ACKNOWLEDGMENTS

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Intraday Liquidity Management in Europe: Industry Briefing

I. INTRODUCTION

In April 2013, the Basel Committee for Banking Supervision (BCBS) issued a new reporting framework intended to enable bank supervisors to better monitor the management of intraday liquidity. The monitoring tools published by the BCBS provided guidance for how “a bank should actively manage its intraday liquidity positions and risks to meet payment and settlement obligations on a timely basis under both normal and stressed conditions and thus contribute to the smooth functioning of payment and settlement systems.”

The BCBS identified six operational elements that should be included in a bank’s strategy for managing intraday liquidity risk:

- Have the capacity to measure expected daily gross liquidity inflows and outflows, anticipate the intraday timing of these flows where possible, and forecast the range of potential net funding shortfalls that might arise at different points during the day.
- Have the capacity to monitor intraday liquidity positions against expected activities and available resources (balances, remaining intraday credit capacity, and available collateral).
- Arrange to acquire sufficient intraday funding to meet its intraday objectives.
- Have the ability to manage and mobilize collateral as necessary to obtain intraday funds.
- Have a robust capability to manage the timing of its liquidity outflows in line with its intraday objectives.
- Be prepared to deal with unexpected disruptions to its intraday liquidity flows.

In the years since the BCBS issued guidance on intraday liquidity management, banks have effectively worked to understand, interpret and implement the framework. Implementation strategies have been varied and the interest rate environment within Europe has added complexity to the topic. With negative interest on the rise and cash due to banks hitting the balance sheet of correspondent banks, cost considerations are further driving change in market practices.

In September 2017, in response to the need for industry best practices and standards, the BAFT Europe Council formed a working group (WG) to examine the increasing importance of intraday liquidity management in the daily routine of transaction bankers. The goals of the WG were first, to survey banks in Europe in order to assess how they had reacted to the market and regulatory pressure of monitoring and reporting on intraday liquidity positions. Second, for WG members to utilize the expertise in their banks to more deeply interpret the survey results within the market framework and determine if best practices exist in the market. And finally, to disseminate the findings of the survey to the industry and evaluate the need for the establishment of an industry standard.

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2 Principles for Sound Liquidity Risk Management and Supervision. Principle 8
3 Surveys were conducted between November 28, 2017 and July 20, 2018.
WG members, in conjunction with FImetrix, developed the survey methodology and invited BAFT’s members in Europe\(^4\) to participate. The survey focused on five key areas:

- Management of intraday liquidity lines and facilities
- Charging for intraday liquidity usage and related services
- Current and future usage of liquidity monitoring tools
- Investments in liquidity monitoring and forecasting
- Deposit management

WG members then reviewed the survey findings in detail, adding the expertise of their financial institutions to the analysis to provide a more granular interpretation of the survey findings in a meaningful market context. This additional input is represented in this briefing paper.

II. MANAGEMENT OF INTRADAY LIQUIDITY LINES AND FACILITIES

Intraday credit lines provide a solution for the timing issue arising from inbound and outbound payments. For example, if a client makes a payment in the morning and does not have enough funds to cover it, the bank can still honor payment as long as funds are deposited into the account by the end of the day. Banks extend a credit facility to support this type of client payment activity.

Two types of facilities are available to meet this need; intraday lines for credit lasting less than one day, and overnight lines for credit lasting more than one day. An intraday line is uncommitted if the bank has not contractually committed itself to providing the company the credit facility. Because the bank does not formally record them as a credit commitment on their balance sheet there is no need to allocate capital to the facility. An uncommitted line does not offer the certainty of funding and can be unilaterally withdrawn by the bank. Some might refer to intraday lines as "established" or "disclosed" but it does not mean that the facility is "legally committed" or documented.

Meanwhile, a committed intraday line requires that the bank contractually commit to providing the financing. Terms and conditions are agreed upon and documented up front between the two parties. The bank must record committed facilities on their balance sheet and allocate appropriate levels of capital to support it.

<table>
<thead>
<tr>
<th></th>
<th>Uncommitted Intraday Line</th>
<th>Committed Intraday Line</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Documentation</strong></td>
<td>Not formally documented</td>
<td>Terms formally agreed to and documented</td>
</tr>
<tr>
<td><strong>Balance Sheet Reporting</strong></td>
<td>Not recorded</td>
<td>Recorded facility</td>
</tr>
<tr>
<td><strong>Capital Allocation</strong></td>
<td>Not required by the Bank</td>
<td>Required to support the facility</td>
</tr>
<tr>
<td><strong>Availability</strong></td>
<td>Can be unilaterally withdrawn by bank</td>
<td>Offers greater certainty of funding</td>
</tr>
</tbody>
</table>

\(^4\)Fifty-one BAFT European Member banks were invited to complete the questionnaire, of which twenty seven banks responded.
Historically, intraday lines were offered by banks on an uncommitted basis, free of interest or charges. With the evolution of real-time clearing and settlement schemes, banks and corporates are reviewing their approach to intraday liquidity and intraday credit lines.

The survey responses showed that banks diverge on whether the intraday line is offered on a committed or uncommitted basis, regardless of duration. Further, among the surveyed banks, there are different interpretations of how committed is defined. However, the survey findings show that nearly one third of the respondents say their provider banks offer them committed intraday liquidity facilities. This percentage is surprisingly high given the uncommitted nature of intraday lines in the past.

All survey respondents that offer a committed intraday, also indicated they had to post collateral (i.e. allocate capital) to support committed intraday credit facilities. This confirms that these lines are not just being viewed as “disclosed” or “advised” but are formally documented and recorded on bank balance sheets as committed facilities.

The survey also highlighted that the rise in committed intraday facilities seems to be geographically wide-spread. Banks have a closer focus on intraday liquidity management as a topic, which might link back to their regulators also being more active on the topic.

### III. CHARGING FOR INTRADAY LIQUIDITY USAGE AND RELATED SERVICES

With the advent of faster and instant payments and the necessity to settle in real-time environments, intraday usage of liquidity is in growing demand. As is the pressure to create tools to measure and control liquidity on an intraday basis. Add to this the increasing regulatory pressure on banks to be able to identify and control their liquidity positions on a 24/7 basis at any point in time, and the related costs of creating and maintaining IT systems capable of doing so, it is no wonder that the topic of charging for intraday liquidity is of growing importance to banks.

The survey results indicate that BAFT member institutions in Europe are currently being charged for the utilization of intraday liquidity linked to a prioritized treasury clearing service such as CLS and less so for treasury clearing activity outside CLS (see table below). In addition, nearly one half of banks indicate they are being charged for intraday liquidity position reporting outside of CLS and more than one-third are required by their service providers to put up collateral to support their potential intraday liquidity needs. Certainly, credit and risk assessment of bank counterparties plays an important role in the question of collateral provision.

<table>
<thead>
<tr>
<th>Percent of banks being charged for forms of provider bank support for intraday liquidity positions</th>
<th>Inside CLS</th>
<th>Outside CLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>For utilization of intraday liquidity related to Treasury settlement</td>
<td>65%</td>
<td>35%</td>
</tr>
<tr>
<td>For receiving reports on your intraday liquidity position</td>
<td>15%</td>
<td>46%</td>
</tr>
<tr>
<td>For requiring collateral to support your bank’s potential intraday liquidity needs</td>
<td>19%</td>
<td>39%</td>
</tr>
</tbody>
</table>
Also, there are regional differences to the extent that banks are currently being charged for intraday liquidity, as confirmed by studies conducted by FImetrix in Asia/Pacific Rim, Central & Eastern Europe, Latin America and Middle East/North Africa\(^5\) over the past two years. In these regions, considerably fewer banks indicate that they are charged for intraday liquidity, for intraday liquidity reporting and for providing collateral versus similar banks in Europe (see table below). It appears that charging is more common among banks located in a geographic region where IT systems currently exist to measure and monitor intraday liquidity -- and regulatory pressure is higher.

<table>
<thead>
<tr>
<th>Percent of banks in other regions being charged for forms of provider bank support</th>
<th>APAC</th>
<th>CEE</th>
<th>LatAm</th>
<th>MENA</th>
</tr>
</thead>
<tbody>
<tr>
<td>For utilization of intraday liquidity related to Treasury settlement</td>
<td>17%</td>
<td>6%</td>
<td>1%</td>
<td>13%</td>
</tr>
<tr>
<td>For receiving reports on your intraday liquidity position</td>
<td>8%</td>
<td>22%</td>
<td>21%</td>
<td>13%</td>
</tr>
<tr>
<td>For requiring collateral to support your bank’s potential intraday liquidity needs</td>
<td>2%</td>
<td>7%</td>
<td>1%</td>
<td>4%</td>
</tr>
</tbody>
</table>

To understand and predict where charging for intraday liquidity is heading over the next couple of years, a number of factors that can influence this trend need to be considered.

### 1. Development stage

The first factor is the current stage of development of a bank’s automated systems to accurately measure, monitor and internally book intraday positions. Some banks are more advanced than others, but we can in general describe the situation as in an “infant stage” in the market. Quantifying the inefficient way of managing intraday overdraft limits (IODL) would help banks to critically assess their position and build a business case internally to push for further enhancements of their existing systems. Charging for IODL could influence banks to distribute payments on an intraday basis, but in order to do so, the technology and tools need to be in place.

### 2. Cost

The cost of creating or modifying existing systems with the goal of having an operable and reliable intraday liquidity management system is the second factor. Banks view these costs in different ways and have developed different views on how to assess costs and allocate expenses. Banks’ internal projects that focused on intraday liquidity management may come to various conclusions on how to proceed and certainly will vary from bank to bank. This is particularly true as such an investment decision is not being made solely by transaction banking management, but involves the Treasury, trading, risk management and other directly affected groups within a bank. These groups may well have different viewpoints on the investment strategy. At the same time, pressure to create new or considerably revamped core IT systems could negatively affect the amount of investment that can be made on intraday liquidity management systems. For many banks this type of investment may have to be stretched out over a few years, with increased risk a possible tradeoff.

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\(^5\) FImetrix LLC regional FI studies, Asia/Pacific Rim (2018), Central & Eastern Europe (2017), Latin America (2018) and Middle East/North Africa (2017)
3. Market and competitive pressure

Directly related to system costs are the competitive pressures faced by banks to cover increased capital expenses for large intraday flows – as well as the costs related to additional intraday reporting and problem resolution. One solution is to have clients assume at least part of these expenses. Survey results show that some costs are currently being charged back to client banks, but at a minimal level for banks in most regions of the world with the exception of Western Europe.

Banks, understandably, are hesitant to take the lead in introducing new charges to cover expenses that arise as part of their service offerings. Being the first to ask clients to shoulder additional costs can be risky for the client relationship – at least until other competitors are doing the same. In the end, most banks would prefer to be paid for extra services, and they are usually compensated in some way - but typically only if competitors in the market move in the same direction. Still, the pressure for banks to receive some form of client compensation for intraday liquidity management services will persist, along with the likelihood that banks will need to pass on these costs to their clients going forward.

4. Technical difficulties

Another factor is the technical difficulty of creating a truly reliable real-time intraday liquidity management and reporting system, or, alternatively, modifying an existing system to achieve the same result. Intraday monitoring and charging is complicated not only by the necessity of real-time measurement, but also by multiple currencies, time zones and cutoff times of the clearing houses and central banks. There are also banks that typically wait to see what “best practices” market leaders implement and what direction the market is heading before making a decision on far-reaching investments. This will certainly slow the development of intraday liquidity management systems in the market unless other market forces make the option of waiting less desirable.

5. Regulation

The regulatory variable could considerably influence the speed of developing and implementing intraday liquidity management systems in the market. Capital coverage requirements emanating from large intraday flows have not yet been explicitly addressed by regulators. When this occurs, cost assessments, investments in intraday liquidity management and the client value proposition will all be affected by regulatory actions. Depending on the specific requirements, banks may be pressured into prompt action or may receive a temporary reprieve in their efforts to improve management of intraday liquidity.

The pressure on banks to operate a reliable 24/7 intraday liquidity monitoring, management and billing system is growing. It is being driven by risk management, costs, and the competitive and regulatory environment. Charging for use of intraday liquidity and related services is not yet common practice in the market but is occurring. This trend is expected to increase as banks continue to sort out their strategy regarding how to manage and pay for intraday liquidity. Provider banks will not be able to absorb all the costs of an instant settlement world, and over time, will be forced to charge their bank clients for the benefits of having intraday liquidity access and liquidity related services.
IV. CURRENT AND FUTURE USAGE OF LIQUIDITY MONITORING TOOLS

The ability to measure consumption of intraday liquidity on a dynamic, real-time basis has certainly gathered momentum across the industry over recent years. Real-time tools and systems for capturing intraday liquidity usage support advances in intraday liquidity reporting requirements (e.g. the monthly PRA IDL reporting and other similar Basel 248 reporting) and firms are now adopting or developing such systems to be able to report peak positive and negative uses of liquidity, daily opening balances, volumes and values of payments processed, as well as key drivers of peak intraday liquidity usage such as time critical payments (e.g. CLS and CCP Margin obligations).

Dynamic intraday liquidity usage capture and reporting depends on accurate and timely reporting of activity across the reportable suite of accounts. For example, cash accounts held by an organization at a Central Bank or with a third party Commercial Agent Bank that are employed to provide cash clearing services in a market. Highly sensitive IDL management systems can track the operating balance and use of liquidity across the business day by consuming primarily MT9xx series SWIFT messages sent for an account and plotting minute-by-minute changes to the intraday balance accordingly. Utilization and development of such tools/systems by an organization supports current and future intraday liquidity reporting requirements – both internally and externally and facilitates a better understanding and management of intraday liquidity risk. Furthermore, knowing exact balances and intraday liquidity usage/funding requirements across all the active markets for a firm at any point in the day brings significant advantages to the management of liquidity-related stress events should they occur.

A static, point-in-time system gives snapshots throughout the course of the day, but can miss the exact peak use of liquidity at any point intraday. For example, a system that updates balances on an hourly basis may miss peaks occurring within the hour and doesn’t provide total transparency for a firm regarding peak IDL usage or the true impact of time-critical payments. Achieving a full insight into the intraday activity on any bank account held by an organization with a third party is a partnership between the correspondent bank and the account holder. Timely and comprehensive sets of SWIFT messaging need to be sent by a correspondent bank. This information requires interpreting by a systemic solution adopted by the account holder to realize the true benefits of a holistic understanding of the intraday liquidity picture.

V. INVESTMENTS IN LIQUIDITY MONITORING AND FORECASTING

Regarding SWIFT Reporting, the majority of banks still use standard reporting messages: MT950, MT940 and MT942 (69% of survey respondents). Although they may feel comfortable with this, there is a strong tendency towards other types of messages, such as MT900 and MT910 (62% of survey respondents), showing a clear trend toward achieving real-time reporting. These are the most likely messages that feed into bank’s mainframe, hence representing an integrated solution. In-house solutions are widely preferred, so that a bank can have a single platform that runs across several data points of information (all of the above SWIFT MT messages, as well as the below mentioned e-tools).
There is a surprisingly high usage of e-tools (58%). While in the past, banks preferred not to use numerable online portals, e-tools now seem to be a new trend. This enables a more in-depth control of intraday liquidity, regardless of costs that often arise. It is still unclear how the information is fed back into the system to make intraday liquidity management more efficient – possibly a semi-manual process in many cases. Investments are required and are being made, in order to achieve a unique platform that consolidates and centralizes information (something which is strongly demanded by back office areas).

Partnerships with external non-bank providers are not readily disclosed. For strategic solutions it is likely this option is being closely evaluated by most banks in order to bridge limitations imposed by legacy systems. Further investment on API solutions is also being considered and may well be the right path to follow.

Leveraging technology to understand current data, manage it and forecast intraday liquidity is a must. It can be done through in-house capabilities or external partners. In any event, investments are required to effectively take advantage of data and optimize information management processes.

Finally, with respect to forecasting liquidity capabilities: 42% of the respondents say they are currently investing in this technology, on the bank-to-bank side. On the corporate side, only 29% are investing, but over the next 2-3 years investment is projected to be considerably higher (42%). It may make sense to start with banks due to criticality and to liquidity size, building the foundations for corporates later. As a matter of fact, those banks that were not investing in technology to forecast liquidity positions at the time of the survey (July 2018), are likely be investing now.

VI. DEPOSIT MANAGEMENT

Managing intraday liquidity is an essential yet complex activity. Following the low interest rate environment and desire to strengthen liquidity buffers to meet regulatory guidelines regarding liquidity coverage and net stable funding ratio, there is a clear shift from placing overnight deposits at other financial institutions to placing them at central banks.

Pure overnight placements in the form of unsecured wholesale funding (i.e. interbank money market deposits) have declined since the financial crisis and still are not a common tool. Major reasons are centered on counterparty exposure and associated risk/capital demand at low returns. Also, the value of money market funding as a source has been under scrutiny with financial institutions more inclined to use other instruments.

In 2012, the deposit interest rate on deposit facilities was reduced to zero leading to a material increase of reserves and excess liquidity held in current accounts.

Eighty three percent of survey respondents stated that liquidity is held in current accounts. The European Central Bank’s (ECB) decision\(^6\) to apply negative rates to both time deposits as well as current account balances made banks somewhat indifferent to the deposit instrument being used.

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Bank deposits held with the ECB hit a record high level. What’s next? With the market expecting zero EUR interest rates to move towards positive territory again by the end of 2019, and few banks increasing the size of lending assets, excess cash levels are gradually stabilizing. However, with the loss of confidence in the interbank market for EUR deposits it is unlikely to forecast a sharp fall in ECB held balances in the short term.

Close to two thirds of USD deposits are placed overnight. Compared to EUR, USD are held slightly longer in term deposits with the central banks. Clients may wish to monetize the improved interest rate curve for USD by making use of their excess liquidity. With rising USD interest rates, investment tenors increased as the yield difference between overnight and short-term deposit is relatively large compared to EUR. Changes in the regulatory definition of operational and non-operational deposits also triggered certain excess deposits to be migrated into term deposits which have higher liquidity value for the deposit holding banks.

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VII. CONCLUSION

The survey results, subsequent dialogue among WG members and the broader BAFT Europe Council showed that as liquidity reporting requirements have become standard, banks are increasingly evaluating their use of data for intraday liquidity to:

- understand how they operate on a global scale
- identify which businesses are triggering the liquidity need
- define what improvements can be made with regard to intraday usage
- prioritize among business and client segments leading to divergent pricing and offerings

Depending on the profile of a bank, strategy and geographical position and reach, the focus on liquidity management can vary. A bank with a global reach has access to several markets through local clearing systems and faces different liquidity management challenges than a medium-sized bank leveraging a network of correspondents. Nevertheless, there are common trends that will gain importance in the near future. Liquidity as the new asset class will drive evolution on: smart data analytics with pattern recognition, efficient management in line with a structured and forecast-based collateral management, justified business utilization with appropriate risk/return, client behavior focus with potential to define new products and services.

The advent of real-time and 24/7 payments as the new norm will influence the pace at which banks are forced to look into intraday liquidity management. Legacy systems are still the major hindrance to fulfilling the new requirements. A key priority for banks will be to build partnerships with fintech firms and add new technology to the existing infrastructure. These efforts will enable banks to reach the next level in intraday liquidity management and forecasting.

The concept of “prioritization” is getting a new connotation. While in the past we were looking at it predominantly in the context of settlement in CLS, where charging for liquidity utilization was the norm, payments outside of CLS have gained importance on the timed aspect of their execution through initiatives such as Faster Payments, SEPA Instant, SWIFT GPI, and others. An execution based on value-date processing with no transparency on the methodology applied for releasing payments is no longer an option. Clients want transparency, choice and options.

Banks will need to continue to implement regulatory guidelines that lack a common global approach. For banks operating on a global scale the desire to define a global standard is more pronounced. Currently, banks follow regulations set by domestic regulators in jurisdictions where they operate, but development of a common intraday liquidity management standard would be desirable for the industry and would enhance the client experience. BAFT will continue to actively engage on the topic of intraday liquidity management and will provide a forum for banks to share best practices on how to meet evolving regulatory requirements.