OUTSOURCING PAYMENTS TECHNOLOGY

A REPORT BY CITIBANK

The advent of continuous linked settlement (CLS™) could generate a new wave of outsourcing in – and out – of the financial services industry.

This year, the banking business will witness a sea change in the business of foreign exchange trading, with the advent of continuous linked settlement (CLS). This real time settlement technology, which will virtually eliminate exposure to settlement risk, will expedite and simplify the interbank foreign exchange market. About time, because daily volumes of interbank foreign exchange traded are now well over the trillion dollar mark.

However, to gain direct access to CLS foreign exchange clearings for itself and its customers, a bank had to scale some high hurdles. The new technology comes with impressive requirements for infrastructure and, therefore, a heavy price tag attached to the necessary hardware and software for implementation. It is not likely that every bank dealing in foreign exchange will want to incur the necessary overheads for the new system.

The result is likely to be a new wave of third party and fourth party outsourcing, through which money centre banks will provide CLS foreign exchange services to smaller or regional financial institutions and their clients.

In this article, the following will be addressed:

- the concept of settlement risk, how it arises, what it affects, and why it needs immediate attention from the banking community;
- the mechanics of the CLS system vs. those of the current interbank system, and how CLS effectively precludes exposure to settlement risk; and
- the third party and fourth party outsourcing system that will probably develop in the banking industry as a result of availability of CLS.

The latter section includes some observations about banks' approach in implementing and sharing CLS technology with correspondent banks and their clients.

Settlement risk

In the foreign exchange market, a deal consists of an agreement between two counterparties to buy and sell currencies at a specified rate of exchange. Settlement risk, also sometimes called Herstatt risk, is the risk of failure by one of the parties to carry out its part of the agreement. The Herstatt risk tag relates to the 1974 failure of Bankhaus Herstatt, which closed its doors having collected from its US counterparties but without settling for the corresponding amounts payable.

Processing delays, the number of parties involved, and complications arising from funds transiting across time zones increase this risk of one-way payment.

Exposure to settlement risk in an exchange transaction consists of the value of the currency purchased. The window of risk is open from the time of purchase until the purchased currency is finally received (normally two days in the spot market).

CLS: curing lopsided settlements

Actually, that's a misnomer. Although the CLS system is indeed designed to eliminate counterparty/settlement risk, the acronym signifies continuous linked settlement.

Several years ago, a group of the world's leading foreign exchange banks conceived a central counterparty for foreign exchange transactions that would maintain a series of real time links with the world's major central banks. Over time, this concept became the CLS Bank, owned by about sixty central banks and foreign exchange market makers worldwide.

The CLS Bank allows for instantaneous settlement of foreign exchange transactions, thus eliminating settlement risk. It will deal with a package of seven currencies (US, Canadian and Australian dollars, British pound sterling, Swiss franc, EMU euro and Japanese yen) that represent about 80% of the total interbank foreign exchange market.

CLS provides administrative and control benefits for participants in the system:

- its payment vs. payment technology ensures that a final transfer in one currency occurs only if the corresponding final transfer of another currency occurs;
- CLS matches deals and settles the net amount per currency due to each settlement member as of the cut-off date... each member receives a statement of its long and short positions in each currency traded.

For risk management purposes, limits will be established for individual and aggregate short positions, and liquidity will be managed so that the system maintains a new positive value.

Wonderful, but no free lunch

Direct access to all of this comes at a cost. In order to deal directly with CLS, it will be necessary to invest in the capital of CLS Bank, as well as in necessary hardware and software for the system. Members maintaining accounts directly with CLS are subject to additional requirements in terms of Tier 1 capital, technical capabilities and liquidity; they are the only members able to move or receive funds, on their own behalf and that of their customers.

It is likely that commitments of funds and resources necessary to maintain a relationship with the CLS system will, therefore, cause a number of banks for which foreign exchange is not a major activity to strategically re-assess the need to maintain a clearing and settlement presence in foreign exchange markets. It is for these institutions and their customers that the outsourcing capabilities of member banks, such as Citibank, are intended.

All banks will need access to CLS

For banks opting out of direct clearing and settlement via the CLS system, the ability to deliver foreign exchange settlement services will remain an important part of their customer relationships. Corporate treasurers will realize the benefits of CLS to their operations (see the following section on corporate benefits) and demand that their relationship bank provide them.

Pressure will come not just from clients with foreign exchange requirements. Because of risk avoidance benefits, central banks can be expected to exert pressure to maximize direct and indirect participation in the system.

Those who have been paying attention are already aware that a new business model is emerging in the banking industry, driven by increased client demands and the high cost of rapidly-developing technology.

The traditional full service bank has become an amalgam of in-house concentration on high value-added specialties, and outsourcing of non-core functions. These tend to include commoditized businesses such as foreign exchange clearing. The latter service is becoming the province of a relatively small number of cross-border clearing banks, which can commit the substantial investment needed to maintain leading-edge technology.

The advent of CLS is a logical adjunct to this new model and will undoubtedly accelerate its development.

Outsourcing benefits to banks...

The solution for these institutions will be a relationship with a CLS settlement member, through which they can transparently provide their own clients with the benefits of CLS.

Third party banks electing to outsource foreign exchange clearing will lower their own infrastructure costs and eliminate the need for continuing, clearing-related technological investment. This will be accompanied by savings in people costs, since outsourcing minimizes the need to recruit and retain staff with the special skills needed for CLS and allied technology.

At the same time, the link with the CLS clearing bank will provide transparent access to world-class experience and technology. The quality of the project delivered to the bank's fourth party clients will have depth and reliability that would be virtually impossible to obtain on a standalone basis.

Citibank and certain other settlement members of CLS are prepared to provide such services. Citibank will be providing an outsourcing package, Citibank CLS Settlement Services, to which the client bank can affix its own marketing identity (third-party) and which it can present to its clients as a tool for their own use (fourth party).

The package includes CLS-oriented training for the third party bank's personnel, so that the benefits of CLS access can be fully realized.

Such outsourcing will allow third party banks to focus on their core specialities, while still providing the benefits of such presence to their customers.

With this type of relationship, CLS settlement banks will support not only their own clients, but also the clients of institutions that outsource clearings and settlement business to them. This extension of the value chain would allow corporation and fund managers, as well as financial institutions, to enjoy CLS benefits.

...and their clients

In terms of credit risk, banks' clients, which are at the bitter end of exposure to settlement risk, will appreciate and demand improved security that CLS-based transactions and systems feature (e.g. real time information access, netting, position reports, etc) can provide.

Treasurers and fund managers will also benefit from earlier settlement of transactions. The present CLS model is targetting settlement to which both counterparties have subscribed by not later than 9:00 a.m. Central European time (3:00 p.m. Eastern US time).

Conclusion

By covering at least 80% of the inter-bank foreign exchange settlements market, the CLS system – when launched later this year – will virtually eliminate the exposure to substantial settlement/counterparty risks that has historically hung over these markets.

By means of outsourcing their clearing and settlement activities to CLS member banks, financial institutions that do not wish to make a major commitment to foreign exchange can provide the improved CLS clearing and settlement services to their customers. These benefits can be achieved for a fraction of the cost that would have been involved in direct system participation.

It should be noted that the reduction in settlement risk attributable to CLS would result in a considerable institutional consolidation of settlements and clearing for foreign exchange.

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Contact:
Abdul Raof Latiff
Regional Product Manager for Financial Services
Tel: (65) 6426 8416 Fax: (65) 64268404
Email: abdulraof.latiff@citicorp.com

Conrad C. Steinmann, Jr.
CLS Product Management Global Office
Tel: (1) 212 657 2364
Email: conrad.steinmann@citicorp.com

CLS AND OPERATIONAL RISK

A REPORT BY CITIBANK

In Greek mythology, one of the Labours of Hercules was to fight and slay a dreadful monster, the nine-headed Hydra. His task was complicated by the fact that, for each of the Hydra's heads that Hercules would sever, two grew in its place. This is somewhat analogous to the situation the financial community might have to face with the advent of continuous linked settlement (CLS™), later this year.

By developing CLS, the global banking community has confronted and defeated the monster of settlement risk. However, the architecture of the system and the consolidation of clearing/settlements activity that is likely to ensue from it will generate increased exposures in the areas of liquidity management and technology.

The extent and severity of these new risk classes cannot yet be fully appreciated. However, prospective participants in the CLS system are aware of their existence and have been taking extensive measures to mitigate them. Such measures as the in/out swap between CLS settlement banks, and the common cash and collateral pool are already under review and discussion, to mitigate systemic exposures.

Regulators and authorities such as the Bank for International Settlement (BIS) are also turning their attention in this direction. The proposed new Basel guidelines will likely include recommendations for allocating capital against operational risk exposures.

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Acceleration + consolidation = risk

The cost of accessing CLS technology directly will produce a notable consolidation in the number of institutions involved with primary clearings and settlement activity. Correspondent banks, fund managers and corporate treasurers will be under intense pressure to deal with banks having direct CLS access, as authorities and shareholders demand that they do business through the safest available means.

The diffuse market for foreign exchange that currently exists will be replaced with a system in which the top players may control 20% or more of the market, in a manner that is not dissimilar to the US automobile industry. User options for spreading the business will be correspondingly reduced.

Combine this with the reduced settlement time for securities transfers – payment for which is often negotiated in the foreign exchange market – and the mechanics of the CLS system; the result is likely to be an increased exposure to liquidity risk among CLS participants.

For instance, the schedule of five daily one-hour payment windows based on Central European time – during which the system's individual and aggregate short position limits must be observed – will test the resources and liquidity management skills of banks providing settlement services for CLS members through Nostro accounts. During these periods, central banks involved in the CLS system may have to introduce intra-day liquidity to support the system within its required limits.

Challenges may also arise in terms of transfers between the CLS system and various national real-time gross settlement (RTGS) systems. Accounting techniques employed by CLS member banks will also need to be updated, to deal with multiple currencies and to differentiate between CLS and non-CLS foreign exchange transactions.

The breadth and depth of technology supporting clearing and settlements will also inevitably be tested by the increased speed with which transactions will have to be processed in the new, post-CLS environment. Processing of information from trading, through the middle office to the back office will have to achieve new standards of speed and accuracy.

Overall, post-CLS, the chain of information and events that constitutes the foreign exchange trading system will be moving at a speed and density that we can only imagine in the present environment. The assembly line machinery that supports this process, running at untested speeds, will have to be lubricated and maintained to support the new standards. Quality of its systems and networks and the level of its staff's training could prove to be limiting factors in terms of a bank's access to CLS, just as much as the cost of entry.

The situation with respect to suppliers will be analogous to the just-in-time inventory management system that has gained currency in the industrial sector. However, any conceivable single failure in an industrial environment would not be as grave as a breakdown in the interbank exchange markets, domino effects from which could confound global markets at least as severely as settlement failure. For that reason, the clearings and settlement process should be transferable, virtually instantly, to a back-up system.

Obviously, access to the current panoply of Web-based and other straight-through processing techniques – reducing the human factor in operations – will be a positive factor in achieving the necessary levels of speed and accuracy. However, it also increases reliance on hardware and software. If there is a problem with these after operating staff has been reduced, how will that be resolved? That consideration places a paramount emphasis on "technical resilience" of CLS participants.

Direct participants in CLS have already installed, or are installing, measures and systems for the purpose of operational risk management.

Analyzing the exposures

In anticipation of the advent of CLS, a great deal of attention has been directed toward the kinds of operational problems that might arise and what means and measures would be necessary to minimize associated risks. In fact, banks that will be direct participants in CLS have already installed, or are installing, measures and systems for the purpose of operational risk management.

The approach of regulators to operational risk includes increased scrutiny of the systems standards, training and technical resilience of CLS system participants. In the US, authorities like the Federal Reserve Bank and Office of the Comptroller of the Currency have moved right in with the largest banks, maintaining full-time oversight in their offices. However, in the end, such scrutiny becomes another factor that tends to raise the bar one must hurdle to participate; it thus contributes in some measure to the consolidation of the post-CLS interbank foreign exchange trading environment.

The level of "in-house" sophistication with which the problem is being approached may vary considerably. Generally, however, the larger institutions – those with direct access to the system – are conducting extensive and technically advanced analyses to determine and cure prospective weak points in their internal processes and controls.

The reason for their efforts is straightforward: the better job they do identifying and eliminating exposures, the less the amount of reserves they will have to maintain against consequences of an eventual breakdown.

As the banking community gains experience regarding the extent and severity of the operational risks it has created with CLS, it seems probable that they will discover means by which this risk can be transferred to insurers or the investment community. This will obviate many of the problems associated with consolidation of activity, while leaving intact the economies of scale that the process will engender. It will occur in the same manner that risks involving letters of credit and other bank undertakings are now transferred to the markets.

It is probable that, within a few years, capital markets will experience the first of a number of issues repackaging and securitizing banks' operational risk exposures to their correspondents and clients, perhaps through the use of credit derivatives. The key to this operation would be to develop reliable benchmarks by which such risks can be quantified.

Conclusion

Although CLS has confronted and defeated the historic problem of settlement risk in the foreign exchange market, its mechanics and the consolidation of global foreign exchange business will probably create new operational exposures for interbank markets. The general nature of these exposures has been recognized for some time by banks and regulators, which have been actively moving to counter them with improved systems and training.

It is entirely possible, because of these aggressive countermoves, that operational difficulty – whether related to liquidity or technology – may never arise. This would permit all participants in foreign exchange trading to enjoy the benefits of consolidation, in terms of economies of scale.

Even in the post-CLS environment, consolidation of business should never approach the level at which questions of monopoly or disproportionate market control will become consideration. As investors become familiar with the nature of these new risk categories, it likely that banks will undertake to transfer some of their exposures to the capital markets via securitization. Again, the end result of this activity would be to leave the banking system with the benefits of CLS, without the need to allocate capital and resources against possible risk events.

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Contact:
Abdul Raof Latiff
Regional Product Manager for Financial Services
Tel: (65) 6426 8416 Fax: (65) 64268404
Email: abdulraof.latiff@citicorp.com

Conrad C. Steinmann, Jr.
CLS Product Management Global Office
Tel: (1) 212 657 2364
Email: conrad.steinmann@citicorp.com