



Rabobank



Basel III

Building blocks of new regulation



Preface: Stress-resistant

According to Webster's dictionary, a stress-resistant person is able to bear high tension and pressure from the environment without a problem. This also holds for the Rabobank risk managers. Theirs is the important task to map and monitor the risks of banking (because to bank is to take risks) and to warn if the bank's risk appetite is exceeded.

In the second half of July the relevant European banks were subjected to a stress test by the Central European Banking Supervisor (CEBS); Rabobank performed exemplary. Of course, no other outcome could have been forthcoming, given the low risk profile the bank prides itself on. Still, I am glad that our risk managers regularly test the foundations of the bank using more severe assumptions than what the European Regulator handed to the European Banks. A stress-test should never become a relax-test!

Meanwhile we are confronted with increasing solvability requirements and new liquidity requirements. The initial proposals from the Basel committee, also known under the name of Basel III, deservedly met with lots of resistance. Banking would become all but impossible under these types of rules. However, now that the proposals have been adjusted, we at Rabobank have no problems abiding by them. In other words, we feel that these are reasonable proposals, doing justice to the lessons learned during the credit crisis. Ultimately, they are meant to make banks more stress-resilient. This implies larger and more solid capital buffers to boost solvability. At the moment it looks like Rabobank will be able to meet the core capital ratio requirements from the very start, even though they are planned to be phased in from 2013 to 2019. That the requirements will take some time to come to full force doesn't say much; investors will immediately start judging banks based on the full 2019 requirements. Moreover, we will need to 'top off' our capital given our triple-A ambitions. This top rating will be very necessary in the future to acquire the additional funding that is needed to comply to the new liquidity requirements.

In short: There are ample challenges ahead. Tightened requirements also mean that we accurately have to steer the headroom that remains for expansion. Even for Rabobank there are limits to growth. This is not a bad thing per se, as long as we can continue to live up to our ultimate purpose to facilitate our clients. Ample 'food for thought' I would say. Thus, I wish you all a fascinating and fruitful conference.

Bert Bruggink



Why Basel III?

Ever since the first proposal of the existing Basel II Capital Accord was issued, its merits and its weaknesses are discussed in the banking world. But only the recent financial crisis proved that internationally active banks still failed to fully absorb credit losses since they fell short of capital. Note however that Basel II still needed to be fully implemented at the onset of the financial crisis. Nevertheless politicians pressured the Basel Committee on Banking Supervision (BCBS) to discuss the shortcomings of the Basel II Capital Accord and come up with possible amendments. These are now described as Basel III.

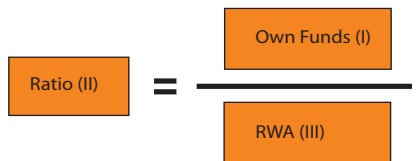
In short, Basel III builds upon the existing regulatory capital framework but introduces some adjustments that are meant to reflect the lessons learned from the financial crisis. The final draft of Basel III will be proposed to world leaders on the G20 meeting in Seoul, in November 2010. The support of G20-leaders is necessary since Basel has no regulatory role; its advice needs to be incorporated internationally, in the European directives and in national laws.

This brochure wants to inform you about Basel III based on the information that is available until mid October 2010.

Basel III – an overview

In December 2009 the initial Basel III proposal was issued for consultation. Since then the Basel Committee made some amendments and published more concrete details on the implementation phase. Basel III proposes changes in the following areas:

- I. **Definition Own Funds:** Harmonization and tightening of capital instruments allowed for inclusion in own funds to calculate the ratios.
- II. **Capital buffers:** Increasing the explicit minimum ratios of Tier 1 common equity, Tier 1 capital and total capital to risk weighted assets.
- III. **Risk Coverage :** Strengthening the capital requirements (hence RWA) for, market risk, securitisations and counterparty credit risk arising from derivative transactions.
- IV. **Leverage ratio:** Introducing a constraint on leverage based on gross exposure as a non-risk weighted 'backstop'.
- V. **Liquidity requirements:** Implementation of a short term and a long term liquidity ratio that are internationally consistent.



The proposed changes will be subsequently discussed in this brochure. Summarized altogether, the changes lead to higher minimum standards of capital ratios that are increasing during the transition period from 2013 to 2019.

I. Definition of own funds

Basel I introduced the concept that banks should have enough own funds to cover their risks. Basel II did change the view on risks but only slightly adjusted the definition of own funds. It should be noted that this definition of own funds significantly differs from that of IFRS equity. The existing own funds definition under Basel II has several flaws: there are large inconsistencies across jurisdictions, there is lack of loss absorbency of some capital components and there is no harmonised list of regulatory adjustments (e.g. deductions). As a consequence, it has been possible for some banks to display strong solvency ratios with limited tangible common equity. In order to fight these shortcomings, the Basel Committee announced several measures in order to raise the quality, consistency, and transparency of own funds. As a first step a difference is made between going concern own funds (Tier 1 capital) and gone concern own funds (Tier 2 capital). Subsequently the going concern has been split in Tier 1 common equity and additional Tier 1 capital. The three own funds components are described below:

1. Tier 1 – Common equity

Common equity must consist of a combination of common shares and retained earnings. Banks are especially faced with more stringent definitions for common shares. Hence, banks need to invest their efforts into attracting capital in terms of shares and into raising the profitability of their business. Common equity will probably become the primary and most restrictive form of own funds under Basel III. On top of that, all regulatory adjustments will be at the expense of common equity.

2. Tier 1 – Additional

Additional Tier 1 capital consists of instruments that are subordinated, have fully discretionary non-cumulative dividends or coupons and have neither a maturity date nor an incentive to redeem. This means that current innovative hybrid capital instruments will be phased out because they typically have a fixed distribution percentage, they have no 'loss absorption capabilities'¹ and they have an incentive to redeem through features like step-up clauses.

3. Tier 2 Capital

Tier 2 capital contains instruments that are capable of bearing a loss, not only in case of default, but also in the event that a bank is unable to support itself in the private market (hence gone concern capital). Therefore, the contractual terms of capital instruments need to allow banks to write them down or convert them into shares.

¹ Meaning conversion to common shares at an objective pre-specified trigger point or a write-down mechanism which allocates losses to the instrument at a pre-specified trigger point (BCBS (2009), p. 20 & 21.).

Capital category	Basel II	Basel III
Retained earnings	Tier 1 - common equity	Tier 1 - common equity.
Common shares	Tier 1 - common equity	Tier 1 - common equity (includes member certificates).
Innovative capital instruments	Tier 1 - additional	Excluded and grandfathered due to incentive to redeem.
Non-innovative capital instruments	Tier 1 - additional	Included, but will probably need some restructuring.
Subordinate debt	Tier 2	Will be included in Tier 2 only if it is loss-absorbent in the case of stress (gone-concern).

In the past the growth of banks has been partly supported by hybrid forms of capital. Due to the increasing importance of Tier 1 common equity this is no longer possible. Retained earnings will be primary source to bolster Tier 1 common equity. This is especially true for cooperative banks since they cannot issue shares like listed banks would do. For both type of banks this requires an even greater awareness for costs and returns which requires careful commercial choices.

Regulatory adjustments

On top of the above definitions of own funds a whole range of regulatory adjustments are specified to harmonize the inclusions and exclusions of certain adjustments. Under Basel II these regulatory adjustments could be split evenly over Tier 1 and Tier 2 capital. Basel III however will attribute all adjustments to Tier 1 common equity. The adjustments deal with consolidated and unconsolidated interests in financial institutions, intangibles like software and pension assets and liabilities. The table below gives a short, but not exhaustive overview of some of these adjustments under Basel III.

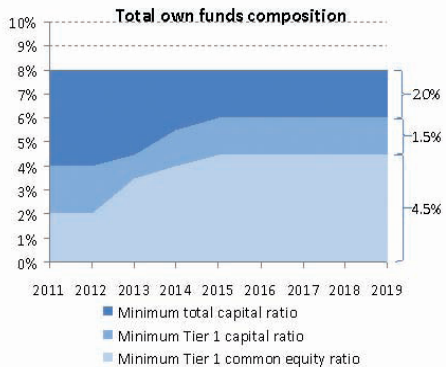
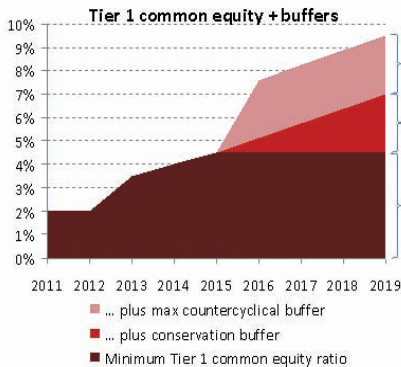
Regulatory Adjustment	Description
Minority Interests	Acknowledgement of minority interest reduced to only include subsidiaries that are a 'bank'.
Goodwill and Intangibles	Next to goodwill also other intangibles are to be deducted (like software).
Shortfall provisions to EL	Is to be fully deducted from Tier 1 common equity instead of 50% from Tier 1 and 50% from Tier 2.
Cash flow hedge reserve	Should not be included in Tier 1 common equity.
Pension fund asset/liabilities	Are to be deducted from Tier 1 common equity.
Unrealised gains and losses	Are to be taken into account in Tier 1 common equity.
Deferred Tax Assets (DTA)	DTAs, MSRs and unconsolidated FIs are to be weighted for the first 10% (of Tier 1 common equity) with a max of 15% when combined. All exposures above the 10% per category, or the 15% combined, are to be deducted from Tier 1 common equity.
Unconsolidated Financial Institution	
Mortgage Servicing Rights (MSR)	
Other deductions	All other deductions specified under Basel II which are not specified above are to be weighted (like certain securitisation exposures).

II. Capital buffers

Next to redefining the own funds components as outlined above, the Basel Committee wants to strengthen the capital base by increasing the explicit minima for Tier 1 common equity, total Tier 1 en total capital. After a transition period until 2015, Tier 1 common equity should equal at least 4.5% of risk weighted assets; total Tier 1 should equal at least 6% and the minimum for total capital equals 8%. As the figure below shows, the mix of the capital components changes significantly. On top, two additional buffers are proposed: the 'capital conservation buffer' and the 'countercyclical buffer' and a third buffer is being discussed for Systemically Important Financial Institutions (SIFI).

As of 1st January 2015		Tier 1 common equity	Tier 1 Capital	Total Capital
Basel II	Minimum	2%	4%	8%

Basel III	Minimum	4.5%	6%	8%
	Capital Conservation Buffer	2.5%		
	Minimum plus cons. buffer	7%	8.5%	10.5%
	Countercyclical buffer	0% - 2.5%		
	SIFI	Not clear yet		



Capital conservation buffer

At the onset of the financial crisis, a number of banks continued to make large distributions in the form of dividends, share buybacks and generous compensation payments, even though their individual financial condition was deteriorating. The capital conservation buffer is introduced to avoid this by giving regulators the ability to con-

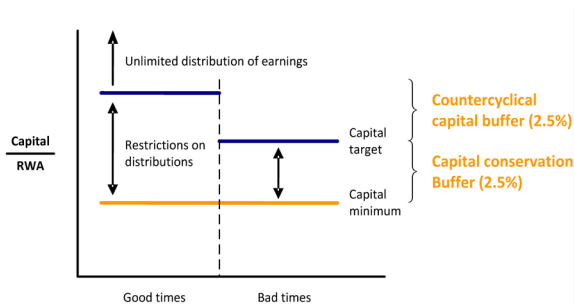
control banks' earnings distribution. After the phase-in period, banks are required to hold 2.5% of their Tier 1 common equity on top of regulatory minimum as of 1 January 2019. The purpose is to ensure that banks maintain a buffer of capital that can be used to absorb losses during periods of financial and economic stress. However, as a bank's capital falls into the buffer range and approaches the minimum requirement, the bank would be subject to increasing restrictions on earnings distribution.

Countercyclical capital buffer

This buffer is structured as an 'add-on' to the capital conservation buffer. It is meant to counterbalance procyclical bank lending behaviour. This is achieved by linking the height of this buffer to the economic cycle. If there are signs of excessive credit growth the buffer can be applied at the discretion of the national regulatory authority. The buffer ranges from 0% to 2.5% and consists of either Tier 1 common equity or other fully loss absorbing capital instruments.

Buffer for systemically important financial institutions

Currently there is a lot of uncertainty regarding who will be classified as a Systemically Important Financial Institution (SIFI) and what the consequences will be. Switzerland was the first to announce more concrete regulation. They require their SIFIs to have an extra buffer in the order of 10% which can consist of contingent capital.



Given the long transition period, banks should be able to meet the higher minimum standards set by the supervisor. However, the market will expect banks to comply with the higher standards long before 2019.

III. Risk coverage

The financial crisis showed that banks underestimated the counterparty credit risk related to derivatives, repos, and securities financing activities. Some prominent examples with large losses are Lehman Brothers, AIG and Bear Stearns. Therefore, the Basel Committee wants to strengthen the capital requirements for counterparty credit risk arising from these transactions.

a. Wrong-way risk

Implement an explicit capital charge for specific wrong-way risk: Wrong-way risk occurs when derivative exposure increases as the credit quality of the counterparty deteriorates. During the financial crisis deteriorations in credit worthiness occurred precisely at the time when market volatilities and counterparty exposures were higher than usual. In order to take the potential of increasing exposure into account, the new regulation requires banks to calculate the exposure at default by using data that includes a one year period of market stress.

b. Credit Valuation Adjustment

Mark-to-market losses due to 'Credit Valuation Adjustments'² were not directly capitalized in the past. Hence, losses built up from tumbling market values with no capital buffers in place to absorb these losses. Therefore, the Basel Committee imposes banks to add an additional capital charge to cover unexpected counterparty mark-to-market losses due to credit value adjustments.

c. Clearing

Up to now banks do not make much use of central exchanges to clear trades. This means that most transactions are bilateral OTC contracts where two parties agree directly on terms of the transaction. The drawback is that there is few regulatory oversight and parties depend heavily on each other. The interconnectedness of banks through derivative markets increases the systemic risk. The Basel Committee is supporting initiatives to use central exchanges and standardized derivative contracts. This is done by assigning a modest risk weight (1%-3%) to determine regulatory capital if these exchanges comply with several criteria.

d. Correlation of financial institutions

Large financial institutions are more interconnected than currently reflected in the capital framework. This means that the correlation for transactions to financial institutions is underestimated in banks' calculations for capital requirements. Therefore, the Basel Committee proposes to increase asset value correlation by 25%. This relates to all financial exposures under the IRB approach of regulated financial firms with assets of at least \$100 billion, and to all exposures to unregulated financial firms regardless of size.

e. Other

Requirements for stress testing will become more explicit, model validation standards will be revised and there will be supervisory guidance for sound back-testing practices of counterparty credit risk. On top of that the Basel Committee requires higher capital buffers for positions in the trading book and complex securitization transactions (re-securitizations). Banks in the EU have to comply with the last two adjustment already by the end of 2011.

The adjustments described above will primarily affect the RWA of banks' wholesale business.

² Difference between the risk-free portfolio value and the true portfolio value that takes into account the possibility of a counterparty's default. In other words, CVA is the market value of counterparty credit risk.

IV. Leverage ratio

One of the underlying features of the crisis was that banks were leveraged with excessive on- and off-balance sheet leverage. During the crisis banks were forced by the market to reduce their leverage which caused a downward spiral for asset prices and bank capital. Therefore, Basel III introduces a leverage ratio. This ratio is intended to achieve a constraint on the leverage in the banking sector as a non-risk based "backstop" measure based on gross exposure. This ratio also circumvents model risk inherent to risk weighted asset calculations.

Timelines	2011	2012	2013	2014	2015	2016	2017	2018	2019
Leverage ratio	Supervisory Monitoring		Parallel run Disclosure starts 1 Jan 2015					Migration to Pillar 1	

The two elements of the ratio are capital (numerator) and gross exposure (denominator) measure. There will also be a clear definition of on-balance sheet items, securitizations, derivatives and off-balance sheet items but they will be weighted differently. In the July 2010 press release the Basel Committee revealed that netting will be allowed for derivatives and credit conversion factors are applied to off-balance sheet items (e.g. 10% CCF for unconditionally cancellable commitments).

$$3\% \leq \frac{\text{Tier 1 capital}}{\text{Exposure}}$$

During the parallel run period, between 2013 and 2017, a minimum ratio of 3% will be tested. The Basel Committee will investigate whether this percentage and the design of the ratio is appropriate over a full credit cycle and different types of business models. The currently proposed ratio will have a more severe impact on one bank than on another. Based on the results of the parallel run period, there might be adjustments in the first half of 2017. It is planned that the leverage ratio becomes an explicit requirement as of 1 January 2018.

V. Liquidity

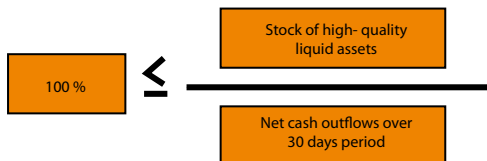
Throughout the financial crisis many banks struggled to maintain adequate liquidity levels. Unprecedented levels of liquidity support were required from central banks in order to sustain the financial system. Even with such extensive support a number of banks failed, were forced into mergers or required resolution. These circumstances and events were preceded by several years of ample liquidity in the financial system,

during which liquidity risk and its management did not receive the same level of scrutiny and priority as other risk areas. The crisis illustrated how quickly and severely liquidity risks can crystallize and certain sources of funding can evaporate. Therefore, Basel III introduces two internationally consistent regulatory standards for liquidity risk supervision.

Timelines	2011	2012	2013	2014	2015	2016	2017	2018	2019
Liquidity Coverage Ratio			Observation period			Introduce minimum standard			
Net Stable Funding Ratio				Observation period				Introduce min. standard	

Liquidity Coverage Ratio

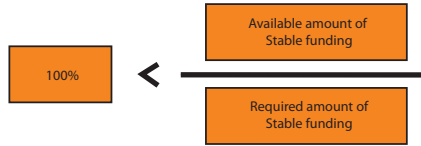
The Liquidity Coverage Ratio (LCR) identifies the amount of unencumbered, high quality liquid assets (minimum market liquidity risk) an institution holds that can be used to offset the net cash outflows (operational liquidity risk). The LCR assumes an acute short-term, thirty day stress scenario. The specified scenario entails both bank-specific and market-wide shocks built upon actual circumstances experienced during the financial crisis.



This ratio has a trivial impact on Dutch banks since the Dutch Central Bank (DNB) already required them to meet a similar ratio in the past. These banks already have a sound short-term liquidity framework and governance structure in place.

Net Stable Funding Ratio

The Net Stable Funding Ratio (NSFR) measures the amount of longer-term, stable sources of funding employed by an institution relative to the liquidity profiles of the assets. These assets also include contingent calls arising from off-balance sheet commitments. The standard requires a minimum amount of funding that is expected to be stable over a one year time horizon. The NSFR is intended to promote longer-term structural funding of banks' on- and off-balance sheet exposures and capital markets activities.



It will be important that banks make use of different sources of long-term funding. In particular, attracting and maintaining retail deposits and savings accounts will be crucial. Since this is true for all banks, competition is expected to be tough.

Concluding remarks

It should be clear that the Basel III proposals introduce a significant amount of new regulation and put extra restrictions on existing regulation (see summary table below). In the end these rules are introduced to incorporate the lessons learned during the crisis and to regain confidence amongst financial institutions and consumers. Any concern that these rules might constrain economic growth might be viable on the short-run. However, the aim is to create a more stable financial system from which we all benefit in the long-run.

Regulatory change	Description
Quality and consistency of own funds	Common shares and retained earnings are the primary source of common Tier 1 capital, harmonization of Tier 2 capital instruments, elimination of Tier 3 capital.
Minimum capital requirement	By 2015, Tier 1 common equity should equal at least 4.5% of risk weighted assets; total Tier 1 should equal at least 6% and total capital at least 8%.
Capital buffers	Two additional buffers are introduced. The 'capital conservation buffer' and the 'countercyclical buffer'. Each buffer means an extra solvency requirement of 2.5%.
Risk coverage	Strengthen the capital requirements for counterparty credit exposures arising from banks' derivatives, repo and securities financing transactions.
	Higher capital buffers for positions in the trading book and complex securitization transactions (re-securitizations).
Leverage ratio	A non-risk based leverage back-stop defined by a minimum ratio of 3% of Tier 1 capital to gross exposure.
Liquidity Coverage Ratio	Proposing an amount of liquid assets to survive a 30 day stress period.
Net Stable Funding Ratio	Proposing an amount of stable funding to ensure that banks balance their long-term assets with long-term liabilities.

Be aware that the described changes are not final yet. Some subjects still need some further elaboration such as the SIFI. We should expect additional amendments, improved specifications and maybe new regulations before the full implementation in 2019. A lot can happen in a decade.

One should keep in mind that capital alone cannot *prevent* a crisis. We should also stay alert that these new rules do not sow the seeds for a new crisis. Risk management will play an important role to monitor these developments. Risk management alone will not do however. In the end, banks have a financial intermediary role in society. In order to fulfill this role they need to maintain sound capital ratios by keeping up their earnings. These earnings can only be generated by continuing to serve their clients.

Sources

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Colophon

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