



## Liquidity requirements from Basel make life tougher for banks

For as long as financial markets were awash with liquidity, the banking sector's liquidity risk was underestimated, and liquidity risk management and supervision remained under the international radar for a long time. This changed abruptly in the summer of 2007 when the liquidity risk became manifest in the large liquidity shortage on the interbank money market. Since then this issue has been high on the international agenda. In December 2009, the Basel Committee on Banking Supervision<sup>1</sup> made proposals to harmonise the oversight of banks' liquidity. In this Special Report we conclude that these new requirements are even more stringent for the banking sector than the proposals for tighter capital requirements.<sup>2</sup>

### What is liquidity risk?

Liquidity risk is defined as the risk incurred by a legal entity if it does not have the possibility to access the required funding in order to meet its obligations arising from financial instruments.<sup>3</sup>

Liquidity risk is inextricably linked to the transformation function of banks: banks raise

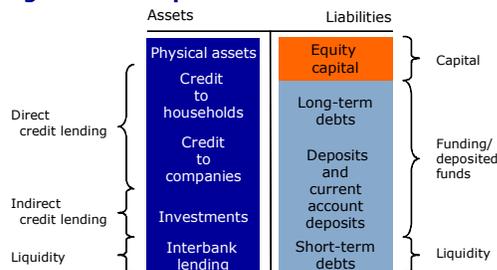
money with a short-term maturity (for example savings deposits) and convert these into long-term loans (such as mortgages). In order to meet its short-term obligations, a bank constantly needs to have sufficient liquidity<sup>4</sup>. After all, depositors may want to withdraw their savings at any time, and short-term loans have to be redeemed when they mature. Furthermore, on account of the mismatch in the maturity of assets and liabilities, a bank has to continually take on new short-term liabilities for the (re)financing of, for example, loans.

### Two types of liquidity risk

The first type of liquidity risk occurs if a bank is unable on account of a market-wide crisis to quickly and cheaply convert its liquid assets into money (*market liquidity risk*). The second kind of liquidity risk is that suppliers of short-term funding to the bank will withdraw this funding or refuse to refinance it. This is the *funding liquidity risk*. The classic example of this type of liquidity risk is a 'bank run', when depositors withdraw their money en masse. The liquidity risk is not only dangerous for an individual bank, but can also be very contagious. Because banks are closely interlinked, liquidity problems in one bank can easily spread to other banks too.

In managing the liquidity risk, banks have to weigh up risks and returns. Liquidities (the asset side of the balance sheet) incur a lower risk and hence a relatively low return. And long-term funding (the liabilities side) is more expensive than short term funding.

Figure 1: A simplified bank balance sheet



<sup>1</sup> The Basel Committee consists of international banking supervisors and representatives of the Central Banks from the G-20 countries.

<sup>2</sup> With thanks to Klaroen Kruidhof and Loek Cremers (Rabobank) for their input and commentary.

<sup>3</sup>Source: DNB, Open Boek Toezicht [*Open Book on Supervision*], see <http://www.dnb.nl/openboek/extern/id/nl/vz/40-164351.html>

<sup>4</sup> Liquidities consist of cash and liquid assets (assets than can be quickly and cheaply converted into cash). In addition, a bank can borrow on the (interbank) money market to meet its short-term liabilities.

## Liquidity risk management and supervision tackled internationally

Although the implementation of the Basel I and Basel II Accords has harmonised international solvency supervision in recent years, liquidity oversight of banks is still chiefly a national matter. While the Basel Committee did publish qualitative guidelines (in 1992 and 2000), international agreement on concrete liquidity requirements was never reached. The urgency of this suddenly became apparent when the financial markets were confronted in August 2007 with a shortage of liquidity.<sup>5</sup> Central Banks throughout the world were forced to intervene to prevent the money market from grinding to a halt.

Because this liquidity crisis exposed the inadequacy of liquidity risk management in many banks, there was rapid acceleration of international discussion on liquidity supervision.

In September 2008 this resulted in the publication of *'Principles for Sound Liquidity Risk Management and Supervision'* by the Basel Committee, which contained a thorough revision of the principles of liquidity risk management.<sup>6</sup> In December 2009 the Basel Committee came up with the first concrete proposals for internationally harmonised liquidity requirements and oversight.<sup>7</sup> The consultation period for these proposals expired in mid-April. The definitive requirements are expected to be announced at the end of the year, and implementation is planned for late 2012.

<sup>5</sup> The underlying cause of this liquidity crisis was the securitization of American subprime mortgages. See: Rabobank (2008), *The subprime credit crisis*.

<sup>6</sup> For a description of the principles, see: DNB (2008), *Banks' liquidity risk management subject to stricter requirements*, Quarterly Bulletin, September 2008.

<sup>7</sup> See the consultative papers of the Basel Committee on Banking Supervision, *International framework for liquidity risk measurement, standards and monitoring*, consultatiedocument, December, 2009.

## Two ratios are central to the Basel proposals

Among its proposals, the Basel Committee has put forward two minimum ratios with which internationally active banks will have to comply on a continuous basis. These are:

### 1) The 'Liquidity Coverage Ratio' (LCR)

The purpose of the LCR is to ensure the short-term liquidity of banks. The ratio indicates the existing amount of high-quality liquid assets that can cover net outgoing cash flows for thirty days in the event of both a market-wide financial crisis and a bank-specific crisis (combined stress scenario).

**Figure 2: Liquidity coverage ratio**

<p>Stock of high-quality liquid assets</p> <hr/> <p>Net cash outflows over a 30-day time period</p>	<p>≥ 100%</p>
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Cash outflows include withdrawals of stable and less stable retail deposits<sup>8</sup> (of 7.5% and 15% respectively) and a reduction in wholesale funding (of 25% to 100%). Liquid assets that can cover these outgoing cash flows are defined by the Committee as cash, Central Bank reserves and marketable government securities. The Committee is still examining whether corporate bonds and high-quality covered bonds might also be included under specific conditions. The LCR is broadly comparable with the current liquidity requirements of the Dutch Central Bank (DNB). Only the definition of liquid assets is stricter and the weighting percentages differ somewhat.

### 2) The 'Net Stable Funding Ratio' (NSFR)

The aim of the NSFR is to have banks finance their assets more with (stable) long-term funding. This will reduce the mismatch between the maturity of assets and liabilities, and will thus also reduce the liquidity risk. The

<sup>8</sup> Stable savings deposits are covered for example by deposit guarantee scheme or may belong to clients who have other dealings with the bank.

NSFR indicates that the amount of *available* stable funding of a bank must be larger than the amount that is *required* for the type of assets the bank holds. In this ratio stable funding is defined as the types of equity capital and debt capital that constitute a reliable source of funding during a stress scenario of one year.

**Figure 3: Net stable funding ratio**

$\frac{\text{Available amount of stable funding}}{\text{Required amount of stable funding}} > 100\%$
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The *available amount* of stable funding is calculated by allocating an *Available Stable Funding* factor (ASF) to each funding source. Thus a bank's equity capital and retail deposits with maturity of longer than one year are assigned an ASF factor of 100%. Retail deposits with a term of less than one year are rated only 85% (stable) or 70% (less stable). Wholesale funding can only be counted as stable funding if the remaining period of maturity is longer than one year.

In order to calculate the *required* amount of stable funding, a *Required Stable Funding* factor (RSF) is assigned to each type of asset. This factor indicates which part of an asset has to be covered by stable funding. More liquid assets are accorded a lower RSF factor. For cash, for instance, the RSF factor is 0%. For loans to corporate clients and private clients with a maturity of less than one year, 50% and 85% stable funding is required respectively. Loans with a term of longer than a year require 100% stable funding.

It follows therefore that a housing mortgage of € 200,000 can be financed with € 235,295 of stable retail deposits.<sup>9</sup> Thus the NSFR goes further than the matching funding!

<sup>9</sup> For loans with a term of longer than one year, 100% stable funding is required. Stable savings deposits have an NSFR factor of 85%. Thus, € 200,000 / 0.85 = € 235,295 of stable savings deposits is needed for a mortgage of € 200,000.

A problem with the proposed definition is that it is very simplistic. A one-size-fits-all ratio cannot accurately reflect the liquidity risk positions of all banking institutions, without taking account of individual characteristics such as business models and ratings. Besides, if all banks are to be treated the same, there will be no incentive to improve their risk profile. To assess the liquidity risk, it would be preferable to use the method of Basel II of standard requirements for smaller, more straightforward banks, and internal risk models for larger more sophisticated banks.

**Major implications for the banks...**

The proposed liquidity requirements that are designed to limit the liquidity risk for the financial system will have major consequences for the banking sector. In order to strengthen the short-term liquidity position (LCR), banks will have to hold greater and better quality liquid assets. Profits will suffer as a result because there is a relatively low return on liquidities. If the Basel Committee should decide that corporate bonds and covered bonds are not to be included in the LCR as part of the liquidity buffer, banks will have to turn en masse to government bonds. This will lead to a new concentration risk in bank balance sheets: if governments should get into payment difficulties, then all the banks will be affected. Moreover, even government bonds could become illiquid if banks are trying to sell these all at once.

It is the NSFR, however, that will cause the greatest impact from the Basel proposals. The demand from banks for stable, long-term funding will increase worldwide. This will further intensify the competition on, for instance, the Dutch retail deposit market<sup>10</sup> which may drive up the interest on savings

<sup>10</sup> Competition is already increasing, see the Special Report 2010/01: 'Het veranderende Nederlandse bankenlandschap' [The changing landscape of Dutch banking].

deposits. Because deposit holders may then well shift their savings around more often to avail of more competitive rates, this source of funding may well become less stable than the Committee now supposes. Dutch banks are also at a disadvantage vis à vis their international competitors, because the market for freely available retail deposits is limited in the Netherlands. Two-thirds of savings are absorbed by pension funds and insurance companies, which permit tax-beneficial saving.<sup>11</sup> Consequently, the Dutch banks have to resort to more of the relatively more expensive wholesale market to comply with the NSFR. On this market too, competition will increase as a result of increased demand for long-term funding. Ultimately, banks will seek other or new means of complying with the liquidity requirements. Thus the securitisation market could grow again as a result.

#### **...and consequences also for the economy**

The higher liquidity costs to be incurred by banks in complying with both ratios will be passed on in the prices of banking products. Furthermore, the stable sources of funding required for lending are in short supply. Both these matters will have the effect of restricting credit supply, as will the more stringent capital requirements<sup>12</sup>, possibly choking the economic recovery. It is therefore important that the requirements should only take effect when the economic conditions permit. And because of the strong impact of the requirements, it is essential that they should be phased in gradually.

#### **Impact for Rabobank**

Modification of the two liquidity ratios by the Basel Committee would suit Rabobank better. As things stand, Rabobank's advantages of a well diversified funding basis, long-term relationships with clients and a high rating are not being factored in, while these matters have

a significant influence on the stability of the funding source. Like the more stringent capital requirements, the proposed liquidity requirements will have a restrictive effect on credit supply, which is reason for Rabobank to re-appraise its strategic priorities. Providing a local service and engaging in business that is compatible with the international Food & Agri strategy remain the starting point. In its liquidity policy, Rabobank has factored in the likelihood of changes to the liquidity requirements, although it remains unclear what the precise nature of these will be.

#### **Conclusion**

*The Basel Committee's proposed liquidity requirements for banks will have a major impact on the banking sector. To create a liquidity buffer for short-term coverage, banks will have to hold more and higher quality liquid assets. In addition, assets will have to be financed with more stable long-term funding. The new requirements thus impinge on the traditional role of the banks (the transformation of savings into credit), and have an even greater impact than the proposed higher capital requirements, also proposed by the Basel Committee. The intensification of both capital and liquidity requirements could restrict credit supply and curtail economic growth. In order to prevent this, the timing and method of implementation are crucial.*

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<sup>11</sup> Source DNB Statistical Bulletin, March 2010.

<sup>12</sup> See Special Report 2010/06: 'Impact of the new capital proposals from Basel.