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A closer look

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Liquidity coverage ratio: No blood, but sweat and tears

Overview

The US Liquidity Coverage Ratio ("LCR") debuted in October 2013 when the federal banking agencies – Federal Reserve, FDIC and OCC ("Agencies") – jointly released their proposal. Although the industry had expected the US LCR to largely mirror the Basel Committee on Banking Supervision's ("BCBS") proposal that was finalized earlier, the US proposal came out quite differently.[1] This difference between expectations and reality is reflected in the 83 letters submitted during the US proposal's comment period that closed on January 31, 2014.

The comments put forth by the industry raise two broad matters – the definitions and component characteristics of the LCR, and the timing and operational requirements of the LCR's implementation. Based on submitted comments, we believe the Agencies are likely to adjust several provisions of the LCR proposal by (a) including municipal securities in the definition of High Quality Liquid Assets ("HQLA"), (b) excluding government-sponsored enterprise ("GSE") debt from the 40% cap on Level 2 HQLA, (c) capping outflow rates for secured municipal deposits, and (d) requiring contractually binding agreements for the provision of operational services associated with operational deposits (as opposed to the deposits themselves).

We also believe the Agencies will finalize the LCR during the second quarter of 2014, thereby giving firms time to implement it by the proposed effective date of January 1, 2015. However, the January 1st deadline may be pushed out if the regulators agree with implementation concerns raised by the comments.

Although Intermediate Holding Companies ("IHCs") of foreign banking organizations were excluded from the LCR proposal, they still need to implement the LCR as part of their compliance with the US's Enhanced Prudential Standards ("EPS") that were finalized in February 2014. Therefore, we expect a separate LCR proposal for IHCs imposing requirements that will be largely identical to those applicable to US Bank Holding Companies ("BHCs"). However, more importantly in the near term, it is unclear what the Federal Reserve's expectations will be for the LCR as part of the IHC implementation plans that must be filed by January 1, 2015.[2]

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[1] See PwC's *Regulatory Brief, Liquidity coverage ratio: Another brick in the wall* (October 2013).

[2] See PwC's *First Take: Enhanced Prudential Standards* (February 2014).

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This **A Closer Look** provides (a) background information on the US LCR proposal, (b) an overview of the most significant issues raised by the industry in comment letters and our expectation of the likely regulatory response, (c) advice on measuring the liquidity impact of operational deposits, (d) an analysis of the proposal's impact on banks' HQLA stock, and (e) our thoughts on how firms should be preparing to broadly implement the LCR.

Background

On October 24, 2013, the Federal Reserve ("Fed") approved an interagency proposal for the US version of the LCR (that was finalized by BCBS in January 2013). The LCR measures a firm's liquidity stress over a 30-day period by dividing the firm's pool of liquid securities and cash (i.e., HQLA) by the firm's stressed net cash outflows during that period. The US LCR proposal prescribes these inflow and outflow rates for key assets and liabilities, and provides rules for what types of assets qualify as HQLA.[3]

The proposal has an implementation date of January 1, 2015. As of that date, covered US firms (generally those with assets over $50 billion, and subsidiary banks of BHCs with consolidated assets of $10 billion or more) would be required to implement the LCR framework and to meet certain coverage thresholds over a two-year phase-in period. The proposed implementation date was intended to coincide with the implementation of the EPS for US firms, and of the BCBS LCR (although the BCBS LCR starts at a lower threshold and has a longer phase-in than the US proposal), both of which also require compliance starting on January 1, 2015.

Industry comments – A pragmatic way forward?

Considering the extent of the submitted comments, the LCR proposal appears to have hit a nerve in the banking industry. Overall, 83 comment letters were submitted, representing a broad swath of the impacted community including banks, municipalities, and a variety of other nonbank organizations (details regarding commenters and their concerns are provided in the **Appendix**).

Comments from banks were particularly significant as many provided specific definitional amendments or alternative LCR calculation approaches. Taken as a whole, the following topics received the most comments: (1) HQLA-eligible assets, (2) public sector entity deposits treatment, (3) the outflow rates applied to brokered deposits, (4) the classification of operational deposits, and (5) the difficulties of calculating the LCR, each discussed below.

The buffer for liquidity risk – What is high quality?

In developing the criteria for HQLA assets, it is clear that the Agencies sought to generally align the numerator of the US LCR with that of the BCBS LCR. However, with respect to certain US market securities the US took a clearly different approach. Specifically, the US LCR excludes municipal securities and private label mortgages from the definition of HQLA, and categorizes GSE[4] debt as Level 2A rather than Level 1 HQLA.[5]

The exclusion of municipal securities from the definition of HQLA is apparently due to the Agencies' concern around the credit quality of this issuer class. This exclusion was extensively criticized across the comment letters, with comments ranging from a broad view that the exclusion of such assets would debilitate market liquidity (or issuers' access to financing) to well-articulated points backed by empirical data on the high liquidity of municipal securities. We believe this exclusion is under further consideration by the Agencies, as the political implications may be greater than originally assumed. Since these securities are deemed acceptable under the BCBS LCR and receive a favorable risk weighting under the Basel III Standardized Approach, the Agencies are likely to ultimately make them HQLA-eligible under the final US LCR.

Mortgage-backed securities ("MBS") also received considerable attention during the comment period, particularly with respect to the classification of GSE debt as Level 2A HQLA[6] and the exclusion of private label mortgage debt from HQLA. We believe the comments provided a solid rationale for the Agencies to improve GSE debt's HQLA treatment, but it is unlikely that the Agencies will include private label mortgages as HQLA in the final US LCR rule given the current lack of depth in the private label market.

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[3] The prescriptive nature of the LCR is in contrast to the more qualitative definitions incorporated within the EPS.

[4] Specifically, the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation.

[5] Under both the US and BCBS LCRs, HQLA-eligible assets are divided into three risk-weighted categories: Level 1 (weighted at 0%), Level 2A (weighted at 20%), and Level 2B (weighted at 50%). Across these categories, combined Level 2A and 2B assets cannot exceed 40% of HQLA (after haircuts) with 2B assets further limited to a maximum of 15% of HQLA. For more information, see PwC's *Regulatory Brief* cited in note 1.

[6] While the Agencies seem to acknowledge the liquidity of the GSE debt market, they still relied upon the Basel III risk-weighting as the basis for treating GSE debt as a Level 2A HQLA instead of Level 1.

MBS debt-related comments essentially stated the following:

- With the GSEs operating under conservatorship since 2008 and party to senior preferred stock purchase agreements with the US Treasury, the GSE debt is effectively covered by the US government's explicit guaranty, thus warranting Level 1 treatment under the LCR.
- In the event that this guaranty might be short-lived due to GSE reform by the Congress, the market depth and activity in GSE debt (which is higher than some Level 1 HQLA) should at least warrant its exclusion from the cap applied to Level 2 HQLA (limiting their amount to 40% of the total HQLA).
- The exclusion of private label mortgages from HQLA resulted from an overly broad view of the asset class as high risk, without considering these assets' actual risk profiles relative to other HQLA.

Of these three points made by the commenters, the second in our view offers the most likely outcome for the final rule. Denying Level 1 classification to GSE debt, but removing the Level 2 cap, incorporates the risk-weighting approach of the US LCR while also recognizing the reality of the deep and actively traded GSE debt market.

Public sector entity deposits

Another topic that received significant comment was the US LCR's potential classification of secured municipal deposits and their outflow rate. Based on a literal reading of the US proposal, requirements pertaining to the unwinding of certain secured transactions that mature within 30 days[7] could apply to deposits of municipalities. In that case, municipal deposits would have to be collateralized under various state laws and held as demand deposits within the proposal's 30-day horizon. Given the size of the market, the relative stability of these deposits, and importance of the relationship between banks and public sector entities, the Agencies are likely to clarify the definition of secured transactions to exclude municipal deposits.

Alternatively, we believe the Agencies may cap the outflow rates assigned to municipal deposits. This compromise retains some degree of withdrawal risk (requiring coverage by HQLA) while remaining in-line with broader public policy goals.

[7] These transactions are defined in the proposed rule as "any secured funding transaction, secured lending transaction, asset exchange, or collateralized derivative transaction that matures within 30 calendar days of the calculation date and where the bank and the counterparty exchange HQLA."

Brokered deposits outside the 30-day stress period

Comments on brokered deposits focused on the requirement to assume a 10% outflow rate for brokered deposits of retail customers maturing beyond 30 days, instead of applying a lower rate. The industry comments argued that the outflow rate should be 0% (or at least lower than 10%) because of the limited instances where such deposits could be withdrawn prior to maturity.

Despite this industry view, we believe the Agencies will retain the 10% rate. The rate is consistent with the Agencies' overall view on brokered deposits' reliability as a funding source, and the rate incentivizes firms to seek more stable sources of funding with contractual maturity beyond the LCR's 30-day window.

Other comments on brokered deposits centered on sweep products where the industry questioned the Agencies' distinctions of outflow rates applied to "affiliate" and "non-affiliate" sweep arrangements, and questioned the clarity of the definition of "affiliates." In these instances, we believe the Fed will likely retain the proposed outflow rates, although they will likely clarify the definition of "affiliates" in the final rule in order to make identifying affiliates easier.

Operational deposits

The industry's concerns around the proposed definition of operational deposits focused on termination provisions, volatility, and prime brokerage agreements. The proposed definition has a broad range of exclusions that may subject firms to higher projected outflows by excluding more deposits than warranted from the definition of operational deposits (which enjoy a relatively low 25% outflow rate for uninsured deposits).

With regards to termination provisions, the industry suggested that a contractually binding agreement be required for the provision of operational services associated with the deposits, as opposed to the deposits themselves under the proposed LCR. Although it remains to be seen whether the Agencies will change this requirement in their final rule, such a change would be consistent with the BCBS LCR, and would provide greater clarity for the industry.

The second issue relates to the requirement that qualifying deposits not be subject to significant volatility in the average balance of the deposit. Here comments focused on the apparent inconsistency between the terms "average" and "volatility," and noted that such fluctuations in balances are driven by the needs of the customer as opposed to the bank's financial viability. In our view, it is apparent that the Agencies' focus on the volatility of balances is the driver of the definition of qualifying operational deposits, so we believe that they will likely

retain the current qualification requirements with some further clarification on the volatility parameters.

Finally, with respect to prime brokerage arrangements, the proposal excludes from the definition of operational deposits any deposits associated with the provision of any services to a range of entities including investment companies, non-regulated funds, or investment advisors. Industry's comments centered on the Agencies' focus on the client-type as opposed to the underlying operational services that may be provided by banks, and on the Agencies' overly broad application that extends well beyond prime brokers. On these points, we believe that the Agencies will amend the existing definition of operational deposits to align it with the BCBS LCR's definition that excludes only deposits arising from the provision of prime brokerage services, rather than any deposits associated with certain client types.

Operational difficulties of calculating the LCR

The operational aspects of the US LCR proposal received numerous industry comments covering the implementation of daily monitoring, the application of the "modified LCR," and the calculation of the "peak day" for net cash outflows. Among these three issues, the implementation of daily monitoring appears to present the greatest challenge under the proposed rule's effective date of January 1, 2015, because firms will have to re-tool their IT systems to implement inflow and outflow definitions.

Based on our discussions with firms about implementing daily monitoring, most have already begun preliminary efforts to "tag" data (i.e., to improve data definitions) within current systems. However, the work is far from complete and is competing for scarce technology resources with other regulatory compliance efforts within firms. While we believe the Agencies could be sympathetic to the industry's near-term systems development needs, they will expect any delays to be short-lived and more acceptable at those firms that are less systemically important.

The application of the modified LCR (which applies to firms that are not subject to the Basel III Advanced Approaches capital rules) is also challenging. Although the modified LCR measures the cumulative net cash outflows at the end of a 21-day period (rather than measuring the *peak daily* cumulative net cash outflows like the LCR does), firms that are subject to the modified LCR are still required to measure inflows and outflows on a daily basis. Industry comments have noted that most customer activity for these firms follows a calendar-month cycle and the 21-day basis would complicate measurement processes. To this point, we believe that the Agencies will likely retain the proposed approach (as the reduced outflows already take into account the less complex nature of the modified LCR firms[8]), but will allow for a delayed implementation of daily cash flow calculations for firms that are subject to the modified LCR.

Lastly, regarding the "peak day" calculation methodology, comments focused on the proposal's timing assumptions related to outflows for non-maturity instruments and balances, and inflows and outflows for maturity or transaction dates. The proposed LCR requires the firms to assume that all outflows related to non-maturity instruments and balances occur on the first day of the 30-day period. Firms have noted that this assumption may overstate the measured risk and have proposed that the Agencies re-calibrate the estimates applied to these exposures (i.e., the timing of the outflows relative to the exposures). However, we believe the Agencies will likely retain the current provisions, as a calibration approach to non-maturity instruments and balances would introduce further complexity in calculating the LCR.

With respect to maturity or transaction dates, the industry has questioned the Agencies' conservative approach to these dates which would assume that outflows occur on the earliest possible date while inflows occur on the latest possible date within an available time window. Similar to non-maturity outflows, we believe the Agencies will maintain their current position on maturity dates as well because suggested changes would require the supervisory process to review the reasonableness of assumptions made by firms related to maturity or transaction dates.

Measuring the liquidity impact of operational deposits

For banks working to build out their LCR monitoring capabilities by January 1, 2015, one of the most burdensome requirements is in an area where the proposed rule is not well-defined, i.e., the classification of operational deposits. The stakes are especially high for banks that hold large portfolios of commercial deposits, as deposits in excess of operational cash receive a 40% outflow rate while operational cash has an outflow rate of only 25%.

The liquidity impact of operational deposits under the LCR framework can be measured by a bank in three steps. First, the bank must establish a mapping framework to identify operating accounts based on the proposed rule's requirements. Second, an "internal methodology" must be used to measure the operational and excess portions of cash in the accounts identified in

[8] The net cash outflow parameters for firms subject to the modified LCR are 70% of those applicable to larger institutions that are subject to the LCR.

the first step. Finally, the first two steps must be combined into a daily reporting process.

While tagging operational accounts has proven challenging enough – as evident by numerous industry comments – the more problematic issue is developing a credible approach to measuring the operational and excess portions of tagged accounts. In the long run, regulatory expectations will drive how banks approach the problem of operational deposits. For the time being, however, we expect the agencies to take a reactive and flexible rather than prescriptive approach to this complex issue. Therefore, the industry has a unique opportunity to quickly stake out an approach that is supportable while reducing the need for excessively conservative assumptions.

In developing their compliance methodology, firms should keep three objectives in mind:

- **Leverage analytics** – Somewhat analogous to the push for "bottom-up" stress testing methodologies in the regulatory review of CCAR submissions, expect the Agencies to closely scrutinize the approach for measuring operational deposits. Methodologies that rely primarily on expert judgment and portfolio-level observations of balance stability (rather than empirical account-level analytics), are unlikely to pass muster if the bank is claiming more than a *de minimis* level of operational deposits.
- **Keep an eye on the prize** – One of the critical questions banks face is how much complexity to build into their methodology. Highly segmented methodologies (e.g., those that differentiate between corporate customers in specific industry segments or use certain treasury management services) can be challenging to implement due to data constraints. However, the economic benefit of potentially achieving significant reduction in the HQLA requirement by increasing the operational deposit estimate should be carefully considered.
- **Avoid point solutions** – For the majority of banks, meeting the LCR requirements will need significant investments in analytics and data warehousing capabilities. However, building a more robust framework for characterizing deposits may create additional value by enabling more precise approaches to liquidity stress testing, asset-liability management, funds transfer pricing, and customer rate-setting.

HQLA impact under the proposed US LCR

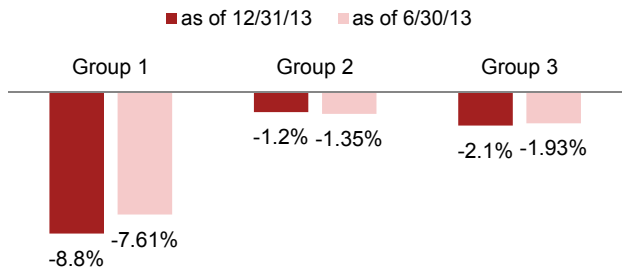
Our initial assessment last October[9] of the impact of the US's proposed treatment of HQLA (including the impact of permissible assets, haircuts, and limitations) showed that the largest US BHCs would be the most impacted by differences between the US LCR and the BCBS LCR. Our latest analysis shows that these banks continue to face a significant shortfall in HQLA under the US LCR proposal as compared to the BCBS LCR, and that the largest US BHCs' eligible HQLA has decreased even further over the past six months.

Our initial analysis (using June 30, 2013 data) indicated that large BHCs' HQLA stock would be 7.6% lower under the US LCR than under the BCBS LCR. Now with more recent data (December 31, 2013 data), our updated analysis shows an even wider gap of 8.8%.

We assess the impact on HQLA for three types of institutions: Group 1 comprises the six largest US banking organizations by total assets, Group 2 comprises the remaining US institutions with assets greater than $250 billion, and Group 3 includes the institutions with assets between $50 and $250 billion (i.e., firms that are subject to the modified LCR).

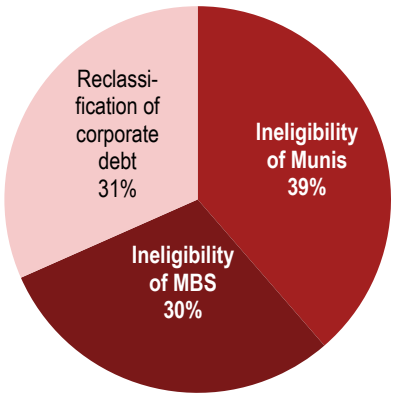
As shown in Table 1, Group 1 institutions are most adversely affected by the US's HQLA classification. These institutions have the greatest holdings of non-GSE MBS securities, corporate debt, and municipal securities. Specifically, as shown in Table 2, the holding of municipal securities and non-GSE MBS securities contributes 39% and 30% of the total shortfall due to the fact that they are excluded from HQLA in the US LCR proposal. The remaining impact is due to the proposed treatment of corporate debt (rated AA- and above) as Level 2B, rather than Level 2A under the BCBS LCR proposal.

Table 1: Average Impact on HQLA Amount of Proposed Rule Relative to BCBS



[9] See PwC's *Regulatory Brief* cited in note 1.

Table 2: Drivers of HQLA Shortfall for Group 1



Despite the volume and intensity of industry comments directed at these proposed HQLA exclusions, financial institutions in Group 2 and Group 3 see a relatively modest impact to their stocks of HQLA as compared to Group 1 institutions (only 1.2% and 2.1%, as compared to 8.8%). However, as shown in Tables 3 and 4 below, municipal securities and non-GSE MBS are still important to these firms as these assets make up 94% of shortfall for Group 2 and 78% of the shortfall for Group 3.

Table 3: Drivers of HQLA Shortfall for Group 2

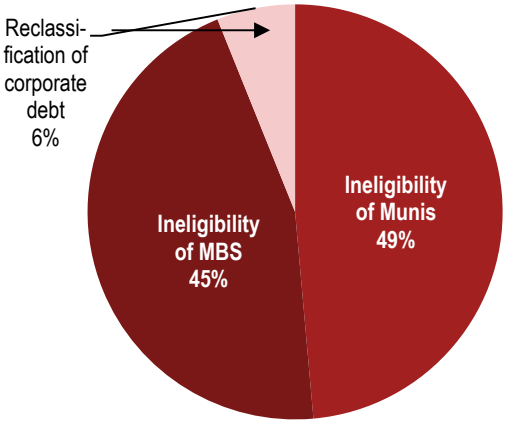
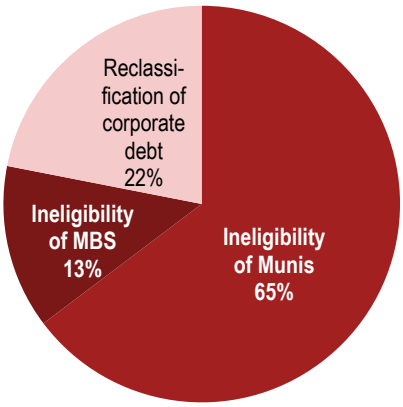


Table 4: Drivers of HQLA Shortfall for Group 3



What should firms be doing now?

Beyond increasing their HQLA-eligible assets, firms should be focused on data and technology-related needs for the calculation of the LCR. While firms have largely sized up the broader impact of the LCR requirements to support their comments on the proposed rule, the same firms have only started planning to implement the LCR within the last few months.

Based on discussions with clients and our views on where firms should be directing resources, we believe the following are necessary elements of an effective framework to meet the calculation requirements of the LCR, and the more qualitative management approaches of the EPS:

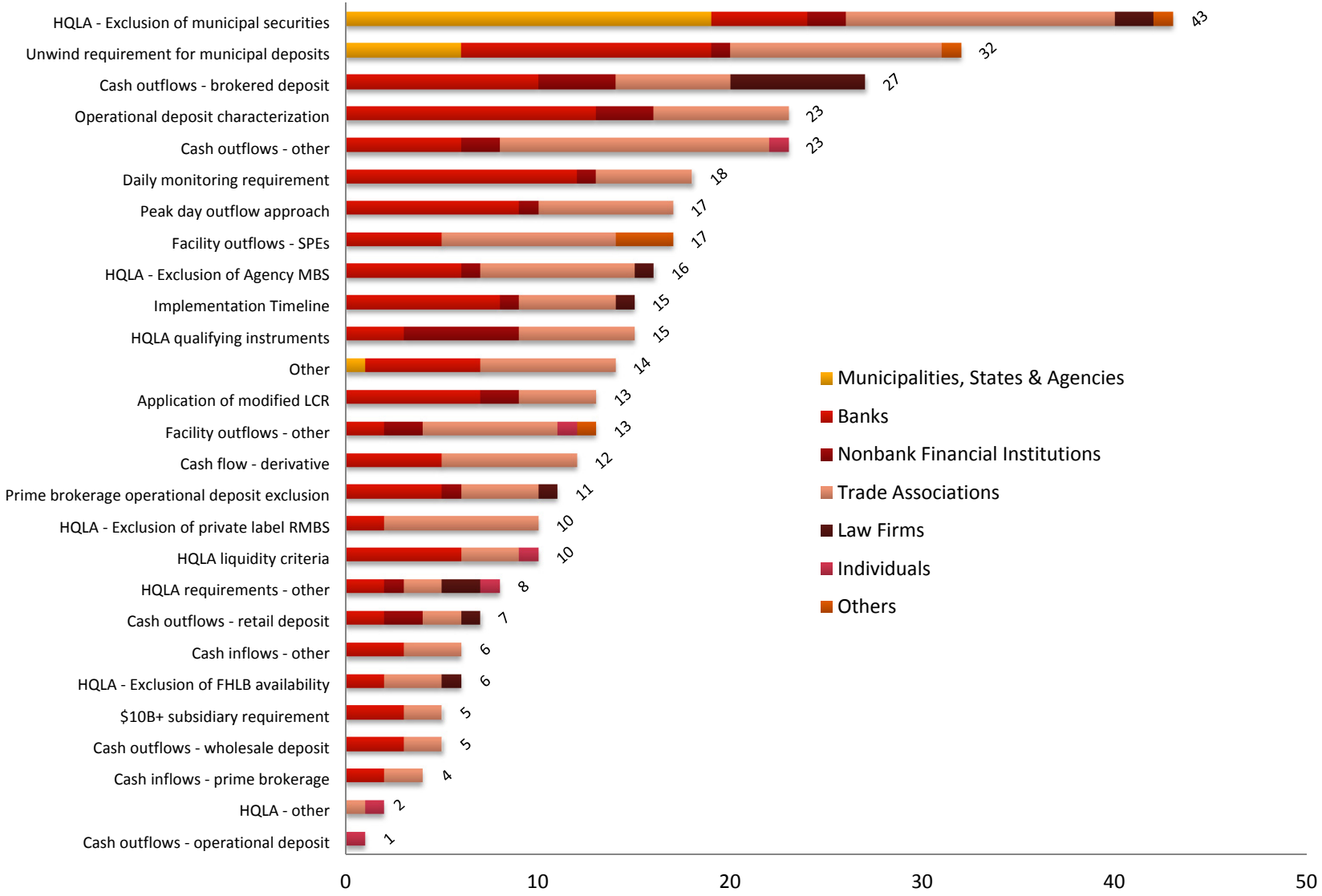
- **Business requirements planning** – As a first step, firms need to conduct a comprehensive review of current reporting capabilities against the LCR requirements, and develop detailed business requirement plans to cover shortfalls. This involves not only developing a documented strategy for capturing and transforming necessary data elements, but also developing detailed analytical methodologies to understand data needs. Areas of focus include classification of operational deposits, stability determination for retail deposits, collateral measurement, and derivative exposure. Once the requirements and supporting methodologies have been developed, firms will need to integrate them into daily operational processes ahead of the January 1, 2015 implementation deadline.
- **Data management** – Quality and well-defined data is critical to a firm's ability to (a) calculate the LCR, (b) support ongoing exposure analysis under firm-specific requirements (as envisioned under the EPS), and (c) strengthen stress testing capabilities over the prescribed planning horizons and scenarios under the LCR and the EPS. Standardizing data definitions, and centrally-managed data collection and reporting processes can increase the accuracy and consistency of information. The success of these efforts depends on an effective data governance and management framework overseeing data collection, particularly as it relates to quality, granularity, and frequency of data updates.
- **Technology infrastructure** – Sound exposure identification, data management, and risk reporting requires a technology framework that is well-integrated across the firm, and that allows for efficient and timely data aggregation. This is particularly important as firms need to measure exposures on a daily basis under the LCR framework. Additionally, the technology infrastructure needs to be flexible in targeting specific data in order to meet the firm's evolving liquidity stress testing requirements as economic conditions and the strategic direction of the firm

change. Technology infrastructure enhancements are a longer-term effort that will require firms to take measured approaches, as certain processes may remain manually-intensive while others systems are overhauled to support regulatory requirements and internal reporting needs.

- **Process workflow** – Effective process management will cover all the above aspects, including (a) tracking the implementation of business requirements, (b) data sourcing, tagging and transformation, and (c) technology infrastructure optimization. Standardized processes and governance across global or disparate lines of businesses (or control functions) will help address potentially duplicative efforts across product lines, legal entities, and geographies. Standardization will also substitute poor processes in some areas of the institution with higher quality ones in others. Key steps in developing effective process workflow include (i) clearly documenting the roles and responsibilities of functions supporting liquidity risk measurement framework, and the relevant internal control processes particularly those related to data sourcing, (ii) liquidity stress model development and validation, and (iii) risk reporting.

Appendix: LCR comment letters – Who said what and how often?

The below graph divides the comment letters in response to the US LCR proposal into 27 pertinent issues, and identifies the types of entities that commented on each issue.



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