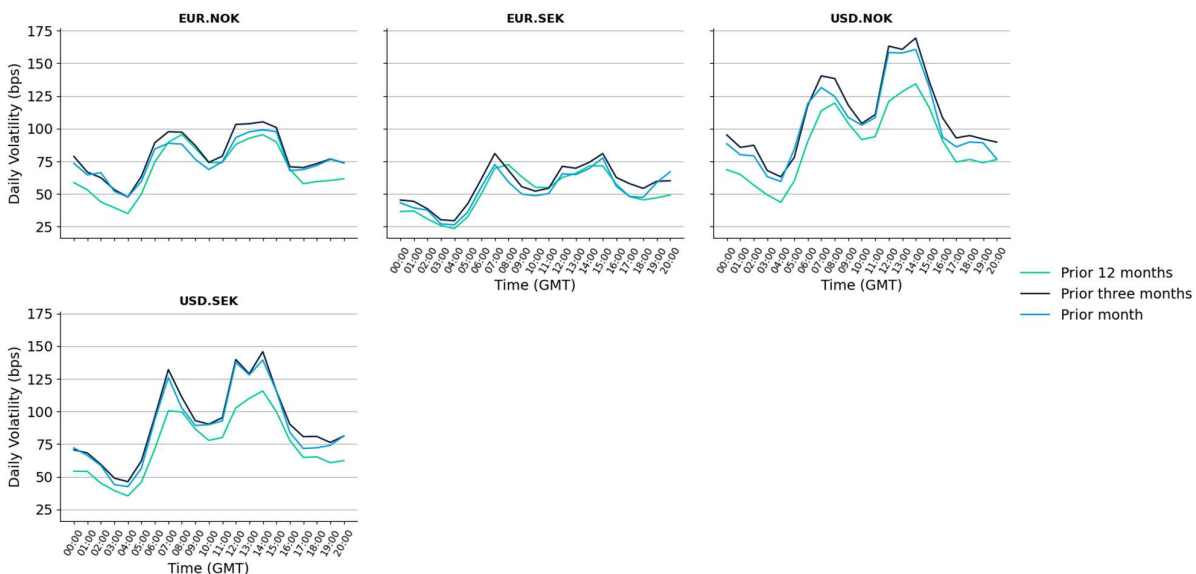
Continued next page...



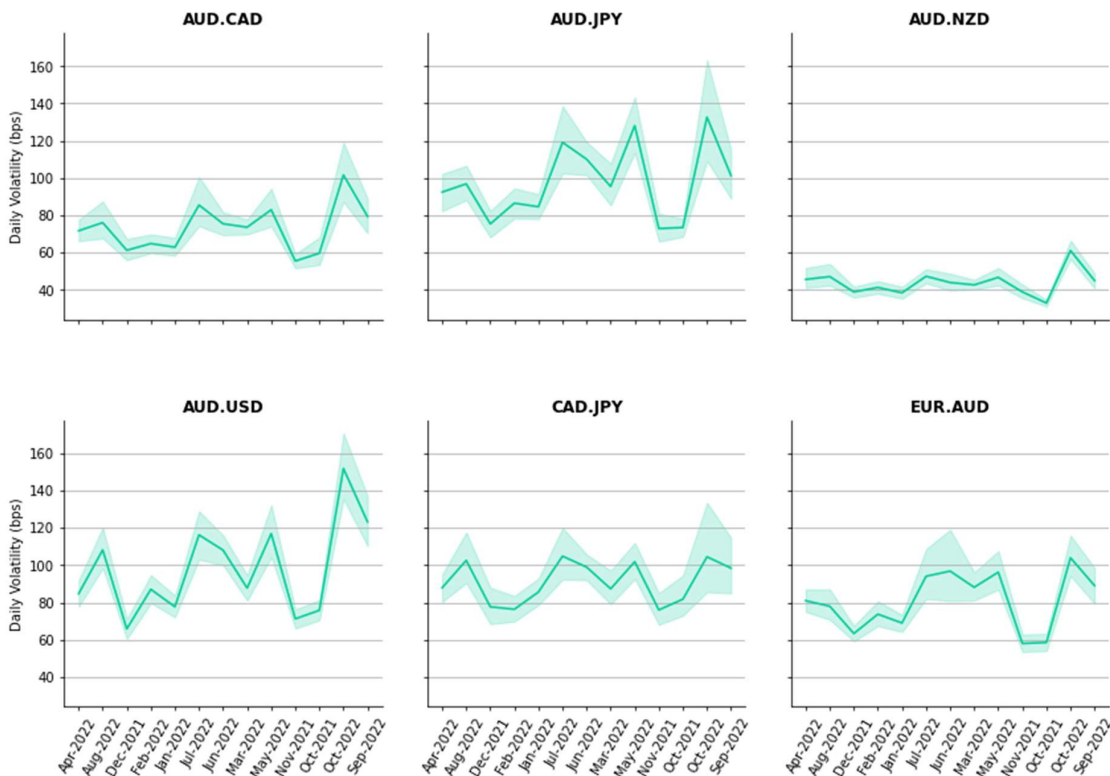
All chart sources: Virtu Financial, 2022. Spread and volatility calculations are derived from sources that Virtu believes to be reliable, but Virtu does not make any claims to its accuracy. USD.NOK, USD.SEK, EUR.NOK and EUR.SEK are shown in separate exhibits.



## 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 October 2021-October 2022



Continued next page...

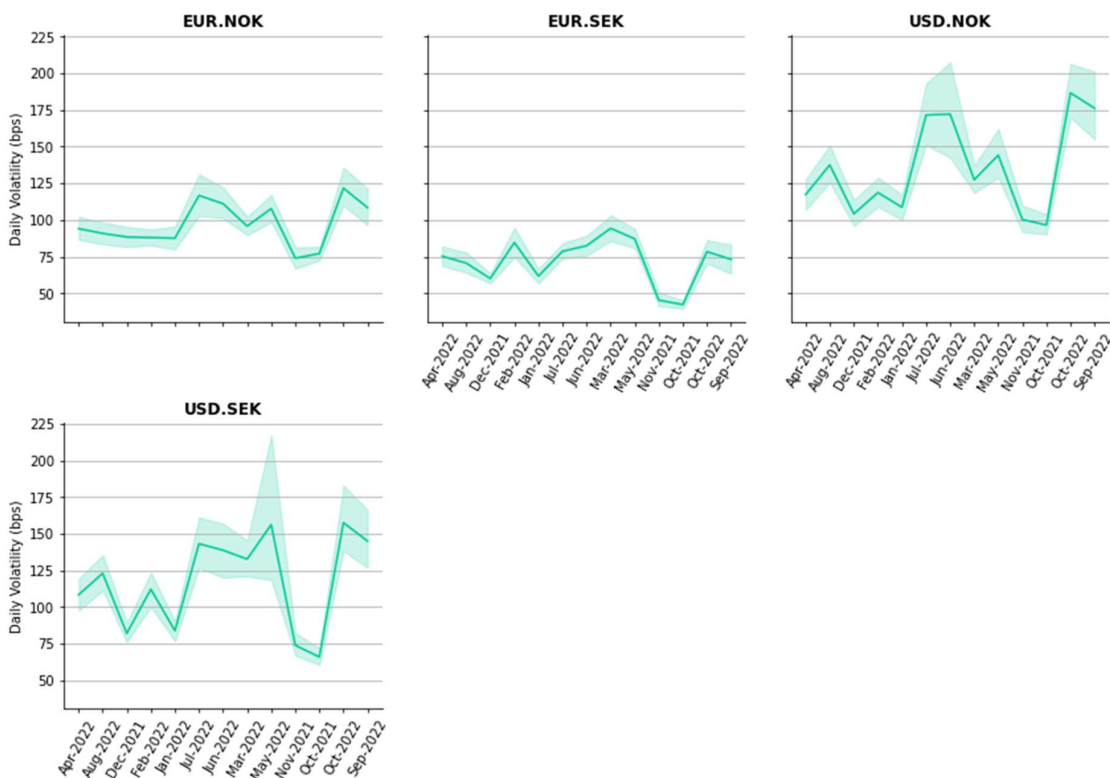




All chart sources: Virtu Financial, 2022. Spread and volatility calculations are derived from sources that Virtu believes to be reliable, but Virtu does not make any claims to its accuracy. USD.NOK, USD.SEK, EUR.NOK and EUR.SEK are shown in separate exhibits.



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



**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)

© 2022 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, where such products and services are offered by Virtu ITG Ventures Limited, registered in Ireland No. 295549 ("VIVL"). 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 ITG Canada Corp., member Canadian Investor Protection Fund and Investment Industry Regulatory Organization of Canada; in Europe, Virtu ITG Europe Limited, registered in Ireland No. 283940 ("VIEL") (VIEL 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 VIEL and VFIL is Whitaker Court, Whitaker Square, Sir John Rogerson's Quay, Dublin 2, Ireland; 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).