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TO:  
OTC Derivatives Central Clearing Consultation  
Reserve Bank of Australia  
GPO Box 3947  
Sydney NSW 2001  
AUSTRALIA

1 September 2011

Re: Central Clearing of OTC Derivatives in Australia – Discussion Paper June 2011

Dear Sir / Madam

The Global Foreign Exchange Division (“GFXD”) was formed in co-operation with the Association for Financial Markets in Europe (“AFME”), the Securities Industry and Financial Markets Association (“SIFMA”) and the Asia Securities Industry and Financial Markets Association (“ASIFMA”). Its members comprise 22 global FX market participants¹, collectively representing more than 90% of the FX market².

The FX market is the world’s largest financial market. Effective and efficient exchange of currencies underpins the world’s entire financial system. Corporations and investors regularly participate in the market for operational needs: to reduce risk by hedging currency exposures; to convert their returns from international investments into domestic currencies; and to make cross-border investments and raise finance outside home markets.

Many of the current legislative and regulatory reforms will have a significant impact upon the operation of the global FX market and we feel it is vital that the potential consequences are fully understood and that new regulation improves efficiency and reduces risk, not vice versa. The GFXD is committed to ensuring a robust, open and fair market place and welcomes the opportunity to set out our views in response to your discussion document. We have restricted our responses to those areas where we have specific comment to make with regard to the FX market.

² According to Euromoney league tables
1. The potential for clearing OTC derivatives

Overview

The discussion document seeks comment with regard to whether central clearing is appropriate for certain classes of derivatives. In respect of foreign exchange transactions, we have significant concerns about introducing any clearing requirement and welcome the Council agencies’ recognition that clearing may only be appropriate for certain, limited, FX products, namely options. Even with respect to options, we believe it is unclear whether the FX options market, given its size in Australia, poses sufficient systemic risk to justify implementation of a local CCP. We also agree with the Council agencies’ belief that products subject to a clearing mandate should, as much as possible, be harmonised with other jurisdictions’ requirements. This is particularly relevant given the global nature of the FX market and the level of trade conducted with off-shore market participants.

Ultimately, we believe that these transactions, and in particular FX forwards and swaps, should be excluded from the requirements of mandatory clearing. We believe the applicability of clearing to the FX options market requires further analysis, in terms of the structure of any CCP and the potential risk and liquidity requirements associated with it. The FX industry has been working with regulators, central banks and CCPs in the context of the CPSS IOSCO Principles for Financial Market Infrastructures to understand the key challenges faced in clearing FX options in order to help inform market solutions in this regard.

We have summarised our rationale for not requiring mandatory clearing below but provide further background in Appendix A.

FX markets are different from other markets

With a turnover of some US$4 trillion / EUR2.9 trillion per day the FX market is the world’s largest financial market. It is the means by which cross border payments are effected and currency risk is managed in the world’s financial system. It differs from the OTC derivative markets in that it has many more participants and its transactions are much simpler and short term. We do not believe that the vast majority of FX transactions, which are simple exchanges of currency, should be treated as if they are “derivatives”.

The vast majority of foreign exchange transactions are not derivatives. They are simple, comprising spot, forward or swap transactions. Forwards are simply an agreement to exchange principle at a pre-determined rate, whilst swaps are simply a combination of i) a spot and a forward or ii) a forward and a forward. As an economic matter, FX swaps and FX forwards are too interrelated to be distinguishable. Most importantly, for spot, forward and swap transactions, there are no contingent outcomes; cash flows are determined and known at the outset. The BIS data below shows that these products accounted for 95% of 2010 daily traded volumes on a global basis whilst equivalent RBA data shows that these trades account for some 98% of 2011 market turnover with swap transactions comprising 70% of overall market turnover.
In addition, the majority of FX transactions are overwhelmingly short-term, as recognised in the discussion document and as shown by the statistics below. Given the high proportion of the Australian FX market that comprises swap transactions and the relatively high prevalence of spot transactions, the figures show that almost 73% of Australian FX trades settle within 7 days with less than 0.5% settling over one year.

FX faces different and specific risks when considering counterparty credit risk

Unlike most derivatives markets where trades are settled financially, the FX market is predominantly physically settled, i.e. trades settle via exchange of currencies. As FX transactions typically involve exchanging cash flows, the largest risk is settlement risk, not mark-to-market risk, and this has long been acknowledged as the pertinent systemic risk for FX\(^3\).

Settlement risk dwarfs credit risk for FX transactions, even in the case of longer dated trades, because there is a single exchange of payments at maturity. Oliver Wyman analysis illustrates that settlement risk comprises 94% of the estimated maximum loss exposure in a trade for foreign exchange instruments with maturity of 6 months and 89% for instruments with a maturity of two years. Mark-to-market risk comprises the remaining 6% and 11% respectively. This analysis is further explained in the Appendix.

Risk mitigation in FX markets needs to address the specific risks in the market.

Today in the FX markets, settlement risk is adequately addressed through CLS Bank (CLS), which has been developed over the last c. 15 years and is overseen by 22 central banks. It is a global market infrastructure ensuring that payments for either side of transactions are processed simultaneously, eliminating virtually all settlement risk, and covers almost 90% of all inter-dealer

\(^3\) Settlement risk is the risk that one counterparty does not deliver their side of the currency exchange while the other counterparty has delivered their side.
trades. As noted in the discussion document, a large part of the turnover in the Australian FX and rates markets is represented by interbank trades (70%).

CCPs address mark-to-market credit risk. This is relatively small for FX because of its short maturities. As noted above, Oliver Wyman analysis suggests that this risk comprises 6% and 11% of the maximum risk of loss for foreign exchange instruments with a maturity of 6 months and 11% respectively. Because of their short duration, these transactions stand in sharp contrast to most other swaps, for which counterparty risk is comprised almost exclusively of credit risk on the mark-to-market value of the swap, which is the risk that CCPs are primarily designed to address.

CLS therefore performs a comparable role in FX to the role CCPs play in other markets in that it tackles the key risk (settlement). Mandating CCP clearing for the FX market tackles counterparty risk in the wrong place by focusing on the smaller, mark-to-market risk. Efforts are further continuing to improve CLS; it has added a number of new settlement members since the financial crisis that began in 2008 and is continuing its efforts to expand the products that it can settle, in particular same-day transactions. It is also, backed by support from the industry, looking to add further currencies, settlement sessions and participants.

**Mandatory clearing in FX markets could have unintended consequences whilst addressing a disproportionately low residual credit risk exposure.**

This residual mark to market credit risk is addressed through the widespread use of CSAs. Initial analysis by the Global FX Division estimates that 85% of the mark-to-market credit exposure in the first three quarters of 2010 related to counterparties (excluding corporates) for whom CSAs have been put in place. CSAs are particularly effective in FX because mark-to-market is easily calculated by reference to traded prices, which are readily available because of the large volumes and deep liquidity in the market.

The remaining mark-to-market credit risk that would be addressed by a CCP is therefore minimal. Even for 2-year instruments, only 1.65% of the credit risk of loss in FX instruments is not covered by CSAs (with 0.9% not covered by CSAs for instruments with maturities of 6 months – see appendix for full analysis).

Introducing a CCP to address mark to market credit risk would be disproportionate and brings with it attendant risks and costs:

- As the discussion document notes, a CCP may introduce concentration risk, creating a single point of failure where none exists today.
- It may further increase both operational risk and potentially systemic risk.
- It has the potential to undermine the effectiveness of existing efforts further to address settlement risk.
- Mandatory clearing of FX contracts through a CCP will also increase costs and risk for corporate and buy-side end-users of FX.

Given the importance of FX to the global trade and payments system, the impact of increased risks, costs and potential disruptions to the market should not be underestimated.
In the context of the Australian market, we note that an additional risk arises from the potential bifurcation of the market under mandatory clearing. For example, for reasons of regulatory arbitrage or jurisdictional conflict, international participants could decide to move onshore activity offshore, impacting local liquidity and the potential viability of a domestic CCP.

**International convergence**

As the discussion document notes, the US Treasury is proposing to exclude FX forwards and swaps from the majority of regulations under the Dodd-Frank Act. The statute further exempts commodity swaps where physical delivery of the commodity is contemplated. FX is more closely related to this exempt class as it calls for the delivery of currencies. The Global FX Division has submitted a public response to US Treasury’s recent invitation to comment on whether an exemption is warranted. It is also seeking to ensure that appropriate exemptions are secured under the equivalent European OTC derivatives legislation.

The proposed determination would mean that FX forwards and swaps would not be regulated as swaps under Dodd-Frank. Most importantly, this means they would be subject to neither mandatory clearing, nor mandatory trading on Swap Execution Facilities or DCMs, nor the real-time public reporting requirements. They would also be exempt from the proposed margin requirements for uncleared swaps. Forwards and swaps would, however, remain subject to reporting requirements to a trade repository and to Dodd-Frank’s business conduct standards.

The proposal has clear implications for regulatory convergence, particularly in a market as liquid and global as FX.

In reaching its proposed determination, the US Treasury recognises the key characteristics of FX products and the way the market functions at present. The US Treasury:

- Acknowledges the high levels of transparency and liquidity existing in the FX markets as a result of the heavy trading on electronic platforms and the diverse availability of market pricing information
- Points to additional transparency through trade reporting to a trade repository, the requirements of which are already being addressed with GFXD members through the recent announcement of the DTCC and SWIFT as partners to provide global FX trade repository services.
- Recognises the unique factors limiting risks in the FX forwards and swaps market, pointing to the fixed terms (i.e. non-contingent outcomes), the physical exchange of currencies, the well-functioning settlement process and the shorter duration of contracts.
- Highlights the existing strong, comprehensive and internationally coordinated oversight framework prevalent in the FX markets.

In terms of identifying OTC derivatives that are capable of being cleared, we believe the overriding objectives for regulators should be to implement measures that are proportionate to the systemic risks being addressed. Consideration should therefore be given to whether mandatory clearing is a proportionate response when taking into account the pertinent systemic risks, which for FX comprise settlement risk that far outweighs counterparty credit risks that CCPs address, and the measures that are already in place to deal with those risks. The analysis
should also take into account factors such as the cost of clearing and the ability of the CCP to deal with and manage the volume and risks (including risk of default) associated with clearing of relevant contracts.

2. Mandatory clearing requirements

Classes of OTC derivatives

We broadly agree with the proposed criteria for deciding whether OTC derivatives should be mandatorily cleared:

“Any mandatory requirement that a class of OTC derivatives be centrally cleared should reflect the following factors:

a. the potential reduction of systemic risk that might result from this move;

b. the viability of central clearing of that product class; and

c. the international harmonisation of clearing requirements across product classes.”

However, we believe it is important to take into account the relevant importance of settlement risk in FX transactions vs. mark-to-market risk and the extent to which that may be addressed through existing market infrastructure when assessing the overall reduction in systemic risk.

Classes of market participants

It is our view that regulators should focus on the systemic risk arising from a participant’s use of instruments. Where an end-user does not pose a material risk, it would be proportionate to exempt that end-user from mandatory clearing and capital, margin and / or collateral requirements. In cash flow terms, an exemption from mandatory clearing will only be beneficial where end-users are also exempt from mandatory collateralisation.

Affordable access to appropriate methods of hedging is vital to end-users to mitigate risks. We therefore also support an approach that exempts certain classes of participants from any clearing and margin requirements, as the increased collateral and operational requirements would be too burdensome and the reduction in systemic risk is insufficient to justify the imposition of these costs on the economy as a whole. OTC positions which are hedges of business risk should be exempt from any central clearing or margin obligations. These requirements would affect end-users’ ability to use derivatives for risk management purposes as many of these firms, especially non-financial end-users, need their most liquid assets for working capital and investment purposes.

Dealers facing end-users that do not pose a threat to financial stability should be permitted to evaluate and underwrite the credit risk of such end-users and negotiate bilateral collateral or credit support arrangements as they deem necessary.

These issues are particularly pertinent for the FX market, which differs from the OTC derivative markets in that it has many more participants and transactions that will be affected. The impact of clearing and margin / collateral requirements will therefore be felt widely.
3. OTC derivatives central counterparties

CCP market structure

One major factor underpinning significant advances in the efficiency and effectiveness of the global FX market over recent years has been the ability to trade FX contracts seamlessly and fungibly, regardless of geography or time zone. This has helped bring about very high levels of market transparency and straight through processing efficiency. There is clearly a risk that new regulatory regimes might impair this global efficiency by imposing new restrictions on who can trade with whom and under what conditions.

In the FX market a significant proportion of business is transacted between counterparties in different jurisdictions, sometimes in currencies that are foreign to both counterparties. This is highlighted in the discussion document by only around 35% of global turnover in FX derivatives with an AUD component involving counterparties located within Australia.

The potential negative impact of CCP clearing can be reduced if each mainstream FX CCP (if there is more than one) that meets appropriate standards is mutually recognised by all jurisdictions, and the counterparties to the trade can agree between themselves where the contract is to be cleared:

- This avoids potential conflict where each counterparty would be required to clear the same trade in a different jurisdiction.
- It allows counterparties to select the CCP that is most efficient in terms of cost and collateral efficiency for that trade (e.g. where there are offsetting positions).
- It avoids needlessly proliferating CCPs, which is inefficient for the market as a whole.

It is worth noting that much of the efficiency loss and funding increase arises from the gross up of moving certain activity into CCPs with the remainder being subject to collateralisation agreements under CSAs. Efficiency losses resulting from fragmentation of the market across different CCPs could be addressed by allowing interoperability. However, what is unclear at present is how - and whether - inter-operability should occur. We simply note that this is a highly complex and difficult area, as acknowledged by all market participants and regulators, but in principle are not against interoperability which would benefit users provided that the risks are suitably managed.

As the document notes, FX CCPs may introduce systemically important concentration risks into the global financial system that do not currently exist. The importance of FX to the financial system, and the impact on global trade and payments of any disruption to the functioning of the FX market, means any mainstream CCP in the FX market could be universally assumed to be too-big-to-fail and to benefit from a de facto government guarantee. In a crisis, the FX market would quickly gravitate to the CCPs that appear to be backstopped by the largest pools of taxpayer funds. Mandating clearing in domestic markets may cause market participants, faced with an inability to gravitate to the strongest CCPs, to elect not to trade, thereby reducing liquidity at a critical time.
In this context, possibly the greatest risk of failure for an FX CCP would arise from failure in other asset classes also cleared by the same CCP, which in turn could overwhelm the resources of the entire CCP. The extent to which a significant CCP could sustain a major collapse in one of its asset classes without experiencing concerns over its ongoing ability to clear other asset classes is untested. In this respect the configuration of default funds and the commitments of the clearing members are obviously important, but these resources will always be finite and limited. This may be particularly important in the Australian context where the market may be such as to require a CCP to clear different classes of assets to be economically viable.

**CCP obligations**

As discussed above, settlement risk is the main risk in the FX market because of the physical exchange of currencies upon maturity. CLS Bank has long been identified as a critical part of the solution to enable the market to function as a payment versus payment market.

Current proposed principles for financial market infrastructure issued by BIS in conjunction with CPSS/IOSCO in March 2011 lay out a number of key principles that need to be considered for CCPs in the FX market. The industry has been focused on these principles over the past twelve months in the context of FX Options. Notable are Principle 7 – Liquidity Risk, Principle 8 – Settlement Finality, and Principle 12 – Exchange-of-Value settlement systems. Taken as a whole, and confirmed through our conversations with key regulatory oversight groups, it is our understanding that these principles require any CCP looking to clear FX products to meet fully the following requirements:

- An FX CCP will need to guarantee the full settlement of currencies of the trade;
- An FX CCP must be able to deliver required currency at the latest by the end of the settlement day; and
- An FX CCP must be covered against Settlement Halt Risk.

The FX industry has been working with regulators and CCPs and is acutely aware that to meet these requirements for the mainstream FX market a CCP would face significant challenges. This is especially true in light of the need for immediate access to sufficient liquidity in all currencies to be able to meet in full the settlement obligations of a defaulting member, and in a manner that does not put the CCP itself at significant risk during stressed market conditions. The specific settlement characteristics of the FX market make this issue significantly more acute than in other asset classes. This is a formidable challenge for which, to date, no satisfactory solution has been found.

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6 This applies to the vast majority of FX trades where settlement is via exchange of principal; clearly it does not apply to FX trades involving non-deliverable contracts, e.g. NDFs

7 This is the potential risk of mark to market loss on settlement day if settlement is halted intra-day and therefore not all trades settle (NB: this is different from FX settlement risk).
Introducing CCPs into the FX market without ensuring that they only bear risks that they can properly manage would clearly increase, rather than decrease, potential systemic risk, especially in times of crisis.

**CCP costs**

We note that the implementation costs for an Australian CCP would most likely be substantial. Elsewhere Hong Kong Exchanges and Clearing is reportedly making an initial investment of HK$180m in technology systems and staff to roll out clearing capability for OTC derivatives. This does not include the ongoing costs of running a CCP. Whilst we do not know the costs of establishing a domestic CCP for the Australian market, clearly the Council agencies will wish to investigate this in more detail. Work currently being undertaken to establish a global FX trade repository may assist Australian regulators in providing information regarding the merits and costs associated with developing a CCP.

A further area for analysis should be the capital structure and default funds that would be required to satisfy the CPSS/IOSCO guidelines for financial market infrastructure. These would likely be significant for a market the size of FX and may well cause the economic benefits of a regional CCP to be outweighed.

4. **Conclusion**

For the reasons set out in this letter, we agree with the Council agencies’ view that FX Forwards and Swaps should not be subject to a mandatory clearing requirements, both on systemic risk grounds and with respect to international harmonisation. It is not clear to us at this stage whether FX options present sufficient systemic risk to justify requiring a mandatory clearing requirement, be it local or global, although we recognise that such a requirement may apply in other jurisdictions subject to safe and sound clearing methodologies being developed.

To this end, the GFXD and its members are engaging with regulators and central banks to define the key challenges faced in clearing FX options in order to help inform market solutions in this regard. In a similar fashion, we believe the applicability of clearing to the FX options market in Australia requires further analysis, in terms of the structure of any CCP, the potential risk and liquidity requirements associated with it, and the extra-territoriality issues that may arise.
We appreciate the opportunity to share our views on the discussion document. Please do not hesitate to contact me at +44 (0) 207 743 9319 or at jkemp@gfma.org should you wish to discuss any of the above.

Yours sincerely,

James Kemp
Managing Director
Global Foreign Exchange Division
Appendix A

Introduction

The FX market is the world’s largest and most liquid financial market. It forms the basis for international trade and supports the functioning of the global payments system. Its importance in effecting monetary policy has been long established and as such has historically been subject to central bank oversight.

FX has many more participants and transactions than other asset classes. Notwithstanding this, the vast majority of transactions are simple, comprising spot, forward or swap transactions. Forwards are simply an agreement to exchange principle at a pre-determined rate, whilst swaps are simply a combination of i) a spot and a forward or ii) a forward and a forward. Crucially, there are no contingent outcomes for these types of transactions; cash flows are known at the outset. BIS data shows that these products accounted for 95% of 2010 daily traded volumes.

<table>
<thead>
<tr>
<th>Instrument</th>
<th>1998</th>
<th>%</th>
<th>2001</th>
<th>%</th>
<th>2004</th>
<th>%</th>
<th>2007</th>
<th>%</th>
<th>2010</th>
<th>%</th>
</tr>
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<tbody>
<tr>
<td>Spot</td>
<td>568</td>
<td>37%</td>
<td>386</td>
<td>31%</td>
<td>631</td>
<td>33%</td>
<td>1,005</td>
<td>31%</td>
<td>1,490</td>
<td>38%</td>
</tr>
<tr>
<td>Outright forwards</td>
<td>128</td>
<td>8%</td>
<td>130</td>
<td>11%</td>
<td>209</td>
<td>11%</td>
<td>362</td>
<td>11%</td>
<td>475</td>
<td>12%</td>
</tr>
<tr>
<td>Swaps</td>
<td>734</td>
<td>48%</td>
<td>656</td>
<td>53%</td>
<td>954</td>
<td>50%</td>
<td>1,714</td>
<td>52%</td>
<td>1,765</td>
<td>45%</td>
</tr>
<tr>
<td>Options and other</td>
<td>87</td>
<td>6%</td>
<td>60</td>
<td>5%</td>
<td>119</td>
<td>6%</td>
<td>212</td>
<td>6%</td>
<td>207</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>1,517</td>
<td>100%</td>
<td>1,232</td>
<td>100%</td>
<td>1,913</td>
<td>100%</td>
<td>3,293</td>
<td>100%</td>
<td>3,938</td>
<td>100%</td>
</tr>
</tbody>
</table>

Additionally, the vast majority of FX transactions are short term. The chart that follows on the left contrasts the short maturity profile of outstanding FX instruments with those of interest rate and equity derivatives. The 16% of outstanding FX contracts with maturities longer than 2 years contrasts with more than 55% of interest rate derivatives and 40% of equity derivatives with maturities longer than two years. Of daily traded volume in 2007, more than 98% of FX forwards and 99% of FX swaps were of maturities of less than a year, as illustrated in the chart that follows on the right.
**Settlement risk is the key risk in foreign exchange transactions**

FX transactions typically involve exchange of principal. These settlement exposures represent the key risk in a transaction. Because of their size, settlement risk loss may be sufficient to trigger insolvency, with knock on effects to other counterparties (commonly referred to as Herstatt Risk).

**7 day foreign exchange forward transaction**

The graph below, based on an Oliver Wyman study, illustrates that settlement risk comprises 94% of the estimated maximum loss exposure in a trade for foreign exchange instruments with maturity of 6 months. This reduces to 89% for instruments with a maturity of 2 years.
Settlement risk is adequately addressed through CLS

CLS Bank was created in 1997 as a global settlement bank to address the concerns surrounding the systemic impact of potential settlement risk failures. By operating a payment versus payment model, whereby payments are process simultaneously, it eliminates virtually all settlement risk to its participants. CLS Bank settles almost 90% of all inter-dealer FX trades and has had no settlement failures since it was created. CLS is regulated directly by the Federal Reserve with the active support of all major central banks. Efforts to extend the reach of CLS Bank are under way, with broad support from both FX dealers and central banks around the globe.

CCPs address mark-to-market credit risk. This is relatively small for FX transactions because of their short maturities.

Mark to market risk is the main residual counterparty credit risk not addressed by CLS. Since most foreign exchange contracts have short maturities, the foreign exchange rate is unlikely to change significantly between the inception and maturity of most foreign exchange contracts. As a result, the in-the-money portion of the trade tends to be small relative to the principal value. Accordingly, the potential loss on foreign exchange transactions consists overwhelmingly of settlement risk.

To put this into context, for FX trades with a maturity of less than one year, Oliver Wyman analysis approximates that only 6% of the maximum risk of loss is mark-to-market credit risk. This rises to only 11% for instruments with a maturity of 2 years.

Because of their short duration, these transactions stand in sharp contrast to most other swaps, for which counterparty risk is comprised almost exclusively of credit risk on the mark-to-market value of the swap, which is the risk that CCPs are primarily designed to address.
Mark to market credit risk is addressed through the widespread use of CSAs. These are particularly effective because of high price transparency and deep liquidity.

**Credit support annexes ("CSAs") are heavily used in the FX market and are a particularly effective risk mitigation tool for addressing mark-to-market credit risk.**

The deep liquidity and high price transparency of the market allows for a high level of confidence that initial margin levels will cover losses in these markets. Because the FX market is a highly liquid market in which prices are widely available 24 hours a day, market participants can also reliably determine the net amount of their exposure and therefore the appropriate amount of mark-to-market collateral.

Upon a default, the liquidity in the FX market means that the non-defaulting party can generally replace a transaction quickly and easily. Due to these characteristics of the FX market, existing bilateral agreements have been successful in mitigating counterparty credit risk exposures following the default of large FX counterparties, such as Lehman Brothers in 2008.8

The only portion of the foreign exchange market where trades are generally unsecured is where transactions are effected with corporates. Corporates use FX transactions to hedge business risks and do not generally have excess capital to use for CCP margining purposes. Aside from the issue of whether certain classes of FX are exempt from any clearing obligation, we assume that corporate would be subject to some sort of non-financial counterparty exemption, in line with other international proposals. Mandatory clearing would therefore not result in mandatory clearing for the portion of the market that is most often unsecured.

**The remaining mark-to-market credit risk that would be addressed by a CCP is therefore minimal**

A CCP for FX would deliver almost no incremental credit risk mitigation because most of that risk has been covered by CSAs. The Global FX Division has undertaken indicative analysis of dealers accounting for approximately 66% of the market (by reference to Euromoney league tables). This analysis indicates that approximately 85% or more of mark-to-market exposure in 2010 relates to counterparties (excluding corporates) for which CSAs have been put in place.

Applying the Oliver Wyman analysis that 6 month instruments have potential mark to market risk of 6%, we estimate the total remaining uncovered risk to be only 0.9%. On the same basis for FX transactions with maturities greater than a year, where 11% of the potential loss is mark-to-market credit risk9, we estimate the total remaining uncovered risk to be less than 1.7%.

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9 These calculations assume that all trades under 1 year have the MTM credit risk vs. settlement risk breakdown of a 6 mo. trade, and that all trades over 1 year have the breakdown of a 2 yr trade (based on Oliver Wyman analysis). In reality, the MTM credit risk number is probably even lower, since 68% of FX forwards and swaps have a maturity of less than 1 week.
FX Market volume profile and Uncovered Credit Exposure (forwards & swaps)

<table>
<thead>
<tr>
<th>Risk Profile:</th>
<th>&lt; 1yr Tenor</th>
<th>&gt; 1 yr Tenor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit / Counterparty Risk</td>
<td>6.00%</td>
<td>11.00%</td>
</tr>
<tr>
<td>Settlement Exposure %</td>
<td>94.00%</td>
<td>89.00%</td>
</tr>
<tr>
<td>CSA Usage @ 85%</td>
<td>5.10%</td>
<td>9.35%</td>
</tr>
<tr>
<td>Uncovered Credit Exposure</td>
<td>0.90%</td>
<td>1.65%</td>
</tr>
</tbody>
</table>

Introducing a CCP to address mark to market credit risk would be disproportionate, increase operational risk and potentially systemic risk, and undermine the effectiveness of existing efforts further to address settlement risk.

Settlement of FX transactions involves extensive interconnectedness across payment and foreign exchange systems. This is illustrated by the relationships that CLS has with central banks to facilitate the funding process that supports payment-vs-payment settlement. \(^{10}\)

A central clearing regime would be either global or accomplished through a network of local CCPs. A global CCP for a market the size of the FX market would pose significant systemic risk. Local CCPs would fragment the market and reduce liquidity through the dispersal of trades, positions and collateral across many jurisdictions.

The charts below illustrate the increased operational complexity and interdependencies that one or more CCPs would likely introduce into the FX market. Given the importance of foreign exchange to the global payments system, any CCP would require the same operational infrastructure, robustness and oversight currently afforded to CLS Bank.

A CCP would also introduce concentration risk, creating a potential single point of failure where none exists today, simply to address limited residual credit risk exposure. CCPs can and have failed – largely as a result of financial distress arising as a result of unmet margin calls. Because the FX market is an integral part of the global payments system, the failure of an FX CCP would likely be significant, with destabilizing effects on foreign exchange and the global economy as a whole.

Introducing CCP clearing also risks undermining the significant gains that have been made in addressing settlement risk. Efforts to introduce a CCP model could either distract from current

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\(^{10}\) In its 2008 review of the interdependencies of payment and settlement systems, the CPSS concluded:

“Over the past 30 years, technological innovations, globalisation and financial sector consolidation have fostered a broad web of interconnections among a large number of payment and settlement systems, both within and across CPSS countries. These interconnections reflect efforts on the part of systems and institutions to seek new business opportunities and to reduce clearing and settlement costs. They also reflect efforts by central banks and the financial industry to promote the low-cost and safe transfer of money and financial instruments. The focus of the CPSS on reducing foreign exchange settlement risk and the work of the G30 to reduce risk in securities settlement systems, for example, have both led to tighter, more integrated settlement processes.”

“The development of tighter interdependencies has helped to strengthen the global payment and settlement infrastructure by reducing several sources of cost and risk. Yet, tightening interdependencies have also increased the potential for disruptions to spread quickly and widely across multiple systems and markets.” Interdependencies Report, p. 1.
industry plans to increase usage of CLS Bank, or worse, cause participants to cease using CLS Bank, for cost or operational reasons, thereby increasing settlement risk.

Overall, we believe that the significant operational risk and costs to the global payments system of implementing a mandatory CCP are disproportionate when compared to the benefits in addressing the 0.9% - 1.7% of mark-to-market credit risk for counterparties not using CSAs.