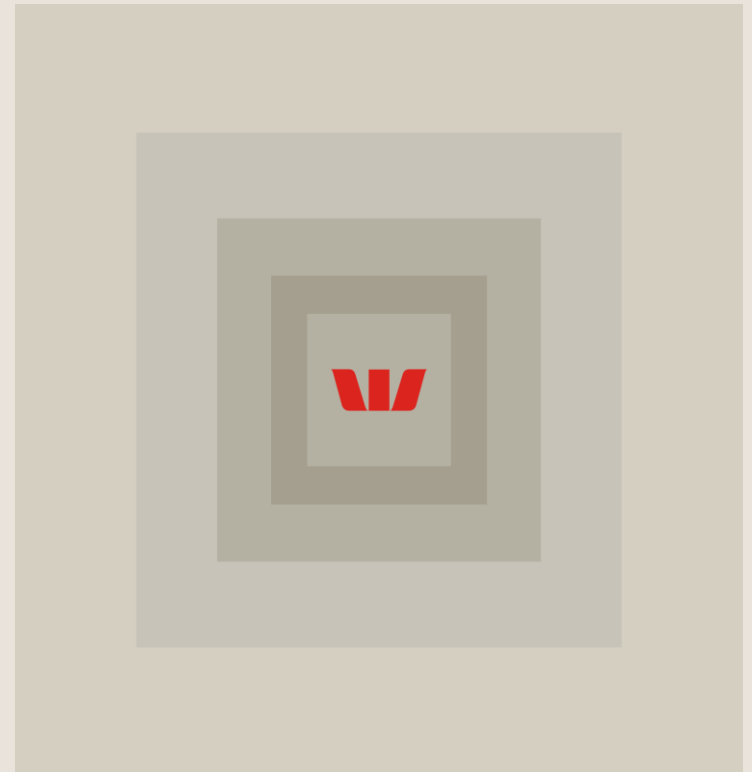


FX Market Liquidity Considerations

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Bank

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FX Market Liquidity: Discussion

Table of contents

- I. What are the factors to consider when looking at liquidity?**
 - a. Customer
 - b. Cost
 - c. Bank
 - d. Non-bank
 - e. ECN
 - f. Time
 - g. Quality of liquidity considerations
 - h. OTC market
- II. Case study: Depth of book spreads versus volatility**
- III. Does the regulatory agenda impact?**
- IV. Other considerations**

FX Market Liquidity: Discussion

- A robust, fair, liquid, open and appropriately transparent foreign exchange market is very much in the interest of all market participants and these are key outcomes that have helped shaped the Global FX Code.
- Liquidity is a key consideration here. Foreign exchange markets have undergone significant change in recent years driven by regulation, technology and changes in market structure. The impact that these changes have had on liquidity may not be fully understood.
- The purpose of this presentation is to frame a discussion around liquidity, and in doing so explore the following questions:
 - I. Do the structural changes in FX market liquidity need to be more widely understood and communicated by all market participants?
 - II. Are the changes beneficial to the market?
 - III. Is liquidity appropriate, transparent, sustainable and available?
 - IV. What are the future trends that may impact liquidity?

What are the factors to consider when looking at liquidity?

- What drives the available market liquidity?
- Is market liquidity a measure of risk management capability?
- Is liquidity the same for human execution as opposed to electronic execution?
- Does it matter?
- How does the increase of trade in currencies like CNH or emerging market currencies affect overall FX liquidity?
- Is continuous linked settlement (CLS) a factor?

What are the factors to consider when looking at liquidity?

- **Customer**

Clients want a time saving, end-to-end solution, multi-product, aggregated pricing with surety of payment and pre- and post-trade analysis. Customers are moving to multi-dealer platforms as they provide part of this capability. Customers are able to access the market in different conditions through streaming prices, requests for quotes, algorithmic execution (direct market access), orders and traditional voice and chat execution. Access to new liquidity providers is enabled by prime brokerage credit.

- I. Do clients know the best way to stack their liquidity providers, the number of liquidity providers to use, the difference between sweeping versus full amount execution?
- II. Do clients understand the market impact of their previous trades and how this feeds back into spreads of future trades?

- **Cost**

- I. Different liquidity has different costs – brokerage, prime brokerage, connection, hosting, line fees, vendor charges, internal and external technology costs or, as a price taker, spread, slippage, rejection rates. How are they factored into the spread, and does it affect liquidity?
- II. A large increase in the number of new client electronic communication networks (ECNs) is forcing liquidity providers to make decisions on which platforms to connect to and at what cost, potentially leading to a more fragmented market.

What are the factors to consider when looking at liquidity?

- **Bank**

The main bank liquidity providers have high internalisation ratios. What impact does the exhaust have on the market and liquidity?

What is the business model going forward?

- I. Is the traditional role of “liquidity provider” changing depending on size and strategy of the bank? The cost of being an end-to-end provider is becoming more expensive.
- II. Traditional client interaction is based on an underlying relationship where trust is formed and liquidity provided in all conditions. Manual traders still provide this service; is technology changing this approach and are there any considerations to factor in?
- III. Principal versus agency: how has reduction in risk holdings changed liquidity over the years? Technology is enabling white labelling for banks as customers, dramatically reducing the number of liquidity providers.

- **Non-Bank**

Non-bank liquidity has risen not only in FX markets but in a large number of both exchange-traded and -cleared products.

- I. Are the larger non-bank liquidity providers too big to fail?
- II. Are non-bank market makers obliged to continuously quote?
- III. Is the quality of liquidity the same, better or worse than bank liquidity?
- IV. Is liquidity recycled more or less than traditional bank liquidity?

What are the factors to consider when looking at liquidity?

- **ECN**

There have been a number of new entrants, with different selling points: unique liquidity, different products, and/or lower costs.

EBS and Reuters volumes decreased by 30% and 25% respectively from March 2013 to March 2016. Hotspot volumes are down 3%, while new entrant like EBS Select have gained market share.

- I. EBS and Reuters are considered “primary markets”, what are the implications for liquidity, benchmarks and/or orders if this status is lost?

- **Time**

There is no consistency when thinking about time frames. Electronic liquidity providers look at a point in time (micro seconds), physical traders in seconds, reporting is currently daily measures (average daily volume).

FX is global, trading 24 hours, 5.5 days a week. Clients expect to be able transact at any point in time, though liquidity is not consistent with high and low liquidity periods.

What are the factors to consider when looking at liquidity?

- **Quality of liquidity considerations**

- I. Availability when needed
- II. Rejection rates
- III. Market impact
- IV. Spreads, both top of book and by volume
- V. Time for liquidity to replenish
- VI. Liquidity at inflection points (e.g. stops, technical levels)
- VII. If liquidity is readily available, why has there been an increase in sharp price movements?

- **OTC market**

The FX market is OTC, made up of different participants with different “liquidity profiles” that determine what the cost to transact is. These liquidity profiles are based on (and not limited to) credit, type of execution, volume of execution, number of connections, speed, market impacts, past trading behaviour, internalisation ratios, what time the participant deals and internal costs to serve.

- I. What impact do these liquidity profiles have on the total market liquidity profile?
- II. Has the market liquidity profile changed significantly as a result of the structural changes taking place?
- III. The price observed versus the price of the executed trade(s) is often different. Is this an issue?
- IV. ECNs have icebergs – as do most third party vendor aggregators – where liquidity is not shown. Is this an issue?

Case Study: Depth of book spreads versus volatility

Looking at Hotspot top of book spreads versus spreads at different volume depths across a small basket of currencies, we can calculate a “liquidity premium”. Overlay a market volatility measure and the results show that since June 2015, volatility has increased but the liquidity premium charged for volume has not increased proportionally.

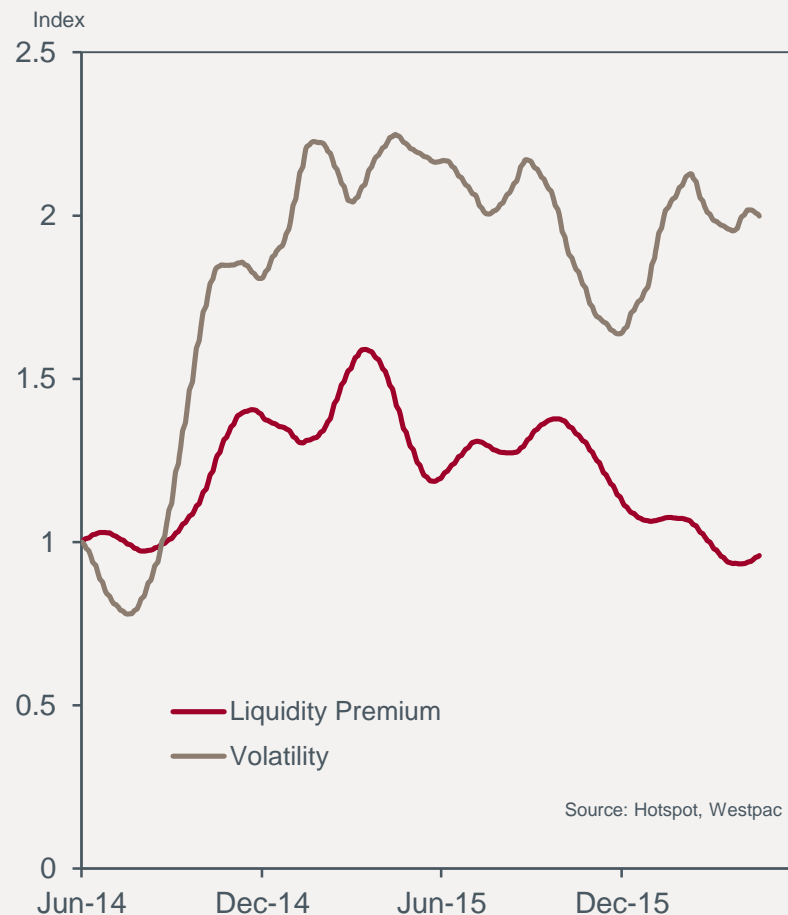
This could suggest:

a) The risk on quoting larger deals has increased compared to June 2015 but reward has not. Does this further reduce the number of or change the type of liquidity providers as the risk / reward / cost to participate consideration becomes harder to balance?

Or

b) The liquidity premium doesn't need to change in more volatile times, as there is only the appearance of greater liquidity than what is truly there. The liquidity may disappear when the top of book changes (due to high frequency trade cancellations) or a deal is rejected due to “hold times” in last look.

Liquidity provider risk/ reward relationship



Does the regulatory agenda impact?

- Customers and regulators are driving a move to agency-style algorithmic execution which tends to use external liquidity only, resulting in greater market impact and risk liquidity provision.
- Regulation changed the way the benchmark process is managed. Pragma published a paper (Jan 2016) suggesting a predictable trading pattern around the London 4pm benchmark, which is unusual in liquid markets. This predictable pattern is encouraging some market participants to develop strategies to take advantage of this predictability (not the banks that are facilitating client orders).
- Bank risk levels have been reduced as a result of regulatory and capital charges. What impact does this have on liquidity?
- Return on equity has been driving the number of client connections, narrowing product focus, and forcing markets to focus on which global physical locations liquidity providers operate from.
- Risk / cost / capital are all increasing with reward lower, leading to a change in management mindset of more focused client strategies, lower volume and less free liquidity.

Other considerations

- Distributed ledger enables near real time payments. What will the impact of the introduction of “value now” currencies have on FX market liquidity?
- What will happen to liquidity if last look (hold times) are abolished?
- Most non-bank participants are prime brokerage clients. What happens as the cost of prime brokerage changes, and are current levels economical for the prime broker?
- Does a cost change here reflect a change in spreads? At what volume does non-bank price making become uneconomical, and will this force a move to exchanges?
- Is the number of or diverse nature of liquidity providers more important?

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