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Basel III F: Callable Commercial Paper¹

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Abstract

One of the Basel Committee on Banking Supervision's responses to the global financial crisis of 2007-09 was to introduce the Liquidity Coverage Ratio (LCR), a short-term measure that evaluates whether a bank has enough liquidity to meet expected cash outflows during a 30-day stress scenario. One area in which this incentive has already resulted in changed practices is in the market for commercial paper. Banks often provide backup liquidity facilities to the issuers of commercial paper that the issuers can draw upon to repay a maturing issue of commercial paper if they are unable to sell a new issue to do so. To avoid such draws occurring within the 30-day LCR window, banks have developed commercial paper that features a call provision enabling issuers to redeem the commercial paper prior to the start of the window. This case considers the implications of the emergence of callable commercial paper and whether this development introduces additional risk into the financial system.

¹ This module is one of seven produced by the Yale Program on Financial Stability (YPFS) examining issues related to Basel III. The other modules in this series are:

- *Basel III A: Regulatory History*
- *Basel III B: Basel III Overview*
- *Basel III C: Internal Risk Models*
- *Basel III D: The Swiss Finish to Basel III*
- *Basel III E: Synthetic Financing by Prime Brokers*
- *Basel III G: Shadow Banking and Project Finance*

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1. Introduction

Looking back on the financial crisis of 2007-09, the Basel Committee on Banking Supervision (BCBS) identified inadequate liquidity as one of the chief culprits in the crisis and determined that something must be done to address it. As the BCBS has noted, “[d]uring the ‘liquidity phase’ of the financial crisis that began in 2007, many banks—despite adequate capital levels—still experienced difficulties because they did not manage their liquidity in a prudent manner” (Bank for International Settlements 2013, 1). One of the BCBS’ two responses to this failure was to introduce the Liquidity Coverage Ratio (LCR), a short-term measure that evaluates whether a bank has enough liquidity to meet expected cash outflows during a 30-day stress scenario.

Under the LCR as proposed, a bank would determine the value of its stock of unencumbered High Quality Liquid Assets (HQLA—assets that can be easily and immediately converted into cash at little or no loss of value) in stressed conditions. This figure is then divided by the value of the total net cash outflows from the bank expected to occur over the next 30 calendar days given the stressed conditions. The timeline established by the BCBS calls for banks to achieve an LCR of 60% by January 1, 2015, and an LCR of 100% by January 1, 2019.

Once the LCR was implemented, banks would be required to maintain higher levels of HQLA to cover expected outflows. The low returns HQLA provide have banks searching for ways to reduce their expected outflows to avoid the profitability hit that could result. One area in which this search has already resulted in changed practices is in the market for commercial paper—short-term promissory notes issued by corporations and other issuers to fund ongoing operations. Traditionally, banks provided backup liquidity facilities to the issuers of commercial paper that the issuers can draw upon to repay a maturing issue of commercial paper if they are unable to sell a new issue of commercial paper to do so. To avoid the possibility of such draws occurring within the 30-day LCR window, banks have developed commercial paper that features a call provision enabling issuers to redeem the commercial paper prior to the start of the 30-day window. If all commercial paper is redeemed before it reaches 30 days to maturity, then there is no possibility of a draw on the backup liquidity facility within 30 days and no requirement under the LCR for the bank to maintain any HQLA in support of the facility.

The emergence of callable commercial paper as a mechanism for avoiding the LCR raises important questions about what the resulting risks are and whether the LCR as proposed effectively addresses the liquidity concerns identified by the BCBS. It should also prompt consideration of what additional mechanisms banks might use to circumvent the requirements of Basel III.

The remainder of the case is organized as follows: Section 2 summarizes the LCR. Section 3 provides an overview of the commercial paper market before discussing the emergence of callable commercial paper in response to the LCR.

Questions

1. What are the implications of the emergence of callable commercial paper in response to the LCR? Does this development introduce additional risk into the financial system?
2. Are there other approaches banks could use to avoid the LCR and Basel III more broadly?

2. The Liquidity Coverage Ratio

The purpose of the LCR is to “promote the short-term resilience of the liquidity risk profile of banks by ensuring that they have sufficient HQLA to survive a significant stress scenario lasting 30 calendar days” (Bank for International Settlements 2013, 4). Underlying this 30-day standard is the belief that by the 30th day of a stress scenario, bank management and regulators will have had adequate time to take steps to address the situation, including corrective actions by management and regulators, central bank intervention, or the orderly resolution of particular banks (Ibid.). The LCR evaluates banks’ ability to survive to the 30th day by comparing the stock of HQLA to the total net cash outflows anticipated over the 30 calendar days. (See Figure 1.)

Figure 1: Basic LCR Formula

$$\frac{\text{Stock of HQLA}}{\text{Total net cash outflows over the next 30 calendar days}} \geq 100\%$$

Source: Bank for International Settlements 2013, 7.

The LCR tests a stress scenario combining many of the shocks associated with the 2007-09 financial crisis. Among the outcomes assumed to result from these shocks are a run-off of deposits and a partial loss of certain types of other funding, as well as increased outflows stemming from credit downgrades and collateral posting requirements, unscheduled draws on committed facilities, and the need to buy back debt and honor non-contractual obligations to mitigate reputational risk. These assumptions guide the manner in which banks must calculate their LCRs.

Calculating HQLA

To calculate their LCR, banks must first determine the size of their stock of unencumbered HQLA. Under the LCR framework, “assets are considered to be HQLA if they can be easily and immediately converted into cash at little or no loss of value” (Bank for International Settlements 2013, 7). The stock of HQLA can include different categories of assets, with the LCR calculation setting limits on and applying “haircuts” (discounts from the current market value) to certain types of assets. (See Figure 2.)

Under the LCR framework, even assets fitting into the categories listed in Figure 2 must be excluded from HQLA if they lack certain characteristics or fail to meet certain operational requirements. Examples of the types of these additional considerations are that the assets be low risk and have a low correlation with risky assets, that there be ease and certainty of valuation, and that the assets be under the control of the function charged with managing the liquidity of the bank. (For a complete discussion of how to calculate a bank’s stock of HQLA, see pages 7 to 15 of Bank for International Settlements 2013.)

Figure 2: HQLA Limits and Haircuts

Category	Assets Included	Limit (As % of Total HQLA)	"Haircut" Applied
Level 1	<ul style="list-style-type: none"> • Coins and bank notes • Central bank reserves • Certain marketable securities with a 0% Basel II risk-weight and a record of liquidity • Certain sovereign or central bank debt securities with a non-0% Basel II risk-weight 	No limit	0%
Level 2	<ul style="list-style-type: none"> • Certain marketable securities with a 20% Basel II risk-weight and a record of liquidity • Certain corporate debt securities and covered bonds with a rating of AA- or higher and a record of liquidity 	40% (including Level 2B)	15% of current market value
Level 2B	<ul style="list-style-type: none"> • Certain residential mortgage backed securities with a rating of AA or higher and a record of liquidity • Certain corporate debt securities with a rating between A+ and BBB- and a record of liquidity • Certain common equity shares with a record of liquidity 	15%	25% to 50% of current market value

Note: Level 2B is optional. Regulators can choose whether or not to allow it to be included in the LCR calculation

Source: Project Editor Notes.

Calculating Total Net Cash Outflows

After determining their stock of HQLA as the first step of the LCR calculation, banks must then calculate the total net cash outflows that would be expected to occur in a 30-day stress scenario using the approach in Figure 3:

Figure 3: Calculating Net Cash Outflows

$$\text{Total net cash outflows over the next 30 calendar days} = \text{Total expected cash outflows} - \text{Min}\{\text{total expected cash inflows}; 75\% \text{ of total expected cash outflows}\}$$

Source: Bank for International Settlements 2013, 20.

To calculate total expected cash outflows, banks multiply the outstanding amounts of various types of liabilities and commitments by an expected run-off rate designated for each liability or commitment type by the BCBS. For example, retail deposits covered by typical deposit

insurance have an expected run-off rate of 5%, reflecting the belief of the BCBS that approximately 5% of such deposits will be withdrawn in a 30-day stress scenario. A bank with \$100 million in retail deposits covered by deposit insurance would thus include \$5 million in the calculation of total expected cash outflows stemming from such retail deposits. The expected run-off rates range from 3% for retail deposits covered by deposit insurance meeting certain enhanced criteria to 100% for other, less stable sources of funding like maturing secured-funding transactions not backed by HQLA.

Banks must also include other potential sources of cash outflows, including increased liquidity needs related to credit downgrades and collateral calls and drawdowns on committed lending facilities. Particularly relevant in the context of commercial paper are the requirements on liquidity facilities. Under the LCR framework, the portion of a commercial paper backup liquidity facility subject to the calculation is equal to the amount of currently outstanding debt backstopped by the facility that matures within 30 days. This amount is then multiplied by an expected drawdown rate to determine the extent of the total expected cash outflow. Expected drawdown rates for liquidity facilities range from 5% for retail and small business clients to 100% for financial institutions.

The calculation of total cash inflows, in turn, requires that banks look only to contractual inflows (including interest payments) from fully performing exposures for which there is no expectation of default during the 30-day window. When considering maturing secured lending transactions, banks must apply an expected inflow rate to determine how much cash is projected to come in as a result of the maturing transaction. For example, a maturing reverse repurchase agreement secured by Level 1 HQLA is expected to be rolled over, resulting in no cash returned to the lending bank. A maturing reverse repurchase agreement secured by non-HQLA assets is assumed not to be rolled over, resulting in the return of 100% of the cash associated with the agreement. The resulting calculation of total expected cash inflows is then subject to a cap of 75% of total expected cash outflows to prevent banks from relying entirely on expected cash inflows to meet their liquidity needs. (For a complete discussion of how to calculate a bank's total net cash outflows, see pages 20 to 37 of Bank for International Settlements 2013. For an illustrative summary of the LCR calculation, see Annex 4 of Bank for International Settlements 2013. (For an overview of the Net Stable Funding Ratio, the other liquidity measure introduced by Basel III, see YPFS Case Study McNamara, et al. 2014G. For a complete summary of Basel III, see YPFS Case Study McNamara, et al. 2014B.)

3. Callable Commercial Paper

Commercial paper is typically defined to include short-term promissory notes issued by corporations and other issuers to fund ongoing operations, with commercial paper divided into one of three categories based on the issuer: asset-backed, financial, and corporate. In the United States, there is approximately \$1 trillion in commercial paper outstanding at a given time, down from an estimated \$2 trillion outstanding at times prior to the start of the crisis in 2007. As of January 2007, the U.S. market for commercial paper was comprised of approximately 60% asset-backed commercial paper, 34% financial commercial paper, and 6% corporate commercial paper (Kacperczyk and Schnabl 2010, 32).

In the United States, most commercial paper has a maturity of 270 days or less due to provisions of the Securities Act of 1933 exempting debt instruments with initial maturities under nine months from registration with the Securities and Exchange Commission. According to the Federal Reserve, the average maturity for commercial paper is approximately 30 days. Many issuers repay maturing commercial paper using the proceeds

of a new issuance of paper in a process known as “rolling over.” An inability to roll over maturing commercial paper because of changed market conditions, issuer difficulties, etc. is thus one of the major threats facing issuers and purchasers of commercial paper.

Although turmoil in the commercial paper market is relatively rare, the risk of being unable to roll over maturing commercial paper has proven very real in recent financial history. In 1970 Penn Central, a major American railroad company, declared bankruptcy and defaulted on its commercial paper. During the days following the bankruptcy filing, investors, concerned that other issuers might also default, fled the commercial paper market, resulting in a 10% decline in nonbank paper outstanding (Stojanovic & Vaughan 1998). This prevented many issuers from rolling over maturing commercial paper and threatened to leave them without the liquidity to meet their obligations. In response, the Federal Reserve took a number of steps intended to promote bank lending to issuers unable to roll over maturing commercial paper, including opening the discount window and increasing the open market purchase of securities to boost the money supply.

A similar situation occurred more recently when, upon the initial signs of the subprime mortgage crisis in 2007 and the collapse of Lehman Brothers in 2008, the size of the markets for asset-backed commercial paper and all commercial paper respectively contracted significantly as issuers were no longer able to roll over maturing issuances. The resulting loss of liquidity prompted aggressive intervention by the Federal Reserve in the form of, among other things, direct purchases of commercial paper. (For a more detailed discussion of the role of commercial paper during the global financial crisis of 2007-09, see Kacperczyk and Schnabl 2010.)

Given the risk that they won't be able to roll over maturing commercial paper, non-financial issuers typically maintain backup liquidity facilities with banks that enable them to borrow money to fund repayment. Ratings agencies usually look for these backup liquidity facilities to be in the form of committed facilities with same-day liquidity availability equal to or in excess of the maximum amount of commercial paper maturing on any given day. In the event that issuers are unable to roll over maturing commercial paper, banks offering backup liquidity facilities might thus find themselves having to provide significant amounts of cash under the facilities. (For examples of ratings agencies' requirements for backup liquidity facilities, see A.M. Best Company 2012 and DBRS 2012.)

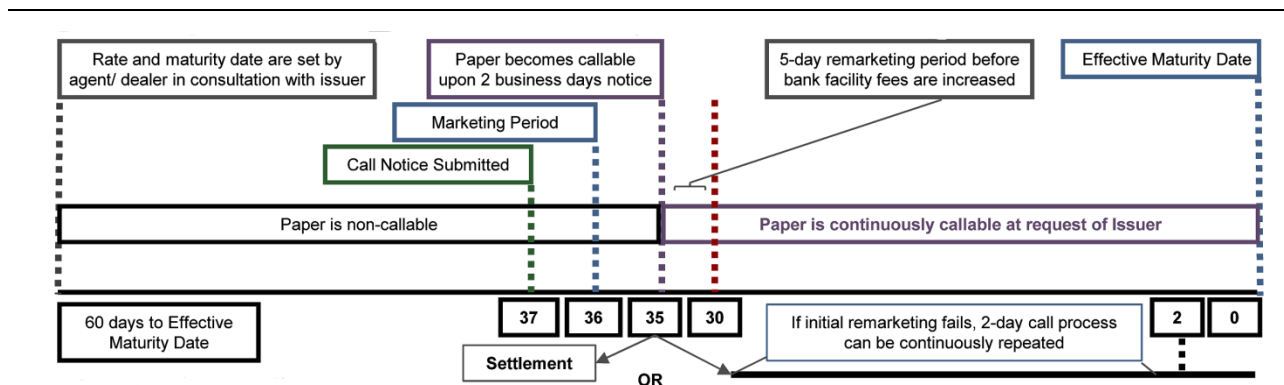
Significantly, a backup facility backstopping commercial paper with 30 days or less to maturity could be drawn upon during the 30-day window subject to the LCR, requiring the facility provider to maintain corresponding HQLA. Given the cost to banks of maintaining HQLA rather than other assets, the effect of the LCR is thus to increase the cost to banks of providing backup liquidity facilities for commercial paper maturing in 30 days or less.

In response, bankers have developed commercial paper that features a call provision enabling issuers to redeem the commercial paper prior to maturity. Often this is accomplished by creating a “call exercise period” (many times beginning 35 days prior to maturity and extending through the date before maturity) during which the issuer may redeem the commercial paper. To incentivize issuers to make redemptions before reaching the 30-day LCR window and to offset the additional LCR-related cost of providing backup liquidity facilities if they do not, banks include in their backup facilities a surcharge for any commercial paper that remains outstanding during the 30-day period. A typical provision, taken from a municipal commercial paper offering in Florida, provides for a 0.75% per annum surcharge for each day that the commercial paper remains outstanding during the period beginning 30 days prior to maturity. Issuers often explicitly declare in commercial paper offering documents that they intend to avoid this surcharge by exercising the redemption option prior to the 30-day window. For example, the commercial paper

memorandum for the Florida municipal offering states “[t]o avoid such surcharge, the Issuer anticipates entering into a standing order with each Dealer (the ‘Standing Order’), subject to certain conditions, to facilitate a redemption on the earliest possible Business Day within each Call Exercise Period” (Sunshine State Governmental Financing Commission 2013, 6). (To review the relevant provisions of a callable commercial paper issuance, see pages 3 through 9 and 14 through 16 of Sunshine State Governmental Financing Commission 2013.)

Given banks’ incentive to avoid the LCR window, there is evidence that they have been aggressively promoting callable commercial paper to the issuers for whom they provide backup liquidity. For example, in 2012, JP Morgan approached the City of Los Angeles about amending one of its existing commercial paper programs so that the City could issue callable commercial paper on a pilot basis. In exchange, JP Morgan offered the City a reduction in the utilization fee charged for a portion of its backup facility (from 1.25% to 0.90%) and reimbursement of all legal fees and ratings fees associated with the implementation of callable commercial paper. (For a summary of JP Morgan’s proposal and the City’s consideration of it, see Council of the City of Los Angeles Budget and Finance Committee 2013.)

Figure 4: The Timeline Associated with a Typical Callable Commercial Paper Transaction



Source: JP Morgan 2012.

Having accepted JP Morgan’s proposal, on October 11, 2012, Los Angeles sold \$37.75 million in callable commercial paper at an interest rate of 0.22%, a 0.02% premium to the City’s traditional commercial paper (City of Los Angeles Office of the City Administrative Officer 2013, 54).

Debate on Callable Commercial Paper and LCR

No clear consensus has emerged to date on the significance of callable commercial paper’s introduction. On the one hand, it is possible to see callable commercial paper as a textbook example of regulatory arbitrage in which banks have developed a new product intended to circumvent Basel III’s push to ensure adequate liquidity. Prior to a shift toward callable commercial paper, a bank providing backup liquidity facilities to issuers of commercial paper would presumably have at least some of the issuances it backstops within the 30-day

LCR window at any given time. This would require the bank to maintain at least some level of HQLA support for its backup liquidity facilities. An across-the-board shift to callable commercial paper, if accompanied by consistent redemption prior to the 30-day window, would mean that no HQLA would have to be maintained. In the event of another financial crisis in which issuers became unable to roll over their commercial paper, the bank, despite having maintained no HQLAs in support of its backup liquidity facilities, could be called upon to provide significant amounts of cash pursuant to those facilities.

On the other hand, one might alternatively see callable commercial paper as an appropriate response in keeping with the fundamental premise of the LCR—that by the 31st day of a crisis, bank management and regulators will have had the opportunity to effectively respond. According to this view, the development of callable commercial paper is an innovation that prudently allows banks to push all cash outflows associated with backup liquidity facilities beyond the 30-day period identified by the BCBS as the window of concern. Banks would not have any corresponding HQLA to call upon in a crisis scenario, but no outflows from the bank would occur for at least 31 days (significantly, backup liquidity facilities for callable commercial paper are generally specifically structured so that they cannot be used by issuers for redemptions, meaning that outflows would only occur on actual maturity). If critics of callable commercial paper nonetheless remain concerned about its implications, it would suggest that what they are really uncomfortable with is the very 30-day timeframe that is the foundation of the LCR.

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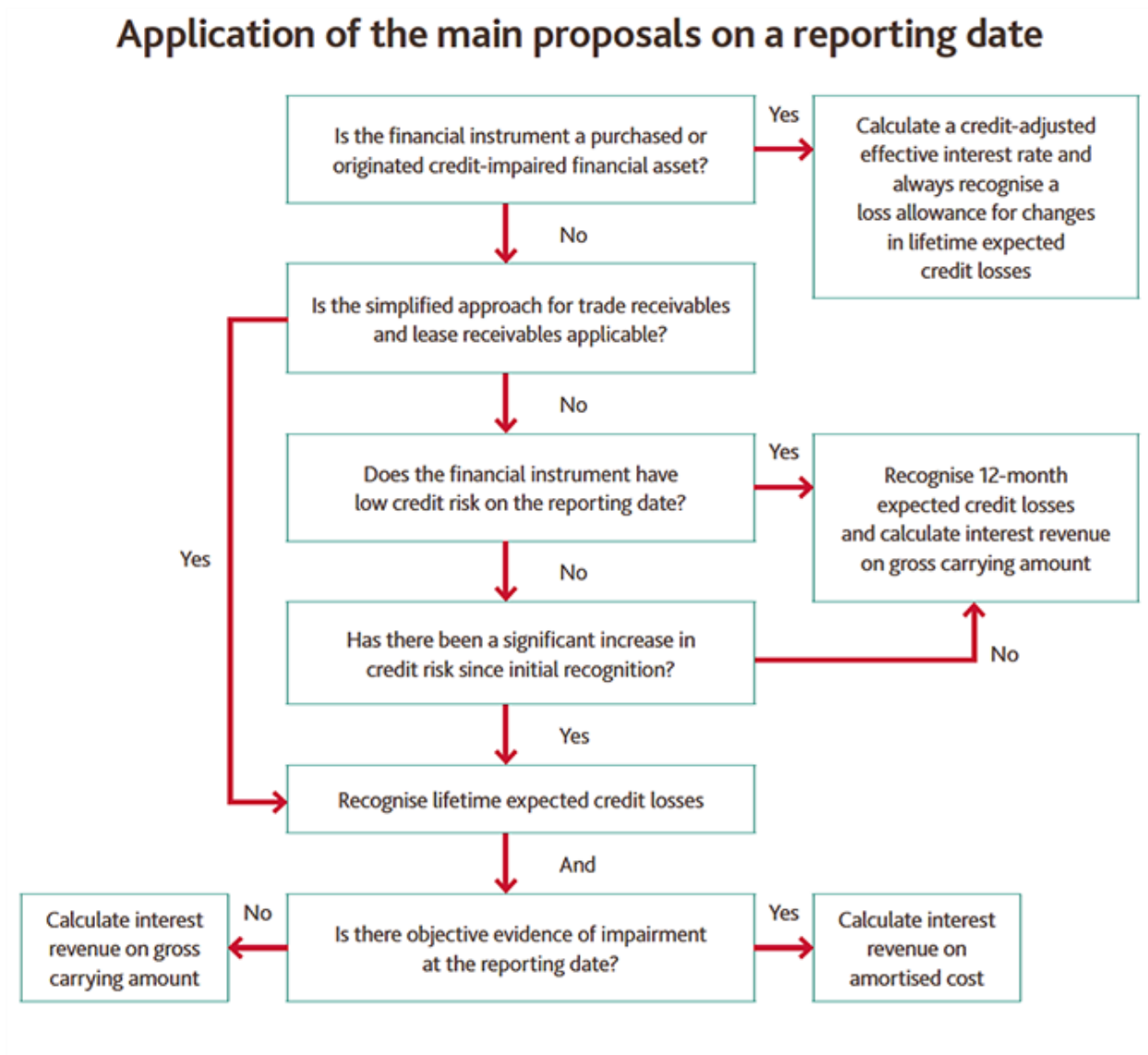
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Appendix 1: Summary of the Main IFRS 9 Impairment Proposals



Source: BDO 2013, 24.