European Central Bank Money Market Contact Group

Frankfurt, March 14th 2017





Regulatory Framework

- Intraday liquidity management relies on different guidelines, rules and principles published by the supervisory authorities:
 - ✓ The « Principles for Sound Liquidity Risk Management and Supervision » published by the BCBS on September 2008 dedicate Principle 8 to intraday liquidity positions of Credit Institutions
 - ✓ Basel Committee on Banking Supervision has published a paper on the monitoring tools for intraday liquidity management in April 2013 (BCBS 248)
 - ✓ The SREP Guidelines published by the EBA in December 2014 insist on the necessity for a
 Credit Institution to measure its intraday liquidity risk and to integrate Intraday Liquidity Risk within
 its stress testing, control and limit framework
 - ✓ The EBA has also published in December 2015 a consultation paper related to the information required under the annual SREP process « Guidelines on ICAAP and ILAAP information collected for SREP purposes » that includes references to the intraday liquidity
 - ✓ In its work programme for 2017, the EBA announced the publication in 2017 of guidelines regarding intraday liquidity





Regulatory Requirements and External Constraints

1 Regulatory requirements: EBA « Guidelines on ICAAP and ILAAP information collected for SREP purposes »

Methodology and policy documentation

✓ Indicators and monitoring tools

"description of the criteria and tools for measuring and monitoring intraday liquidity risk"

✓ Escalation process and back-up plans

"description of the escalation procedures for the purpose of intraday liquidity shortfalls which will ensure payments due and settlement obligations are met on a timely basis under both business as usual and stressed conditions"

√ To be addressed in the Contingency Funding Plan

"description of the inter-linkage between intraday liquidity risk management and the Contingency Funding Plan"

Operational documentation

√ Reporting BCBS 248

"quantitative overview of intraday liquidity risk over the past year with an appropriate frequency"

✓ Report and analysis of the incidents

"overview with explanation of any payments missed or obligations not met in a timely manner"

2 External constraints: interaction between banks, mostly when referring to correspondent banking

- Over the past years, reduction of the offer of correspondent banking services and increase in the price / securities demanded by the service provider, due to the strengthening of regulatory constraints
 - → Necessity to reorganize the general setup of intraday liquidity currency risk management in order to take this evolution into account





Risk Management Framework

Intraday liquidity <u>risk management</u> framework



Intraday liquidity risk appetite

- Quantitative risk accepted for the Group / entities
 - ✓ consists in estimating the amount of the commitment at a set time that a group has to support to exercise its activities



Intraday liquidity Management process

- Documentation of the overall management process
 - ✓ General process
 - ✓ Documentation of the monitoring framework (procedures, RACI, thresholds and escalation process, back-up plans)
 - ✓ Monitoring tools (indicator / reporting both ex ante and ex post)







Maximum risk position accepted at Group Level € / Currency

Transposed at entity level, taking into account the interdependence between entities





Direct Participant Euro

- Intraday liquidity management should have a short term negative impact on collateral scarcity
 - √ Banks already manage their intraday needs with adequate collateral
 - ✓ If process have to be better documented, business as usual needs are well assessed
 - ✓ Banks might plug more collateral to take into account stress
 - ✓ Risk appetite management should require to secure potential stress (overdrafts, committed lines, uncommitted lines, disruptions, operationnal risk...)
 - √ Impact on liquidity reserves and financial communication
 - ✓ Should the collateral plugged for potential stress be withdrawn from liquidity reserve?
 - ✓ Does it impact LCR?



Direct Participant Euro

- · Monitoring tools and infrastructures should reverse initial trend
 - √ Better control of intraday liquidity usage
 - ✓ Ex-post reporting will allow to improve processes and optimize liquidity management during the day
 - √ Full T2S implementation will reduce collateral needs
 - √ Single cash account management
 - ✓ Intraday credit through wider auto-collateralisation capacity
 - ✓ New funding opportunities
 - ✓ Euro infrastructures will facilitate cross border repo and short term issuances



Indirect Participants - Playing Field

- · Rely on correspondent banks in a heterogeneous environment
 - √ Many national regulators have not yet issued their final requirements
 - ✓ Need for strong international common guidance and standards to avoid inconsistent national interpretation across jurisdictions
 - √ Banks use multiple correspondent banks
 - ✓ Service provided can be different from a correspondent bank to another, even in the same jurisdiction
 - ✓ Difficulty to manage nostro accounts real-time instead of end of day balance forecasting
 - √ Banks can hardly take control on payment timing
 - ✓ Subject to correspondent bank own processes and liquidity
 - ✓ Cost for imposing timing



Indirect Participants - Developments

- Correspondent banks have to pass their constraints
 - ✓ Less intraday credit lines from correspondent banks
 - ✓ Split large amount deals
 - ✓ Plug collateral with clearers
 - ✓ Pre-funding
 - ✓ Rolls without movement of funds
 - ✓ In/Out swaps in CLS
 - ✓ Refrain to use arbitrage opportunities
 - √ Cost passed on quotation spreads
 - ✓ Some Treasury desks start to charge large repayments of short term deals (O/N repo, FX Swaps market making)

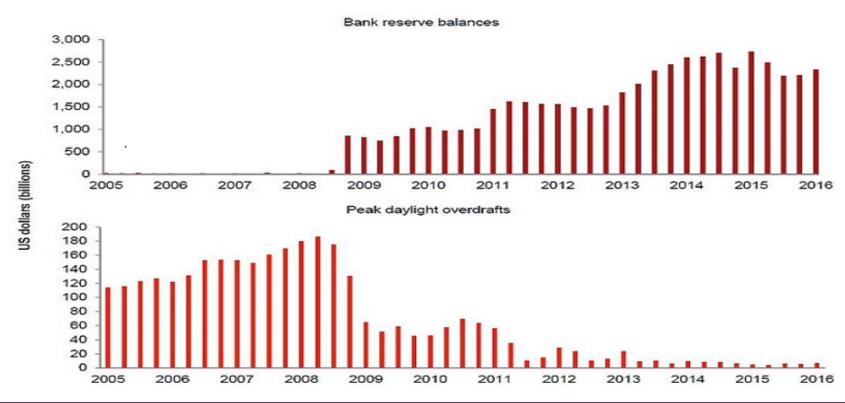




Monetary Policy, a Game Changer

- ✓ Central banks policies might have a strong impact on intraday liquidity management
 - ✓ Low interest rates environment and unconventional monetary policies led to large liquidity surplus at central banks, thereby confortable start of day balances
 - ✓ Rising rates and exit strategies will change the opportunity costs of holding excess liquidity

USD Reserves vs. Intraday Overdrafts Peaks (source PWC)







Appendix 1 : BCBS 248 Table A - Direct Participant

Direct participants				Table /
Reporting month				
Name of the large value payment system				
A(i) Daily maximum intraday liquidity usage	Max	2d max	3d max	Avg
Largest positive net cumulative position				
Largest negative net cumulative position				
A(ii) Available intraday liquidity at the start of the business day	Min	2d min	3d min	Avg
Total				
Ofwhich:				
1. Central bank reserves				
Collateral pledged at the central bank				
3. Collateral pledged at ancillary systems				
4. Unencumbered liquid assets on a bank's balance sheet				
5. Total credit lines available*				
5a. Of which secured				
5b. Of which committed				
6. Balances with other banks				
7. Other				
A(iii) Total payments	Max	2d max	3d max	Avg
1. Gross payments sent				
2. Gross payments received				
A(iv) Time-specific obligations	Max	2d max	3d max	Avg
Total value of time-specific obligations	10000	3750000	3000000	
C(i) Intraday throughput (%)	Avg		722	
1. Throughout at 8:00	,			
2. Throughout at 9:00				
3. Throughout at 10:00				
4. Throughout at 11:00				
5. Throughout at 12:00				
6. Throughout at 13:00				
7. Throughout at 14:00				
8. Throughout at 15:00				
9. Throughout at 16:00				
10. Throughout at 17:00				
11. Throughout at 18:00				





Appendix 2 : BCBS 248 Table B - Bank that use correspondent banks

Banks that use correspondent banks				Table B
Reporting month				
Name of the correspondent bank				
A(i) Daily maximum intraday liquidity usage	Max	2d max	3d max	Avg
Largest positive net cumulative position				
2. Largest negative net cumulative position				
A(ii) Available intraday liquidity at the start of the business day	Min	2d min	3d min	Avg
Total				
Ofwhich:				
Balance with the correspondent bank				
2. Total credit lines from the correspondent bank*				
2a. Of which secured				
2b. Of which committed				
3. Collateral pledged at the correspondent bank				
4. Collateral pledged at the central bank				
5. Unencumbered liquid assets on a bank's balance sheet				
6. Central bank reserves				
7. Balances with other banks				
8. Other				
A(iii) Total payments	Max	2d max	3d max	Avg
1. Gross payments sent				
2. Gross payments received				
A(iv) Time-specific obligations	Max	2d max	3d max	Avg
Total value of time-specific obligations				



Appendix 3: BCBS 248 Table C - Bank providing correspondent banking services

Reporting month				
B(i) Value of payments made on behalf of correspondent banking customers	Max	2d max	3d max	Avg
Total gross value of payments made on behalf of correspondent banking customers				
B(ii) Intraday credit lines extended to customers	Max	2d max	3d max	
	Max	2d max	3d max	-
Total	Max	2d max	3d max	S#5
B(ii) Intraday credit lines extended to customers Total 1. Total value of credit lines extended to customers* 1a. Of which secured	Max	2d max	3d max	
Total 1. Total value of credit lines extended to customers*	Max	2d max	3d max	-

^{* :} This figure includes all credit lines extended, including uncommitted and unsecured



Disclaimer

This document (including any attachments thereto) is confidential and intended solely for the use of the addressee(s). It should not be transmitted to any person(s) other than the original addressee(s) without the prior written consent of Natixis. If you receive this document in error, please delete or destroy it and notify the sender immediately.

This document has been prepared by our economists. It does not constitute an independent investment research and has not been prepared in accordance with the legal requirements designed to promote the independence of investment research. Accordingly there are no prohibitions on dealing ahead of its dissemination.

The distribution, possession or delivery of this document in, to or from certain jurisdictions June be restricted or prohibited by law. Recipients of this document are therefore required to ensure that they are aware of, and comply with, such restrictions or prohibitions. Neither Natixis, nor any of its affiliates, directors, employees, agents or advisers nor any other person accept any liability to anyone in relation to the distribution, possession or delivery of this document in, to or from any jurisdiction.

This document (including any attachments thereto) are communicated to each recipient for information purposes only and do not constitute a personalised recommendation. It is intended for general distribution and the products or services described therein do not take into account any specific investment objective, financial situation or particular need of any recipient. It should not be construed as an offer or solicitation with respect to the purchase, sale or subscription of any interest or security or as an undertaking by Natixis to complete a transaction subject to the terms and conditions described in this document or any other terms and conditions. Any undertaking or commitment shall be subject to Natixis prior approval and formal written confirmation in accordance with its current internal procedures. This document and any attachments thereto are based on public information.

Natixis has neither verified nor independently analysed the information contained in this document. Accordingly, no representation, warranty or undertaking, express or implied, is made to the recipients of this document as to or in relation to the accuracy or completeness or otherwise of this document or as to the reasonableness of any assumption contained in this document. The information contained in this document does not take into account specific tax rules or accounting methods applicable to counterparties, clients or potential clients of Natixis. Therefore, Natixis shall not be liable for differences, if any, between its own valuations and those valuations provided by third parties; as such differences June arise as a result of the application and implementation of alternative accounting methods, tax rules or valuation models. In addition, any view, opinion or other information provided herein is indicative only and subject to change or withdrawal by Natixis at any time without notice. Prices and margins are indicative only and are subject to changes at any time without notice depending on inter alia market conditions. Past performances and simulations of past performances are not a reliable indicator and therefore do not predict future results. The information contained in this document June include the results of analysis derived from a quantitative model, which represent potential future events, that June or June not be realised, and is not a complete analysis of every material fact representing any product. The information June be amended or withdrawn by Natixis at any time without notice. More generally, no responsibility is accepted by Natixis, nor any of its holding companies, subsidiaries, associated undertakings or controlling persons, nor any of their respective directors, officers, partners, employees, agents, representatives or advisors as to or in relation to the characteristics of this information. The opinions, views and forecasts expressed in this document (including any attachments theret

It should not be assumed that the information contained in this document will have been updated subsequent to date stated on the first page of this document. In addition, the delivery of this document does not imply in any way an obligation on anyone to update such information at any time.

Natixis shall not be liable for any financial loss or any decision taken on the basis of the information contained in this document and Natixis does not hold itself out as providing any advice, particularly in relation to investment services. In any event, you should request for any internal and/or external advice that you consider necessary or desirable to obtain, including from any financial, legal, tax or accounting advisor, or any other specialist advice, in order to verify in particular that the investment(s) described in this document meets your investment objectives and constraints and to obtain an independent valuation of such investment(s), its risks factors and rewards.

Natixis is authorised in France by the Autorité de contrôle prudentiel (ACP) as a Bank –Investment Services providers and subject to its supervision. Natixis is regulated by the AMF in respect of its investment services activities.

Natixis is authorised by the Autorité de Contrôle Prudentiel and subject to limited regulation by the Financial Conduct Authority and Prudential Regulation Authority. Details about the extent of our regulation by the Financial Conduct Authority and Prudential Regulation Authority are available from us on request.

Natixis is authorised by the ACP and regulated by the BaFin (Bundesanstalt für Finanzdienstleistungsaufsicht) for the conduct of its business in Germany. The transfer / distribution of this document in Germany is done by / under the responsibility of NATIXIS Zweigniederlassung Deutschland.

Natixis is authorised by the ACP and regulated by Bank of Spain and the CNMV for the conduct of its business in Spain.

Natixis is authorised by the ACP and regulated by Bank of Italy and the CONSOB (Commissione Nazionale per le Società e la Borsa) for the conduct of its business in Italy.

Natixis, a foreign bank and broker-dealer, makes this research report available solely for distribution in the United States to major U.S. institutional investors as defined in Rule 15a-6 under the U.S. Securities Act of 1934. This document shall not be distributed to any other persons in the United States. All major U.S. institutional investors receiving this document shall not distribute the original nor a copy thereof to any other person in the United States. Natixis Securities Americas LLC a U.S. registered broker-dealer and member of FINRA is a subsidiary of Natixis. Natixis Securities Americas LLC did not participate in the preparation of this research report and as such assumes no responsibility for its content. This research report has been prepared and reviewed by research analysts employed by Natixis, who are not associated persons of Natixis Securities Americas LLC and are not registered or qualified as research analysts with FINRA, and are not subject to the rules of the FINRA.



