

It is now been almost two years since the Dodd-Frank financial reform legislation (the "Act") was signed into law by President Obama in July 2010. Arguably, the most central of the many objectives of the Act is to mitigate systemic risks within the over-the-counter (OTC) derivatives industry. Thus, the legislation will mandate the application of a centralized counterparty (CCP) clearing process to many OTC swaps upon its eventual implementation, widely expected in late 2012.

But not all OTC risks may be addressed with the implementation of the mandatory clearing rules. In particular, the Act empowered the U.S. Treasury Department to consider, and possibly exempt, foreign exchange (FX) swaps and forwards from the CCP clearing mandate.

In April 2011, the Treasury had publicly issued a proposal to exempt interbank FX swaps and forwards.¹ To date, however, they have yet to publish a firm determination on this point. Some observers suggest that the Treasury Department may be reconsidering their earlier position, given indications from the European Securities and Markets Authority (ESMA) that they support clearance of interbank or OTC FX products.² Other respected voices have exposed the weakness of the case in favor of FX derivatives exemption.³

Thus it is appropriate to review the issues and call the question – should interbank FX forwards and swaps become subject to mandatory clearing requirements akin to other standardized swaps? We believe that the answer is a resounding "yes" and that the Treasury would miss an important opportunity to introduce a new element of stability to these important markets if it were to exempt certain FX products from a clearing regime.

Settlement vs. Counterparty Risk – FX market risk comes in many varieties, the most obvious of which is simply market price risk as implied by a long or short currency exposure. Of course, market participants enter interbank FX markets in order to

accept or offset those market risks. But FX transactions may entail other types of risk which an FX trader did not intend to accept, in the form of "settlement" and "counterparty" risk.

Settlement risk refers to the possibility that a counterparty may fail to deliver currency, as specified per a physically delivered spot, forward, swap or optional FX transaction executed in interbank or OTC markets. This risk is also known as Herstatt risk, with reference to Cologne-based Herstatt Bank that famously declared bankruptcy on June 26, 1974, after receiving incoming FX deliveries but before reciprocating with outgoing wire transfers.

Counterparty risk refers to the risk that a counterparty to the transaction might fail sometime during the life of the transaction after accruing an (unrealized) loss. As such, the counterparty to the failed market participant may be unable to collect unrealized gains that were not collateralized or subject to bilateral netting agreements or mark-to-market (MTM) provisions.

Critics of mandated clearance of interbank FX instruments frequently suggest that settlement risks are adequately addressed to the extent that transactions in major currencies may be settled by accessing the services of CLS Bank International (CLS).^{4 5}

⁴ CLS is an industry-owned consortium that provides settlement services to the interbank FX marketplace. CLS facilitates secure deliveries in seventeen (17) major currencies including the Australian dollar, British pound, Canadian dollar, Danish krona, Euro, Israeli shekel, Japanese yen, Korean won, Mexican peso, New Zealand dollar, Norwegian krone, Singapore dollar, South African rand, Swedish krona, Swiss franc and U.S. dollar.

⁵ While CLS addresses settlement risk in the context of some 17 major currencies, this leaves the balance of the world currency transactions to be settled through correspondent banking relationships or to be cash-settled as a Non-Deliverable Forward (NDF) transaction. Further, some institutions prefer to settle CLS eligible currency transactions through traditional correspondent banking arrangements, largely as a cost saving measure. A 2008 estimate suggests that 45% of CLS eligible transactions were settled outside of CLS with all the attendant settlement risk. (See "Progress in Reducing Foreign Exchange Settlement Risk," Committee on Payment and Settlement Systems, Bank for International Settlements, May 2008, found at following hyperlink: <http://www.bis.org/publ/cpss83.pdf>.) CLS estimates that it "settles 58% of the global FX trading activity (by value)." (See "CLS Market Share," CLS, February 2011, found at the following hyperlink: <http://www.cls-group.com/SiteCollectionDocuments/CLS%20market%20share%20Feb%202011.pdf>.)

¹ Department of the Treasury, "Determination of Foreign Exchange Swaps and Foreign Exchange Forwards Under the Commodity Exchange Act," Federal Register, Vol. 76, No. 87, May 5, 2011, see hyperlink at: <http://www.gpo.gov/fdsys/pkg/FR-2011-05-5/pdf/2011-10927.pdf>

² We refer to FX forwards and swaps as either "OTC" or "interbank" products interchangeably.

³ Professor Darrell Duffie of Stanford University has been most vocal in this regard. Professor Duffie's comments of May 21, 2011 may be referenced at: <http://www.darrellduffie.com/uploads/policy/DuffieClearingFXDerivatives2011.pdf>

They generally concede that traditional clearing services address “counterparty credit” risk. But they further suggest that the magnitude of settlement risk exceeds that of counterparty risks. Thus, and to the extent that much, albeit not all, settlement risks are addressed by CLS, mandated clearing of interbank FX instruments may be unwarranted.

Sizing Counterparty Risk – The magnitude of settlement risks may readily be assessed by observing activity flowing through CLS. Specifically, CLS reported an average daily volume (ADV) of 820,495 transactions valued at \$4.8 trillion during 2011. But how might one size the magnitude of interbank FX counterparty risk?

The Bank for International Settlements (BIS) reports on the total outstanding notional value of OTC derivatives including FX outright forwards and forex swaps, currency swaps and options. As of December 2011, the notional amounts outstanding in FX contracts totaled some \$63.3 trillion, or 10.5% of the OTC derivative total of \$647.8 trillion.

But in addition to notional values outstanding, BIS further reports on “gross market values.” BIS defines gross market values “as the sums of the absolute values of all open contracts with either positive or negative replacement values evaluated at market prices ... gross market values supply information about the potential scale of market risk in derivatives transactions.”

compared to the magnitude of deliveries flowing through CLS Bank as a proxy for settlement risk.

BIS reported gross market values of \$2.6 trillion in interbank FX instruments as of December 2011. This represents 53% as much as the \$4.8 trillion in daily deliveries flowing through CLS. BIS reported gross market values of \$2.5 trillion in December 2010 which was 60% as much as the \$4.1 trillion in daily CLS deliveries.

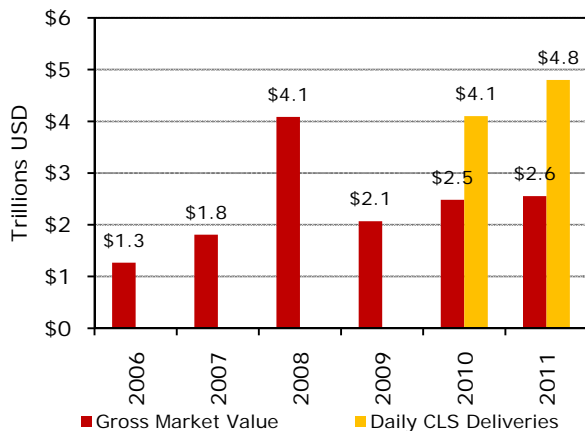
Thus, gross market values or unrealized gains/losses are ranging between 50-60% as great as CLS deliveries. To the extent that we reference gross market values as a proxy for counterparty credit risk and CLS deliveries as a proxy for settlement risk, we might conclude that FX counterparty credit risks are 50-60% as significant as FX settlement risks.

We might further suggest that these risks are generally increasing in magnitude as evidenced by the fragile state of the banking sector. In particular, the banking system is operating in an environment highlighted by continued fallout from the subprime mortgage crisis; the European sovereign debt crisis; and, a global economic slowdown, even in the dynamic emerging market economies.

Other Considerations - Some have argued that interbank FX transactions tend to be of a short-term nature and, therefore, counterparty risks are minimized. Certainly, unrealized gains/losses may accrue to greater values as a function of the transaction term. But even after conceding the relatively short-term nature of typical interbank FX transactions, gross market values nonetheless represent \$2.6 trillion in value, potentially exposed to counterparty risk.

Others argue that netting and collateralization schemes mitigate counterparty risks. But netting is not permitted outside of the framework offered by CLS Rules, with respect to transactions processed through CLS. Collateralization may actually introduce another form of counterparty risk, specifically the risk of recovering collateral posted with a failed counterparty, noting that the assets of bankrupted entities may be frozen by the courts for years.

FX Counterparty & Settlement Risks



Source: Bank for International Settlements (BIS) & CLS Bank
NOTE: CLS data not available prior to 2010

i.e., gross market values or replacement values represent a proxy for unrealized FX transactional gains/losses or counterparty credit risk at any particular point in time. These figures may be

Benefits of CCP Clearing – It is widely accepted that a “futures-style” CCP clearing model applied to OTC derivatives addresses counterparty risks to good effect by offering benefits as outlined below.

✓ **Financial Sureties** – CCP clearing models require the clearing house to serve as buyer to every

seller; and, seller to every buyer. This provides for the separation of trading and credit counterparties. CCP clearing segregates customer funds and positions from those of the bank or broker. Finally, CCP clearing backstops the performance of every transaction, both on-exchange or over-the-counter with a substantial financial safeguard system.

- ✓ *Mark-to-Market* – CCP clearing models feature a daily mark-to-market (MTM) regime with performance bond requirements adjusted as required based on volatility and market events. This effectively means that unrealized losses cannot accrue or go unnoticed, assuring confidence for market participants.
- ✓ *Transparency* – OTC or interbank transactions subject to a CCP clearing model would be reported through a designated pricing repository, thereby lending an enhanced degree of pricing transparency. This factor may go far to facilitate tight bid/ask spreads and competitive markets. This may be qualified to the extent that some nascent and highly customized products may function better with a more flexible model. Dealers are compensated by taking in the bid/offer spread and to the extent that spreads are overly compressed, dealer incentives to nurture markets through marketing activities or by developing innovative contract structures may prematurely be stifled, potentially jeopardizing the existence of the market.
- ✓ *Capital Efficiencies through Cross-Margining* – CME Group offers an extraordinarily wide array of products covering the interest rate, equity, currency, energy, agricultural, metals and alternative investment asset classes. Significant capital efficiencies in the form of reduced performance bond or margin requirements are implied by consolidating correlated OTC and on-exchange products under one roof.
- ✓ *Automated Bookkeeping Processes* – Automated, rather than manual, processes ensure timely and accurate confirmation of transactions. This in turn contributes to a general reduction in trade processing costs.
- ✓ *Dovetails with Existing Systems* – CCP clearing systems may dovetail rather seamlessly with existing FX market structures. Per a recent study from Mellon Capital ... “the CCP fits nicely into an existing FX prime brokerage structure and would

require very little effort on the part of the client to comply with any new regulations.”⁶

Concluding Note – We may regard gross market values of OTC instruments reported by BIS as a proxy for the magnitude of accrued, but unrealized, gains/losses potentially exposed to counterparty risks. We might further reference the average daily volume of FX transactions flowing through CLS as a proxy for the magnitude of settlement risk.

While these are crude measures, we may size FX counterparty risk at \$2.6 trillion, or 53% as great as the \$4.8 trillion in settlement risk. This represents significant value at risk which exceeds counterparty risks in the context of other OTC instruments that will be subject to the mandatory clearing requirements under Dodd-Frank. Specifically, this \$2.6 trillion dwarfs the counterparty risks associated with credit default swaps (CDS) at \$1.6 trillion; equity-linked derivatives at \$679 billion; and, commodity swaps at \$487 billion.

Thus, one cannot minimize the significance of FX counterparty risks. The U.S. Treasury Department would miss an important opportunity to introduce a new level of financial surety into the marketplace if it were to exempt FX derivatives from the mandatory clearing provisions of Dodd-Frank.

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⁶ Challenger, Lynn “Managing FX Counterparty Risk,” Mellon Capital Investment Perspective, June 2011.

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