# The changing face of intraday liquidity management

Today, global financial regulators prioritise the active management and monitoring of intraday liquidity systems and processes.

In 2008, lax lending standards and cheap credit fuelled a housing bubble that when eventually burst left banks holding trillions of dollars of worthless investments in subprime mortgages.

This was the crisis that rocked the banking and financial industry, reverberating throughout the world resulting in some major financial institutions being unable to both pay depositors and provide sufficient liquidity to cover their requirements for the day.

Analysts would tell you dozens of things about what caused this crisis, but the bottom line is it was caused by a lack of data and non-existent regulatory frameworks for stress testing risks. Mainly, most financial institutions were uninformed.

## Regulatory adoption

Not wanting a repeat of that disaster, European and Asia Pacific countries have adopted and implemented Basel Committee on Banking Supervision (BCBS) 248 in their regulatory framework.

**Nadeem Shamim**, Global Head of Cash and Liquidity at SmartStream, explained that the BCBS 248 is a set of guidelines that would enable banks to effectively monitor and manage their intraday liquidity and related risks in a timely manner.

Nadeem said these frameworks have served the industry well, given its dynamic nature. The BCBS 248 involves a review and strengthening of processes, data availability, data quality, and calibrating of internal models. It also requires banks to review counterparty behaviour through current state assessments and stress tests.

These reviews aim to enable banks to efficiently perform informed liquidity management operations and navigate market uncertainties amid high-volatility situations and changing fiscal and monetary conditions.

## Continuously evolving

A 2008 paper was followed by the Basel Committee's Monitoring Tools for Intraday Liquidity Management in 2013, which equipped national banks with tools to monitor banks' management of intraday liquidity risk and to evaluate their exposure to future liquidity crises.

The process continues to evolve. Today, global financial regulators are prioritising the active management and monitoring of intraday liquidity systems and processes.

In its guide to the internal liquidity adequacy assessment process, issued in November 2018, the European Central Bank reiterates the requirements laid out in Article 86(1) of the European Banking Authority's Capital Requirements Directive IV.

From a regulatory standpoint, the focus has shifted from monitoring and reporting financial institutions' liquidity usage, to the clear demonstration of actual management of their liquidity at regular intervals (in effect real time) — rather than just at the start or end of the day — demonstrates how their intraday liquidity position unfolds throughout the day, and when 'peak' daily funding requirements are likely to occur.

## Intraday liquidity challenges

There are two constant challenges for APAC banks in managing intraday liquidity: the first is falling short of liquidity and the second is having too much, both of which, Nadeem said are a waste. Both can drive up the cost of intraday liquidity.

"Currently, factors that drive the cost of intraday liquidity are related to increased interest rates," said Nadeem. "If you don't know what your liquidity need is going to be during the day, and you make your funding decisions on that basis, then it's likely that a late request of liquidity will come from the business leading to borrowing late in the market and potentially higher cost of such borrowing."

"But on the flip side, if you don't know your liquidity needs, you may end up leaving more money, more liquidity in the account. There's a cost associated with leaving extra liquidity at the Central Bank, nostro agents as well. Instead of getting interest income, you ended up paying the cost of leaving unplanned liquidity," Nadeem added.

Nadeem's comment is drawn from his role at SmartStream, overseeing the offerings related to cash and liquidity management, ensuring that these tools provide clients with the confidence, compliance, and control of short-term liquidity with automated real-time visibility, monitoring and management, including BCBS 248 reporting.

SmartStream, whose solutions span the financial transaction lifecycle, has a 40-year track record of serving the world's top banks, capital markets, and buy-side corporations. Its cash and liquidity management solution assists financial institutions to consolidate siloed infrastructures to create a single, global view of balances across all currencies and accounts.

"At the peak of the Covid-19 pandemic, there was so much liquidity sitting around, there wasn't enough focus. Now, with higher interest rates and quantitative tightening, banks want to know which department and which underlying customers are the users of liquidity so that potentially banks, the Treasury or the ALM (Asset Liability Management) department can start charging funds transfer pricing within the organisation. So, there's a revenue driver as well."

Meanwhile, real-life challenges also hound intraday liquidity management that affects funding decisions. These include varying interpretations of regulatory and compliance principles across different jurisdictions, legacy systems, and fragmented operations due to siloed technologies across trading, trade finance, core banking, and other internal systems.

Data and organisation are other challenges as some financial institutions still perform time-consuming and labour-intensive manual data collection.

"This process requires employees to collate the information, cleanse the information, prepare daily reports for the business and period reports for the regulator," Nadeem explained. "If a bank operates in two jurisdictions, you have two regulators to comply with. If you're global, you have your home regulator and then all the other operating regulators to satisfy and that needs additional effort and resources."

"These manual processes cannot inherently give you real-time information. It means that there's a lot of handover of data from one part to the other, extracting data from one system, validating it, handing it to somebody else, keying it into a second or third system, validating it. This leads to a lot of reconciliation of data from between different parts of an organisation," Nadeem stressed.

**Bridging the gap with technology**

As the global financial landscape changes, institutions have the opportunity to transition to automated, responsive liquidity management systems to meet the demand for real-time and faster payments. Instant payments and Distributed Ledger Technology (DLT) are becoming increasingly pervasive, whilst SWIFT GPI now allows cross-border transfers within minutes. Central banks are moving toward 24/7 operations whilst securities markets are reducing settlement cycles.

"Specific to intraday liquidity, automated systems provide proactive management by systematically generating alerts. The tools will tell you your current point in time position" Nadeem said.

AI-driven solutions are the next stage in predicting liquidity. As cloud computing evolves and becomes more affordable, financial institutions will be able to consolidate historically siloed data, and leverage AI or machine learning technologies. One benefit to this is having the power to adopt forecasting or predictive modelling.

"Asian banks are data rich, but information poor. Having a tool that gives them the ability to gather that information into one place and provide analytics to find the liquidity is critical," Nadeem continued.

"When the above regulatory requirements are embedded in banks' operations, having those automated systems doing the regulatory work is easy. Having an integrated liquidity solution that has the ability to distil that data into information, provide analytics on liquidity usage and deliver automated regulatory reporting is key."

"That then becomes the BAU (business as usual) process. Solutions like ours provide real-time cash management, real-time intraday liquidity management, regulatory reporting, stress testing, all in real-time and on-demand," Nadeem said.

**Stress testing**

In this ever-changing and hard-to-forecast economic and regulatory landscape, APAC banks need to balance cautious liquidity and intraday liquidity, amongst others.

"The whole purpose of regulatory reporting is to help manage the business in a more efficient and risk-mitigated, not risk-free, manner," Nadeem said. To do this, banks must test their positions against various scenarios.

Where stress tests were previously conducted periodically, regulators have called for shorter periods between the tests. "Some Asian banks operating on a global basis run this on almost a daily basis because they understood the value of it."

Automated, dynamic stress-testing tools will enhance the banks' risk identification, prevention and management capabilities, with tangible metrics. SmartStream's own intraday liquidity stress testing modules enable institutions to run comprehensive scenarios in minutes based on four stress tests:

- Own financial stress, when a bank has to fund more payments than they have and consider how this affects their daily maximum intraday liquidity usage, available intraday liquidity at the day's start, total payments and time-bound payments
- Counterparty stress, when a major counterparty is unable to make payments
- Customer bank's stress, when a customer is unable to make payments, the correspondent bank must consider its impact and extend intraday credit lines
- Market-wide credit or liquidity stress could limit a bank's ability to raise intraday liquidity from a central bank or correspondent banks.

These automated stress testing solutions not only simplify operations but also keep banks in good standing with their regulator by providing a more comprehensive way to comply with regulatory reporting.

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**What banks can do now**

As the problem of most Asian banks is being too data rich but information poor, the cost of analysing data is considerable. What they can do is to let cloud computing consolidate data usually siloed in various systems and locations at a lower cost.

This also means banks can leverage new tech such as AI and machine learning, moving from historical data-based modelling to forecasting/predictive modelling. One such valuable application of such technology is that it lets banks assess if and when unsettled transactions will settle, especially once the market liquidity starts reducing.

This will act as an early warning mechanism for banks to make decisions on when to draw on their intraday credit lines with the central bank or with their correspondent bank, but also on releasing further payments to that particular counterparty.

**A regular risk**

Eliminating the risks that come with intraday liquidity is impossible, as with any risk. According to Nadeem, these risks will continue to challenge Asia Pacific banks.

"What banks can do, however, is to be able to monitor and manage that risk on a regular basis and update the risk management framework," Nadeem said.

SmartStream's On Demand / SaaS solution is a good way for banks to explore a proactive, effective technology that can address the challenges of intraday liquidity management, whilst taking advantage of reduced cost of ownership and cost of implementation. With this, a bank can now be both data and information-rich.