

Financial technology: gathering speed

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Financial regulators globally are putting pressure on financial institutions to move to real-time solutions in both retail and wholesale banking. Advances in technology and a desire by regulators to reduce risks in the financial system are driving the trend.

Discussions about real time technology and solutions span the banking world at this year's Sibos. While great excitement surrounds advanced technologies such as distributed ledger and artificial intelligence, real-time solutions are being rolled out on an almost daily basis across financial institutions. It is testament to the advances made in the real time environment that it is considered no longer a "hot topic".



In wholesale banking the focus of real time is on liquidity management and monitoring. The Basel Committee on Banking Supervision (BCBS) required financial institutions to implement a set of monitoring tools which focus on intraday liquidity monitoring and reporting. Banks now have to pull together the necessary data so supervisors will be able to monitor their intraday liquidity risk and their ability to meet payment and settlement obligations on a timely basis under normal and stressed conditions.

The last financial crisis highlighted well documented weaknesses in liquidity management across the global financial network, says Adam Raw, head of financial institution and global corporate propositions at Lloyds Bank Global Transaction Banking. "Real-time liquidity reporting should however be seen as distinct but in support of the Basel III requirements. When you look at the BCBS Liquidity Monitoring Tools content, the reporting itself is clearly a real means of evidencing to regulators and supervisory bodies that financial institutions are indeed actively managing their intraday positions." The generation of these can be captured only with real time transaction level data and by having a robust intraday management system. Any hiccups in the regular flow of settlement and funding will be spotted early, he adds.

Banks do not have a choice when it comes to real-time liquidity monitoring and management, says Emmanuel de Board, global head of cash clearing services at Societe Generale Global Transaction Banking. "Increasingly, banks have to monitor liquidity because they have to report their liquidity positions to financial regulators. Financial regulators will require banks to cover any gaps in liquidity – with collateral or buffers – in order to reduce risk. Because this is costly, banks are monitoring liquidity on a real-time basis in order to ensure their liquidity requirements are kept at a minimum. For example, rather than making all payments at a certain time of day, banks can monitor payments so that those that can be deferred are paid later in the day and liquidity requirements are reduced.

Jean-François Mazure, the bank's incoming global head of cash clearing services (de Board retires this month) adds: "The pressure from financial regulators on banks to introduce real-time payments does not reflect a requirement among corporate treasury clients. For this sector, security is the paramount concern, rather than speed of payment. My belief is that regulators are interested in encouraging banks to move to modern and efficient technology systems without considering the business case."

Dennis Sweeney, head of liquidity and capital management at Societe Generale says whether it is liquidity as it relates to business operations in the wholesale markets or to the provision of funds to customers, its monitoring and management is becoming more important in the banking world. "A decade ago, the provision of liquidity was relationship-based; there was an understanding that if a client did not have funds for payment, credit limits would be extended and it would all work out in the end. Today, the world is much more buttoned-down and as a result of de-risking banks are reluctant to deal with liquidity in the same way."

Structural reform, such as the ring-fencing proposals in the UK will put additional strain on liquidity as bank groups are broken up into smaller entities. These smaller banks will not have a central point of liquidity from which to draw. "The correspondent banking industry is in a state of transition. We have universal regulations on liquidity monitoring and reporting that are interpreted very differently across countries. There is no standard set of regulations to govern this area. International banks have to deal with each country individually."

Many Russian banks are participants of the Bank of Russia's urgent electronic bank payment system, which involves the necessity to manage liquidity in the real-time mode, says Lev Khasis, COO of Sberbank. "According to the information we have, the Bank of Russia is planning to implement additional services within the framework of creating a prospective payment system, and these services are expected to increase the share of payments processed in the real-time mode or a mode close to it. This, in turn, will make more and more banks shift towards managing liquidity in the real-time mode."

A shift towards real-time liquidity management may cut the volume of liquidity that banks need to effect payments within one day, he adds. "Meanwhile, this shift means higher requirements for the quality and degree of automation of the intraday liquidity management process, as well as requirements for the reliability of banks' settlement systems." At present, there is no shortage of liquidity for corporate clients, says Khasis. Quite a high rouble rate, supported by the Bank of Russia, is not boosting demand for liquidity from such clients. If the rate goes down, he says, lending may start growing, and, consequently, demand for liquidity will increase.

Nick Noble, product management, SmartStream, says the financial industry is "looking to reach the next level of intelligence and efficiency" for the liquidity management model. Current models, he says, do not take into account behavioural patterns or significant market events. This is where technologies such as artificial intelligence will come in. "This technology gives us the opportunity to provide a next level of cash liquidity management to clients. We are working on establishing use cases implementing this type of technology as a way of embedding elements into existing platforms. It will enable clients to look at previous trending data based on seasonal events, bank holidays etc. They can get a feel of the volumes and payments and receive an activity risk weighting that can be adjusted. An algo can learn as it goes along and therefore forecasts will improve over time."

The more accurate a financial institution can be in assessing its liquidity requirements, the less surplus cash it will have at the end of the day. This, says Noble, will reduce the reliance on credit lines and expense of overdraft fees. "Banks can save tens of millions of dollars per year by improving their liquidity forecasting. This is also an important theme of regulators, which are asking banks to better manage and predict their liquidity requirements."

In real-time payments, there is much less need for liquidity monitoring. The vast majority of real-time payments are person to person, domestic transactions. These are generally low-value and the liquidity to manage such payments is almost non-existent because in a real-time system the transaction is immediately settled at the central bank or is pre-funded. In a real-time payments system, liquidity is brought into the transaction when the payment is made. Because there is no liquidity shortfall there is no need to report on it, which relieves banks of a significant burden, although they will always ensure that they are safe and there is no liquidity gap.

With the advent of real-time payment systems, the industry is moving away from the traditional end of day settlement process to repeat intraday cycles, says Raw. "In UK Faster Payments the deferred net settlement process runs three times daily and it is imperative that this scheduling becomes part of an active intraday monitoring cycle, by anticipating and preparing any funding requirements in advance of each settlement. Each UK participant is responsible for setting its own net sender settlement cap and in our experience routinely review and flex it to ensure it is sufficient for their needs. Ideally it should always cover the largest expected debit position of any cycle, so it requires active management to ensure it is sufficient for Faster Payment Service flows."

Real time in retail payments

Earlier this year, EBA Clearing made available the specifications for its future pan-European instant payment solution scheduled to go live in November 2017. Its goal is to deliver a liquidity-efficient, pan-European instant payment service, compliant with the European Payments Council's SCT Inst scheme, which is based on the Sepa credit transfer.

There are some hurdles to overcome, including the definition of how fast a fast payment is (the time differs among countries), says Pascal Augé, head of global transaction and payment services, Societe Generale. For example, there is discrepancy between what the industry can deliver and the expectations of regulators. "The industry is being asked to invest significant amounts of money and time into functionality for which there is not yet a firm business case. At present, banks are trying to understand what type of commercial offerings they can put in place that will balance the investment that has to be made in real-time capabilities. It is difficult to see that a return on investment will be possible."

Matthew Williamson, global head of payments at Misys, says the success of real-time payments systems will come down to the success of end to end, non-functional requirements. "In processing you can make the delivery very fast and implement a 15 second response time, but if you also have to do postings, sanctions watch list checks etc in the same workflow, it becomes challenging," he says. "Each of these has real-time characteristics, but with batch processing in many banks, they must think about potential pinch points. As the value of the transactions that flow over these systems grows, we can expect to see the higher value systems transferring to these channels, which are free."

Financial institutions will have to make architectural changes to meet the most challenging performance requirements. "For example, memory-based systems may be required but it will be a while before the larger banks look at re-architecting. As with everything, there will be a tipping point but it isn't like Sepa where regulators were mandating change. Banks will need to make internal business cases for transformation."

Richard Chapman, head of strategy, FIS reconciliation solutions, says "true real time" implies 100 per cent availability with a central infrastructure operating 24x7. "Reality translates this into a more realistic, but still daunting (for some players) commitment to 99.995 per cent uptime, or under 30 minutes downtime per year. This means that an annual 30-minute software upgrade would invalidate the service level agreement."

Chapman says the march toward the instant gratification of immediate payments looks set to continue. "Instant surely is the new norm. But speed is not the sole driver at play, the ability to innovate on top of instant payments in a contextual environment is 'the killer app' for banks."