

**Meeting Between Federal Reserve Bank of New York (FRBNY) Staff
and Representatives of the Association for Financial Markets in Europe (AFME)
March 30, 2011**

Participants: Larry Sweet, Marsha Takagi, Stacy Coleman, Lily Tham, Shari Ben-Haim, Anna Nordstrom, Michael Nelson and Janine Tramontana (Federal Reserve Bank of New York)

AFME participants: Huw Evants (UBS), Simon Griffin (RBS), Stuart Crabtree (Credit Suisse), Allan Guild (Goldman Sachs), Nick Doddy (Deutsche Bank), Danny Haid (UBS), Olaf Ransome (Nomura), James Kemp (Global FX Division - AFME) and Matt Lewis (Global FX Division - AFME)

Summary: Representatives of the Federal Reserve Bank of New York met with representatives of AFME to discuss certain aspects of the Dodd-Frank Wall Street Reform and Consumer Protection Act, including issues related to the foreign exchange market infrastructure and challenges in central clearing of foreign exchange derivatives. As part of this discussion, the participants discussed settlement risk, settlement halt risk, liquidity risk, models and their challenges, and timeframes for implementation. Attached are the materials that formed the basis of the discussion.

FX Clearing Settlement discussion

DRAFT 1.2

CCP clearing and FX settlement

- Dodd-Frank creates presumption that CCP clearing will be mandated upon FX to some extent
- Several CCPs have launched initiatives to develop FX clearing
- Unlike most derivatives markets where trades are settled financially, the FX market is currently predominantly physical, i.e. trades settle via exchange of currencies
- Introducing CCPs into the FX market raises a number of important questions as to the precise role of CCPs with respect to FX settlement; there are a number of models each with distinct pros and cons of potentially systemic importance
- CLS has recently written to CCPs informing them that CLS cannot work on any initiative until the overall model/s has been agreed between the CCP and the relevant regulators
- As major FX market participants who will inevitably have to sponsor a large proportion of any required new market infrastructure, we would greatly value any guidance from regulators on this important issue

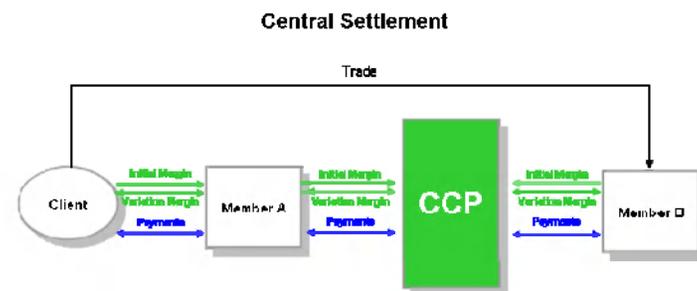
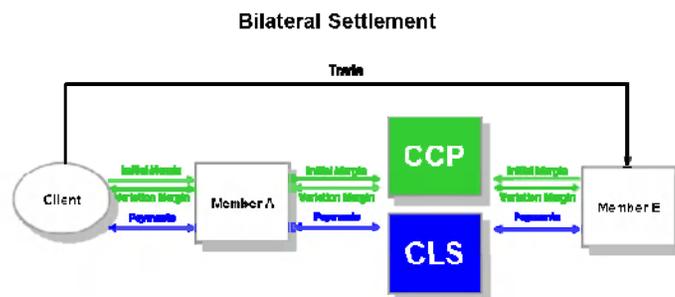
Key risks to be managed in FX settlement

Assumption:

- The financial soundness of an FX CCP must be assured at all times
 - Its risks minimised and/or fully collateralised

Discussion Points:

- If CCP is responsible for FX settlement, 3 key risks need to be managed:
 - FX settlement (Herstatt) risk
 - Liquidity risk
 - Settlement Halt risk
- By their nature, CCPs concentrate risks into a single entity; worst case risks in case of settlement failures tend to be correspondingly amplified



FX Settlement risk

Assumption:

- FX CCP cannot be exposed to FX settlement risk
 - Loss of principal amount on a single trade could be devastating for a CCP

Discussion points:

- FX CCP could settle across CLS
 - What about any transactions not accepted by CLS?
- FX CCP could settle across own currency accounts, ensuring pay ins received before making pay outs
 - This would duplicate CLS?
 - Settling in central bank money?
- FX CCP could net settle e.g. in USD or EUR
 - Becomes non-physical market (implies two-tier FX market)

Liquidity risk

Assumption:

- FX CCP that guarantees settlement must deliver required currency on settlement day
 - Otherwise CCP could legally be in default with potentially serious systemic consequences

Discussion points:

- Liquidity requirements could be large, immediate and unpredictable
 - Very difficult to fund, especially in a stressed market
- FX CCP could obtain guaranteed facilities from commercial banks
 - Commercial banks may be unwilling and/or unable to provide sufficiently large guarantees to cover the CCP in every market scenario
- FX CCP could obtain central bank liquidity
 - Would be required in all currencies
 - Not currently available
- In other asset classes, CCPs typically guarantee financial performance not physical delivery

Settlement Halt risk

Assumption:

- FX CCP must be fully covered against Settlement Halt risk
 - Otherwise intra-day default could render CCP insolvent

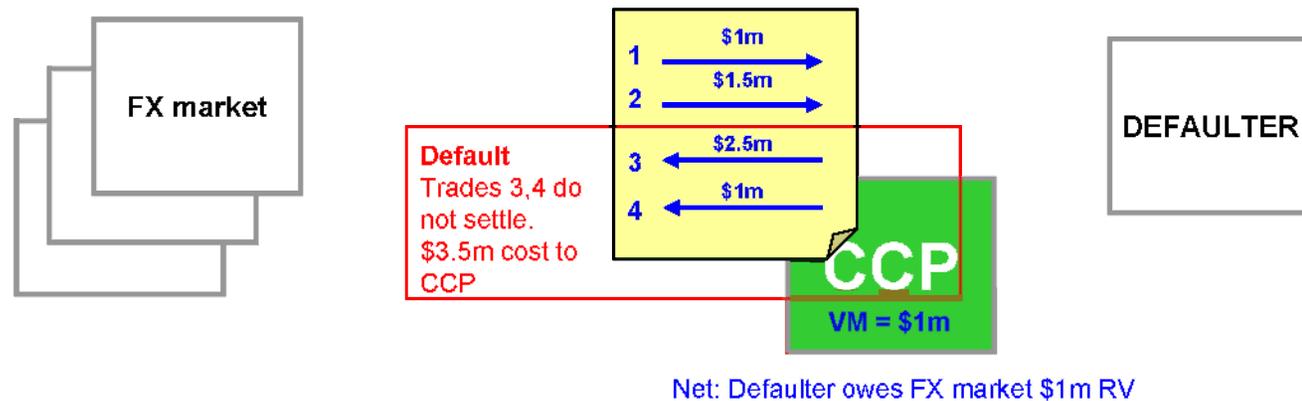
Discussion points:

- Worst case Settlement Halt loss in case of intra-day default by major participant could be very high
 - GROSS replacement value of all trades where defaulter owes the market (see appendix)
- FX CCP could hold "settlement margin" against such risks
 - Full collateralisation would tie up v large amount of collateral against v low probability events
 - Partial collateralisation e.g. based on statistical models (a) is insufficient protection against black swan events, (b) may be open to manipulation by defaulter, (c) in either case allows possible (incorrect) market perception of CCP insolvency following major intra-day default
- FX CCP could create net settlement mechanisms
 - Near instant settlement of net amounts only, minimising exposure to Settlement Halt risk
 - Impact upon CLS would need to be carefully considered

Appendix: Intraday Settlement Halt risk

Intraday Settlement Halt risk

Potential risk of MTM loss on settlement day if not all trades settle (NB: different from FX Settlement risk)



- If Defaulter defaults mid way through trading day, trade settlement will stop (even in CLS currently)
- Net variation margin in the CCP covers net replacement value of Defaulter's portfolio (\$1m)
- There is a risk of loss, as a partially settled portfolio becomes un-netted
- Maximum possible loss = sum of all RVs of all trades where Defaulter owes the FX market
- Total loss in this example = \$3.5m minus \$1m VM = \$2.5m, i.e. the gross loss due to settlement halt significantly exceeds net margin held
- In current market this risk is dispersed across large network of participants who actively manage it
- With CCP, entire gross risk is concentrated in one entity, i.e. the CCP. Worst case loss in case a major participant defaults could be very large