CLS briefing

Offshore renminbi market infrastructure and policy considerations for China development

September 2016

www.cls-group.com

CLS Classification: Public Information

Purpose of this document

This document highlights infrastructure and policy considerations related to the increased use of renminbi (RMB) in the foreign exchange (FX) market. It should be used to support dialogue with FX market participants and regulatory bodies in the Chinese market and includes:

- Current issues and developments in the onshore and offshore (RMB) FX market
- Policy considerations including the rationale for a multicurrency payment-versus-payment (PvP) settlement system to address risk and liquidity issues and to support growth in the RMB FX market.

1. The RMB market is expanding and internationalizing rapidly

- In the 2001 BIS triennial survey, the RMB was ranked 35th for FX turnover. By 2016 it had moved up to eighth position. Based on growth observed between BIS surveys, including a renewed push for internationalization in 2015, RMB FX turnover is expected to continue to grow.
- As observed in the global currency market, the majority of trading in most major currencies is in the offshore (international) market. This is also true for the RMB and this pattern is expected to continue. An estimate from the latest BIS Triennial survey suggests that the April 2016 daily offshore value to be USD158 billion, representing 78% of the total RMB FX activity.[1]
- If the market for offshore RMB continues to grow, other factors remain constant and the RMB is ranked fifth in global currency trading, principal risk would increase by 75% on its 2016 level. If the RMB is ranked third, principal risk would be approximately five times its 2016 level.

2. Challenges in the current offshore markets

- Principal risk, i.e. when settlement requires the exchange of the nominal value of a transaction in two or more currencies, is the largest risk in FX markets. This risk is most effectively mitigated through PvP settlement.
- Currently, a large portion of the offshore RMB FX market is exposed to principal and credit risk associated with commercial banks when it is settled through the traditional correspondent banking model or through clearing banks. At present, only a small percentage of the offshore RMB trades are settled PvP through the Hong Kong Monetary Authority's (HKMA) RMB RTGS system (RMB CHATS).
- The results of a 2013 CLS Settlement Methods Survey indicate that close to 90% (USD32 billion) of the total RMB value traded by CLS settlement members is exposed to principal risk.

[1] http://www.bis.org/publ/rpfx16.htm

This ratio is much higher than other major traded currencies that are settled in CLS; which is a consideration for growth in the international use of the RMB.

- In 2015, CLS facilitated a discussion among 13 banks active in the offshore RMB market as part of a Renminbi Forum to evaluate the offshore RMB market infrastructure and make recommendations as to how it could be enhanced. The participants, that included the offshore affiliates of four Chinese banks together with nine non-Chinese banks, concluded that counterparty limits imposed by market participants are unlikely to be sufficient to support predicted growth in the offshore RMB market, in particular considering that settlement is through the designated clearing banks, which also are subject to these limits.

- The participants in the Renminbi Forum also highlighted liquidity challenges associated with widespread use of gross funding in the RMB FX market and limited use of bilateral netting. Multilateral netting requires the existence of an intermediary to facilitate liquidity efficiencies which is also absent in the RMB FX market. Such liquidity challenges could slow down internationalization of the currency.

- It was also recognized in the Renminbi Forum discussions that the current offshore clearing and settlement arrangements place significant liquidity burdens on participants, not only for RMB, but also for its counter-currencies.

- Given the diversity of offshore RMB trading centres, the existing legal framework providing for settlement finality and enforceability for RMB FX is inconsistent across jurisdictions.

- The Renminbi Forum participants have also emphasized that they face operational challenges in the offshore RMB market associated with multiple clearing banks and centres, such as time-zone mismatches and cut-off time differences. These challenges further constrain counterparty limits, liquidity and operational processes.

- Further research and study in 2016, building on the 2015 Renminbi Forum, looked into the risk management practices of banks, in particular how the lack of FX settlement risk mitigation can lead to restrictions in trading among trading institutions and the potential impediment to growth in use of RMB internationally. The 2016 study revealed the following:

    - The surveyed trading institutions operate within global risk frameworks based on a combination of global regulatory guidance and risk controls developed specific to their operations. Counterparty credit risks for FX trades were recognised and managed through applying a combination of pre-settlement risk limits and settlement risk limits to their trading counterparties.

    - The method of settlement (PvP or non-PvP) has a direct impact on the trading institution's use of its counterparty risk limits. Trading institutions use their pre-settlement limits for FX forwards and FX swaps to manage the mark-to-market risk associated with future volatility (regardless of the settlement method). FX trades settling through PvP do not use settlement limits because PvP mitigates the risk of loss of principal – and most trading institutions do not use their pre-settlement limits for spot trades. However, if settlement is non-PvP, then settlement limits are used and thus become a binding constraint on overall counterparty limit usage.

- Large variations in daily settlement values, particularly during periods of market stress or during significant events where counterparty risk exposure on a peak day can be as high as 47 times the average day[2], gives rise to potential risk of insufficient counterparty credit limits for institutions trading RMB (and other non-PvP currencies) as a result of inadequate settlement risk mitigation measures (i.e. PvP).

- The lack of available counterparty credit between trading institutions may have an adverse effect on trading and pricing action in the FX market. Data from EBS Market demonstrated that on high volume trading days, (e.g. high volatility conditions), market pricing for traded currencies can become locked or crossed where there is insufficient counterparty credit available.

- Analysis by EBS Market of their data shows that the offshore renminbi market was crossed for almost 10% on 10 September 2015 - the day the offshore renminbi (a non-PvP settled currency) appreciated against the US dollar by just over 1%. By contrast, when the Swiss franc (a PvP settled currency) appreciated by almost 20% against the euro on 15 January 2016, the currency market was crossed for only 0.2%, a markedly lower disruption than in the renminbi case. EBS reported that in the Swiss franc case that market participants continued to trade with minimal disruption because there was sufficient counterparty credit limits.

3. There are benefits CLS can provide to the RMB FX market and Chinese authorities that address these issues and are recommended as policy considerations

- **Enhanced principal risk mitigation through PvP:** CLS offers PvP settlement which mitigates principal risk for all of the payment instructions it settles. CLS currently settles in 18 currencies, as compared to the three (EUR, HKD, USD) counter-currencies available in the HKMA's RMB CHATS, which offers the only other PvP service in the region. The risk is mitigated through participation by over 21,000 entities globally in 88 jurisdictions.

- **Reduced use of counterparty settlement limits:** The mitigation of settlement risk and protection of principal provided by PvP settlement allows trading institutions efficient use of counterparty risk limits and allows institutions to apply their counterparty settlement limits to other products or currencies that do not settle via PvP solutions.

[2] CLS paper on Counterparty risk management: The case for PvP settlement in RMB FX market – June 2016.

- **The facilitation of multilateral netting and significant liquidity efficiencies:** CLS provides multilateral netting, which achieves significant liquidity efficiencies compared to the current offshore RMB FX market that settles mostly using gross funding and limited bilateral netting. The HKMA's RMB CHATS settles trades on a gross basis. Based on CLS's analysis of Q2 2013, Q2 2014 and Q2 2015 RMB FX data from its settlement members, it was estimated that the average daily multilateral netting efficiency for the RMB, if settled through CLS, would have been over 90%, and potentially as high as 95%. This would deliver significant liquidity efficiency and consequential credit limit relief to FX participants, particularly in times of peak trading or stress events.

- **Globally consistent legal framework:** CLS's well-established legal framework in 24 jurisdictions provides legal certainty with respect to its settlement system.

- **Globally consistent operational standards:** CLS's operational standards are high and consistent, which reduces risks of the type introduced by having multiple clearing centers with different standards. All participants, regardless of jurisdiction, adhere to common standards, driving STP and lower operational risk, particularly in times of stress and volatility.

- **Reduced counterparty risk:** CLS's access to central bank funds could reduce RMB FX participants' credit exposure during settlement and allows the counterparty limits to be used for additional business with these and other RMB FX counterparties.

- **Regulatory body oversight:** Settlement of RMB via CLS could provide additional visibility for Chinese authorities of the offshore market, which represents 80% of the total RMB FX market. CLS's governance framework includes oversight by the 23 central banks whose currencies are settled in CLS via participation in a co-operative oversight arrangement, the CLS Oversight Committee.

4. The role of central counterparties (CCPs), particularly with respect to questions about SHCH, a domestic but not global CCP

- It is widely recognized that CCPs can offer significant risk mitigation for FX transactions, such as the mitigation of replacement cost risk in medium to long-term dated transactions. It is recognized that the Shanghai Clearing House (SHCH) plays an important role in the onshore RMB FX market in China.

- However CCPs, such as the SHCH, may face the following challenges in the mitigation of risks related to FX settlement:

  - **Exposure to settlement agent:** If funds in one or more currencies are held in commercial banks, all CCP participants are exposed to credit risk if that settlement agent should fail. In CLS all currency balances are held in central bank accounts.

  - **Offshore RMB FX is not captured by the SHCH**: Settlement risk for this market remains.

- **Uncertain finality of settlement:** If the settlement of fund transfers is across the books of commercial banks, the finality of those transfers may be less certain than if they were based on RTGS system transfers. In CLS finality is based on RTGS system transfers.

- CLS is committed to supporting settlement of cleared FX globally and is working with LCH, a leading multi-asset clearing house, to develop a service to accommodate the settlement of cleared FX options in CLS. The service will use CLS's existing central bank account structure to settle payment instructions relating to the net payment obligations of cleared FX contracts.