



*Staying ahead of the competition with  
IBM's MERVA Liquidity Manager*

Solving *complex*  
business issues

Multi-*channel*

Multi-*currency*

*Accurate*, real-time  
information and control

*Single* application

## Introduction

On every bank's agenda for change are an increasing number of requirements on a growing number of aspects of the business. It is certain that a good deal more complexity is being added to every executive's role.

Simple solutions to complex business problems are few and far between but one that stands out is IBM's MERVA<sup>™</sup> Liquidity Manager.

## Why manage liquidity differently?

Within the payments and cash management arena there are a number of elements that are affecting the business:

### Economic pressure

- Margin pressure/unit cost/drive for STP
- Bank re-engineering of processes for global processing
- Merger and acquisition leading to a reduced liquidity market
- Risk management of transactions and counter-parties
- Customer sophistication and demand
- The introduction and operation of the euro
- Re-engineering of the correspondent bank network.

### Payments systems

- Increased applications for liquidity
- Development of RTGS systems
- Links between collateral and liquidity
- Developing an intra-day liquidity focus

### Regulatory requirements

- More stringent capital requirements leading to reduced liquidity pool
- Reducing settlement cycles
- Likely cost of intra-day liquidity
- Adoption of liquidity guidelines (FBE, BIS, Federal Reserve)
- Continuous Linked Settlement with the added criticality of intra-day transaction and liquidity management.

A common theme across these is the focus on liquidity management and the use of payment channels. These payment channels can be a central bank based system (such as CHAPS Euro and TARGET), a private system (such as EBA) or others.

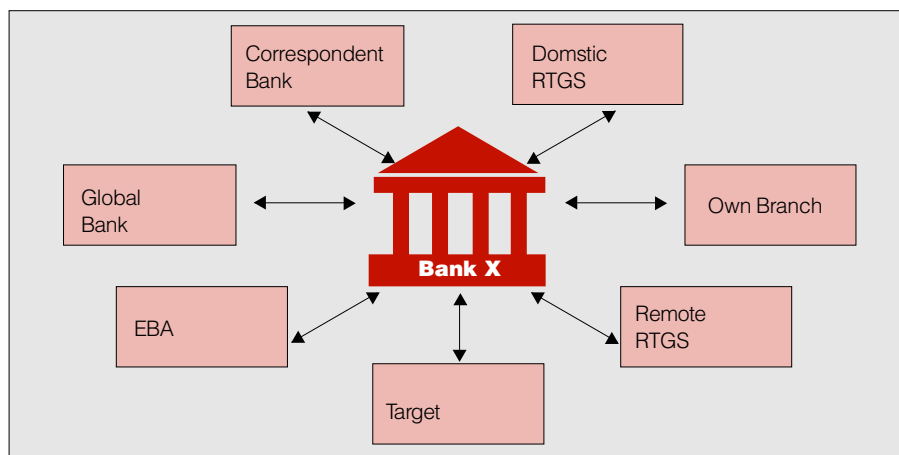
### Channel Management

Liquidity used to be managed on an end of day basis but is moving more and more towards being an intra-day process. The exception to this lies in some correspondent banking arrangements.

Correspondents are still a key element of business for institutions but generally are still managed for liquidity on an end of day or even next day basis with interest compensation. This is despite the increasing focus on payment risk and is not satisfactory.

The change agenda therefore covers the need to improve management of payment channels for RTGS, net settlement and correspondent banking systems. Liquidity presents problems that have grown as the market has developed and as options for payment routing increase and become more complex.

### Channel choices



*“The implementation of EMU and the supporting euro payment systems created a new paradigm for intra-day liquidity management.”*

*Report by the Intra-day Liquidity Management Task force of the Payment Risk Committee of the Federal Reserve Bank of New York (published this year)*

It is worth noting that 10 years ago, a task force on intraday liquidity management as set up by the Payment Risk Committee of the Federal Reserve Bank of New York, would have been unheard of. Even in 1998 when it was formed, it was a very innovative concept.

### **The challenge**

The following conclusions can be drawn from the report:

- Liquidity allocation must be managed effectively
- Liquidity timing must be understood and managed
- Liquidity pools in different locations must be co-ordinated
- Liquidity utilisation must be managed against targets
- Customer satisfaction must be improved.

To determine your ability to comply with these ask the following questions:

- Can you say at any moment during the day what the liquidity positions are of the bank by currency, channel and counterparty?
- Can you say at 10.00am what your likely end of day liquidity position is going to be? And by currency and channel?
- Can you manage your transactions to make the most of your available liquidity?

Can you do this centrally and without recourse to many manual processes?

Can you immediately answer questions at end of day cut-off as to whether a transaction is going to go through?

These are compelling reasons to actively manage the liquidity arena. Choices of payment system demand a clear strategy on how the bank develops its approach, measurements and controls. MERVA Liquidity Manager will perform in these key areas.

It is the control and optimisation of these areas that must constitute the goal of banks today. Value can be driven from liquidity management, which is traditionally an under managed arena of the bank, by doing the following:

- Defining strategy
- Agreeing measurements
- Monitoring measurements
- Managing the measurement drivers.

MERVA Liquidity Manager provides a source of comprehensive data that can allow the detailed understanding of the bank's liquidity patterns.

An example of this is matching the liquidity available with the liquidity used by the bank. The attractiveness of this differs from client to client but the ability to demonstrate levels of liquidity utilisation can, for example, facilitate whether additional resources are required to ensure efficient operation of the payments business.

Liquidity management is key for a number of reasons other than managing scarce resources better. One area where it came to notice was in the introduction of the Euro. Amidst the excitement of the introduction of the Euro there were major areas of confusion around payment systems that, although shielded from the world outside, resulted in a great many anxious people in the payment and settlement environment.

There were cases of liquidity shortages, of value turning up in the "wrong" place and of some system failures as well as duplicated and wrong payments. All of these placed stresses on the system.

*“Payment operations will assume some of the characteristics of continuous industrial processes where real-time measurement is required to assess the buildup of imbalances within systems, identify gridlocks within and between systems, and establish more elaborate contingency plans.”*

This experience has shown the validity of:

- Developing a liquidity strategy
- Central monitoring of payment channel status and the status of individual payments
- A drive to reduce the number of euro correspondent accounts
- Dynamic queue management processes and applications
- The need for active treasury management of liquidity pools in Euro payment channels.

Another area where liquidity management is coming under scrutiny is CLS (Continuous Linked Settlement). The impact of CLS on banks and liquidity management should not be underestimated, across the industry and not just in CLS settlement members.

Gross payments made through the day in settlement of FX transactions will be replaced by a limited number of time critical net settlement pay-ins. Larger banks, settlement members of CLS, will need to develop strategies for their liquidity management across their positions as settlement member for their own trades, for user member banks for whom they will provide timed payments of high criticality (and for third Parties), and potentially as liquidity providers to CLS.

The policies, applications and processes they will need for this environment are un-developed in most banks today and their creation and co-ordination should have a high priority.

*“It is likely that the implementation of CLS in 2001 will significantly change the intra-day funding approach for those currencies that CLS settles.”*

### **Benefits of good liquidity management**

In our work with banks we have observed a number of attractions from their implementation of our liquidity management application:

- A reduction in the value of liquidity deployed
- A far reduced level of paperwork supporting the liquidity management activity of the bank
- Accurate forecasting of liquidity positions
- Improved relationships across internal bank boundaries
- Centralised management of liquidity
- Ability to adjust payments flows according to availability of liquidity resource
- Distribution of information
- An ability to be more active with the Intra-day Inter-bank liquidity needs.

The attraction of these benefits is that they are all clearly visible and all contribute to a sound business case based investment, a short implementation and satisfied users.

An additional function available to banks includes the management of counterparty relationships from an exposure perspective. As banks increase their focus on risk areas the ability to close down a payment stream to a bank while issues are resolved (transactions come in or credit lines are extended) becomes critical. MERVA Liquidity Manager gives a bank the level of control to do this with counterparties.

These benefits illustrate a far tighter management of a critical business area and one whose profile is increasing rapidly. The recent publication of three separate sets of industry guidelines/ reports on the use of liquidity shows how much more closely liquidity needs to be managed and this shows how it can be done.

In the face of industry changes in the advent of CLS, in the use of RTGS systems and in changing nature and business behind correspondent banking every bank needs to be seeking these kinds of answers.

### **MERVA Liquidity Manager**

IBM has been working closely with bank customers to develop an application and support services for banks to make use of. The application delivers answers to banks that enable them to:

- Centralise their liquidity management across RTGS, netting and correspondent channels
- Reduce liquidity values deployed and transferred
- Provide flexible scheduling, warnings on thresholds and channel or message type cut-offs
- Consider later cut-offs for the bank and for clients
- Deliver real time data on channel balances and on individual payments not just to treasury but also other areas for example to aid management of counter-parties
- Forecast anticipated funds and match against receipts
- Distribute information
- Deliver this quickly and simply.

### **Locating MERVA Liquidity Manager for best effect**

The location of a MERVA Liquidity Manager in a bank's infrastructure has been the cause of some debate.

Essentially there are two options:

- In the payment gateway
- In the back office payment engine of the bank.

Both have their attractions but the argument today seems to come down on the side of the gateway.

The gateway is the last point of contact between the bank and the outside world and as such records the latest possible status of transactions, both for payments leaving the bank and receipts coming in to the bank.

If liquidity is to be managed tightly this kind of data is key to being able to do that. It is also a point of control for release of transactions and for understanding the liquidity impact of receipts (matching notice to receives for example).

### **Conclusion**

With pressures on all sides to increase operational efficiency the proactive management of liquidity is fast becoming a competitive weapon.

IBM's knowledge and understanding of this crucial area and its solutions is built over many years working in payments systems and in the development of applications for and with clients.

MERVA Liquidity Manager offers banks a comprehensive solution that is simple to implement and flexible to operate. The central point of control and the capability to distribute information is a way to move across organisation boundaries and improve co-operation while delivering improved management capability, reduced costs and improved business performance.

MERVA Liquidity Manager builds on investments the bank has already made as opposed to seeking to add additional layers and as such the implementation path is fast and low cost. In short, to become operational it can be a pleasant surprise and not the usual management burden of implementing a new system.

*“These changes will create a need for better measurement of payments flows, use of queuing techniques to regulate payment flows, better communications, and a generally higher awareness by treasury managers of developments in the payments processing functions.*”

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