FX Clearing

Discussing the complexities, current models and future development

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Up until 2012, the FX market functioned without central clearing. Why did it become necessary?

KYC: In 2011, the G20 leaders agreed to implement Uncleared Margin Rules (UMR) – introducing margin requirements for derivatives positions held on a bilateral basis. For the FX market, this had major implications for FX swaps, FX NDFs and FX options (FXO), which were deemed in scope for UMR. A phased-in approach led to the largest banks being in scope in 2016 and 2017, followed by regional banks and large buy-side firms between 2018 and 2019, and finally the majority of buy-side firms in 2020 and 2021.

Complying with the new rules presented a number of challenges. These include calculating Aggregate Average Notional Amount (AANA); determining which entities are in scope, when and in which jurisdiction; agreeing to new CSAs and custody relationships for each entity; and daily margin reconciliation and posting.

Trading cost and counterparty selection could also become a challenge. New requirements to post two-way Initial Margin (IM) on a segregated basis mean counterparty selection has funding implications, which is leading to the adoption of margin valuation adjustment (MVA) to trade prices.

These challenges have led the sell-side moving to central clearing for FX cleared trades, often resulting in more efficient margin requirements under the cleared IM methodology and through netting. LCH analysis indicates that clearing may result in IM savings of up to 70%. Further, cleared trades do not contribute to AANA calculations; and given the light-touch documentation required for setting up new execution relationships in clearing, it could improve counterparty selection.

What are the key benefits of clearing FX products?

DH: There are many benefits from clearing, including multilateral netting to minimise your margin through offsets and to simplify your operational process, the regulatory recognition of the CCP to minimise the capital cost of your derivative positions and allowing you to mitigate or even avoid a UMR margining burden, reduction of bilateral lines - especially useful for many at month and quarter ends and for some cleared products where you can access counterparts and liquidity you would just not be able to reach in a bilateral or PB'd landscape.

However, clearing is not a one size fits all answer for every trading scenario. So our approach for FX clearing at 360T is unique, providing routes for clients, as well as liquidity providers, to use Exchange traded products on-and off-exchange, as well as OTC Cleared FX, alongside PB'd and bilateral OTC FX, with the right execution models to help them get the right trades done in the first place.

What are the complexities of clearing FX products in comparison to rates and credit?

KYC: Unlike rates and credit, the majority of FX is traded and settled on the basis of two-way physical settlement. This requires the safeguarding of funds in a payment versus payment (PvP) model to mitigate settlement risk.

Given the role of FX in financial markets for wholesale funding, a CCP has to ensure that deliverable FX transaction parties will be made "whole" by guaranteeing they will receive what was expected on the settlement date.

This means a CCP has to ensure "it maintains sufficient qualifying, highly reliable liquid resources to cover, on time, liquidity shortfalls…".* (*CPMI & IOSCO paper: https://www.iosco.org/library/pubdocs/pdf/IOSCOPD525.pdf)

Many commentators see UMR as the major catalyst for the adoption of central clearing for over-the-counter (OTC) FX derivatives. Do you agree with that, or is the story slightly more complicated?

PH: There is a clear view that UMR was a major catalyst for the initial adoption of central clearing for OTC FX derivatives. This is supported by data that shows OTC FX clearing only really began in 2016 in line with the first phase of UMR and that those volumes continued to grow over 2017 and 2018 as the UMR phases continued to roll out. As phases 5 and 6 of UMR come into force, there will be a clear economic driver for more firms to embrace clearing of FX – in particular for NDFs and FX options.

However, based on our experience in OTC FX clearing (where more than 70% of our volumes are in deliverable forwards) and listed FX clearing (where the largest volumes and most increased client adoption are in G10 currency pairs), the decision to utilize cleared FX isn't always driven by IM optimization alone.

Moving FX forwards, options and swaps risk in to clearing (be that via OTC clearing and/or listed FX derivatives) can assist dealers in freeing up their balance sheet and help to improve return on equity. While for a buy-side firm not using a FX prime broker, clearing may also provide an effective mechanism to free up bilateral credit lines, access more liquidity providers, achieve netting for daily settlements and bring efficiencies to the trade allocation process.

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In 2013, the Global FX Division (GFXD) published its analysis on the size of the same-day liquidity challenge for clearing and settlement of OTC FX options. How did this analysis inform the development of FX options clearing services?

KYC: The analysis covered 90% of dealer flow for FXO and provided valuable quantitative data. Data on FXO composition by currency and product, expected settlement sizes, and liquidity requirements provided LCH the opportunity to channel its focus on specific segments of the FXO market for which it could develop clearing solutions. The analysis also provided a platform for discussion and engagement with GFXD members and the wider market on the various methods LCH could employ to solve the liquidity challenge.

How does ForexClear address the liquidity challenge that was identified and quantified by GFXD?

KYC: In consultation with its members, LCH employs a proprietary settlement management framework that successfully addresses settlement and liquidity complexity. Various methods are employed, including the use of pre-funded provisions, settlement limits and committed swap lines to address the liquidity challenge. A partnership with CLS for PvP is also key, and all solutions were developed in collaboration with member feedback.

Once a firm has determined that a position is going to be cleared, what factors may influence what the best clearing model should be? For example, whether listed or OTC products will give it the best route to get that position into the clearing house.

DH: In terms of margin, you should always choose exchange listed products whenever you can - as the MPOR defined by regulators is lower for Listed than for OTC Cleared, so you pay less margin on a cleared listed position compared to the equivalent cleared OTC position. However, ultimately the decision must be around available liquidity to achieve the trade you need to do.

Here, accessing the right liquidity may be simpler using Listed futures and options where you do not need a bilateral credit relationship with each of your trading counterparts because every futures trade clears as part of its execution, whereas for OTC Cleared, you do still need a bilateral credit relationship to execute the OTC trade in the first place, as you still face your trading counterpart with that risk until the trade novates to face the CCP. Of course there are also some differences as to how Listed products work compared to OTC Cleared too, such as trading a multiple of the listed contract size compared to OTC Clearing, where the notional is whatever you agreed with your trading counterpart.

And with listed products, unless conducted as off-exchange Blocks above a non-disclosure threshold, you have to be comfortable with the 'print', where the direction and size of your trade immediately becomes market data; perfect for price discovery of listed FX, of course, but which may mean your order needs to be worked algorithmically to obscure the impact when taking a position outside the majors. So your best trading outcome will be achieved by considering the portfolio impact of each route your trade can take and then executing accordingly.

If the OTC product route is chosen, what issues may impact and need to be considered regarding a suitable clearing service to use?

DH: Availability of clearing for the right products is still the main challenge in FX. The rule of thumb is to think about what you will be trading, then select the clearing service that supports as much of it as possible so you can clear whenever it is beneficial to do so.

What sort of considerations, for example, comparing ISDA SIMM versus a clearing house IM model, should firms who are looking to mitigate and optimize the funding costs imposed by UMR be thinking about?

PH: For entities directly impacted by UMR, ISDA SIMM is the most prevalent model for the calculation of IM that has to be posted by both counterparts. The headline comparison of ISDA SIMM versus a clearing house IM model often centers on the MPOR, with ISDA SIMM using a 10-day MPOR, and a clearing house such as CME Clearing using a 5-day MPOR for

Currency Pair	CME IM	ISDA SIMM IM	Margin Ratio SIMM to CME
USD/INR	3.06%	8.10%	2.64
USD/TWD	1.99%	8.10%	4.07

OTC cleared FX. The model differences do, however, go far deeper than the MPOR. This can be illustrated in a side-by-side comparison of the indicative IM as a percentage of notional requirement on positions cleared to CME Clearing and the same positions under ISDA SIMM.* However, these differences in IM model are only the first level consideration in trying to optimize the funding costs imposed by UMR. Migrating trades from a multiple bilateral trading counterparts to clearing also enables all of the positions to be netted and any correlations and offsets in the portfolio to be recognized.

At CME, we already support the cross margining between OTC cleared FX products (NDFs versus forwards versus FX options), and the next major development we are working on is to deliver the portfolio margining of OTC cleared FX trades versus our cleared non-deliverable interest rate swaps and/or our listed FX futures. *(Analysis conducted by CME Group October 2019 on standalone long $3bn notional 1 week maturity NDF trades).

As the next phases of UMR come into force, what are the economic drivers for more clearing of FX?

PH: In talking to clients, there are a number of both quantitative and qualitative factors that they are considering when making decisions around if, when and how to utilize listed FX futures and/or OTC cleared FX in addition to their bilateral FX activity.

Depending on the individual client, these inputs include:

Quantitative

- Execution cost (bid-ask spread impact – including the ability to trade passively at mid in our listed FX futures marketplace)
- Clearing house and FCM fees
- Funding cost/benefit of CCP IM versus any bilateral IM
- Balance sheet benefits

Qualitative

- Freeing up bilateral trading lines
- Ability to access a wider pool of liquidity providers
- Mitigate counterparty credit risk
- Ability to trade in an anonymous, all to all, regulated marketplace with no last look (listed futures specific)
- Ability to more easily trade block and then allocate

What important steps have been taken to try and improve the economics of clearing?

KYC: A key focus for LCH in 2020 is the launch of cleared non-deliverable options (NDOs) subject to UMR. By clearing NDOs, LCH will widen the netting set of FX products clearable to both banks and buy-side firms, maximising potential margin savings. We are also focusing on expanding our NDF clearable currency set and extending tenors in certain pairs from two to five years. Regarding the clearing ecosystem, LCH continues to work closely with execution venues to provide straight-to-clearing workflows, as well as execution on cleared prices. This continues to build on LCH's announcement in 2019* that FX Connect TradeNeXus now connects directly to LCH. (*https://www.lch.com/resources/news/lch-forexclear-teams-fx-connect-tradenexus)

ROUNDTABLE

What impact does clearing of FX options and forwards have on liquidity and risk management in those products?

DH: Generally there is expectation of two drivers for clearing to tighten prices. First, as clearing mitigates counterparty risk and exposure through the life of the trade once in clearing, we will see bifurcation of pricing to favour cleared - like was seen in rates - as LPs no longer have to load their spread to account for bilateral credit costs and risks. Second, sophisticated LPs will introduce skews to win cleared trades that have a positive impact on their portfolio.

Structurally though, you can't ignore the fact that with many FX LPs working with Deutsche Boerse Group and others to develop Listed FX liquidity propositions, for products that generate the right cleared exposures in terms of value dates and attributes, to perfectly fit the needs of clients starting to clear because of UMR, but which also allow both client and LP to exploit the cost and counterparty access benefits of being a product with an exchange orderbook as well as bilateral off-exchange flow, it's safe to say the use of cleared FX products will dramatically change liquidity and risk management over the next few years.

ForexClear expanded its offering to FX forwards last October. What factors led to forwards being the next product to be cleared?

KYC: For firms subject to Basel III requirements, clearing trades leads to additional capital benefits. Basel III's risk-weighted assets (RWA) framework attributes lower counterparty risk weighting to facing a CCP versus bilateral. The RWA and leverage ratio framework also benefit from the increased netting effect of consolidating positions against a single counterparty, reducing overall capital requirements.

As far as forwards are concerned, LCH undertook analysis that concluded that market participants could significantly save on capital costs by clearing while minimising margin impact through optimisation. Adding forwards to cleared FXO would also make the best use of the margin netting benefits LCH offers.

How is CME's partnership with TriOptima assisting clients with non-cleared margin rules?

PH: TriOptima is a part of CME Group, and this means that we are able to offer a range of solutions to our clients to help address many of the challenges posed by UMR. Our services enable customers to:

- reduce gross notional
- calculate margin and reconcile IM
- settle IM via triparty or third party custodian
- optimize overall funding of IM

In what ways has CME been working to expand its own OTC FX clearing offering?

PH: Our goal is to provide clients with a holistic set of FX solutions and products that enable them to achieve margin and capital efficiencies whilst also optimizing their trading activity. As such, we have a listed FX complex that covers more than 40 currency pairs alongside our OTC cleared FX solution, which includes 11 NDFs, 26 forwards and 7 pairs of FX options. All of these products are available to both clients and members, and all the OTC cleared FX products are cross margined together for one initial margin call.

We have already delivered additional functionality based on client feedback, which includes the blending of cleared FX trades to help reduce open gross notional and the ability to clear trades at the block level and then allocate on a post clearing basis. The next major development we are working on is to deliver the portfolio margining of OTC cleared FX trades versus our cleared non-deliverable interest rate swaps and/or our listed FX futures.

How widely used is FX clearing among market participants? Is it more prevalent on the sell side than the buy side?

KYC: The majority of sell-side firms are in scope for UMR and have moved towards clearing their NDFs, with LCH currently clearing around $70 bn of NDFs daily. Ten of our bank members are already clearing their FXO – a figure set to rise as volumes continue to grow and liquidity builds. More buy-side firms are expected to start clearing once they come into scope for UMR in 2020 and 2021, where AANA calculation falls to $50 bn and $8 bn, respectively. The buy side will also get the opportunity to clear FXO in NDO format once LCH launches the service later this year.

Are there any pain-points in current FX Clearing processes and methodology that potentially could be re-engineered and made more efficient?

PH: OTC FX clearing remains a nascent but quickly evolving industry solution. Most OTC cleared FX trades are currently being executed on a bilateral basis and then re-routed to clearing as a second step, which has some inherent operational risks and potential costs. As such, we are working with several NDF trading platforms to automate the process flow of trades directly into clearing on a post-execution basis, and we are also engaged with the market on important post-clearing activities, such as the early termination of trades due to fund closures.

ROUNDTABLE

London is the centre for FX trading today, but the changing market structure and a move to central clearing might challenge its market share after Brexit. Do you think we may see the location of central clearing houses changing over the next few years?

DH: FX is the only global capital market, but it is still subject to regional regulation. While Brexit remains one set of regulatory discussions that has potential to shift favour or appetite between jurisdictions- the regulators' focus in terms of clearing is on markets with clearing mandate, so not explicitly FX clearing. As we have seen London and US trading firms establish European trading entities as a result of Brexit discussion already, I think the market is already positioned regardless of what route this takes in the next couple of years.

What opportunities might clearing create for further market growth and product innovation?

KYC: As FX clearing grows, clients will be able to reduce their counterparty exposures and have greater access to market liquidity, resulting in market growth. ForexClear continues to develop products in response to demand and in collaboration with the market.

What can we expect next in the FX clearing space, and how do you see it evolving?

DH: There are many parallels here with the electronification of the FX market back in the early 2000s. We are seeing pioneering service providers make their land grab with propositions targeting an ecosystem of OTC FX users, to provide access to clearing, cleared credit-neutral FX liquidity, or to exploit the opportunities now arising in the increasingly blurred space between OTC and Listed FX markets in terms of Blocks and EFPs. Ultimately though, even with these key areas set to grow, FX remains all about getting the right liquidity in the right products to do the trade that you need to do, which is great, as this is something fully baked into our DNA at 360T.

Looking further ahead, what issues and developments may serve as tailwinds to encourage market participants to revisit using OTC clearing for FX?

PH: We feel that the most prevalent catalysts for clients to consider when adding listed FX futures and/or OTC cleared FX to their trading activity will be:

- regulatory tailwinds (including UMR and helping to further evidence best execution)
- access to additional and different liquidity
- cost efficiencies (including the capital / balance sheet benefits for dealers, and ability for clients to trade passively in the listed FX marketplace)