FX Global Cost Review Q1 2023





1Q 2023 Commentary



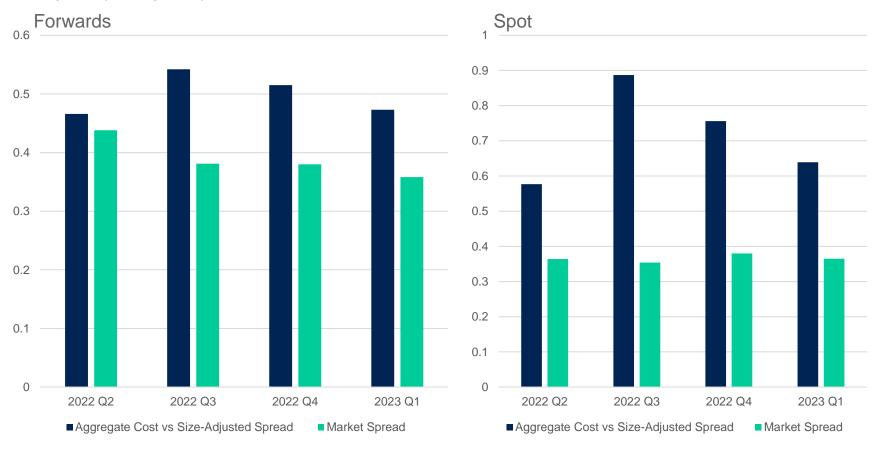
This quarter, we recorded small movements, two basis points or less, in G-10 realized spreads, while G-10 market spreads widened for smaller deals (less than \$2 million). However, they were wider for most pairs for larger sizes. emerging market (EM) spot spreads for small deal sizes returned to their typical cost of about 1.4 basis points. Mid and large EM deals were priced at an average realized spread of 2.5 to 3 basis points, in line with historical experience. Spreads for the largest EM deals widened by 12 to 15 basis points, reflecting increased trading in currencies with very high spreads rather than an overall widening for the sector.

- For the G-10 pairs, the market spot spreads for an order of less than \$2 million USD averaged 0.37 basis points in Q1 2023, equal to last quarter's cost but wider than the average cost of 0.32 in Q3 2022. The market spreads for intermediate deals, \$2,000,000 \$7,000,000 USD, continued to be in a narrow range in Q1, with an average cost of 0.36 basis points, compared to 0.38 and 0.37 basis points in Q4 2022 and Q3 2022, respectively. G-10 market spreads for deals of \$7,000,000 \$12,000,000 USD traded in the same tight range, averaging 0.35 basis points compared to 0.38 and 0.36 basis points in the prior two quarters.
- G-10 realized spot spreads for smaller deal sizes continued to narrow in Q1 2023 to 0.50 basis points, which is 0.05 basis points narrower than in Q4 22 and 0.12 basis points narrower than in Q1 23. Spreads for intermediate and larger deals also narrowed substantially to 0.61 and 1.26 basis points, respectively. Five quarters ago, in Q1 2022, realized spreads for small deals averaged 0.94 basis points, 2.2 basis points for intermediate deals, and 3.8 basis points for large deals.
- EM realized spot spreads widened by 0.5 basis points for small deals from 0.9 basis points in the last quarter to 1.4 basis points in the past quarter. Realized spreads for intermediate deals widened from 2.2 basis points in Q3 2022 to 2.6 basis points in Q1 2023, while spreads for large deals narrowed from 5.1 basis points in Q3 2022 to 2.5 basis points last quarter. As always, the composition of EM currencies traded by contributors to the Virtu Peer Group Database can have a major impact on the widening or narrowing of the EM currency sector.
- EM market spreads for the quarter were about 0.2 basis points tighter across all deal sizes than in Q3 2022. Small deals had an average market spread of 0.92 basis points, while intermediate and large deals had reported market spreads of 1.1 basis points for the quarter.

FX Market Structure Update

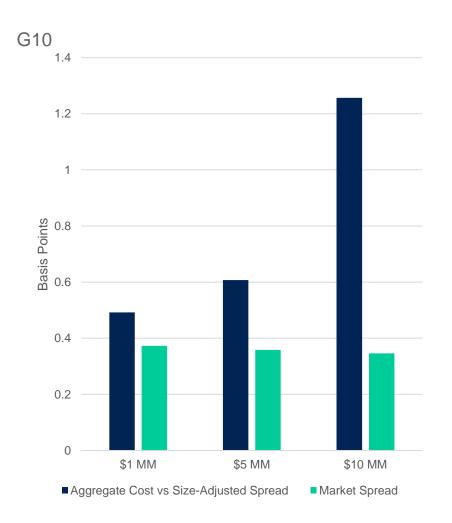


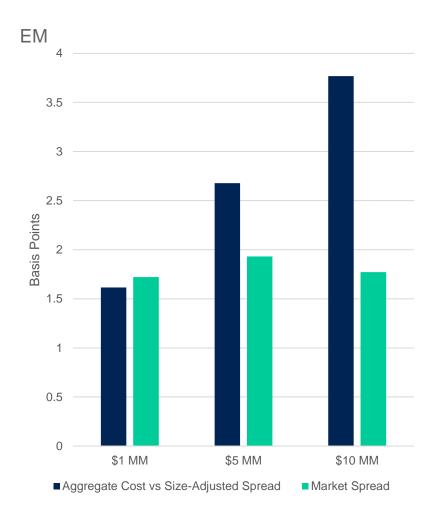
Virtu Analytics aggregates the performance of trades within our extensive FX Peer Universe to provide color around realized spread costs against market quotes and our Size-Adjusted Spread benchmark. Spreads are expressed in basis point deviations from the market quoted mid price (half-spread).



FX Forwards

1Q 2023 Half-Spreads

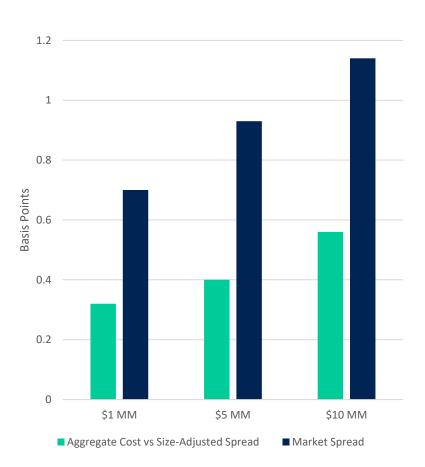




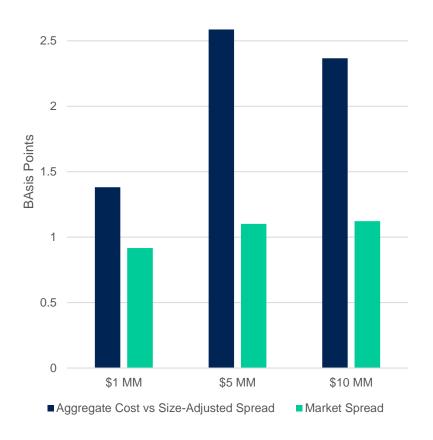
FX Spot

1Q 2023 Half-Spreads

G10





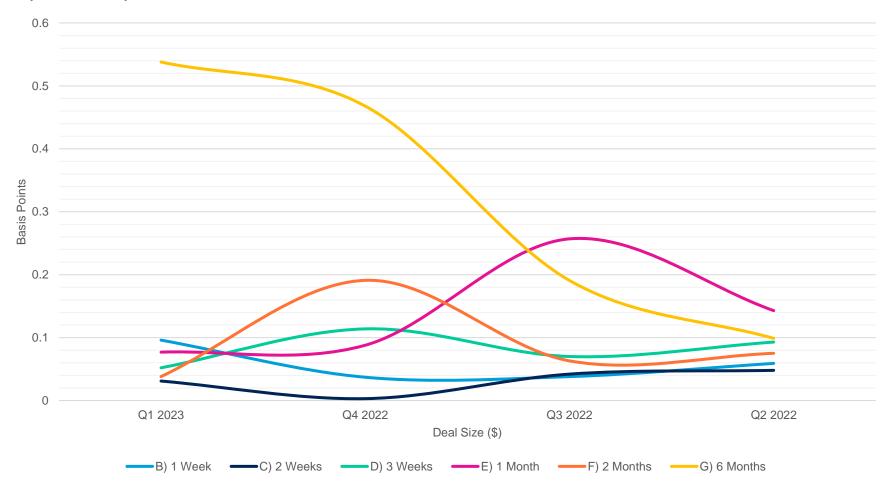


FX Spot - G10 Currencies



1Q 2023 Realized Costs vs. Size-Adjusted Spread Benchmark

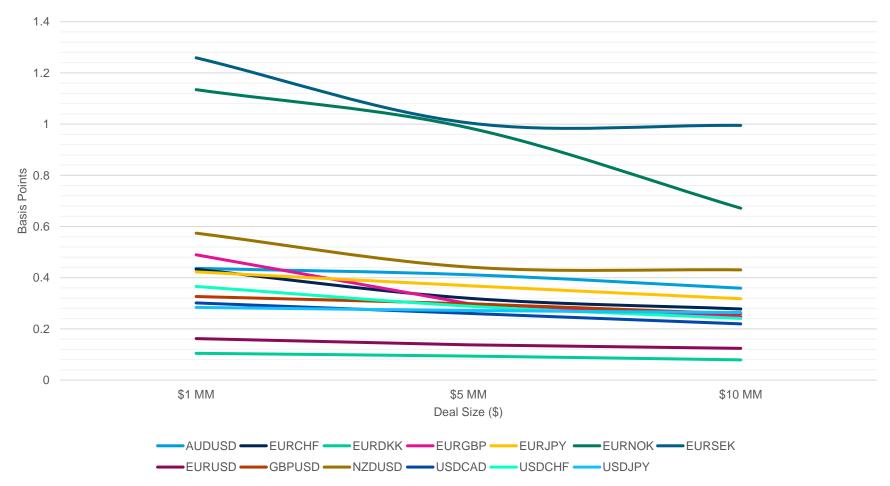
Swaps - Realized Spreads



FX Spot - G10 Currencies

1Q 2023 Market Spreads

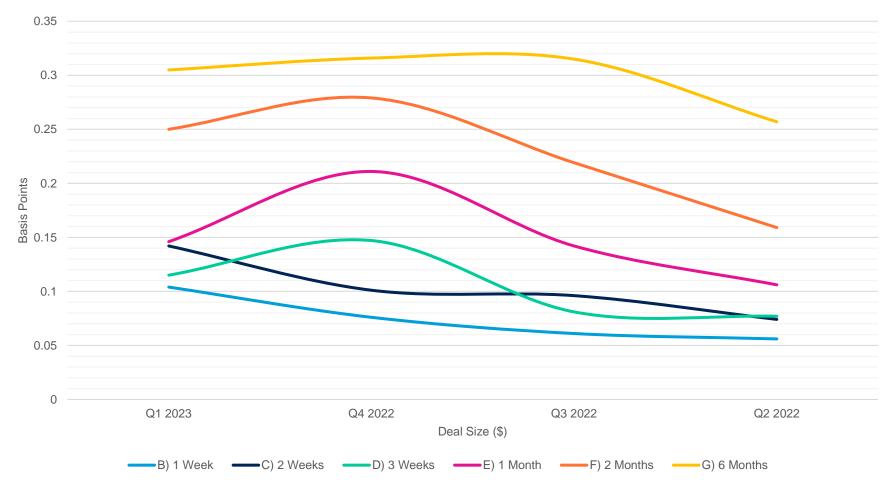
G10 Individual Pairs - Market Spreads



FX Swaps

1Q 2023 Market Spreads

Swaps - Market Spreads by Tenor





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