WHITE PAPER

The hidden benefits of intraday liquidity management technology

FINANCIAL SERVICES

Beyond compliance

Banks, financial services firms, and global corporates bound by intraday liquidity regulations have an opportunity to build a stronger competitive position. Though commonly overlooked, intraday liquidity management offers benefits beyond compliance alone. There are numerous financial and non-financial benefits to consider, as well as new technological tools that simplify these complex treasury functions. Beyond compliance lie ideas and possibilities worth considering.

Liquidity management in the financial market

All institutions seek to limit exposure to risk. Liquidity management plays a key role in overseeing an institution's available access to cash to meet debts and collateral obligations without incurring substantial loses. Intraday liquidity management (ILM) is a necessary and important function within financial markets, as banks, financial services firms, and global corporates must have enough cash to deal with unexpected crises and still make payments in real time. To ensure an organization can meet its financial commitments, ILM relates to the measurement of payment, clearing, and settlement (PCS) activities throughout the business day versus the more traditional end-of-day approach.

Prior to the economic recession and global financial crisis of 2007 to 2009, banks already viewed liquidity management as a navigational variable, but did not perceive the threat that insufficient liquidity buffers allowed. At that time, regulators did not prioritize liquidity risk over other areas of focus like credit and operational risks.

Following the disastrous financial crashes, however, liquidity management quickly became a topic of great concern for banks, financial services firms, global corporates, and regulators. Many regulators essentially blamed a lack of financial oversight and lack of liquidity at financial institutions for the crisis.

Emphasis on intraday liquidity escalates

Around the world, the post-crisis response saw the international Basel Committee on Banking Supervision (BCBS) generate **Basel III** in 2009 as a global regulatory accord with reforms targeting risk management and regulations for the banking sector. This policy aimed to ensure higher liquidity buffers were held by banks. **FinTech News** said BCBS “published a set of monitoring tools that set out for banks to assemble the data to enable sufficient supervision.”

Basel III also introduced the Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR), which evaluate funding steadiness and address liquidity risk to some degree.

Then in 2013, the **BCBS 248 Monitoring tools for intraday liquidity management** were released. BCBS 248 offers additional guidance and new intraday requirements. BCBS 248 requires organizations to demonstrate to regulators an understanding of intraday positions and identify peak balances monthly. The purpose is to prove to regulators that the organization holds intraday liquidity buffers that are large enough to survive a worse-case overdraft situation.

In the U.S., the **Dodd-Frank Act** was passed in 2010 including, in part, annual stress testing administered by the Federal Reserve for banks with over $50 billion in assets. While the **Prudential Regulation Authority (PRA)**, part of the Bank of England, has been a vocal driver of intraday improvement, the Federal Reserve has also promoted intraday liquidity.

However, for quite a while regulators were slightly passive and non-prescriptive regarding intraday liquidity risks—but recently that has changed.

The PRA issued the **Statement of Policy Pillar 2 Liquidity** in February 2018 which assess intraday liquidity risk. Then, in late 2018, **new guidance** from the European Central Bank (ECB), one of the world’s large regulators, was released to address liquidity—with intraday as a key aspect of the update.

Regarding intraday liquidity and related regulations, consulting firm **Oliver Wyman** said, “Every day, trillions of dollars of payments are exchanged to, from and between every type of entity, including individuals, financial institutions, corporations, infrastructure providers, and governments.

Intraday liquidity is the grease that oils these exchanges. The financial network is highly interconnected; the failure of a participant to meet these payment, clearing, and settlement obligations can have a material impact on connected counterparties, and ultimately lead to systemic disruption. Given the critical nature of intraday liquidity management at financial institutions, it is no surprise to see increased scrutiny from regulators during the post-crisis regulatory wave."

Oliver Wyman also recently updated its guidance to indicate that "corporate treasurers should remain in close touch with bank providers to ensure continuity of services. In particular, corporate treasurers should consider monitoring payment activities to ensure banks’ attempts to manage intraday liquidity through throttling of payments do not impact time-sensitive obligations."

Global regulators have begun applying more pressure to demonstrate monitoring and reporting capabilities. So far, that has been the main driver for intraday activity in banks. However, the most forward-thinking financial services and global corporates also recognize that intraday control is critical to running an efficient business. Innovative thinkers and leaders in the industry are now looking beyond simply compliance and exploring the potential financial and non-financial rewards of a more hands-on response to ILM.

Financial benefits

Financial and cost savings from proper intraday insight accrue from a range of areas. These include the following (note: financial and percentage figures are for illustration purposes):

Reduction in intraday liquidity buffers—These savings can be enormous, running into the annual tens of millions for global organizations (e.g., one global organization cut its intraday liquidity buffer by approximately 25%, resulting in annual savings of $50 million).

Funding cost reduction (short position)—A financial institution holds a certain value in overnight balances. Often, these nostro accounts can impact up to 50% of their accounts with balances ranging from $50,000 to $100,000 per account. Depending on the number of total nostro accounts, this combined exposure could be $50M to $375M. Given a 1.5% interest cost of borrowing, any reduction in this borrowing can have an impact. Financial observers have seen realized reductions of 20% to 30%, yielding an annual benefit of from $200,000 to $1.7 million.

Funding cost reduction (major restructuring/changes)—Organizations must look at the average amount of funding per day that they need to balance an account over the total number of accounts to fund up from a short position. Often up to half of the organization's accounts need this funding to be balanced. Although there is a smaller interest premium to cover this when multiplied by the large annual funding costs, this benefit can be from $750,000 to $3.4 million.

Reduction in lost opportunity (long position)—Similar to the above, organizations must look at the average amount of funding per day that they need to balance an account over the total number of accounts to fund down from a long position. Often up to half of the organization's accounts need this funding to be balanced. The opportunity return value is quite high, ranging from 5.8% to 6.6%. This reduction in lost opportunity can drive annual benefits from $700,000 to $7.5 million.

Reduction in cost of accessing credit—Organizations maintain a number of correspondent relationships (often between 100 to 250). Approximately 70% of those require maintaining a credit line—held open with pre-funded cash, collateral, or a credit line. With a cost of around $100,000 annually for each credit line, a 10% to 15% savings rate could provide an annual benefit of $700,000 to $2.7 million. Additionally, for those relationships that must be prefunded at a cost of funds from .5% to 1%, with a reduced collateral requirement from 20% to 30%, the annual benefit could be in the $2 million to $14 million range.

Non-financial benefits

Managing and demonstrating control over intraday liquidity also leads to many non-financial benefits, such as:

Maintaining regulatory compliance—Compliance is met when management and control over intraday liquidity can be demonstrated. The benefits of gaining the regulator's trust are twofold. Firstly, an improved relationship with the primary and national regulators, meaning an efficient and compliant business, reduces the intensity of future regulatory scrutiny. Secondly, this sends a positive message to the support staff and a strong statement to the business, to internal management, and to clients. Furthermore, as regulatory requirements and guidelines are updated or expand, the proper software tools can help automatically update any changes in banking systems.

Developing accurate cash forecasting—Giving the organization's treasury unit increased visibility into when they have money and when they need money for operational requirements, allows financial institutions to create added value. Interest rates have dipped into negative territory in parts of the Eurozone, Switzerland, and Japan, which has a significant effect and cost implications, requiring treasury units to more closely manage intraday and end of day balances. Proactive intraday control helps the treasury:

- Improve cash forecasting and funding based on actual balances rather than relying on fuzzy ledger positions.
- Understand better how long (days, weeks, months) they will be in a particular excess or shortfall on their currency cash position.
- Reduce both the frequency and size of funding swings with fewer large exposure situations requiring internal management reporting.
- Utilize excess currency balances in other markets that close later in the day (same day currency swaps).
- Improve the service to business groups and clients by extending funding cut-off deadlines.

Understanding credit risk considerations—Options on dealing with late incoming payments are more flexible. More options mean organizations can identify, investigate, and challenge when counterparts and clients regularly pay late. They can also receive earlier notifications about unadvised payment receipts and more timely accounting. Intraday control also provides clear insight over the value of overnight nostro balances and consistent daily management reporting so that targets can be set that reduce credit risk if correspondent banks default.

Optimizing cash management, intraday liquidity, and funding—Having global insight over balances as they settle minute-by-minute throughout the day enables organizations that operate across international markets to adopt more flexible locational support. A treasury unit strategically based in Hong Kong, for example, can effectively manage and fund the currency positions when it operates within the local time zone of the Asia currency clearing systems. However, it is not best located to manage the intraday liquidity and funding of European currencies, or the Americas markets.

ILM technology can provide insight into balances in real-time at both currency and legal entity level. This enables the treasury unit, in London as an example, to manage the Sterling and European intraday funding for the Asian and Americas legal entities. The group's entire US dollar cash management and intraday funding could similarly be managed by a treasury unit based in New York.

Controlling dashboard and alerting—A control dashboard should incorporate daily balance proofing which ensures the cash flow data base is both complete, accurate, and reliable.

The control dashboard should be designed to confirm the source data received in real-time is complete and in sync with clearing and correspondent bank accounts at close of business each day. Exceptions—such as missing bank statements and cash flow messages—are highlighted for further investigation. This control process ensures funding decisions are as accurate as possible and enables end users to investigate and correct exceptions sooner than present and where necessary improve service from the agent network.

Alerts are generated when thresholds are breached. Alerts are also published to the user's dashboard and can also be communicated by email. Alerting, along with machine learning, can help alleviate the burden of real-time liquidity monitoring. This allows employees to better focus on value-added analysis instead of data processing.

Improving global network management (GNM)—Managing the relationships of agent banks with transparency and control is important and the related intraday benefits include:

- Gaining control over new account openings, a constant challenge faced by GNM. It is possible to enforce the control process as it requires the input of specific data to identify each new clearing or correspondent bank account. Payment activity over accounts not set up in the system can be written to an exception queue for immediate investigation.
- Taking a consolidated view of the organization's activity with a correspondent bank, at the account level, to build a profile showing start of the day balance, turnover debit and credit, intraday liquidity usage, credit line, intraday credit exposure, and overnight balance.
- Managing the relationship with the correspondent bank to understand balances, trends, increases and decreases in number, and value of transactions in a stronger profile that will better position the GNM to manage.
- Leveraging a consolidated view of the entire correspondent bank network and enabling users to create consolidated views where the firm's legal entities operate accounts with multiple correspondent banks in the same currency. This can be used to better understand existing flows, volumes, and values.

Exploiting netting—Get insight over inter-company transactions which are using intraday liquidity as they settle externally over correspondent bank accounts. Much of this liquidity usage can be eliminated by techniques that net or internalize the settlement. This also reduces settlement costs. Counterparty netting helps identify settlement activity that should be netted, but are not, through industry services and where bi-lateral netting would be advantageous by reducing settlement risk for both parties.

Understanding technology's role

In the scope of liquidity risk, including intraday, regulators now expect a demonstration from institutions of strategies, policies, processes—and systems—for the management and monitoring of related activities. When the PRA released the Statement of Policy Pillar 2 Liquidity, the organization outlined oversight of liquidity measures, but added interest in technology along with processes and policies. Regulators now consider the quality of the technology and IT systems banks are using.

More and more organizations rely on technology and commercial market solutions to ensure satisfactory levels of liquidity buffers and take advantage of other organizational benefits. Leaders are recognizing the advancements and reliability of software technology today, and that any challenges of technology implementation are outweighed by finding solutions that make an impact across the organization.

Attributes of top technology

Not all software is created equal. When it comes to large financial investments, details matter. Modern banking software that is flexible and innovative to match the needs of each bank typically has several common characteristics. When considering intraday liquidity management software, look for this type of functionality:

Business configuration—Summarize and aggregate data to reflect your business model with drill-down to transaction detail.

Approvals workflow—Support “four-eyes” control and audit for your critical changes to data.

Industry standard—Accelerate implementation and minimize risk by using industry standard message formats, such as SWIFT.

Grid views—Display relevant balances and transactions in spreadsheet-style grids.

Global reporting—Support intraday compliance with templates provided for published regulatory reports that are continually updated to reflect global regulatory changes. Such as "Federal Reserve Resolution Planning & Reg YY."

Graphical insight—Create extensive charting across selected timeframes, including intraday at a minute-by-minute level.

Sophisticated security—Keep the organization secure with wide-ranging user security at both functional and data level with role profiling.

Alerting—Improve processes with real-time alerting based on business-specific monitors—where alerts can be emailed to you or delivered to a dashboard—freeing up the workforce to focus on more strategic, urgent matters.

Data export—Empower users with deeper analysis and data sharing with export capabilities for charts, summarized data, and detailed transactions.

Capabilities to look for

A liquidity management core platform should run on an engine that consumes and intelligently transforms transactional messages from external account providers in real time—via existing financial industry infrastructures—and internal systems across the front, middle, and back offices. This helps ensure financial institutions have accurate, up-to-date data for analysis. Modules and features to look for include:

Intraday liquidity management—Provides comprehensive visibility of an organization's settlement activity across all its direct and indirect accounts—where balances, turnover, and transactions are stored, aggregated, and analyzed every minute of every day to give real-time intraday insight, including:

- External intraday advice
- EOD statements
- Alerting monitors

Regulatory reporting—Supports compliance with global regulatory monitoring and reporting guidelines and regimes related to intraday activity—that should be regularly refreshed to keep pace with evolving regulator demands across the world, including:

- BCBS 248
- UK PRA intraday regime
- Extended for new requirements as released by regulators

Funding and forecasting—Captures cash flow projections from a organization's internal systems and delivers detailed analytics and forecasts of end-of-day projections for all accounts—and when used in conjunction with ILM, produces a single view of:

- Activity based on projections
- Real-time, accurate forecasting
- Manual adjustments as needed

Payment control—Gain insight into the lifecycle of outgoing payments and the ability to control and smooth payment flows. Users can see the volume and value of payments at each stage of the cycle and are alerted to issues so they can proactively address them and ensure transactions are processed smoothly. Control capability allows the firm to fit within liquidity limits by ‘throttling’ payments that are not considered time-critical.

Other valuable capabilities financial institutions should look for when considering liquidity management software, include:

Intraday stress modeling—Applies analytics capabilities across the rich data history building up over time in the database. Granular data underpinning “typical” or “extreme” days can be modified (e.g., defer payments, halt receipts, modify credit lines) and existing front-end tools used to understand the impact of such stresses. For example, BCBS 248 reports can be re-run to understand the new peaks and troughs under the stressed condition.

Intraday reconciliation—Provides both manual matching and real-time auto-matching capabilities to link together external confirmations from account providers with internal projected ledger bookings. Enables much more timely awareness of the progress of settlement activity to support funding processes. Also delivers enhanced insight on the drivers of liquidity usage by consolidating data from the actual movements of liquidity with data in internal systems that identify the underlying activities driving such movements. This insight supports a range of activities such as funds transfer pricing and business unit allocation processes.

Intraday balance forecasting—Machine learning that uses historical transactions to identify factors driving settlement times and probability of failure. These factors are applied to projected activities to create intraday forecasts of account balances. Forecasts provide early warning of potential issues and alert users when actual behavior deviates substantially from expected profiles. This optimizes intraday liquidity positions, reduces costs, and improves ability to manage obligations.

Inventory monitoring and management—Extend intraday models and allow users to understand forecast and actual intraday positions of securities held across the firm’s network. Insight is given into both the volume of individual securities and their cash equivalent balances - including the impact of haircuts. The module also supports a range of capabilities, including liquidity risk and collateral management, optimization and funding activities.

Vostro monitoring—Monitor and manage intraday activity across client accounts, building on the nostro model utilized in other modules. Clients can be considered individually or aggregated into hierarchies and groupings. Users can understand client behavior, client usage of credit and the impacts on the firm’s liquidity usage. This insight can be utilized to adhere to regulations and deliver BCBS 248 reporting.

Harness the power of intraday liquidity to build a competitive edge

Innovative approaches to liquidity management and related activities, like intraday liquidity, position banks, financial services, and global corporates for greater success and alleviate the pain associated with managing details and changes related to increased regulatory scrutiny that require immediate action. As regulatory scrutiny increases, financial services institutions are turning to technology as an enabler of organizational benefits and opportunities. The key is finding agile tools that work for each unique organizational situation.

Is your business able to easily produce reporting and monitoring right now? Can you prove to regulators that you understand your intraday positions across all your accounts in real time, and hence are in control during the day? If not, time is running out. Banks, financial services, and global corporates that take a proactive track now will avoid falling behind competitively and experience greater efficiencies and profitability.

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