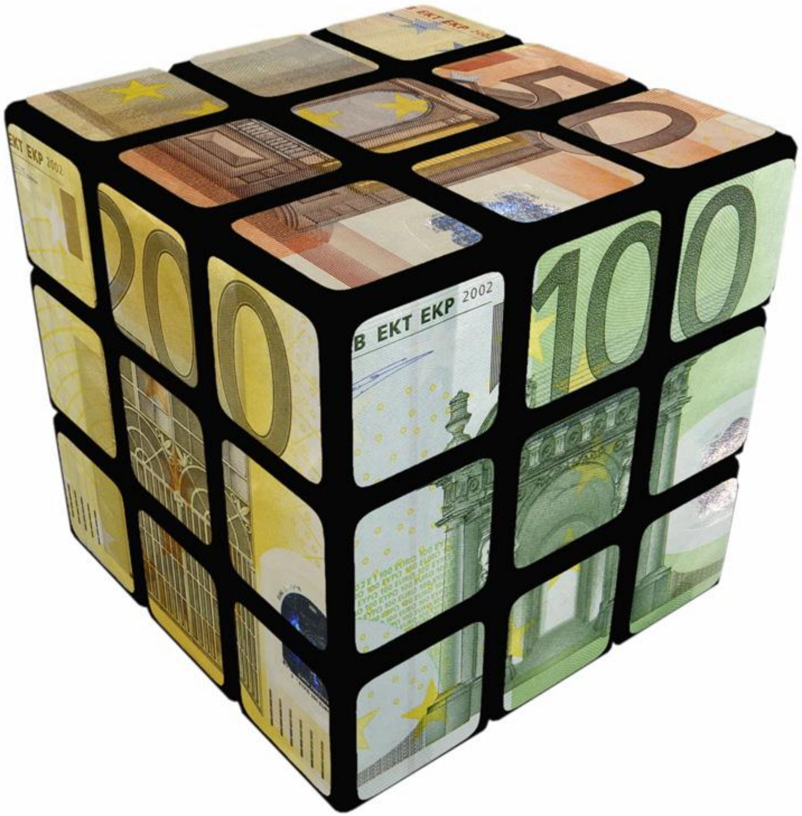
Basel III
Expected changes in Basel II



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Agenda

1. Overview – status of the changes
2. Summary of proposed changes
    - Definition of capital base
    - Capital requirements for counterparty credit risk
    - Leverage ratio
    - Counter cyclical measures
    - Liquidity management standards
3. Impact on the local market

1. Overview

Reasons for change

- There was the significant reliance in the existence of the liquid markets and long term economic growth
- The quality of the capital base was eroded over time with the hybrid instruments
- The banks created excessive leverage especially in the off balance sheet exposures (through derivatives including credit derivatives)
- Very limited liquidity buffers were available (high Loan to Deposits ratio, significant short term funding from institutional investors)
- These were the main reasons why the international banks were not able to absorb the deleveraging during the crisis (no market for roll forward, increases in the collateral, open positions close outs, defaults), connected credit losses and the loss of confidence in their solvency and liquidity
- Through interconnection of the institutions and markets the liquidity and credit crunch was quickly spread over the global economy

Main elements of Basel III

- A revised definition of capital to ensure a stronger and more transparent capital base
- A stronger framework for determining the capital requirements for securitisation exposures and for trading book market risk and counterparty risk, particularly under the model based approaches used by large banks
- A leverage ratio to prevent the build up of excessive leverage in the banking system
- A countercyclical capital framework which promotes the build up of capital buffers in good times that can be drawn down in periods of stress
- Two quantitative liquidity standards, one aimed at the short-term horizon and one focused on the longer-term

Basel III induces the most impacting changes

Failures in the recent banking crisis

- **Excessive on- and off-balance sheet leverage in the banking sector**
- **Funding sources vanished during crisis**
- **Insufficient liquidity buffers**
- **Low level and quality of banks' capital bases**
- **Lack of common language between decision makers and technical staff**
- **Focus on revenues**
- **Pro-cyclical deleveraging**

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 a global liquidity standard

$$\text{Leverage Ratio} = \frac{\text{Capital}}{\text{Exposure}} \geq \text{TBD } (3\%)$$

$$\text{Pillar I ratio} = \frac{\text{Own Funds}}{\text{Minimum Capital Requirement}} \geq 8\%$$

Own Funds:
- Common Equity ≥ 4.5%
- Tier 1 Capital ≥ 6%
- Total Capital ≥ 8%

Conservation buffer:

Fixed Capital Buffer + Add-on = 0%-2.5%

$$\text{Liquidity Coverage Ratio} = \frac{\text{Stock of high quality liquid assets}}{\text{Net cash outflows over 30-day horizon}} \geq 100\%$$

$$\text{Net Stable Funding Ratio} = \frac{\text{Available amount of stable funding}}{\text{Required amount of stable funding}} \geq \text{TBD } (100\%)$$

Basel III status and target dates

- The core components of the Basel III capital framework were finalised in 2011. Since then, the Basel Committee has substantially completed the remaining components (see table below).

Component	Current status
Basel III capital adequacy reforms	Published in 2011, implementation from 1 Jan 2013
G-SIB/D-SIB framework	Published in 2011 and 2012, implementation from 1 Jan 2016
Liquidity coverage ratio	Published in 2013, implementation from 1 Jan 2015
Leverage ratio	Disclosure starts in 2015, migrate to Pillar 1 in 2018
Net stable funding ratio	Under review, minimum standard introduced from 2018

- The Committee intends to finalise its work on the leverage ratio in 2013, and most (if not all) work on the Net stable funding ratio, the trading book, securitisation and large exposures should be finished in 2014.

2. Summary of proposed changes

New structure of capital

GONE-CONCERN CAPITAL	Tier 2	**Minimum requirements** • Explicit minimum ratios of Core Tier 1, Tier 1 and Total Capital to RWA • Core Tier 1 to be predominant within Tier1
GOING-CONCERN CAPITAL	Non-core Tier 1 (contingent core tier 1) Core Tier 1	

Key changes from current CNB definition of capital

More Core Tier 1 deductions	• Deferred tax assets reliant on future profits • Shortfall of provisions to expected losses • Minority interests excluded from Core Tier 1
Simplification of tiers	• No Tier 3
Fewer prudential filters	• Abolish filters for unrealised gains and losses on AFS assets • No filter for pension fund liabilities
More disclosure	• Reconcile to audited balance sheet • Regulatory adjustments • Full terms on website

Heavier capital requirements – some key points

Trading book market risk	• Stressed VaR in addition to current VaR • Scope of IRC extended to cover migration risk • Standardised approach mandatory for specific risk of most securitisation positions • Standardised specific risk charge for equities doubled • Effective date 1 January 2011
Counterparty risk	• Higher of stressed and current Effective EPE • Add-on to cover MtM losses owing to CVA losses • Pillar 1 capital charge for specific wrong-way risk • IRB formula tweaked to cover higher correlation risk of large regulated and all unregulated financial institutions • Modifications to requirements for collateral under IMM • Incentives to trade derivatives using robust CCPs
Securitisation	• Abolition of 0% CCF for general market liquidity facilities • CCF for < 1 year liquidity facilities under SA increased from 20% to 50% • Higher risk weights for re-securitisation positions • Effective date 1 January 2011

Leverage ratio proposal: aims

- To constrain the build-up of leverage
- To guard against model risk and measurement error by supplementing the risk based measure with a simple, transparent, independent measure of risk based on gross exposures
- Leverage ratio = exposure measure / capital measure
- It is still subject to calibration (observation period to be applied)

Leverage ratio proposal: detail

Issue	Baseline proposal	Additional proposal for impact assessment
Capital definition	Core Tier 1 or Tier 1	Total regulatory capital
Valuation adjustments	Net of valuation adjustments	
Cash and cash-like instruments	Include	Exclude liquid assets as defined
Off-balance sheet items	100% CCF Written credit derivatives at notional value	Basel II standardised CCFs or lower CCF if unconditionally cancellable
Securitisations	Use accounting data	Include securitised loans that are derecognised
Derivatives (not credit)	Ignore potential exposure or use simple Basel II method Netting?	
Repos and securities finance	No netting	Basel II netting

The counter-cyclical capital framework

Topic	Issue
Cyclicality of minimum requirement	How to adjust for compression of PD estimates in IRB approach when sun is shining
Forward looking provisioning	• Change in accounting standards to expected loss • Disincentives to provisions in regulatory capital framework
Capital buffers	• Banks to build up capital buffers in good times which can be drawn down as losses are incurred • Constraints on dividends depending on size of buffer
Excessive credit growth	• Focus on macro-economic indicators • Adjust capital buffer range
Systemic risk and interconnectedness	• Consideration of capital and liquidity surcharges for systemically important banks • Practical ways of assessing systemic importance being developed

Short-term liquidity standard

Liquidity coverage ratio = Stock of high quality liquid assets ≥ 100%
Net cash outflow in acute stress over 30 days

High quality liquid assets	• Cash, Central bank reserves • Sovereign and some other public sector securities, must have 0% risk weight and deep repo markets • Possibly highly rated corporate and covered bonds at a 20% or 40% haircut
Net cash outflow in acute stress over 30 days	• Standard roll-off rates used for most liabilities but some national discretions • Standard roll-off rate varies from a minimum of 7.5% for stable retail deposits to 100% e.g. for maturing ABCP • Standard draw down rates on committed facilities • Contractual cash flows on performing assets taken into account

Longer-term liquidity standard

Net stable funding ratio = <u>Available amount of stable funding</u> ≥ TBD (100%)
Required amount of stable funding

ASF Factor	Available Stable Funding	RSF Factor	Required Stable Funding
100%	• Capital • Liabilities ≥ 1 yr	0%	• Cash, money market, securities and loans to financial institutions < 1 yr
85%	• Stable retail and small business deposits < 1 yr	5%	• Unencumbered, highly rated (AA), 0% risk weight, sovereign etc securities ≥ 1 yr with active repo market
70%	• Less stable retail and small business deposits < 1 yr	20%	• Unencumbered, corporate or covered bonds rated AA traded in deep and liquid markets
50%	• Unsecured wholesale funding provided by non-financial companies < 1 yr	50%	• Unencumbered equities on major exchanges and certain bonds and corporate loans
0%	• All other liabilities and equity	85%	• Retail loans < 1 year
		100%	• All other assets

Structural changes

Change	Comment
Central counterparties	• Would reduce gross notional exposure significantly, perhaps by 90% • Facilitates counterparty risk management • Enhances transparency of market activity, counterparty exposures, transaction prices • But risk more concentrated, hence need for strong risk management and financial resources in CCP • New CCPs have been introduced but still a small fraction of the market
Limit size of banks	• Unlikely – US Senate rejected a proposal to limit the size of bank and non-bank financial institutions

Limit scope of banks	• US legislation may:
	  • Ban US banks from proprietary trading (but not market-making or trading for customers) and owning or sponsoring hedge funds or private equity funds
	  • Impose higher capital requirements and quantitative limits on non-bank financial institutions that do so

Basel III list of G-SIB

- Global systemically important banks (G-SIBs) must have higher loss absorbency capacity to reflect the greater risks that they pose to financial system.
- The numbers in parentheses are the required level of additional common equity loss absorbency as a percentage of risk-weighted assets for each bucket.
- Compared with the group of G-SIBs published in 2011, two banks have been added (BBVA and Standard Chartered) and three banks removed: Dexia, as it is undergoing an orderly resolution process; Commerzbank and Lloyds, as result of a decline in their global systemic importance.

Bucket	Addon margin	G-SIB
5	3.50%	-
4	2.50%	Citigroup
		Deutsche Bank
		HSBC
		JP Morgan Chase
3	2.00%	Barclays
		BNP Paribas
2	1.50%	Bank of America
		Bank of New York Mellon
		Credit Suisse
		Goldman Sachs
		Mitsubishi UFJ FG
		Morgan Stanley
		Royal Bank of Scotland
		UBS
1	1.00%	Bank of China
		BBVA
		Groupe BPCE
		Group Crédit Agricole
		ING Bank
		Mizuho FG
		Nordea
		Santander
		Société Générale
		Standard Chartered
		State Street
		Sumitomo Mitsui FG
		Unicredit Group
		Wells Fargo

Timeline of the main phase-in arrangements

	Phases	2013	2014	2015	2016	2017	2018	2019
Capital	Leverage Ratio		Parallel run 1 Jan 2013 – 1 Jan 2017 Disclosure starts 1 Jan 2015				Migration to Pillar 1	
	Minimum Common Equity Capital Ratio	3.5%	4.0%	4.5%				**4.5%**
	Capital Conservation Buffer				0.625%	1.25%	1.875%	**2.5%**
	Minimum common equity plus capital conservation buffer	3.5%	4.0%	4.5%	5.125%	5.75%	6.375%	**7.0%**
	Phase-in of deductions from CET1*		20%	40%	60%	80%	100%	**100%**
	Minimum Tier 1 Capital	4.5%	5.5%	6.0%				**6.0%**
	Minimum Total Capital	8.0%						**8.0%**
	Minimum Total Capital plus conservation buffer		8.0%		8.625%	9.25%	9.875%	**10.5%**
	Capital instruments that no longer qualify as non-core Tier 1 capital or Tier 2 capital		Phased out over 10 year horizon beginning 2013					
Liquidity	Liquidity coverage ratio – minimum requirement			60%	70%	80%	90%	**100%**
	Net stable funding ratio						Introduce minimum standard	

* Including amounts exceeding the limit for deferred tax assets (DTAs), mortgage servicing rights (MSRs) and financials.

– – transition periods

Source: http://www.bis.org/bcbs/basel3.htm

3. Impact on the Czech market

What are the impacts for the banks?

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 scenario and gathering prospective data	• Portfolio reengineering • Treasury reorganisation • Products 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 IV 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.

Impact on the local market

- Limited impact of the changes in the capital base, hybrid instruments not allowed in the past, high quality equity is the main source of Tier 1
- Counterparty credit risk will require certain increase in the capital requirements (depending on the final calibration, most of the banks are not using internal models to determine expected positive exposure EPE) size and type of balance and off balance sheet business of the Czech banks
- Leverage ratio is not defined yet, however the impact is expected to be minimal
- Only limited number of institutions will be most likely affected by capital buffers, capital adequacy ratios are in general quite above regulatory minimum
- New liquidity standards should not have any influence on most of the banks (except for special purpose vehicles)

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