

Impact of Basel III Liquidity Requirements on the Payments Industry

Liquidity management strategy for banks providing payment services



Table of Contents

1. Summary	3
2. Basel III Liquidity Requirements	4
2.1. Liquidity Coverage Ratio	4
2.2. Net Stable Funding Ratio	4
2.3. Implementation in Europe	4
2.4. Implementation in the U.S.	6
3. The Importance of Intraday Liquidity for Banks Processing Large Value Payments	7
4. Impact of Basel III Liquidity Requirements	9
5. Anticipating Liquidity Needs	10
6. Managing Intraday Liquidity	11
7. Conclusion	15
References	15

1. Summary

The rising volume of large value payments has exposed the need to have resilient liquidity management systems. Banks offering payment and transaction services have to consistently manage intraday liquidity risks that arise because of their outstanding payment obligations. A number of regulatory measures have been devised to address the liquidity risks with large value payments. Due to the increased focus on intraday liquidity management, banks are now realizing the need to have frequent projections of cash inflows and outflows arising out of their payments, both settled and unsettled.

According to a survey¹ of participants from payments and cash management industry groups 96% supported the need for an industry practice for intraday cash reporting in order to better view intraday cash positions. The 2008-09 financial crisis has driven the introduction of the Basel III regulatory framework. Although implementation of Basel III varies across different regions, the broad based requirements still remain the same.

Most large banks providing payment services hold reserve accounts with the central bank in their country and hence have easy access to intraday credit provided by the central bank. Collating these inexpensive intraday credits and other such balances and positions across the globe is essential so that proper projections of liquidity reserves can be made by banks while dealing with global payments.

This paper explores the impact of the Basel III liquidity requirements on the liquidity management capabilities of banks providing payments and cash management services and analyzes the need to develop liquidity management solutions that can provide a centralized view of the liquidity balances that a bank holds both short and long-term.



¹ Implementing liquidity risk management. SWIFT, June 2011

2. Basel III Liquidity Requirements

Basel III liquidity framework proposes two liquidity ratios: Liquidity coverage ratio (LCR) and net stable funding ratio (NSFR) which banks across the globe will have to maintain in order to reduce liquidity risks:

2.1. Liquidity Coverage Ratio

The LCR measures ability of banks to meet short term liquidity requirements in a stress/recessionary scenario like significant downgrade in the bank's credit rating. LCR ensures that banks hold sufficient high quality liquid assets (HQLA) to meet expected outflows in a stressed market condition over a short period of time period.

Among the two ratios, the LCR mainly focuses on intraday liquidity management to meet expected cash outflows in the event of a crisis.

2.2. Net Stable Funding Ratio

The NSFR measures the liquidity management capabilities of a bank in the long term. NSFR says that long-term assets of a bank like loans are required to be supported by more stable sources of funds such as retail deposits or Tier 1 capital over a period of one year. This ratio compares the assets and liabilities of the bank to ensure that bank is not funding its main business lines with unsecured or short term sources of funds.

2.3. Implementation in Europe

Within the European Union, Basel III will be implemented with a legislation called **CRD IV** which constitutes the Capital Requirements Regulation and Capital Requirements Directive. The CRD IV legislation was adopted in April 2013 after making amendments as per Basel III. Implementation is planned to begin in January 2015 and complete by January 2019. The CRD IV legislation makes some changes to the LCR and NSFR ratios proposed in Basel III.

Exhibit 1: CRD IV LCR and NSFR Implementation Timelines

	2015	2016	2017	2018	2019
Liquidity Coverage Ratio	60%	70%	80%	90%	100%
Net Stable Funding Ratio	▲ January 2015: Minimum Liquidity Coverage Ratio (LCR) introduced			▲ January 2018: Minimum Net Stable Funding Ratio (NSFR) introduced	

Source: Capgemini Analysis, 2014

Liquidity Coverage Ratio

$$\text{LCR} = \frac{\text{HQLA}}{\text{Net cash outflow over a 30 day period}}$$

High quality liquid assets (HQLA) are segregated into two types: Level 1 and Level 2 assets. **Level 1 assets** must be minimum 60% of total HQLA and include cash, central bank reserves, securities issued or guaranteed by central banks, sovereigns and other organizations which qualify for 0% risk weight under Basel III norms.

No haircut is applied while using the value of these assets in LCR calculations i.e. 100% of these assets can be used as high quality liquid assets.

Level 2 assets can be maximum 40% of total HQLA and include corporate bonds of at least AA- rating, securities issued or guaranteed by central banks, sovereigns and other organizations which qualify for 20% risk weight under the Basel III norms. Haircut of 15% to 40% is applied.

Net Stable Funding Ratio

NSFR is to be reported quarterly and although the mandate is not until 2018, disclosures may be required beforehand in the European Union.

$$\text{NSFR} = \frac{\text{Available amount of stable funding}}{\text{Required amount of stable funding}}$$

Available and Required Funding Requirements

- Weights are assigned to available and required funds.
- Required stable funding is calculated by assigning weights to assets: cash and government bonds (0 -5%), unencumbered mortgages (65%), retail and SME loans (85%), other assets (100%)
- Available stable funding is calculated by assigning weights to liabilities: Tier 1 and Tier 2 capital (100%), core retail deposits (90%), and unsecured wholesale funding (50%)
- European central bank funding is weighted 0%

2.4. Implementation in the U.S.

Liquidity Coverage Ratio

LCR proposal applies to U.S. banking organizations and other important non-banking financial institutions. Liquidity will be monitored differently across the following categories of firms.

Large bank holding companies with over \$250 billion of assets:

$$\text{LCR} = \frac{\text{HQLA}}{\text{Net cash outflow over a 30 day period}}$$

Regional firms with \$50 to \$250 billion assets:

$$\text{LCR} = \frac{\text{HQLA}}{\text{Net cash outflow over a 21 day period}}$$

Small bank holding companies with under \$50 billion assets would not be subject to LCR. HQLA are segregated into three categories: Level 1, Level 2A and Level 2B assets. **Level 1 assets** should be minimum 60% of total HQLA and have 0% risk weight under Basel III, so no haircut will be applied.

Level 2A assets have 20% risk weight under Basel III and a 15% haircut will be applied. **Level 2B assets** include corporate debt and equity and are subject to a 50% haircut.

LCR is planned to be 80% implemented starting January 2015 in the U.S. and is targeted to complete by January 2017.

Exhibit 2: LCR implementation timelines in the U.S.

	2015	2016	2017
Liquidity Coverage Ratio	80%	90%	100%

Source: Capgemini Analysis, 2014

Net Stable Funding Ratio

NSFR implementation in the U.S. remains the same as in the European Union.

3. The Importance of Intraday Liquidity for Banks Processing Large Value Payments

Monitoring liquidity efficiently is a key to profitability for many institutions. Adequate liquidity coverage can reduce credit and settlement risks that arise when large value payments are settled and cleared. Most of the regulatory frameworks like Basel III are designed with a focus on improving the profitability of the entire system by strengthening the resilience of banks in times of extreme financial distress; and maintaining the required levels of liquidity is one way to do this. Banks providing payment services manage their cash inflows and outflows throughout the day in such the way that the value of incoming payments is equal to the value of outgoing payments. So, in an ideal scenario the liquidity exposures should be netted out in a given day.

However, many large banks continue to face liquidity exposures in billions throughout the day. Large value payments are managed by matching the expected timing of outgoing and incoming payments. This has to be worked out in coordination with all the participants and correspondent banks in the system. Frequent delays in payments by one party hampers the liquidity profiles of other banks in the system as they will receive funds later and will have to use their own reserve balances to fund outgoing payment obligations.

In order to mitigate these liquidity risks, a number of regulatory measures have been introduced such as FSA liquidity regulations in the U.K. and Basel III liquidity requirements. Basel III focuses on strengthening capital and liquidity regulations in the international banking sector. Previous regulatory approaches by the Basel committee (I and II) focused mainly on capital and risk weighted assets requirements.

With the Basel III liquidity framework, the Basel committee proposes stringent liquidity requirements across the banking sectors for the first time. The implementation of liquidity requirements will start from 2015 and is expected to complete by 2019 for all global banking institutions. Basel committee suggests that banks should be able to manage their intraday liquidity positions in a timely manner in both normal and stressed scenarios in order to ensure efficient execution of payment and settlements services.



4. Impact of Basel III Liquidity Requirements

Clients making large value payments usually access global transaction services provided by banks. Banks sometimes need to extend uncommitted (revocable) lines of credit to its clients in order to meet the timing mismatch between payment inflows and outflows. Earlier regulatory requirements did not assign risk weights to such uncommitted lines of credit extended by banks. But now as per LCR and NSFR requirements, banks will need to hold HQLA and adequate stable funds to support these uncommitted credit lines, both in stressed and normal situations.

As a result of these requirements, payment services provided by banks will become more expensive in order to compensate for the rise in cost of stable sources of funds like central bank reserves, government bonds etc. Basel III liquidity requirements will impact banks providing payment and cash management services as:

- Providing payment services will become costlier for banks
- Liquid assets will now have to be set aside by banks to facilitate settlement activities for clients
- Banks will have to ensure that stable sources are used to fund settlement related activities

In spite of the above challenges, banks providing payments services may actually be better off in meeting the newly introduced liquidity requirements. Whenever a payment is processed by a bank, the settlement is made in the central bank money (base money). The reserve or clearing account of the bank at the central bank is used for payment settlements. However, at times situations may arise when the bank's clearing account falls short of funds for settling an anticipated payment obligation.

In such cases most of the central banks around the world make provisions for intraday credit at low interest rates or nominal collateral postings. Banks can therefore focus on maintaining liquid assets and rely on intraday credit sometimes to meet payment obligations. This easy access to intraday credit for meeting payment obligations puts these banks in a better position to maintain high quality liquid assets as outlined by Basel III requirements.

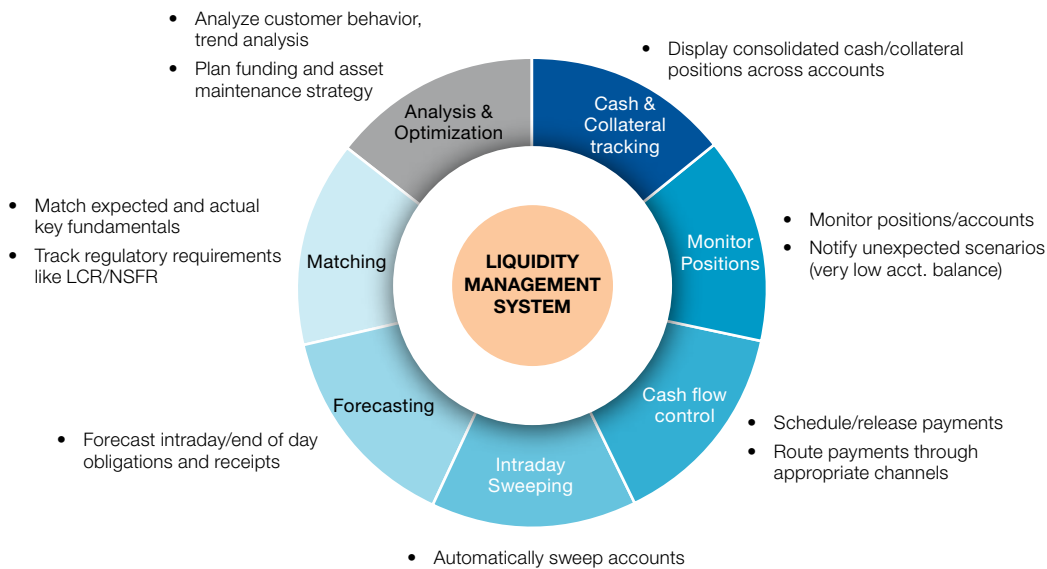
5. Anticipating Liquidity Needs

In order to meet the regulatory requirements, liquidity management systems need to forecast intraday as well as future cash and collateral positions. The aim should be to provide a holistic view of present and future liquidity exposures under normal as well as stress scenarios. Banks need to have liquidity management systems which would provide the following functionalities:

- Consolidated cash and collateral balances from multiple sources
- Cash and collateral pooling
- Enhanced utilization of cash and collateral daily balances
- Calculation of future liquidity exposures in stress scenarios
- Optimized stress analysis of liquidity exposures

The following exhibit represents the main components of a liquidity management system that payment service providers should have in order to monitor their liquidity needs.

Exhibit 3: Components of a Liquidity Management System



Source: Capgemini Analysis, 2014

Many banks dealing with large value payments cater to most of the liquidity requirements in the long run; however, intraday liquidity is an area which has not been focused upon by many banks till date. With regulations like Basel III focusing on short term liquidity, banks providing payment services now need to look at managing short term liquidity, specifically intraday liquidity. Banks can improve intraday liquidity monitoring by:

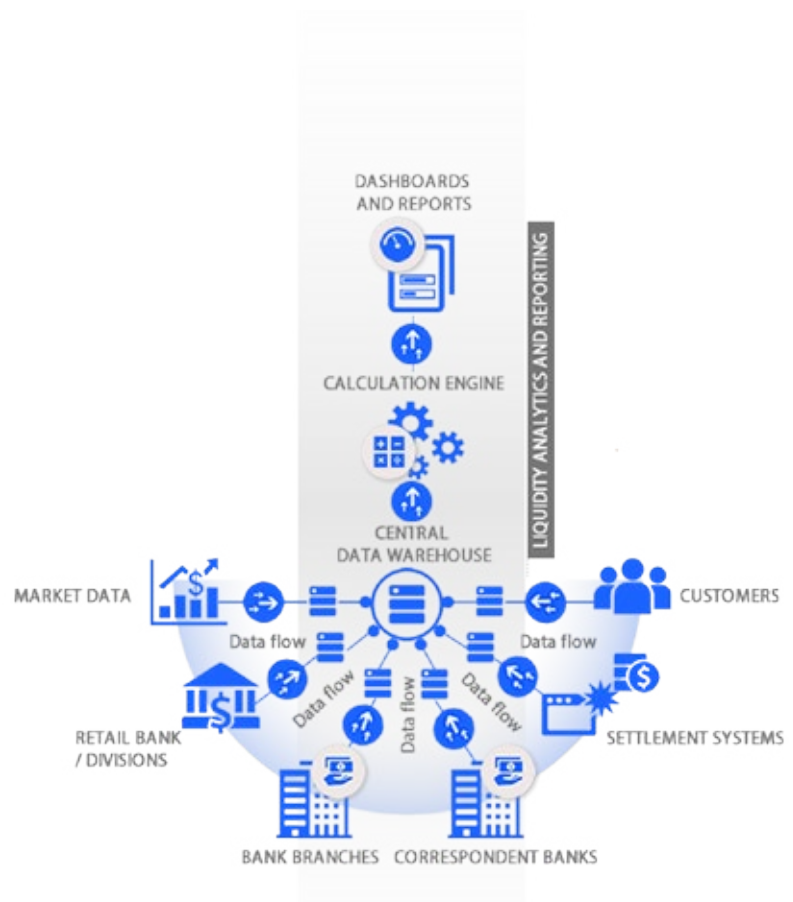
- Simplifying payment circuits, with less correspondent banks, lower open positions with correspondents and more usage of clearing infrastructure
- Moving from indirect participation to direct participation in the clearing infrastructure to improve intraday visibility of traffic and positions
- Implementing intraday liquidity management tools and dashboard

6. Managing Intraday Liquidity

Banks providing payments and cash management services have cash moving in and out of multiple nostro accounts in multiple currencies. So, it is increasingly important that liquidity positions in all currencies across all nostro accounts are projected throughout the clearing day.

This requires holistic monitoring of all transaction accounts in the bank. A centralized dashboard at any point of time in the day should be able to give these details. Lack of a single view of cash positions means that a bank can end up with USD 100 million sitting in Japan and payments queued up in Boston.

Exhibit 4: Information Sources for Intraday Liquidity Reporting



Source: Capgemini Analysis, 2014

Intraday liquidity risk arises whenever there is a huge mismatch in timings of incoming and outgoing payments. Whenever such timing mismatch occurs, settlement banks need to look for alternative sources of funding for the payment obligations so that clients are least impacted and payment are processed without any delays. At present banks commonly handle such risks by developing internal monitors and schedulers providing functionalities like:

- **Handle stress scenarios:** In case of a stress scenario, generate alerts and stop some large value payments or payments to a particular counterparty
- **Assign limits:** Use limits for payments in order to manage credit risk of a counterparty not making payments. Provide limits on liquidity that can be extended to an individual counterparty
- **Manage payments:** Coordinate payment flows to handle unexpected behavior or borrow funds by allocating collateral

However, with the advent of liquidity regulations, it has become imperative for banks to create more formalized methods to manage intraday liquidity. Banks can take inputs from multiple information sources like clearing houses, central banks and their payments systems.

Once the required payment information is collected across multiple currency denominations, liquidity analytics can predict the payment obligations for the day based on trend analysis, customer behavior and past payment data. The actual payments and forecasted payment obligations are compared in order to continuously optimize predictions. At the end of the day expected and actual liquidity position is generated through liquidity reports. This gives banks and payment service providers an overview of their liquidity positions and accuracy of intraday liquidity predictions.

The following exhibit illustrates the main components of an intraday liquidity management dashboard.

Exhibit 5: Intraday Liquidity Management Engine



Source: Capgemini Analysis, 2014

A number of regional and global banks are in the process of implementing global payment hubs. A payment hub lets a bank virtually process all disbursement and collections out of a single process and platform, enabling economies of scale, agility and easier access to information. Making intraday liquidity management easier is one of the immediate benefits brought by payment hubs.



5. Conclusion

With the introduction of regulations like Basel III, the aim of regulatory bodies is to ensure that banks are able to meet their liquidity requirements in both normal as well as stressed financial conditions. Banks will now have to meet their intraday liquidity needs through high quality liquid assets like cash and central bank reserves or government bonds. Banks providing payment services may have easy access to intraday credit provided by central banks and hence may be better off in meeting the newly introduced liquidity requirements.

However, in order to monitor their positions across the globe and collate balances in all accounts standardized reporting tools have to be used. Regulatory bodies and banking consortiums should now look forward to introducing such standardized tools and applications to measure liquidity risks, more specifically intraday liquidity positions while handling large value payments around the world.

Liquidity regulations are likely to make payment services provided by banks more costly for the customers. At the same time it may also lead to a new wave of consolidation of existing suppliers in the areas of cash and liquidity management and global transaction banking. We may also see the emergence of new players with unique payment services business models which can increase competition and bring down prices or increase value for customers.

References

1. Assessing and addressing the implications of new financial regulations for the US banking industry; Del Anderson, Kevin Buehler, Rob Ceske, Benjamin Ellis, Hamid Samandan, and Greg Wilson; McKinsey & Company, March 2011
2. Basel III implementation – Is the industry running out of time? J.P. Morgan, https://www.jpmorgan.com/tss/General/Basel_III_implementation_Is_the_industry_running_out_of_time_/1320504512062
3. Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools; Basel Committee on Banking Supervision; Bank for International Settlements, January 2013
4. Post-crisis EU financial sector reform: the impact of 'Basel III' on payments; Dermot Turing, European Payments Council, 31.01.11, http://www.europeanpaymentscouncil.eu/article.cfm?articles_uuid=B5BC9EE8-065C-C30B-3580813941DC170C#disqus_thread



About the Author

Anuradha Mohanta is a Senior Consultant with the Business Information Management group in Capgemini Financial Services with over six years of experience specializing in banking and capital markets.

The author would like to thank **Christophe Vergne, Romain Senoble**, and **Jeroen Holscher** for their contributions to this publication.



About Capgemini

With 130,000 people in 44 countries, Capgemini is one of the world's foremost providers of consulting, technology and outsourcing services. The Group reported 2013 global revenues of EUR 10.1 billion.

Together with its clients, Capgemini creates and delivers business and technology solutions that fit their needs and drive the results they want.

A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business Experience™, and draws on Rightshore®, its worldwide delivery model.

Learn more about us at

www.capgemini.com

For more information, contact us at: payments@capgemini.com
or visit: www.capgemini.com/payments

The information contained in this document is proprietary. ©2014 Capgemini. All rights reserved.
Rightshore® is a trademark belonging to Capgemini.

