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The road to Basel III

Developments of international banking supervision framework

Amman, March 20 2011

Content

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Timelines

2004

June 2004
Issue B II

Data Capturing & Storage – Mandatory Requirement

Discuss Models with IRB Banks

2005 - 2007

Parallel run Advanced Approaches

2008

Basel II - implemented

2010

Issue Basel III

2013

2018

Implementation

Content

Key Features of the Basel II Framework

Three Basic Pillars

Minimum Capital Requirements	Supervisory Review Process	Market Discipline
Comprehensive framework to address quantitatively credit, operational and market risks	More power to require individual banks to hold capital above statutory minima	Better disclosure, promotes market discipline and improves risk management

Pillar 1 – Overview of Scale of Change

Credit Risk	Operational Risk	Market Risk
Major changes	Completely new	Largely unchanged

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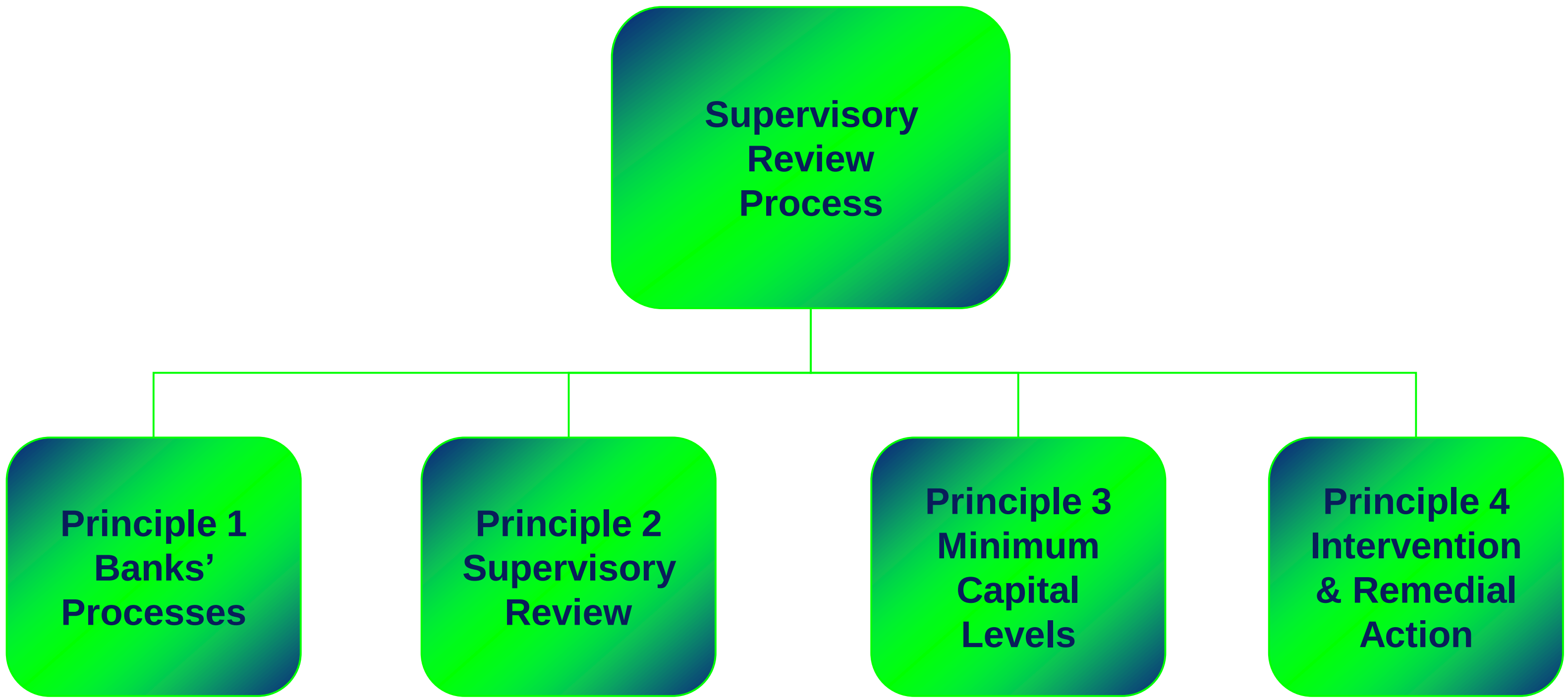
Pillar II – Supervisory Review



Basel II Enhancements – Overview of the regulatory changes

• The enhancement of the Basel II framework aims at improving the following areas: –Quality of firms‟ **capital** by establishing clear criteria for assessing the eligibility of hybrid‟ capital to be counted as part of a firm's overall capital;

– Reshape the 2006 **corporate governance** principles**;**

– **Liquidity risk** management and overall risk governance (Pillar 2); and

– Risk management of **securitization** exposures;

– Governance over **remuneration principles;**

– Practices around **stress testing**;

– Revisions to the **market risk** framework, including securitization and Re-securitization requirements and focusing on **trading book** requirements.

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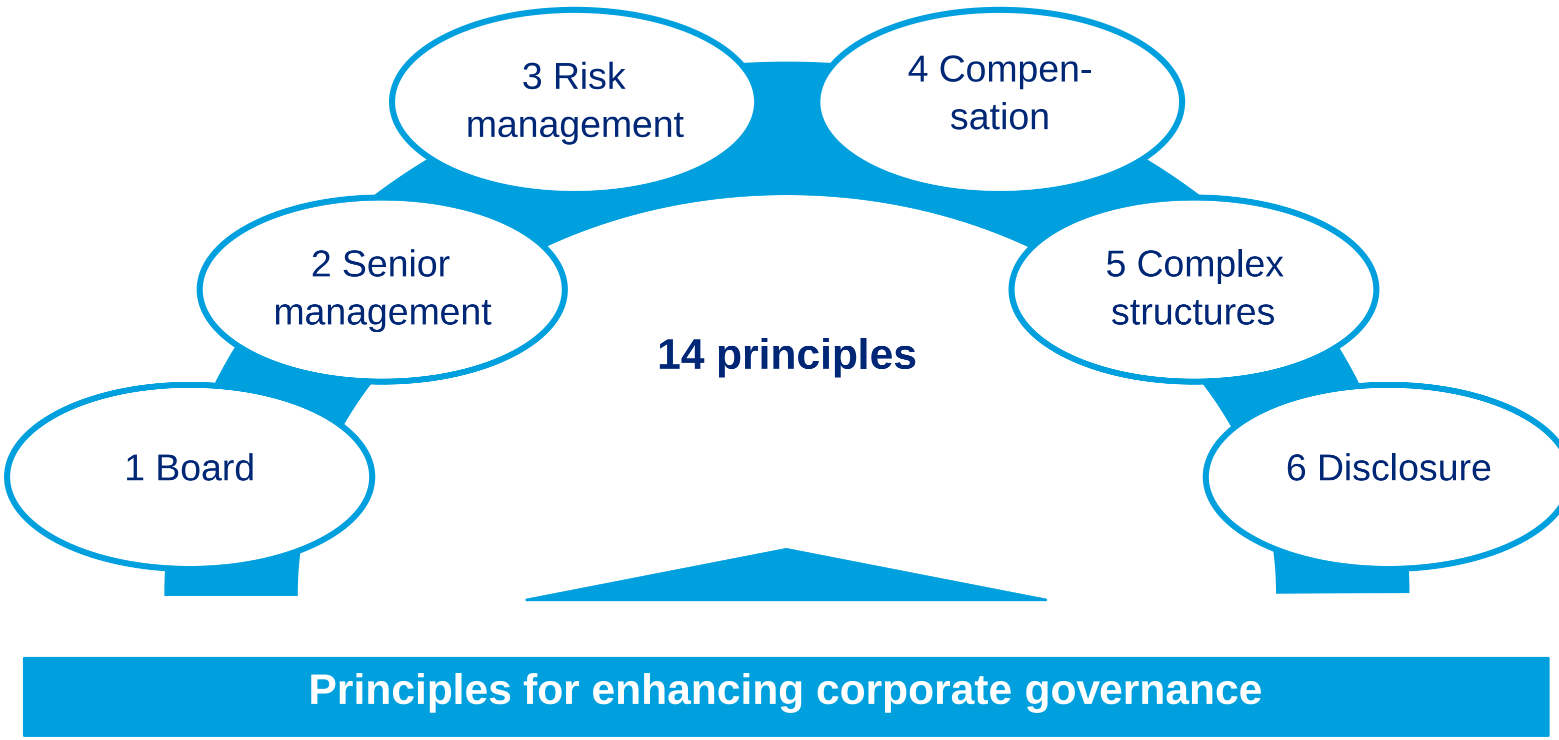
Basel II Enhancements – Improve corporate governance

Number of corporate governance failures during financial crisis stressed the importance of revisiting corporate governance principles:



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Basel II enhancements – Improving Pillar 2 framework
Risk Management governance : high-level principles

G20
11/2008

- Regulators should *“develop enhanced guidance to strengthen institutions’ risk management practices[…] to re-examine their internal controls and implement strengthened policies for sound risk management”*

Areas of consideration:

1. Governance and risk culture
2. Risk appetite and risk tolerance
3. Role of CRO and risk management function
4. Risk models and integration of risk management areas
5. New product approval policy and process

Basel II enhancement – Compensation principles

	Main principles on remuneration policy
1	Be consistent with and promote sound and effective risk management and which does not induce excessive risk-taking.
2	Be in line with the business strategy, objectives, values and long-term interests of the bank and consistent with the principles relating to the protection of clients and investors.
3	Be structured with (i) an appropriate balance of fixed and variable remuneration components and (ii) a maximum limit on the variable component.
4	Include a fixed component that represents a sufficient proportion of the total remuneration allowing the bank to have a fully flexible bonus policy.
5	Where a significant bonus is awarded : • main part of the bonus shall be deferred with a minimum deferment period • deferred element of the bonus shall take into account the outstanding risks associated with the performance to which the bonus relates and may consist of equity, options, cash, or other funds, the payment of which is postponed until the end of the deferment period • assessment of performance shall be set in a multi-year framework, (3-5 years) in order to ensure that the assessment process is based on longer-term performance
6	Total amount of the performance-related remuneration shall be based on a combination of the assessment of the performance of the individual and of the business unit concerned and of the overall results of the bank
7	Measurement of performance, as a basis for bonus or bonus pools, shall include an adjustment for current and future risks related to the underlying performance and shall take into account the cost of the capital employed and the liquidity required
8	Apart from financial performance, qualitative factors shall be considered (such as compliance with internal rules and procedures, systems and controls of the financial institution, as well as compliance with the standards governing the relationship with clients and investors)

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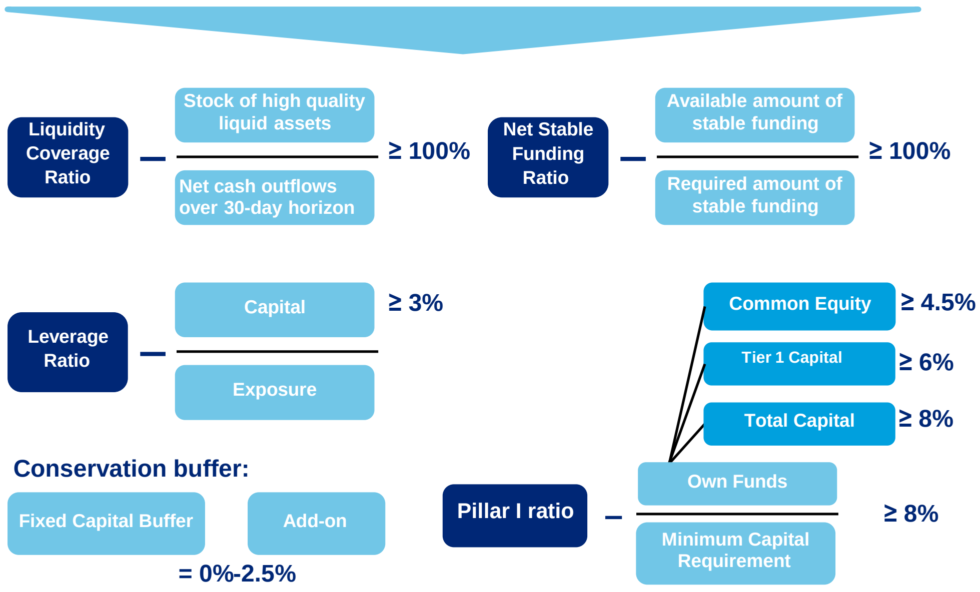
December 09 BCBS paper induces the most impacting changes

Failures in the recent banking crisis

- Banking sectors of many countries had built up excessive on- and off-balance sheet leverage
- Gradual erosion of the level and quality of both the asset and the capital base
- Holding insufficient liquidity buffers
- Not able to absorb the resulting systemic trading and credit losses nor could it cope with the re-intermediation of large off-balance sheet exposures that had built up in the shadow banking system
- Crisis was further amplified by a pro-cyclical deleveraging process and by the interconnectedness of systemic institutions through an array of complex transactions

Main features of “Basel III”

- Raising the quality of regulatory capital
- Improving various aspects of regulatory driven risk management practices, both quantitatively and qualitatively
- Introduction of an overall maximum leverage ratio
- Measures to prevent pro-cyclical effects
- Addressing systemic risk and interconnectedness
- Introduction of global liquidity standards



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Basel III – Overview of the measures

1. Strengthening of Capital Base	• The new framework focus on improvement of quality of Tier 1 with predominant" form of Tier 1 must be common shares and retained earnings (4,5%) • Tier 2 capital being harmonized and simplified; only one class of Tier 2 capital will remain. • Tier 3 capital (currently available to cover market risk requirements) eliminated. • Enhanced disclosure sof capital base
2. Enhancing risk coverage	• The framework introduces a range of measures, which are to be seen in addition to the trading book and securitization reforms announced in July 2009 . • Strengthening capital requirements for Counterparty Credit Risk • Focus is on improvement of capital standards relating to EAD and collateral management in the trading book • Further, the proposal introduces new rules relating to how to deal with external ratings and credit rating agencies
3. Introduction of an Overall Leverage Ratio	• The framework introduces an overall restriction of leverage (exposure / capital) fixed at 3% • Aim is to reinforce the risk-based requirements with a simple, non-risk-based "backstop" measure based on gross exposure, and to harmonize the new measure internationally, fully adjusting for material differences in accounting • The proposal defines in more detail how to deal with derivatives, commitments, etc

Basel III – Overview of the measures

4. Dealing with Procyclicality	• Dampen any excess cyclicality of the minimum capital requirement • Promote more forward looking provisions, in line with the recent IASB proposals • Introduce conserve capital to build buffers at individual banks and the banking sector that can be used in stress • Protect the banking sector from periods of excess credit growth through introduction of additional capital buffers in such periods, up to 2.5%
5. Addressing Systemic Risk and Interconnectedness	• Capital incentives for banks to use Central counterparties for OTC derivatives • Higher capital requirements for trading and derivative activities, complex securitisations and off-balance sheet exposures • Higher capital rquirements for inter-financial sector exposures • Possible capital and liquidity surcharge for systemically important banks are still under investigation with the FSB
6. Introduction of Global Liquidity Risk Standards	• Capital requirements alone are not sufficient to promote sound risk management and basic principles of liquidity risk management reinforced through robust supervisory standards is of equal importance • A 30-day liquidity coverage ratio is intended to promote short-term resilience to potential liquidity disruptions • The second standard is a longer-term structural ratio to address liquidity mismatches, in order to provide incentives for banks to use stable sources to fund their activities.

Basel III – Overview of the measures

One of the highest priority issues on the Basel Committee's regulatory reform agenda is the need to strengthen the quality, consistency and transparency of the capital base.

Quality

- Capital base not capable of absorbing losses in case of economic downturn
- Banks reported high Tier 1 ratios with only low level of core Tier 1
- Distorted Tier 1 ratios due to regulatory adjustments from total capital base

→

- Capital must be capable of absorbing losses as and when they occur
- Tightened criteria for inclusion in regulatory capital base
- Principle-based-approach

Consistency

- No harmonized list of regulatory adjustments
- No harmonized definition of the capital base
- No comparability of capital base across jurisdictions

→

- Regulatory capital must be simplified and harmonized across jurisdictions
- Minimum set of regulatory adjustments must be harmonized internationally
- Minimum criteria governing inclusion in regulatory capital

Transparency

- Insufficient transparency
- Problems in assessing capital quality
- Lacking reconciliation with published financial accounts

→

- Improved transparency of capital base
- All components of capital must be disclosed in detail
- Comparison of capital adequacy across jurisdictions

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Zoom on capital definition (2/2)

Agreement on the calibration of the capital ratios already announced by oversight body of the BCBS on September12, 2010. These capital reforms have been proposed to and endorsed by G20 in November 2010.

1. Calibration of Capital Framework

Calibration of capital ratios (incl. buffers)			
	Common Equity (after deductions)	Tier 1 Capital	Total Capital
Minimum	**4.5%***	**6.0%**	**8.0%**
Conservation buffer	**2.5%**		
Minimum plus conservation buffer	**7%**	**8.5%**	**10.5%**
Countercyclical buffer range	**0 – 2.5%****		

* Predominant form of Tier 1 capital => 75%

** Common equity or other fully loss absorbing capital

2. Phase-in arrangements (incl. transition periods)

all dates are as of 1st January	2013	2014	2015	2016	2017	2018	2019
Minimum common equity ratio	3.5%	4.0%	**4.5%**	4.5%	4.5%	4.5%	4.5%
Capital Conservation buffer				0.625%	1.25%	1.875%	**2.5%**
Minimum common equity ratio (+ buffer)	3.5%	4.0%	4.5%	5.125%	5.75%	6.375%	**7.0%**
Minimum Tier 1 Capital	4.5%	5.5%	**6.0%**	6.0%	6.0%	6.0%	6.0%
Minimum Total Capital	8.0%	8.0%	**8.0%**	8.0%	8.0%	8.0%	8.0%
Minimum Total Capital (+ buffer)	8.0%	8.0%	8.0%	8.625%	9.125%	9.875%	**10.5%**

'Disclosure starts 1 January 2015

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Zoom on the leverage ratio

- The leverage ratio is a non risk-based metric

- The leverage ratio is the ratio between Tier 1 and total Balance Sheet + some Off Balance Sheet items

- Starting point = 3%

- The 3% leverage ratio will be monitored in 2011 and 2012, and tested from 2013 to 2017

- Leverage ratio to become binding in 2018

- A binding leverage ratio will put the EU at a competitive disadvantage, mainly compared to the USA

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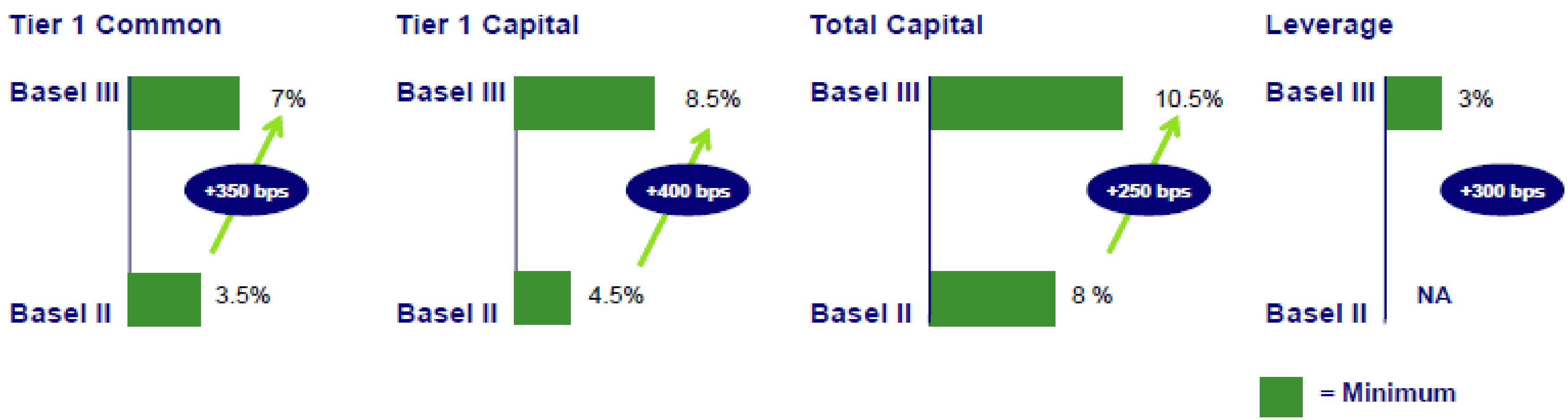
Basel III - Timeline of the main phase-in arrangements

	As of 1 January ...								
	2011	2012	2013	2014	2015	2016	2017	2018	2019
Leverage Ratio	Supervisory monitoring		Parallel run 1 Jan 2013 – 1 Jan 2017 Disclosure starts 1 Jan 2015					Migration to Pillar 1	
Minimum Common Equity Capital Ratio			3.50%	4.00%	4.50%	4.50%	4.50%	4.50%	4.50%
Minimum Tier 1 Capital			4.50%	5.50%	6.00%	6.00%	6.00%	6.00%	6.00%
Minimum Total Capital plus conservation buffer (fully composed of common equity)			8.00%	8.00%	8.00%	8.63%	9.13%	9.88%	10.50%
Liquidity coverage ratio	Observation period				New minimum standard				
Net stable funding ratio		Observation period						New minimum standard	



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Introduction & Background

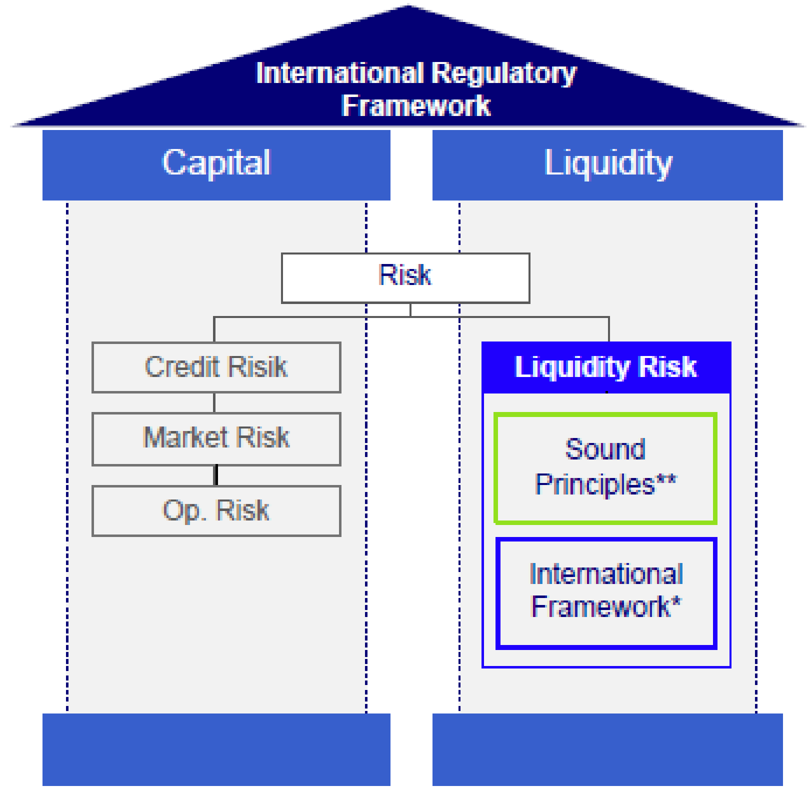
The new regulatory framework for liquidity risk consists of two parts: Guidelines for the internal liquidity risk management and binding liquidity ratios.

Sound Principles

- Principles-based framework for an integrated, bank-wide liquidity risk management
- Guidelines for the governance, measurement and management of liquidity risk

International Framework

- Liquidity framework is part of comprehensive reform package proposed by BIS ("Basel III")
- First internationally harmonised and binding minimum (!) standards for liquidity risk
- Liquidity on an equal standing with capital, but no no regulatory capital requirements for liquidity risk
- Rules-based regulatory approach like Basel II
- Scope of application – international active bank on a consolidated basis with opening clause



* "International framework for liquidity risk measurement, standards and monitoring" of the BIS / December 2009

** "Principles of Sound Liquidity Risk Management and Supervision" of the BIS / September 2008

Zoom on the proposed new liquidity risk standards

International Liquidity Risk Framework

A.1 Liquidity Coverage Ratio

$$\text{LCR} = \frac{\text{Stock of liquid, high-quality assets}}{\text{Net cash outflow over a 30-day horizon}} \geq 100\%$$

A.2 Net Stable Funding Ratio

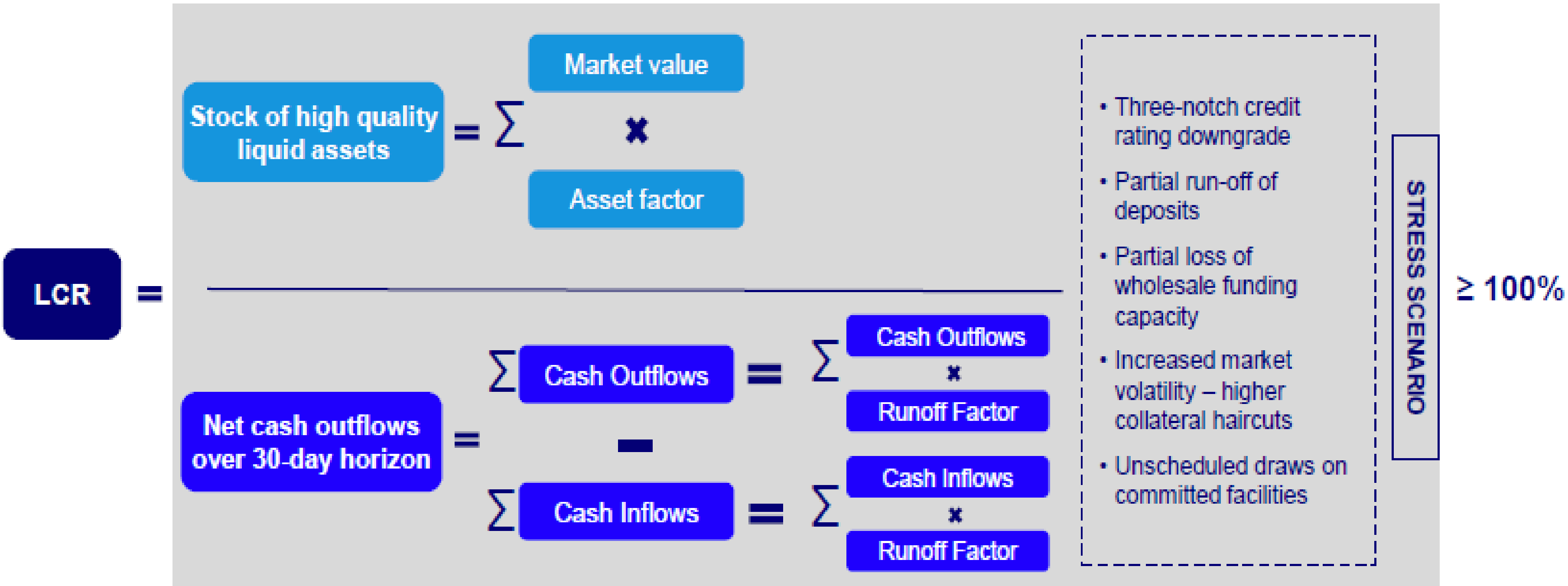
$$\text{NSFR} = \frac{\text{Available stable funding}}{\text{Required stable funding}} \geq 100\%$$

B Monitoring Tools

- Contractual maturity mismatch
- Available unencumbered assets
- Concentration of funding
- Market-related monitoring tools

BIS Liquidity Framework

Banks must maintain an adequate level of unencumbered, high quality assets to meet their liquidity needs for a 30-day time horizon under an acute stress scenario.



• Survival period of 30 days – funding gaps < 30 days are neglected

• Stress scenario is a combination of idiosyncratic and systematic factors, defined through asset and runoff factors specified by regulators

•„One size fits all" philosophy reduces risk sensitivity for the sake of harmonization – internal stress tests at banks based on BIS sound principles are required to complement ratio

BIS Liquidity Framework

The nominator of the LCR is composed of a „stock of unencumbered, high quality liquid assets‟. The exact composition of the buffer is subject to intense discussion.

- Composition of buffer is central matter of discussion – important for QIS/calibration
- Conservative approach and restrictive wording by BIS as a result of the crisis
- 2 level of assets (level 1 assets, level 2 assets)
- **Level 1 assets**: cash & sovereign bonds.
- No blanket inclusion of sovereign bonds, additional criteria, e.g. 0% risk weight apply
- **Level 2 assets**: Specific corporate bonds, covered bonds and sovereign bonds
- Additional restrictive criteria for level 2 assets

	List of qualifying 'high quality liquid assets'	Factor	
1	Cash Central bank reserves Marketable securities issued or guaranteed by sovereigns, central banks, PSEs and multilateral development banks Domestic sovereign /central bank debt in domestic currency and in foreign currency under certain conditions	100%	Level 1 Assets
2	Specific plain vanilla corporate bonds, rating > AA- Specific plain vanilla covered bonds, rating > AA-	85%	Level 2 Assets
3	Securities issued by sovereigns or PSEs qualifying for the 20% risk weighting under Basel II	85%	

Characteristics of 'high quality liquid assets'

Fundamental characteristics	• Low market and credit risk • Ease and certainty of valuation • Listing on a developed exchange
Market characteristics	• Active and sizeable market • ‚Safe-Haven' Assets • Ideally central bank eligible
Operational requirements	• Unencumbered and freely available

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BIS Liquidity Framework

The categorization of cash outflows is detailed and comprehensive.
Wholesale funding, derivatives and banks get an especially conservative treatment.

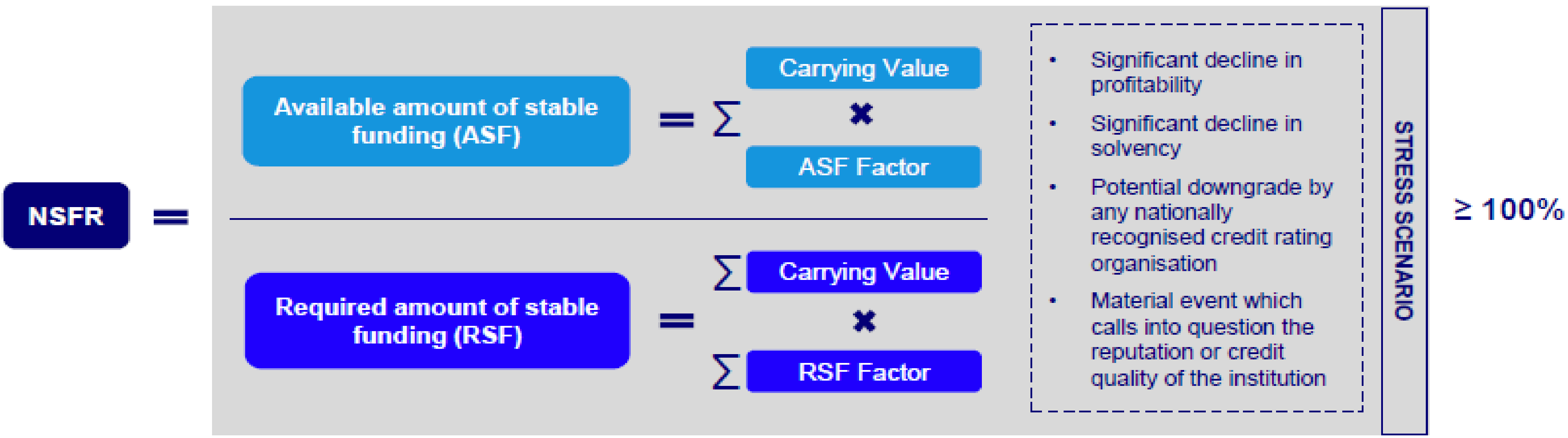
	Outflows						Inflows
	Deposits	Unsecured wholesale funding	Committed credit/liquidity facilities	ABS/ ABCP	Secured wholesale funding	Collateral/ derivates	Various
Retail customers	*Stable: 5%* *Instable: 10%*		*Credit: 5%, Liqui: 10%*	100%	*Repos:* Buffer Assets 0% Other Assets 25% P	*3-notch Downgrade Triggers:* 100% *Negative market value changes* Collateral: 20% Derivatives: tbd (national level)	*Retail/ Wholesale:* 100% *Repos:* Buffer Assets 0% Other Assets 25% *Credit facilities:* 0%
SME		*Stable: 5%* *Instable: 5%*	*Credit SME:* 5% *Non FSI and Sovereigns:* 10% *Liqui:*100%				
Non-Financials, Sovereigns* (with operational relationships)		25%					
Non-Financials, Sovereigns* (without operational relationships)		75%					
Financial Institutions** (with operational activities)		25%	*Credit and liquidity facilities:* 100%				
Financial Institutions**(w/o operational activities)		100%					
Others***		100%					

* Sovereigns, Central Banks, Public Sector Entities; ** * Financial institutions (banks, securities firms, insurance companies, multilateral development banks;
*** fiduciaries, beneficiaries, conduits, SPVs, affiliated companies

- Categorization of outflows according to type of instrument/funding, counterparts, stability, existence of operational relationships and collateral
- Focus on outflows with detailed definitions and criteria -> regulatory arbitrage analogous to Basel II?
- Conservative approach with regard to wholesale funding, derivatives and banks – response to crisis
- Additional requirement to include (non-)contractual contingent liabilities (reputational risk!)

BIS Liquidity Framework

"This metric establishes a minimum acceptable amount of stable funding based on the liquidity characteristics of an institution's assets and activities over a one year horizon."



- NSFR promotes medium to long-term funding thus reducing incentives for short-term wholesale funding and supplements the LCR (by also counterbalancing "cliff-effects")
- The stable scenario is defined differently from the one underlying the LCR – idiosyncratic stress over 1 yr
- "Stable funding" is defined as those types of equity and liabilities expected to be reliable sources of funds under an extended stress scenario of one year
- For determination of the required funding amount accounting and regulatory treatment is irrelevant – required funding amount depends solely on the respective instrument's liquidity characteristics

BIS Liquidity Framework

The higher/lower the ASF/RSF-factor per category the easier the financial institution meets the NSFR requirements.

	ASF Categories (numerator)	Factor
1	Total amount of capital, including both Tier 1 and Tier 2 Preferred stock not included in Tier 2, effective maturity ≥ 1 Y (without embedded option) Total amount of secured and unsecured borrowings and liabilities ≥ 1 Y	100%
2	Stable Retail/SME deposits < 1 Y	90%
3	Less stable Retail/SME deposits < 1 Y	80%
4	Unsecured wholesale funding and deposits provided by non-financial corporate customers< 1 Y	50%
5	All other liabilities and equity categories	0%

	RSF Categories (denominator)	Factor
1	Cash, money market instruments Securities, loans to financial entities, effective maturity< 1 Y	0%
2	Specific unencumbered government/quasi-sovereign bonds with excellent rating, active repo-markets, ≥ 1 Y	5%
3	Off B/S credit and liquidity facilities	5%
4	Specific unencumbered corporate bonds or covered bonds with excellent rating, active and liquid markets, ≥ 1 Y	20%
5	Gold, loans to non-financial corporate clients < 1 Y, etc.	50%
6	Residential Mortgages qualifying for Basel II 35% risk wght.	65%
7	Loans to retail clients, < 1 Y	85%
8	All other assets	100%
9	Other Off B/S Items (letter of credits, guarantees, non contractual contingent funding obligations)	tbd*

* National supervisors can specify the RSF factors based on their national circumstances

- ASF factors define amount of assets that would be expected to stay with the institution for an extended period in an idiosyncratic stress event – partly applies to assets with effective maturity < 1 year
- RSF factors approximate the amount of a particular asset that could not be monetized during a liquidity event lasting one year – the higher the availability under stress the lower the RSF factor
- Holding stable funds for contingent liabilities that currently do not affect liquidity is tantamount to a „reserve" of stable funding for stress-events .

BIS Liquidity Framework

On top of the LCR and the NSFR the framework introduces four tools which enable the regulator to monitor the liquidity situation of the respective bank.

Tool	Definition	Aim
Contractual Maturity Mismatch	• Reporting of contractual maturity mismatch profile – Mapping of inflows and outflows of both on- and off-balance sheet positions to defined time bands based on their contractual maturities	• Insight into the extent to which the bank relies on maturity transformation, based on (very) conservative assumptions • Supplemented by internal profiles including behavioural assumptions (Going Concern, Stress) according to the BIS Sound Principles
Concentration of Funding	• Reporting of ”significant“ concentrations within the wholesale funding profile • For: counterparts, products, currencies; reported e.g. as simple, pre-defined ratios; “significant” defined as > 1% total liabilities	• Diversification of funding sources, as required within the BIS Sound Principles • Liability equivalent to “Large Exposure” regulation/Art. 27 ABA
Available Unencumbered Assets	• Reporting of available unencumbered assets, that could serve as collateral in secondary markets or are eligible for central banks" standing facilities	• Insight into available additional funding
Market-related monitoring tools	• Regulator„s monitoring of market-wide information, information on the financial sector as well as bank-specific information	• Early warning signals for potential liquidity crisis situation

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Basel III: How to prepare to this new framework?

Topic	Main impacts	Action points
Regulatory Capital	• Increased need for CE / Tier1 / Tier2 due to higher levels of requirements, higher deductions and ineligibility of some instruments • Higher capital consumption for the various segments / activities	• Run test calculations • Reengineer capital planning processes & policy • Review level of capital consumption for each segment • Review business models / strategy around capital consuming activities • Monitor change in business models / strategies
Liquidity Risk Management	• Product constraints on assets invested and liabilities available • Technical constraints for building scenarii and gathering prospective data	• Portfolio reengineering
Leverage Ratio	• New cap on the build-up of leverage	• Review current business models (non risk-based metrics) in the light of new Pillar I requirements
Provisioning	• Introduction of countercyclical capital buffers through a combination of forward-looking provisioning and capital buffers	• Look forward, introduce dynamic provisioning in order to conserve capital to be available during periods of stress • Move towards an expected-loss approach, being less procyclical than the current incurred loss approach to provisioning
Risk Management	• Manifold ratios to monitor on a constant basis will require adjustment of risk appetite target and will impact information systems. • CRD II and III also impact activities in treasury and trading departments	• Extension of risk oversight metrics and embedment of new requirements in risk and capital exercise such as ICAAP. • Management Information Systems to be reviewed

Impacts of Basel III will be more of strategic nature: how to cope with different approach based on capital management strategies, redefinition and anticipation of new business model to optimize capital, integration of both Liquidity and Capital management strategies, etc.

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