

# Presentation to the Trends in FX Market Structure and Liquidity



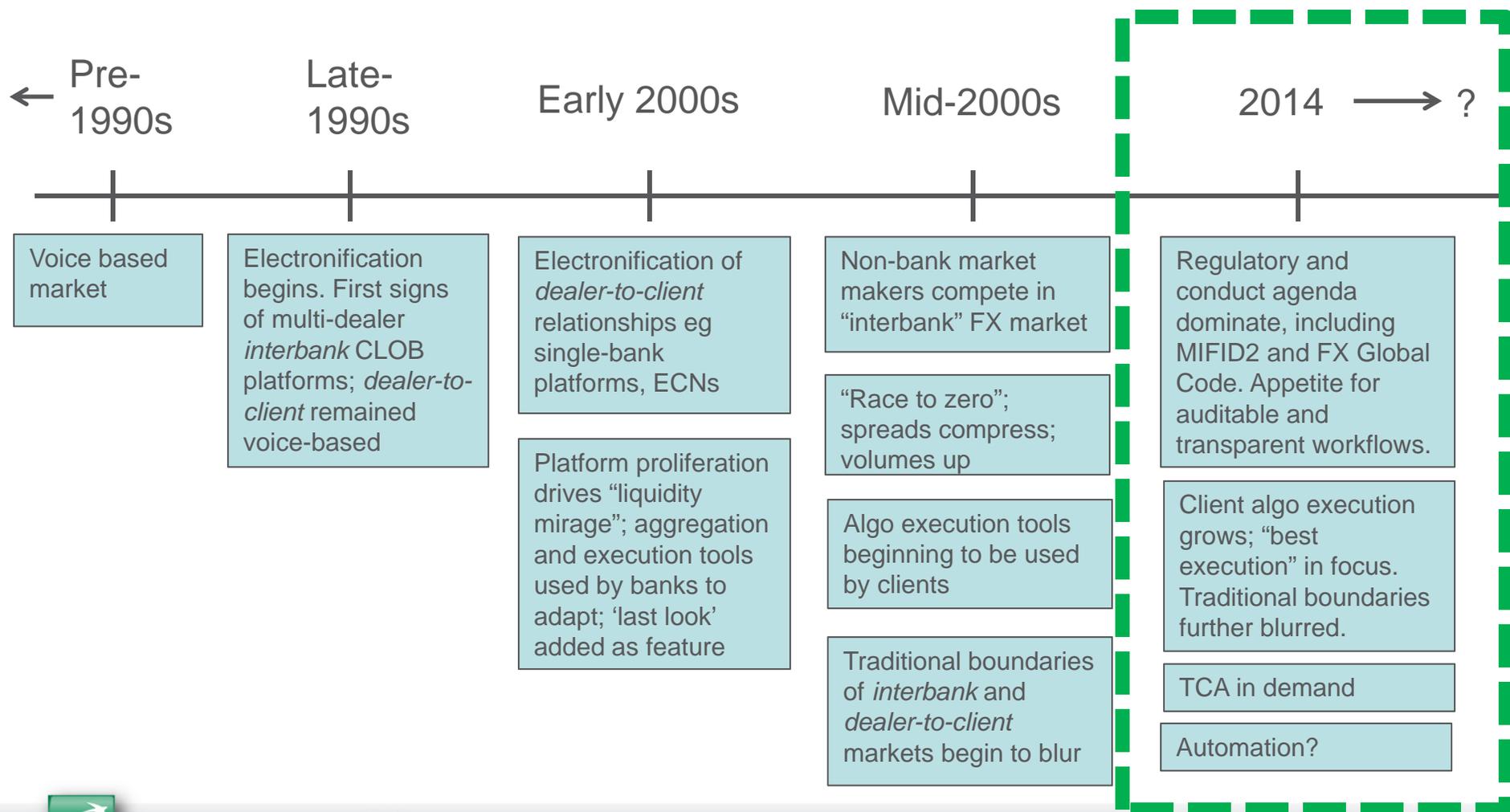
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**BNP PARIBAS**

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# THE EVOLUTION OF FX SPOT MARKET STRUCTURE - AT A GLANCE



# THE FX MARKET IS IN A STATE OF TRANSITION

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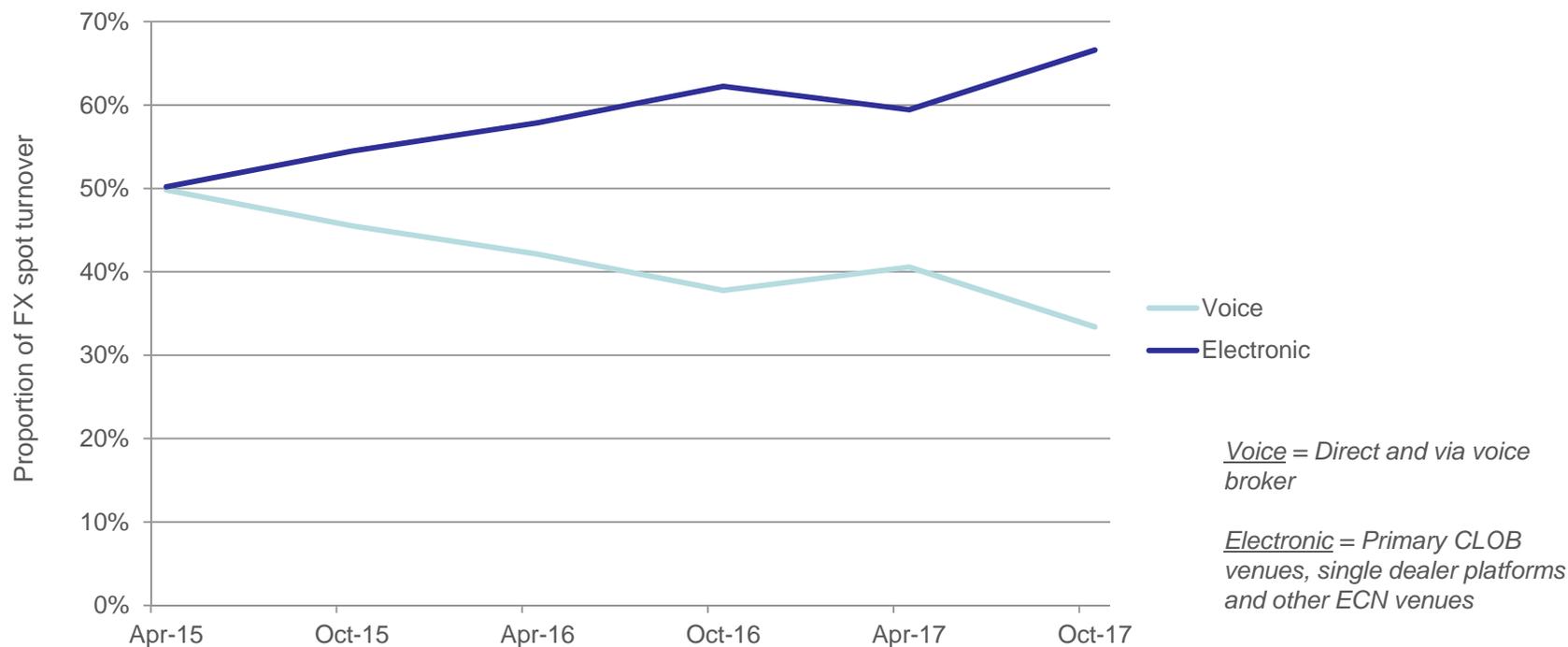
- MIFID II has increased the focus on “**best execution**” and **transparency** in FX markets;
- **The FX Global Code** has set the “industry standard” for good practice and is driving increasing levels of disclosure across the industry
- There is a trend towards **auditable and measurable automated FX workflows**
- Participants increasingly want robust, comprehensive **TCA** metrics, including from third-party providers
- Increasing numbers of buy side participants are **willing to hold market risk**, for example through algorithmic execution
- Some participants want their **flow segregated** from traditional market making activities through algo desks

**What does this mean for the microstructure of the FX market?**



# ELECTRONIFICATION AND THE TREND TOWARDS AUTOMATION

UK OTC FX Spot turnover by execution method



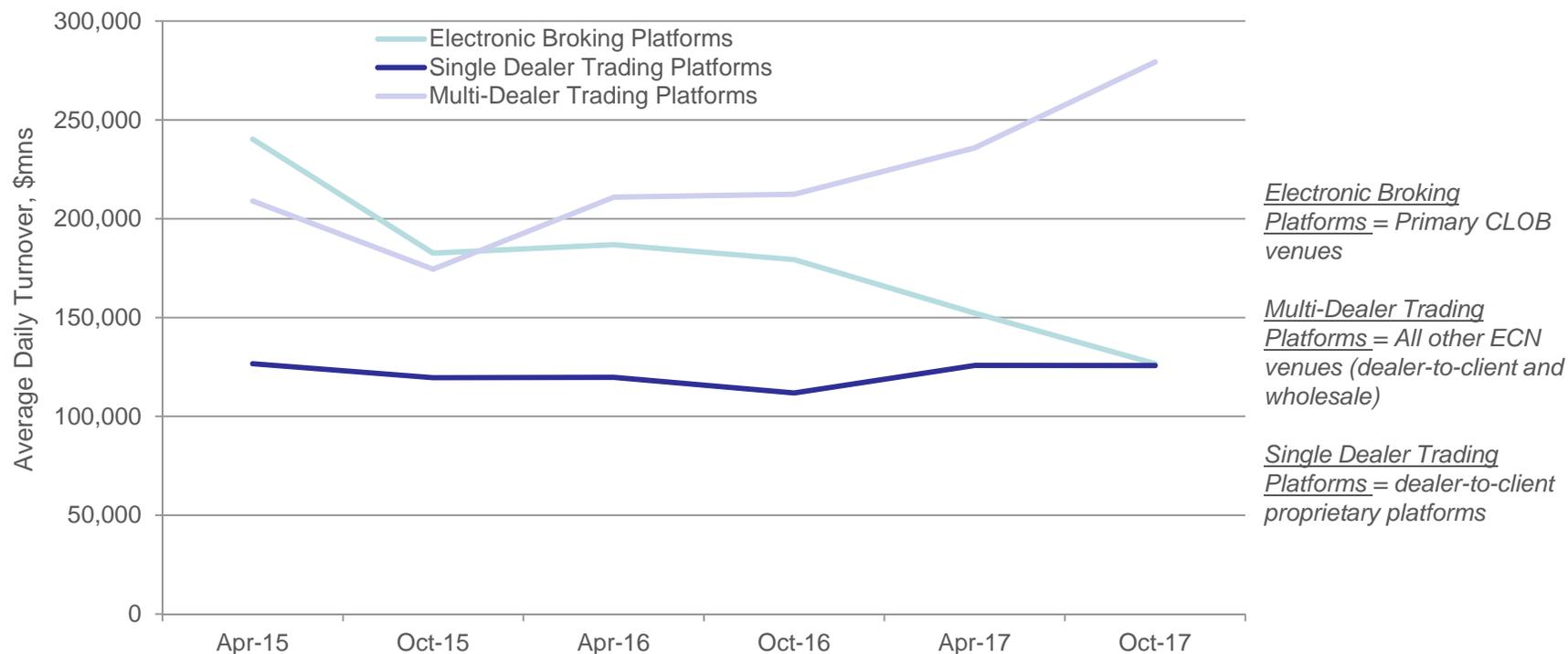
Source: FXJSC 6-monthly FX turnover survey

- Over recent years there has been a tectonic shift in the trend towards electronic execution



# ELECTRONIFICATION AND THE TREND TOWARDS AUTOMATION

UK OTC FX Spot turnover by electronic execution type



*Electronic Broking Platforms = Primary CLOB venues*

*Multi-Dealer Trading Platforms = All other ECN venues (dealer-to-client and wholesale)*

*Single Dealer Trading Platforms = dealer-to-client proprietary platforms*

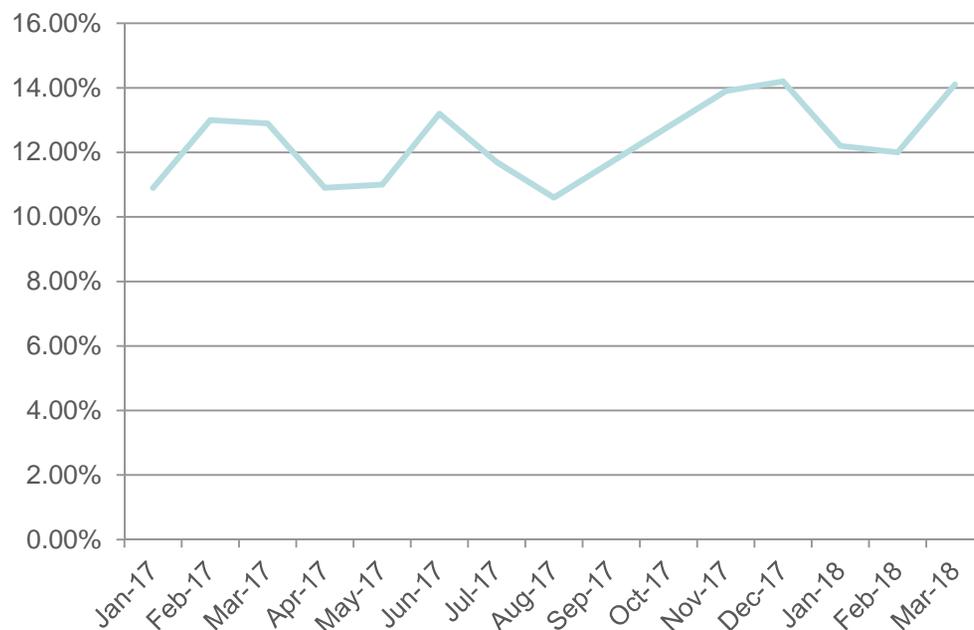
Source: FXJSC 6-monthly FX turnover survey

- Strong growth amongst “secondary” ECNs
- Trend suggests that the electronic FX market is becoming more fragmented



# ELECTRONIFICATION AND THE TREND TOWARDS AUTOMATION

Algorithmic order volume as a proportion of electronic FX spot volume



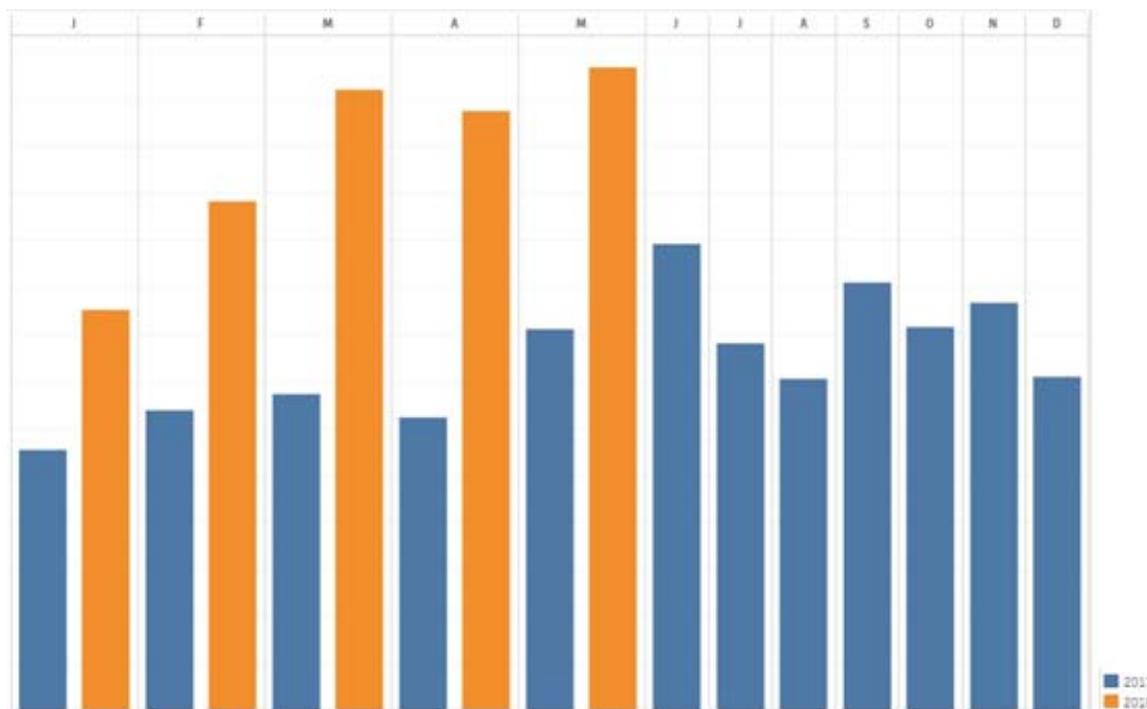
Source: Expand Research. Data is based on a subset of the largest algo dealers in the market.

- Data supports anecdotal evidence that clients are increasingly automating their FX spot execution through the use of algorithms
- As a proportion of overall e-volumes, execution algo volumes remain relatively low
- Feedback suggests flow automation is top of the buy side agenda for 2018



# ELECTRONIFICATION AND THE TREND TOWARDS AUTOMATION

BNP algorithmic order volumes, 2017 vs 2018



Source: BNP Paribas calculations

- Over the past few months, we've seen marked growth in the algorithmic trading space



# THE EVOLUTION OF TRANSACTION COST ANALYSIS

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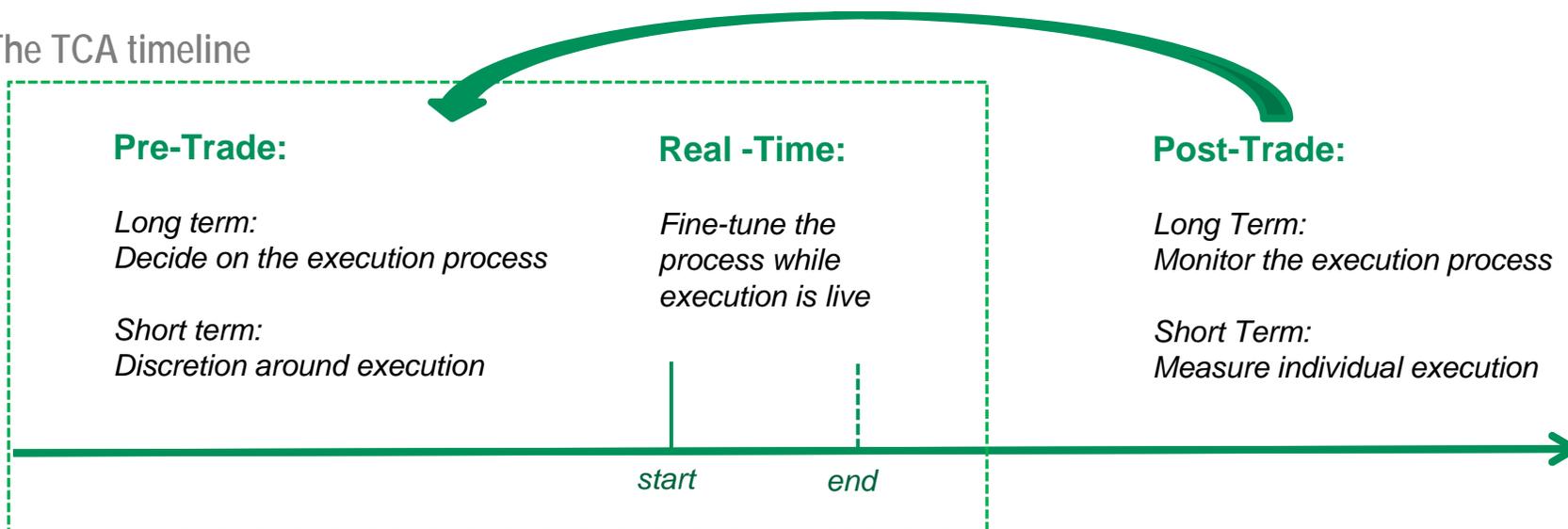
- With the demand for auditable, transparent and automated execution solutions growing, and MIFID2 [indirectly] sharpening the focus on “best execution” in FX, we’re seeing the **demand for TCA proliferate** and become ever-more sophisticated
- Estimates suggest around 60%+ of buy side firms are now using TCA (vs 80% in equities and 30% in Fixed Income)
- Post-trade TCA has evolved and end-users are **using different, complementary analyses**:
  - Broker-provided: *provides execution and trading analysis leveraging the large amounts of data embedded in electronic market making and algorithmic execution*
  - Internal interpretations: *quantitative analysis that provides internal control and detailed analysis of calculations and conclusions*
  - Third-party TCA providers: *provide an independent assessment to help demonstrate “best execution”*



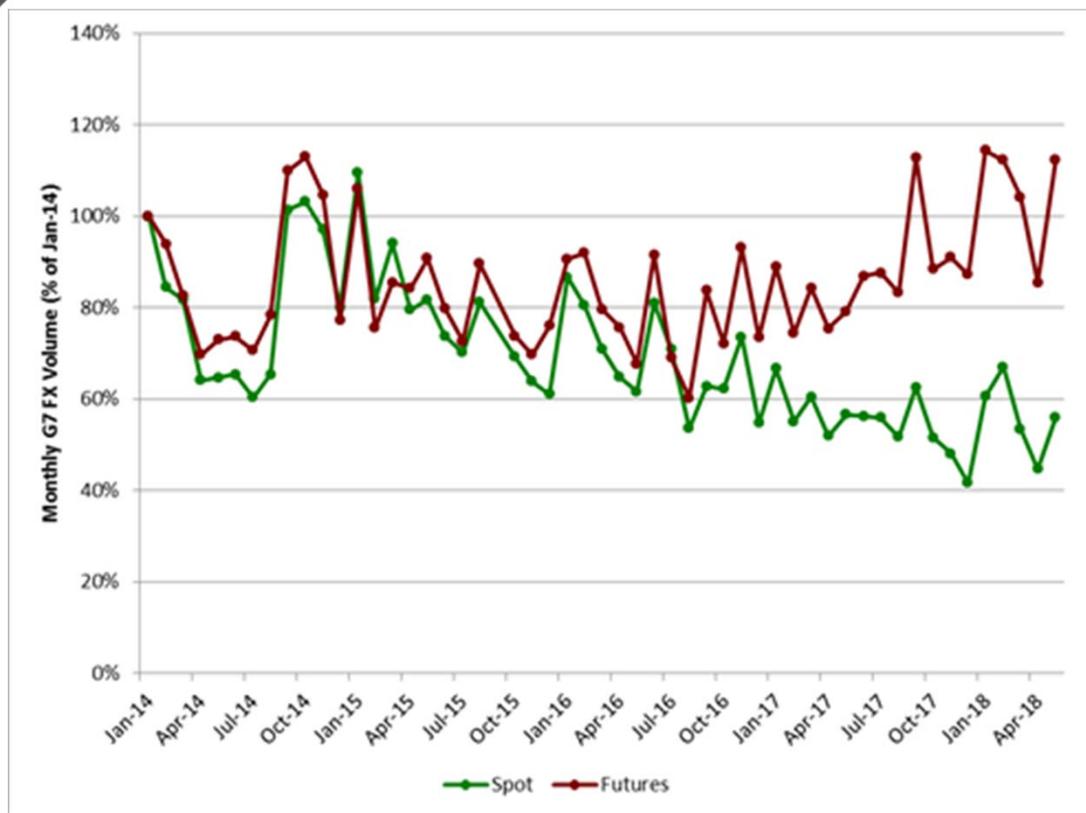
# THE EVOLUTION OF TRANSACTION COST ANALYSIS

- And the **timeline for TCA analysis is broadening**
  - Pre-trade: *Estimate market impact and slippage before the trade*
  - Real-time: *Receive performance updates, and estimate future performance of a live trade*
- However, **challenges with market data** remain: 85%+ of FX spot volume is still largely invisible to most participants

The TCA timeline



# FX LIQUIDITY: TRENDS IN G7 PLATFORM VOLUMES

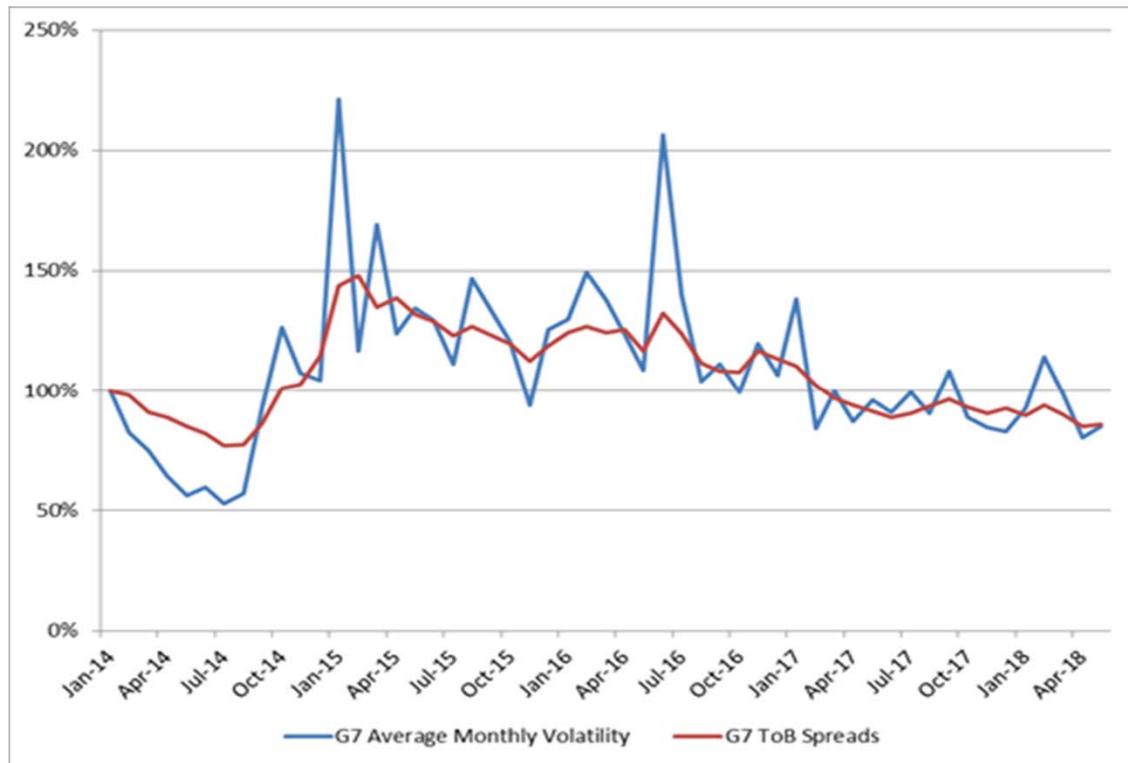


Source: Reuters, EBS, Hotspot, Currenex, ParFX, LMAX, CME, BNP Paribas calculations

- Up until early 2017, we observed fairly consistent trends in volumes transacted on major OTC venues vs futures markets
- Since early 2017, there has been a dislocation between the two
- Potentially consistent with further diversification in FX wholesale market trading volume towards regulated exchanges, adding to broader market fragmentation



# FX LIQUIDITY: TRENDS IN G7 PLATFORM SPREADS

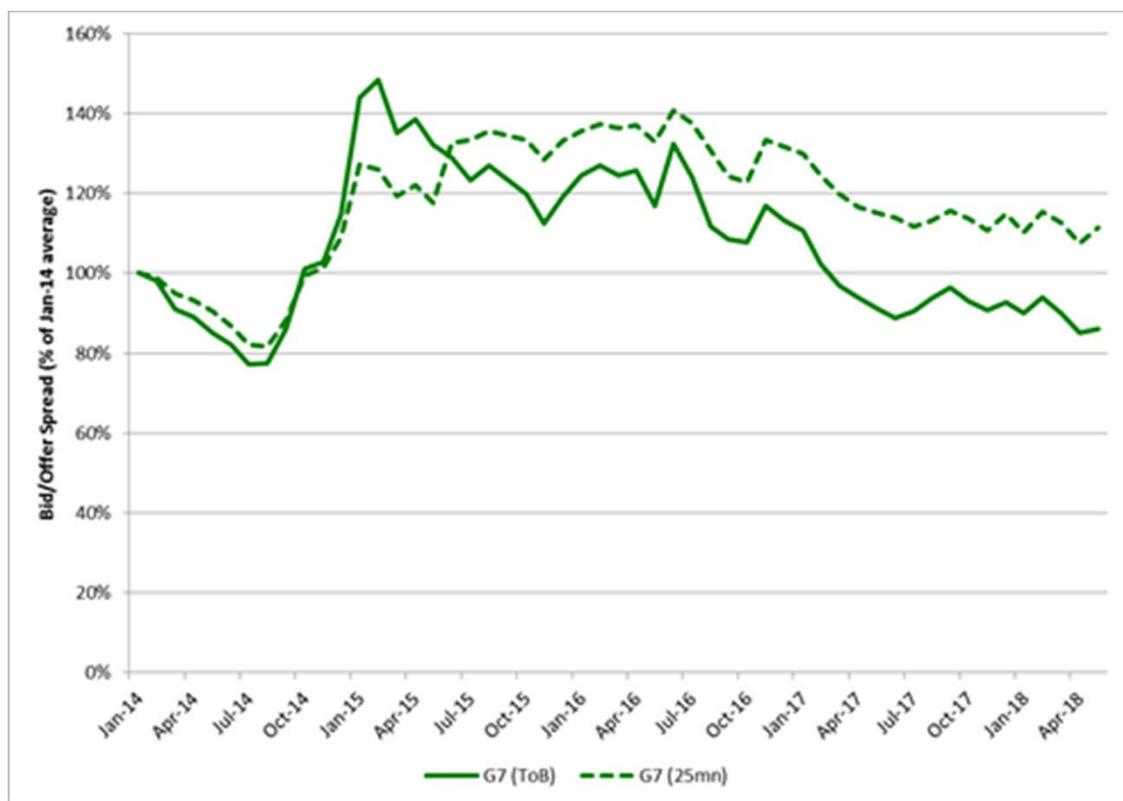


Source: Reuters, EBS, BNP Paribas calculations

- The widening of spreads triggered by the SNB event in 2015 has now largely unwound
- The relationship between volatility and spreads has remained reasonably constant



# FX LIQUIDITY: TRENDS IN G7 PLATFORM SPREADS

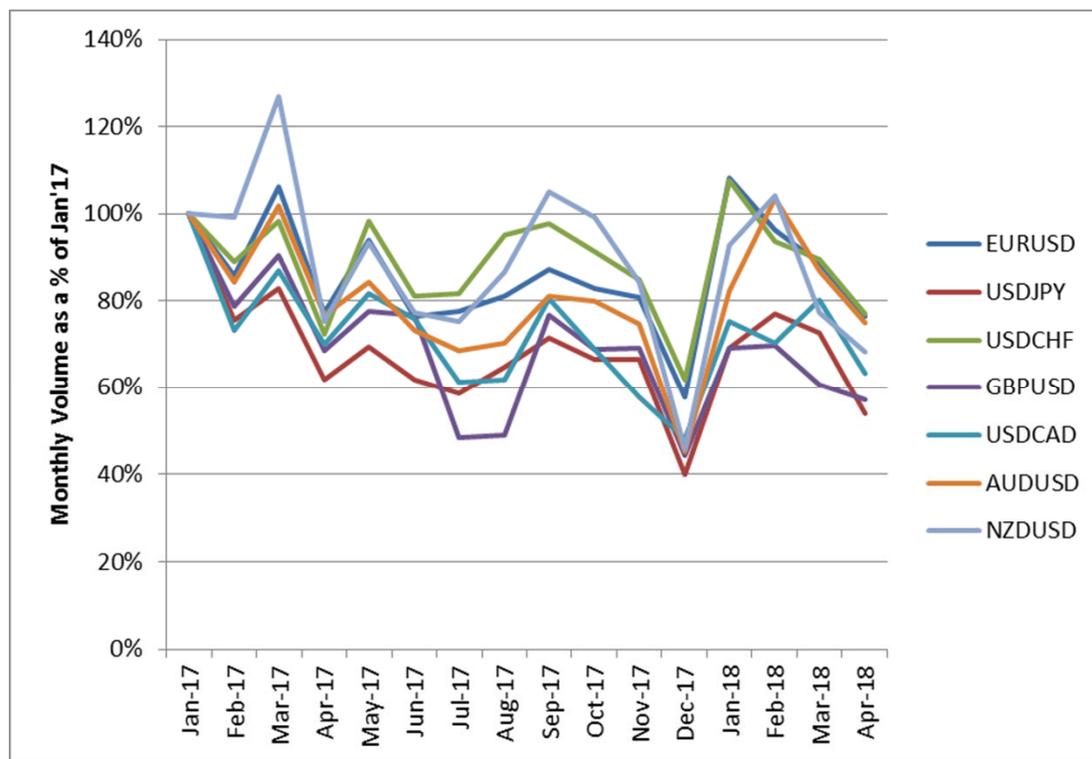


Source: Reuters, EBS, BNP Paribas calculations

- Interestingly, the spread for 25mn has tightened by approximately 17% from its wides, while the inner bid/offer (top of book) has tightened by more than 42% since the peaks
- Potentially consistent with growing algorithmic trading
- May also be influenced by PTF activity on major venues who typically trade at TOB



# FX LIQUIDITY: RECENT TRENDS IN G7 PLATFORM VOLUMES

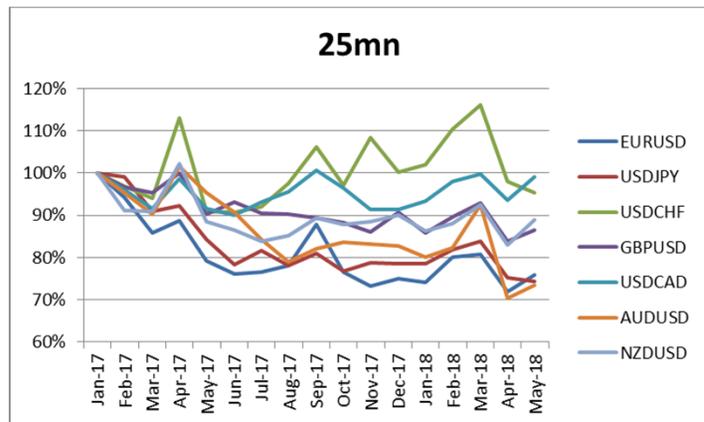
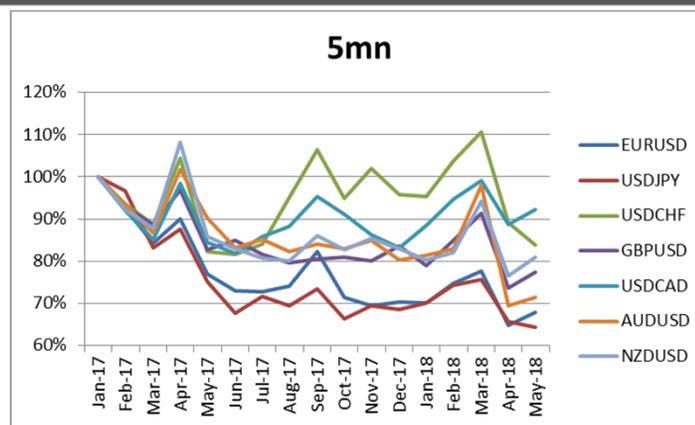
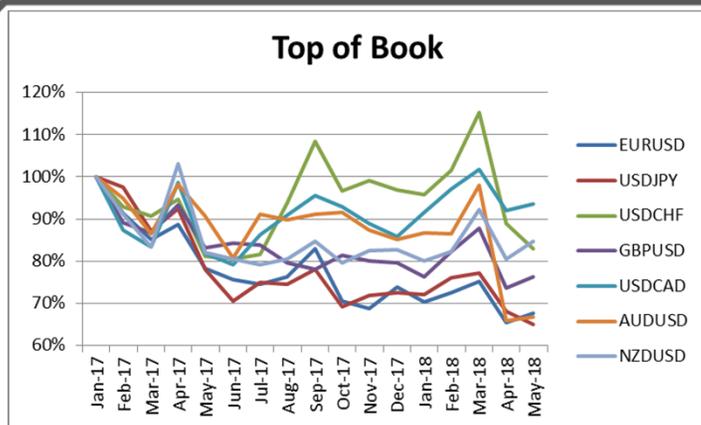


Source: Reuters, EBS, Hotspot, Currenex, Fastmatch, LMAX, ParFX, BNP Paribas calculations

- In general there was the seasonal rise in volumes to start 2018
- But even with this rise, JPY, CAD, and GBP volumes across Q1 2018 were considerably below those in Q1 2017
- Volumes for EUR, CHF, AUD, and NZD during Jan and Feb 2018 were very strong compared to 2017
- Volumes in Mar and Apr 2018 have fallen sharply across all G7 pairs and now trade well below their 2017 levels



# FX LIQUIDITY: RECENT TRENDS IN G7 PLATFORM SPREADS



- The spread tightening in early 2017 stabilised by mid-2017 and in most cases remained relatively constant over H2 2017
  - *The main exception being in USDCHF which saw a considerable increase in volatility in H2 2017 which caused spreads to widen alongside*
- Over Q1 and Q2 2018 spreads have been highly correlated to traded volumes (and volatility): there was a notable widening in Jan/Feb as volumes spiked and then a sharp tightening during Mar and Apr as volumes shrunk



# SUMMARY

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- The FX market is being driven by the regulatory and conduct agenda towards more transparent, auditable workflows
- MIFID2 sharpened the focus on “best execution” in FX, further driving the trend towards sophisticated, thorough TCA
- Combined, this is driving further electronification of the FX market...
- ...and also broadening demand for automated, algorithmic execution solutions, not least as end-users become more comfortable holding market risk
- We are seeing these trends impact market liquidity, as top of book spreads narrow relatively sharply compared to deeper book size



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