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Basel III LCR is a business model changer: how will it impact your bank?

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Compliance with Basel III LCR carries implications for banks beyond merely a robust liquidity management regime. Professor Moorad Choudhry considers some wider issues...

After the mountain of consultative papers and policy statements, the first genuinely material regulatory change to banking operations arising as a result of the crash is now with us. This is of course the Basel Committee's Liquidity Coverage Ratio, and while it is true that the requirement isn't at its full 100% level in the European Union until 2018, every bank will want as far as possible to ensure that it has been posting a >100% result since January 2015. The risk of the extreme negative publicity that would arise should a bank report a lower than 100% level, when all of its peers are doing so, is too great to ignore.

But while the actual calculation of the ratio is no more challenging than primary school arithmetic (the ratio is, after all, a simple one), the impact of the metric's requirements on a bank's business model has been assessed less thoroughly. This is something of an omission because everything from expected return on capital and optimum liabilities mix to internal funds transfer pricing and derivatives collateral management will be influenced by the need to be LCR compliant.

The wider business model impact of LCR

Since January the cornerstone of the Basel III liquidity risk management regime, its liquidity coverage ratio (LCR), has been an operational reality for EU banks. Banks need to consider the wider impact of LCR on the balance sheet, and what it will mean for strategy and returns in the medium term. There are a number of things that banks can be doing to ensure that their LCR metric is "optimised", and all of these play to their strategy and customer franchise.

Liquidity Coverage Ratio

To some bankers LCR represented a step-change in liquidity management culture, but that is only because principles accepted as commonplace in the 1980s (and 1880s!) had been discarded by many European and US banks by 2008. Nevertheless sustained compliance with LCR will prove to be a challenge to work towards for many banks, which will now have to demonstrate the tenor behaviour characteristics of their customer liabilities to the national regulator.

Just to recap, the LCR for a bank is given by:

$$\frac{\text{Stock of high quality liquid assets (HQLA)}}{\text{Stressed net cash outflows over a 30-day time period}} > 100\%$$

In other words the LCR requires banks to maintain a liquidity buffer that matches expected cash outflows in a stressed environment. The amount of funds that might be observed in a market stress situation is given by the stress tests that banks run every month, under specified assumptions. The time period covered in the stress test is 30 days. This implies that a stressed environment would last for only a month, which is unrealistically short. For this reason banks should always treat the LCR-driven HQLA as a minimum size to maintain. Equally they should calculate and work to a minimum 90-day time period over which the stress would be assumed to take place for their internal assessments.

Are the stress tests themselves reliable? Any analysis undertaken under assumed conditions is always at risk of inaccuracy, which is why continuous review and back-testing is also part of a bank's risk management regime. However for this reason adherents of best-practice principles suggest that the size of the liquidity buffer should be a function of other metrics, including the following:

- Set at 2.5 times the size of the aggregate of a bank's liabilities that are of less than 1-year maturity;
- Set at 110% of the LCR stressed outflow number.

There are other guidelines one can consider, but the above convey the general idea.

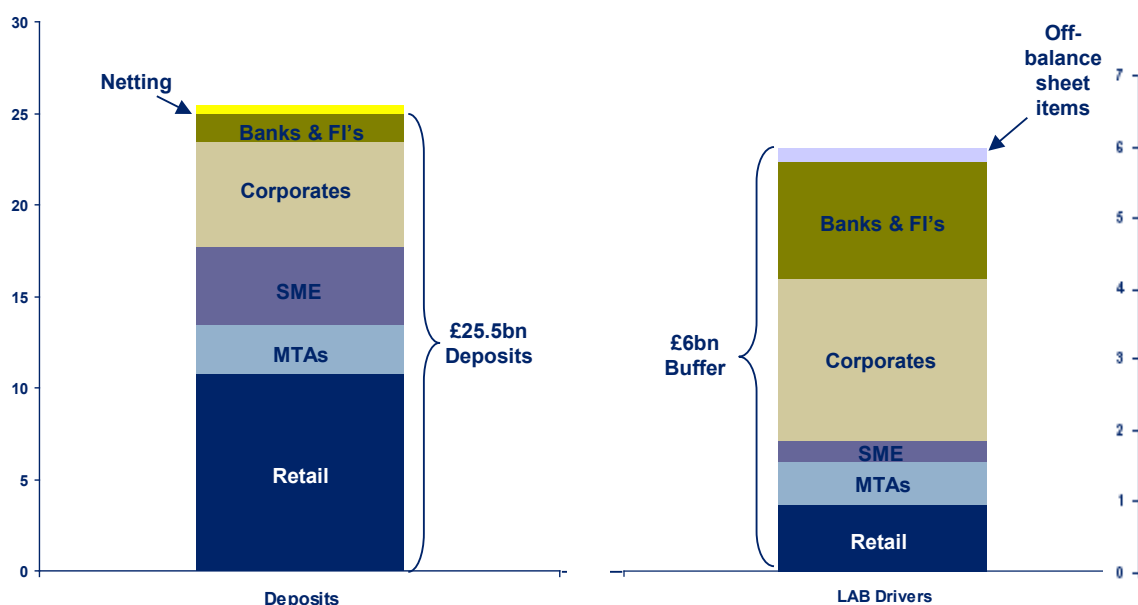
Given this, what is the implication of the LCR for the world's banks? In the first instance, that they will all be holding, in differing amounts, a stock of genuinely liquid assets. The challenge comes from the impact this will have on the bottom line, as a risk-free portfolio generates less income (if it is run at a profit at all), and so all else being equal a bank's profits will reduce. However it is not acceptable to suggest, as some practitioners do, that there is a "shortage" of liquid assets with which to populate the HQLA portfolio. One can always hold the HQLA as cash, of which there is no shortage. The HQLA portfolio should be viewed as a cost of doing business, not as an investment portfolio to maximise return on.

The second, more problematic challenge for banks is that in order to optimise the balance sheet from an LCR perspective they will need to understand fully the liquidity value of every different type of customer liability. Basel III defines "stable" and "non-stable" types of funding and customers: the former generate higher assumed outflow results in stressed market conditions, thus increasing the size of the LCR metric. All else being equal, banks will wish to maximise stable liabilities and minimise non-stable ones, but this will not always be possible.

Regulatory value of liabilities

This is when it gets interesting. But there is more to it than that – to really appreciate the impact of LCR calls for a deep understanding of the entire liability structure (excluding equity) of the bank, and the impact of each type of liability on net interest income (NII). Consider the example of a medium-sized UK commercial bank whose deposit base and LCR outflows are shown in Exhibit 1.

Exhibit 1 Balance sheet drivers of the HQLA portfolio



We conclude the following from Exhibit 1:

- Retail deposits are LCR efficient. The £10.8 of deposits form 43% of this bank’s deposits, but due to the lower outflows expected from this customer type, retail outflows are only 15% of the Buffer required (the LCR denominator);
- SMEs place another type of deposit that is LCR efficient, as here SME deposits form ~17% of the overall deposit base, but contribute only 5% of the overall LCR outflows;
- “Operational” deposits such as current accounts appear to be relatively neutral to buffer requirements as those deposits form 10% of the overall 2015 deposit base, and are judged to be 11% of the outflow buffer requirements.

The deposits which carry the highest outflows risk are Corporates, Banks and non-bank FIs. Corporate deposits in Exhibit 1 are shown to be 22% of the balance sheet but account for 38% of the overall buffer. Banks & FIs are only 6% of the overall deposits base but impact 27% of the overall LCR outflows.

To really get to grips with LCR requires a granular assessment of the LCR “value” of every type of balance sheet product, and the impact by customer type. Consider Exhibit 2 which is an extract from a UK commercial bank under the pre-CRDIV “ILAA” liquidity regime:

Exhibit 2 Outflow assumptions for liability product and customer types

Review and validation of ILAA stressed outflow assumptions (UK commercial bank)

Business Line	Customer Type	Product	Current ILAA assumptions					
			Idiosyncratic		Market		Combined	
			2-week	3-month	2-week	3-month	2-week	3-month
Corporate	45 - UK Credit Institutions	IBS (non-MTA)	40.0%	60.0%	20.0%	25.0%	30.0%	35.0%
Corporate	45 - UK Credit Institutions	MTA	10.0%	12.0%	5.0%	8.0%	8.0%	10.0%
Corporate	45 - UK Credit Institutions	Time deposits % of deposits broken	30.0%	60.0%	15.0%	40.0%	20.0%	50.0%
Corporate	45 - UK Credit Institutions	Time deposits outflow % of deposits not rolled over	90.0%	60.0%	45.0%	40.0%	70.0%	50.0%
Corporate	45 - UK Credit Institutions	Fixed Rate Deposits % of deposits broken	1.0%	6.0%	1.0%	6.0%	1.0%	6.0%
Corporate	45 - UK Credit Institutions	Breakable Treasury Reserve Deposit	n/a	n/a	n/a	n/a	n/a	n/a
Corporate	45 - UK Credit Institutions	95 Day Treasury Reserve Deposit	n/a	n/a	n/a	n/a	n/a	n/a
Corporate	45 - UK credit institutions	95 day notice	1.5%	4.3%	0.8%	2.8%	1.2%	3.7%
Corporate	46 - Non-UK Credit Institutions	IBS (non-MTA)	40.0%	60.0%	20.0%	25.0%	30.0%	35.0%
Corporate	46 - Non-UK Credit Institutions	MTA	10.0%	12.0%	5.0%	8.0%	8.0%	10.0%
Corporate	46 - Non-UK Credit Institutions	Time deposits % of deposits broken	30.0%	60.0%	15.0%	40.0%	20.0%	50.0%
Corporate	46 - Non-UK Credit Institutions	Time deposits outflow % of deposits not rolled over	90.0%	60.0%	45.0%	40.0%	70.0%	50.0%
Corporate	46 - Non-UK Credit Institutions	Fixed Rate Deposits % of deposits broken	1.0%	6.0%	1.0%	6.0%	1.0%	6.0%
Corporate	46 - Non-UK Credit Institutions	Breakable Treasury Reserve Deposit	n/a	n/a	n/a	n/a	n/a	n/a
Corporate	46 - Non-UK Credit Institutions	95 Day Treasury Reserve Deposit	n/a	n/a	n/a	n/a	n/a	n/a
Corporate	46 - Non-UK credit institutions	95 day notice	1.5%	4.3%	0.8%	2.8%	1.2%	3.7%
Corporate	47 - Governments, central banks and supranationals	IBS (non-MTA)	40.0%	60.0%	20.0%	25.0%	30.0%	35.0%
Corporate	47 - Governments, central banks and supranationals	MTA	10.0%	12.0%	5.0%	8.0%	8.0%	10.0%
Corporate	47 - Governments, central banks and supranationals	95 Day Treasury Reserve Deposit	n/a	n/a	n/a	n/a	n/a	n/a
Corporate	47 - Govts / central banks / supras	95 day notice	1.5%	4.3%	0.8%	2.8%	1.2%	3.7%
Corporate	48 - Non-credit institution financials	IBS (non-MTA)	40.0%	60.0%	20.0%	25.0%	30.0%	35.0%
Corporate	48 - Non-credit institution financials	MTA	10.0%	12.0%	5.0%	8.0%	8.0%	10.0%
Corporate	48 - Non-credit institution financials	Time deposits % of deposits broken	30.0%	60.0%	15.0%	40.0%	20.0%	50.0%
Corporate	48 - Non-credit institution financials	Time deposits outflow % of deposits not rolled over	90.0%	60.0%	45.0%	40.0%	70.0%	50.0%
Corporate	48 - Non-credit institution financials	Fixed Rate Deposits % of deposits broken	1.0%	6.0%	1.0%	6.0%	1.0%	6.0%
Corporate	49 - Non-financial large enterprises – Type A	Fixed Rate Deposits % of deposits broken	1.0%	6.0%	1.0%	6.0%	1.0%	6.0%
Corporate	49 - Non-financial large enterprises – Type A	Breakable Treasury Reserve Deposit	n/a	n/a	n/a	n/a	n/a	n/a
Corporate	49 - Non-financial large enterprises – Type A	95 Day Treasury Reserve Deposit	n/a	n/a	n/a	n/a	n/a	n/a
Corporate	52 - Non-fin large ents - Type B	95 day notice	0.8%	2.5%	0.4%	1.8%	0.6%	2.2%
Corporate	52 - Non-financial large enterprises – Type B	IBS (non-MTA)	12.0%	15.0%	8.0%	10.0%	10.0%	12.0%
Corporate	52 - Non-financial large enterprises – Type B	MTA	10.0%	12.0%	5.0%	8.0%	8.0%	10.0%
Corporate	52 - Non-financial large enterprises – Type B	Time deposits % of deposits broken	10.0%	35.0%	5.0%	25.0%	8.0%	30.0%
Corporate	52 - Non-financial large enterprises – Type B	Time deposits outflow % of deposits not rolled over	50.0%	35.0%	25.0%	25.0%	35.0%	30.0%
Corporate	53 - SME deposits	95 day notice	0.8%	2.5%	0.4%	1.8%	0.6%	2.2%

To do this for every product and customer type is onerous enough but is of course only the first stage. The next step is to assess the importance of each type of funding within a wider net interest income and customer franchise impact.

This is because LCR-efficiency isn’t the only driver of a bank’s business model (although it will be a significant one). A bank cannot simply inform whole swathes of customers that it no longer wants their deposits (or wishes to stop providing them liquidity or revolver facilities) – not unless it wishes some instant bad publicity. If a bank advertises itself as (for example) a “full service corporate bank”, then it must accept that its LCR stress outflows will reflect this. The choice then becomes one of (a) redefine its customer value proposition, and target a more focused customer franchise or (b) accept that the cost of the HQLA will be material and that, all else being equal, its return on capital will be lower as a result. Such a bank must accept a substantial base of non-stable deposits and customers, but all else being equal this argues for a higher HQLA and consequently a bigger drag on net interest income (NII). Banks need to have an answer to this issue for internal and external stakeholders.

The “all else being equal” bit is significant, as it always is of course. To compensate for the higher cost of liquidity a bank will address its asset side, but a raft of products offered routinely to large corporates and non-bank FIs, such as liquidity lines and revolving credit facilities, are also treated quite punitively under Basel III. In effect, LCR puts whole groups of customers, and some important ones at that, in the “too expensive to do business with” category. And it is this result that needs addressing. What is less apparent is that any large or medium sized commercial bank has actually addressed its liabilities strategy setting in this way.

Conclusions

Liquidity management is a discipline that is as old as banking itself, and under the new regime being implemented under Basel III the need to adhere to old-fashioned beliefs on sound liquidity practice is something that will be enshrined in law. However the new funding metrics reflect banking logic, and one feels that the principles behind them should be followed regardless, simply because bank management would be aware of their importance anyway.

The calculation of the LCR metric is not an intellectual challenge. However it is a technology challenge, because in order to optimise the balance sheet for LCR, a bank will need to have good data analytics capability for the entire balance sheet, for both assets and liabilities. This is not the case for many banks.

But perhaps the biggest challenge is for banks to recognise how the metric will impact their particular business model, and to revise their strategy and operating model if necessary to reflect this. A critical first imperative is to assess the LCR results for balance sheet impact, and use this assessment to influence strategy. This means integrating LCR into both the banks liabilities strategy and its internal funds pricing policy (FTP), to ensure that the bank works towards optimising the balance sheet from a regulatory, NII and customer franchise perspective. This is not a trivial undertaking.