

## Foreign Exchange Markets Prepare for Radical Change

a report by

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Banks should act now to benefit from the eradication of settlement risk from foreign exchange markets, thanks to the continuous linked settlement (CLS) mechanism. Radical change is coming to the so far largely unregulated world of foreign exchange transactions, which moves an estimated US\$3 trillion per day.

The financial services industry has created its own solution to the problem of settlement risk for these global transactions, which has increasingly concerned regulators and central banks since the 1974 collapse of Bankhaus Herstatt in Germany. This event showed that insolvency of institutions making or receiving payments across different time zones could create a dangerous ripple effect and trigger systemic risks.

Settlement risk is a constraint on business because it restricts bilateral credit lines and requires significant allocation of regulatory capital. Now, the problem is virtually solved. The launch of CLS Bank in October 2001 – a co-operative venture by more than 60 commercial and investment banks that are most active in the foreign exchange market – will, with one stroke, eradicate this risk for users of its system.

CLS Bank will ensure that the two processes of any qualifying currency trade are settled simultaneously across its books on a payment-versus-payment basis, thereby eliminating a significant risk in the foreign exchange market. US, Canadian and Australian dollars, euros, UK pounds, Swiss francs and Japanese yen are the seven currencies that will be eligible for settlement through the CLS Bank – although it is important to recognise that both sides of the foreign exchange deal must be in these currencies. It is estimated that 80% of the total foreign exchange values transacted each day are in the seven CLS currencies.

CLS Bank is based in New York, with its main service functions in London, centre of the foreign exchange trade. The bank starts and ends operations each day without holding any liquidity from member banks, so its function is to match trades and ensure that they are supported by the necessary intra-day liquidity.

The CLS system works as a central agency, ensuring that the two sides of a trade match (see *Figure 1*). Confirmation of a trade's details, in the form of Society for Worldwide Interbank Financial Telecommunication (SWIFT) MT 300 messages, are the basis for this part of the settlement process. SWIFT MT 300s will continue to be sent and received by each counterparty to a foreign exchange transaction. However, copies will also be made and sent to CLS Bank. These copies of each MT 300 are then matched by CLS Bank. The final result of each settlement day is a series of net positions in each of the seven CLS currencies for each settlement member.

CLS Bank then asks members to pay in (at specific times, in up to five instalments during the settlement day) cash to cover any short positions. Payment is made via the realtime gross settlement (RTGS) mechanism for each currency, and pay-outs to members take place whenever a long position is no longer needed as collateral by CLS Bank.

Initially, the new system will account for more than one-fifth of the total inter-bank foreign exchange market and, once CLS Bank is fully operational, the cash settlement landscape will alter dramatically. The development is especially timely when viewed in the wider context of new proposals to regulate operational risks put forward by the Basel Committee of the Bank for International Settlements (BIS), which will come into effect by 2004.

Forward-thinking banks have not only fully addressed the settlement risk issues raised in the BIS *Orange Book*, but they have also positioned themselves to best exploit the considerable advantages of the new system. The advent of advanced information technology (IT) and realtime communications has finally made the netting of all global inter-bank currency payments possible.

### Reduced Capital Allocation

If the underlying driver for this development was regulatory concern, the economic benefits would be substantial. Regulators demanded that significant



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Figure 1: The Continuous Linked Settlement (CLS) System

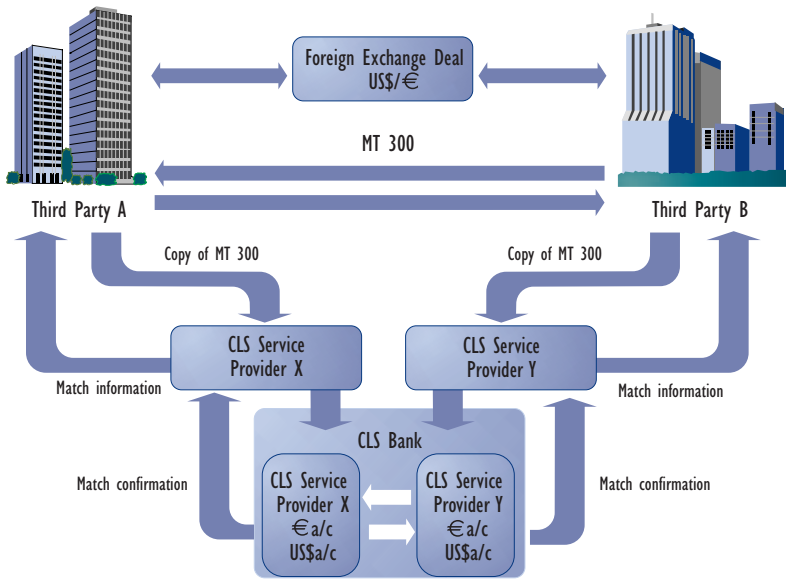
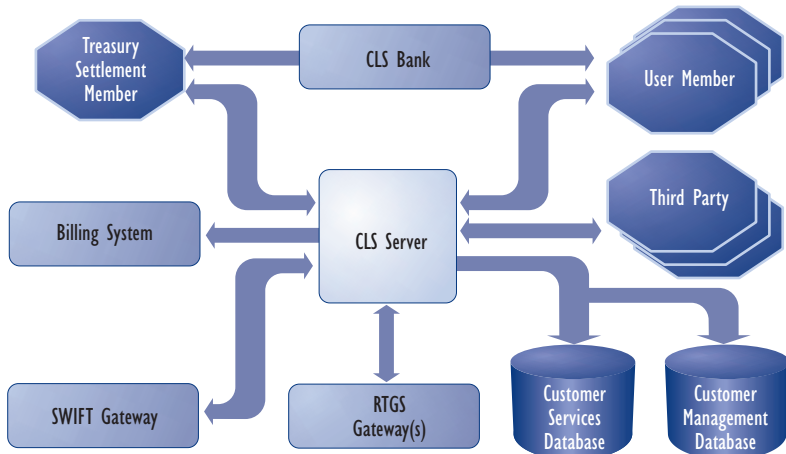


Figure 2: CLS Server Technology



capital be put aside to compensate for risks associated with trading that encourages the potential for all risks, including settlement risk. The opportunity cost of this capital allocation against risks is significant and is an overhead that should now be reduced through CLS.

Certainly, the need to put capital aside to alleviate settlement risk has come to represent a substantial operational cost for banks active in foreign exchange. With increasing regulatory pressure for banks to show real progress in addressing risk, the introduction of CLS is both timely and a potential source of major cost savings.

Nevertheless, the success of CLS will require a 'stick-and-carrot' approach. CLS Bank is the 'carrot' by providing a solution for banks that reduces risk, lowering operational costs and improving settlement efficiency through realtime interfaces with CLS Bank and a flexible approach provided by adaptable state-of-the-art technology. Central banks and regulators, however, must still wield the 'stick'. The

financial markets are largely regarded as self-regulatory organisations but central bank support, through the BIS, must be visible in the form of capital allocation-related penalties for market participants that do not seek out the most risk-averse methods of settlement.

Settlement risk will, of course, continue to exist for those transactions not intermediated by CLS Bank, but it is expected that, over time, almost all activity in the inter-bank foreign exchange market will come under the CLS Bank aegis, because settlement outside it will continue to attract extra regulatory scrutiny.

**Operational Capability**

With the implementation of tested CLS server technology (see Figure 2), ABN AMRO is ready to go live when CLS Bank commences operations, providing clients with foreign exchange transactions free of settlement risk. The CLS server is a remotely located facility, accessible via the Web, that will be used to conduct all of the bank's own and third-party business. The CLS server will offer a comprehensive range of liquidity management and realtime information services that improve settlement and operational efficiency.

For settlement members of CLS Bank, the volume of transaction traffic in the seven initial currencies is added to the transactions that they execute, on behalf of third-party banks. All trades submitted through CLS have to be settled between settlement members, which means these act as gate-keepers to the system. Each settlement member holds just one multi-currency account and its transactions are combined to calculate a daily position in each of the member's seven sub-accounts for the operational currencies. This allows long and short entries to balance out for each currency.

CLS Bank begins daily operations at midnight Central European Time (CET) (see Figure 3), when it issues a payment schedule informing each settlement member bank how much and in what currencies it requires to settle the coming day's payments. After taking into account rescinded and same-day trades, CLS presents a revised 'pay-in' schedule at 06:30 hours. Settlements start at 07:00 hours CET and continue until 12:00 hours CET.

As no transfer will be made unless the payment from the counterparty to the trade is also ready, CLS Bank should ensure there would be no loss of principal. Additionally, if the desired currency for a trade is unavailable for payment, CLS Bank will lend it against collateral in another currency.

The issue of intra-day liquidity has also been addressed. Central banks will need to co-operate more closely to provide timely liquidity to banks settling with the CLS system.

A CLS server, which does not discriminate between the service provided to a settlement member's branches and third-party customers, will ensure that customers benefit from the same level of service and access to information as the bank achieves for itself.

From March 2002, such transactions from non-member banks will be fed through by settlement members, increasing volume significantly. Surveys show that financial institutions choosing to outsource all of their foreign exchange settlement and collections traffic to a single CLS member can achieve liquidity management savings well in excess of 90%.

**Improved Liquidity Management**

Due to the complex patterns of foreign exchange transactions, it is impossible to predict precisely how liquidity levels will operate on a day-to-day basis. Situations might arise in which a bank has substantial long-currency positions in a number of currencies, but one position is short. Until the short position is resolved by an injection of liquidity, CLS Bank will be obliged to delay disbursement of the other long positions.

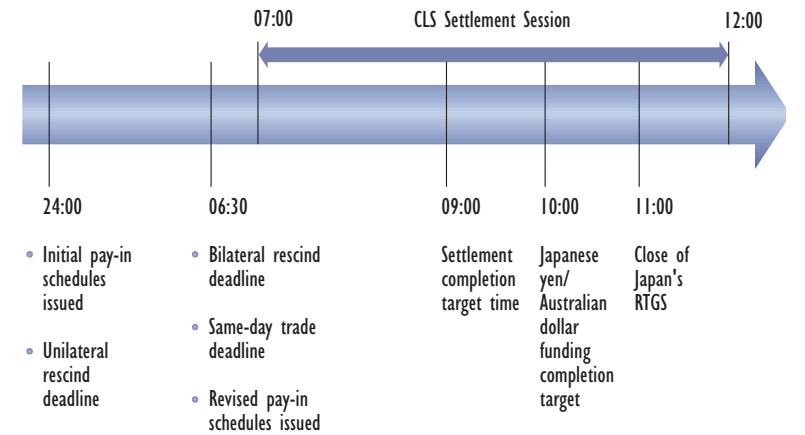
To solve this potential credit problem, ABN AMRO has developed a solution believed to be unique – the Tri-Party Collateral Service. Customers wishing to benefit from the improved liquidity management that this service seeks to provide will need to enter into essentially a tri-party agreement, which forms the basis of the Tri-Party Collateral Service.

The CLS Bank is a clear leader in supporting customers' foreign exchange-related liquidity management. Client banks that have global foreign exchange operations and are now considering their choice of CLS member banks view the offer of tri-party collateral as a key benefit. It is believed that this solution resolves many of the outstanding questions about the smooth functioning of CLS.

**Internet Security**

Although the primary flows of data to and from CLS Bank are via SWIFT's secure messaging channels, and the funds flow along RTGS channels, the Internet is an important channel for information. Security therefore becomes crucial to the proper functioning of connections between settlement members and their third-party clients.

**Figure 3: CLS Bank Daily Operations (CET)**



Identrus, a developing infrastructure based on certification, verification and guarantee of identity, will create confidence in the security of information when the Internet is the medium of communication. Identrus – which, like CLS, is a consortium of leading banks – ensures the identity of those originating them. Though there is considerable overlap between the settlement members of CLS Bank and the founding shareholders of Identrus, not all CLS members plan to offer secure Web links or are offering the two services in tandem.

Clients benefit from secure Web-based access to a dedicated server that links directly to the CLS Bank, and the outlook is confident that this extra level of security represents a significant value-added service for customers.

**Invisible Outsourcing**

As consolidation advances in the field of global network services, some banks may rethink the benefits of a clearing and settlement presence in some leading markets. The ability to deliver settlement services nevertheless remains an important part of the client relationship.

For these banks, ABN AMRO has developed a 'private labelling solution' that supports the client bank's brand and reputation in the marketplace. Private labelling allows a client bank to withdraw from a costly physical presence in the currency and clearing markets. This step also relieves client banks of the need for significant investment in CLS settlement membership and infrastructure, without this becoming evident to customers.

Though third-party operations for CLS Bank are not expected to begin until 2002, the coming changes to the global foreign exchange market will have important management, IT and strategic implications for all players. Forward-thinking banks need to move towards implementation now. ■