BIS Triennial FX and OTC survey

7 December, 15:20-16:10 CET, ECB FXCG Meeting, WebEx
Sources:


BIS runs “Triennial” survey since April 1986

1. Sheds light on activity and structure in some of the world's largest OTC markets

2. Most comprehensive & internationally consistent information on size & market structure

   1. More than 1200 reporting institutions across 52 countries and 38 currencies
   2. Key instruments: spot, outright forwards (including NDFs), FX swaps, currency swaps and options
Long-term trends and headline volumes
Global FX trading volumes grow and some longer run trends reverse

- Turnover in global foreign exchange markets reached $7.5 trillion per day in April 2022
- FX swaps gained further market share, while that of spot declined
- Inter-dealer trading volumes expanded significantly relative to dealer-customer trading
FX trading volumes grow amid higher volatility

- Benchmarked series suggest absolute peak in ADV of close to $8.5 trillion in March 2022
- Volumes had not increased further, even though various indicators of FX volatility kept rising
Key developments by instrument and counterparty
Short-maturity FX derivatives turnover grows strongly

- Spot trading did not outpace that in derivatives in contrast to previous high-volatility episodes
- Growth of turnover in swaps and forwards entirely due to more trading with maturities < 1 week
Customer trading volumes stagnate

Customer trading stagnated, partly reflecting a slowdown in international investment activity.

Small shift away from trading with hedge funds and PTFs, possibly reflecting shift by some PTFs to asset classes with greater arbitrage opportunities or dealers catching up technologically.
A resurgent inter-dealer market

- Inter-dealer trading increased in market share, reversing a long-run trend
- Share of inter-dealer turnover increased across all three major instruments
- Inter-dealer spot trading on anonymous venues (eg CLOBs) continued to decline
Internalisation and related party trading increase further

- Internalisation ratios have remained high, and increased further particularly in Asian centres.
- Trading between different organisational units of a same dealer bank continues to rise.
- Back-to-back and compression trades accounted for a significant share of turnover.
Trade execution
Execution methods in April 2022

- Relative shares of voice vs electronic execution remained virtually unchanged
- A shift away from “indirect” to “direct” forms of trading in the electronic space
- Anonymous venues (ie CLOBs) lost about 7% in market share
Trade execution shifted towards “direct” forms everywhere

- “Indirect” execution methods lost market shares in all major instrument categories
- Innovations in direct e-trading space and bespoke liquidity provision
- Direct execution also possibly favored when volatility higher and liquidity more scarce?
Spot trading on CLOBs exhibited a broad-based decline

- Volume declined on anonymous venues in both inter-dealer and dealer-customer markets
  - Inter-dealer: mainly EBS and Refinitiv Matching (primary CLOBs)
  - Dealer-customer: includes PTFs trading on primary CLOBs
  - Dealer-customer: includes secondary CLOBs, eg LMAX, Currenex, 360T, Euronext FX/Fastmatch, etc
Volumes on primary venues did not rise with volatility

Trading on primary venues vs FX volatility

Relationship in 2022 compared to the long-run

- Possible reasons why EBS & Refinitiv spot volumes did not rise with higher volatility
  - FX turnover in April 2022 concentrated in derivatives
  - More direct e-trading, even among dealers
  - Lower turnover with PTFs
EME currency trading
FX trading in EME currencies is increasingly internationalised

April 2022:  
- International
  - Of which: offshore
  - Of which: cross-border with residents
  - Onshore between residents

April 2007:  
- International

1 Median of AE/EME currencies
For most EME currencies FX trading is low compared to GDP
Rising volume and diversity of trading in Chinese renminbi

A. International trading surged in 2022

B. More trading with institutional investors

C. Intraday fluctuations in CNYUSD rose in early 2022

HF = hedge funds; NFC = non-financial corporations; PTF = proprietary trading firms.
FX settlement risk
Settlement of foreign exchange turnover
As a percentage of deliverable turnover

Settlement without risk mitigation by country classification and CLS eligibility in 2022

By settlement method over time

Without risk mitigation:
- via on-us without loss protection
- via other non-PvP arrangements

With risk mitigation:
- via CLS (PvP)
- via other PvP arrangements
- via on-us with loss protection

via on-us lacking information on loss protection
Pre-settlement netting
## Settlement of foreign exchange turnover

In billions of US dollars

<table>
<thead>
<tr>
<th></th>
<th>All counterparties</th>
<th>Reporting Dealers</th>
<th>Other financial institutions</th>
<th>Non-financial customers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Deliverable turnover</strong></td>
<td>6,960 100%</td>
<td>3,248 100%</td>
<td>3,320 100%</td>
<td>391 100%</td>
</tr>
<tr>
<td><strong>Pre-settlement netting</strong></td>
<td>1,334 19%</td>
<td>590 18%</td>
<td>662 20%</td>
<td>82 21%</td>
</tr>
<tr>
<td><strong>Turnover settled</strong></td>
<td>5,626 81%</td>
<td>2,658 82%</td>
<td>2,658 80%</td>
<td>309 79%</td>
</tr>
<tr>
<td>with risk mitigation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>via CLS (PvP)</td>
<td>2,500 36%</td>
<td>1,333 41%</td>
<td>1,107 33%</td>
<td>59 15%</td>
</tr>
<tr>
<td>via other PvP arrangements</td>
<td>257 4%</td>
<td>101 3%</td>
<td>127 4%</td>
<td>30 8%</td>
</tr>
<tr>
<td>via on-us with loss protection</td>
<td>716 10%</td>
<td>349 11%</td>
<td>307 9%</td>
<td>60 15%</td>
</tr>
<tr>
<td>without risk mitigation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>via on-us without loss protection</td>
<td>2,153 31%</td>
<td>876 27%</td>
<td>1,117 34%</td>
<td>161 41%</td>
</tr>
<tr>
<td>via other non-PvP arrangements</td>
<td>1,606 23%</td>
<td>616 19%</td>
<td>889 27%</td>
<td>101 26%</td>
</tr>
</tbody>
</table>
Summary and discussion
Summary

- New benchmark of $7.5 trillion per day in April 2022
- Increase in turnover driven by inter-dealer trading and trading in short maturity swaps
- Dealer-customer trading stagnated
- Trading moved further away from multilateral platforms towards disclosed and direct means
- Less “visible” trading due to more direct e-trading (even among dealers), trade internalisation, and related party trades
Issues for discussion

- How do conjunctural and structural observations square with your observations? What was the most surprising result of the Triennial for you? Are there any important structural changes not captured in the survey?
- Which factors underpin the different evolution of bank and non-bank liquidity providers? How will the likely evolve?
- What are the causes and implications of the declining volumes on CLOBs? Is the trend likely to persist?
- Why does FX settlement risk remain high? What are possible ways to further mitigate it?
Annex
The international role of the US dollar

In per cent

A. International role of the US dollar

- World trade
- Global GDP
- Cross-border loans
- Int.l debt securities
- FX transaction volume
- FX reserves
- Trade invoicing
- SWIFT payments

B. US dollar share of official foreign exchange reserves

Graph A2
With further FX market fragmentation, volumes across platforms diverge

Graph B1

A. Number of trading venues and liquidity sources

B. Volumes on primary and select secondary venues

Counts
USD trn

2019 2020 2021 2022

Primary venues
Secondary ECNs
SDPs
PTFs
Dark pools

Primary venues²
Secondary ECNs share (rhs)
Select secondary ECNs³
### Global FX market turnover in April 2022, by counterparty and instruments

**Net-net basis, daily averaged in April**

<table>
<thead>
<tr>
<th></th>
<th>Turnover in 2022 ($bn)</th>
<th>2019–22 change ($bn)</th>
<th>2019–22 change (%)</th>
<th>Contribution to overall growth</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Global FX market (OTC)</strong></td>
<td>7,506</td>
<td>925</td>
<td>14%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>By counterparty</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reporting dealers</td>
<td>3,460</td>
<td>941</td>
<td>37%</td>
<td>102%</td>
</tr>
<tr>
<td>Other financial institutions</td>
<td>3,622</td>
<td>30</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>Of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-reporting banks</td>
<td>1,618</td>
<td>8</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Institutional investors</td>
<td>846</td>
<td>70</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td>Hedge funds and PTFs</td>
<td>514</td>
<td>–79</td>
<td>–13%</td>
<td>–9%</td>
</tr>
<tr>
<td>Non-financial customers</td>
<td>425</td>
<td>–46</td>
<td>–10%</td>
<td>–5%</td>
</tr>
<tr>
<td>Of which: prime-brokered</td>
<td>1,317</td>
<td>–172</td>
<td>–12%</td>
<td>–19%</td>
</tr>
<tr>
<td><strong>By instrument</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spot</td>
<td>2,104</td>
<td>125</td>
<td>6%</td>
<td>14%</td>
</tr>
<tr>
<td>FX swaps</td>
<td>3,810</td>
<td>612</td>
<td>19%</td>
<td>66%</td>
</tr>
<tr>
<td>Outright forwards</td>
<td>1,163</td>
<td>166</td>
<td>17%</td>
<td>18%</td>
</tr>
<tr>
<td>Options</td>
<td>304</td>
<td>6</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Currency swaps</td>
<td>124</td>
<td>15</td>
<td>14%</td>
<td>2%</td>
</tr>
</tbody>
</table>

**Memo: exchange-traded instruments**

| Futures                      | 136                   | 23                  | 21%               |                              |
| Options                      | 18                    | 4                   | 27%               |                              |