

Economics 435
The Financial System
(12/14/2021)

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Reforms

- Basel III
- Dodd-Frank

Basel III

Basel Committee on Banking Supervision reforms - Basel III

Strengthens microprudential regulation and supervision, and adds a macroprudential overlay that includes capital buffers.

Capital					Liquidity	
Capital	Pillar 1		Pillar 2	Pillar 3	Global liquidity standard and supervisory monitoring	
	Risk coverage	Containing leverage	Risk management and supervision	Market discipline		
All Banks	<p>Quality and level of capital Greater focus on common equity. The minimum will be raised to 4.5% of risk-weighted assets, after deductions.</p> <p>Capital loss absorption at the point of non-viability Contractual terms of capital instruments will include a clause that allows – at the discretion of the relevant authority – write-off or conversion to common shares if the bank is judged to be non-viable. This principle increases the contribution of the private sector to resolving future banking crises and thereby reduces moral hazard.</p> <p>Capital conservation buffer Comprising common equity of 2.5% of risk-weighted assets, bringing the total common equity standard to 7%. Constraint on a bank's discretionary distributions will be imposed when banks fall into the buffer range.</p> <p>Countercyclical buffer Imposed within a range of 0-2.5% comprising common equity, when authorities judge credit growth is resulting in an unacceptable build up of systematic risk.</p>	<p>Securitisations Strengthens the capital treatment for certain complex securitisations. Requires banks to conduct more rigorous credit analyses of externally rated securitisation exposures.</p> <p>Trading book Significantly higher capital for trading and derivatives activities, as well as complex securitisations held in the trading book. Introduction of a stressed value-at-risk framework to help mitigate procyclicality. A capital charge for incremental risk that estimates the default and migration risks of unsecuritised credit products and takes liquidity into account.</p> <p>Counterparty credit risk Substantial strengthening of the counterparty credit risk framework. Includes: more stringent requirements for measuring exposure; capital incentives for banks to use central counterparties for derivatives; and higher capital for inter-financial sector exposures.</p> <p>Bank exposures to central counterparties (CCPs) The Committee has proposed that trade exposures to a qualifying CCP will receive a 2% risk weight and default fund exposures to a qualifying CCP will be capitalised according to a risk-based method that consistently and simply estimates risk arising from such default fund.</p>	<p>Leverage ratio A non-risk-based leverage ratio that includes off-balance sheet exposures will serve as a backstop to the risk-based capital requirement. Also helps contain system wide build up of leverage.</p>	<p>Supplemental Pillar 2 requirements. Address firm-wide governance and risk management; capturing the risk of off-balance sheet exposures and securitisation activities; managing risk concentrations; providing incentives for banks to better manage risk and returns over the long term; sound compensation practices; valuation practices; stress testing; accounting standards for financial instruments; corporate governance; and supervisory colleges.</p>	<p>Revised Pillar 3 disclosures requirements The requirements introduced relate to securitisation exposures and sponsorship of off-balance sheet vehicles. Enhanced disclosures on the detail of the components of regulatory capital and their reconciliation to the reported accounts will be required, including a comprehensive explanation of how a bank calculates its regulatory capital ratios.</p>	<p>Liquidity coverage ratio The liquidity coverage ratio (LCR) will require banks to have sufficient high-quality liquid assets to withstand a 30-day stressed funding scenario that is specified by supervisors.</p> <p>Net stable funding ratio The net stable funding ratio (NSFR) is a longer-term structural ratio designed to address liquidity mismatches. It covers the entire balance sheet and provides incentives for banks to use stable sources of funding.</p> <p>Principles for Sound Liquidity Risk Management and Supervision The Committee's 2008 guidance <i>Principles for Sound Liquidity Risk Management and Supervision</i> takes account of lessons learned during the crisis and is based on a fundamental review of sound practices for managing liquidity risk in banking organisations.</p> <p>Supervisory monitoring The liquidity framework includes a common set of monitoring metrics to assist supervisors in identifying and analysing liquidity risk trends at both the bank and system-wide level.</p>
	SIFIs	In addition to meeting the Basel III requirements, global systemically important financial institutions (SIFIs) must have higher loss absorbency capacity to reflect the greater risks that they pose to the financial system. The Committee has developed a methodology that includes both quantitative indicators and qualitative elements to identify global systemically important banks (SIBs). The additional loss absorbency requirements are to be met with a progressive Common Equity Tier 1 (CET1) capital requirement ranging from 1% to 2.5%, depending on a bank's systemic importance. For banks facing the highest SIB surcharge, an additional loss absorbency of 1% could be applied as a disincentive to increase materially their global systemic importance in the future. A consultative document was published in cooperation with the Financial Stability Board, which is coordinating the overall set of measures to reduce the moral hazard posed by global SIFIs.				

Basel III New Ratios, with Progressive Roll Out

A leverage ratio as a non risk-based metric to avoid excessive leverage



$$\text{Leverage Ratio} = \frac{\text{Tier 1}}{\text{Balance Sheet and Other Offbalance Sheet Expos}} \geq 3\%$$

Roll out:
Tested 2013 to 2017
Binding 2018

Liquidity risk ratios: a short term ratio (LCR) with a 30 days time horizon and a more long term one (NSFR) with a 1 year time horizon relying on regulatory factors defined for stress test scenarios



$$\text{LCR} = \frac{\text{Stock of High Quality Liquid Assets}}{\text{Net Cash Outflow Over 30 Days}} \geq 100\%$$

Roll out:
Tested 2011 to 2014
Binding 2015



$$\text{Net Stable Funding Ratio} = \frac{\text{Available Stable Funding}}{\text{Required Stable Funding}} \geq 100\%$$

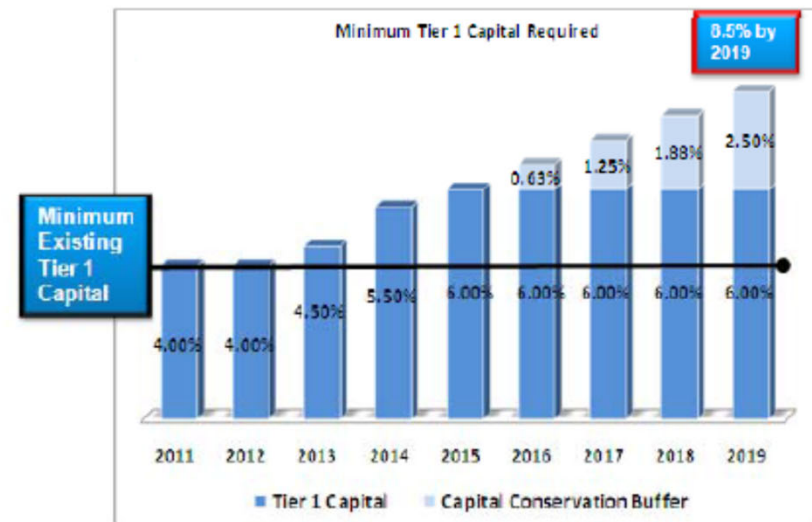
Roll out:
Tested 2012 to 2017
Binding 2018

Basel III Squeezes Capital!

Basel III has a significant impact on capital requirements

- More strict rules on eligible capital
- Risk Weighted Assets increased for some asset classes (e.g. OTC derivatives)
- Increased capital ratios (Core Tier 1, Tier 1, Conservation buffer, Countercyclical buffer)

$$\text{Minimum Capital Ratios} \uparrow \approx \frac{\text{Eligible Capital}}{\text{Risk Weighted Assets}} \downarrow$$



Capital Risk Weights

Overview of revised standardised approach to credit risk

Table 1

Exposures to banks										
Risk weights in jurisdictions where the ratings approach is permitted										
External rating	AAA to AA–	A+ to A–	BBB+ to BBB–	BB+ to B–	Below B–	Unrated				
Risk weight	20%	30%	50%	100%	150%	As for SCRA below				
Short-term exposures										
Risk weight	20%	20%	20%	50%	150%	As for SCRA below				
Risk weights where the ratings approach is not permitted and for unrated exposures										
Standardised Credit Risk Assessment Approach (SCRA) grades		Grade A		Grade B		Grade C				
Risk weight		40% ¹		75%		150%				
Short-term exposures		20%		50%		150%				
Exposures to covered bonds										
Risk weights for <u>rated</u> covered bonds										
External issue-specific rating		AAA to AA–		A+ to BBB–		Below B–				
Risk weight		10%		20%		100%				
Risk weights for <u>unrated</u> covered bonds										
Risk weight of issuing bank		20%	30%	40%	50%	75%	100%	150%		
Risk weight		10%	15%	20%	25%	35%	50%	100%		
Exposures to general corporates										
Risk weights in jurisdictions where the ratings approach is permitted										
External rating of counterparty	AAA to AA–		A+ to A–		BBB+ to BBB–		BB+ to BB–		Below BB–	Unrated
Risk weight	20%		50%		75%		100%		150%	100% or 85% if corporate SME

Loan to Value

Retail exposures excluding real estate								
	Regulatory retail (non-revolving)	Regulatory retail (revolving)						Other retail
		Transactors		Revolvers				
Risk weight	75%	45%		75%				100%
Residential real estate exposures								
LTV bands	Below 50%	50% to 60%	60% to 70%	70% to 80%	80% to 90%	90% to 100%	above 100%	Criteria not met
General RRE								
Whole loan approach RW	20%	25%	30%		40%	50%	70%	RW of counterparty
Loan-splitting approach ² RW	20%		RW of counterparty					RW of counterparty
Income-producing residential real estate (IPRRE)								
Whole loan approach RW	30%	35%	45%		60%	75%	105%	150%
Commercial real estate (CRE) exposures								
General CRE								
Whole loan approach	LTV ≤ 60%			LTV > 60%			Criteria not met	
	Min (60%, RW of counterparty)			RW of counterparty			RW of counterparty	
Loan-splitting approach ²	LTV ≤ 55%			LTV > 55%			Criteria not met	
	Min (60%, RW of counterparty)			RW of counterparty			RW of counterparty	
Income-producing commercial real estate (IPCRE)								
Whole loan approach	LTV ≤ 60%		60% < LTV ≤ 80%		LTV > 80%		Criteria not met	
	70%		90%		110%		150%	
Land acquisition, development and construction (ADC) exposures								
Loan to company/SPV	150%							
Residential ADC loan	100%							

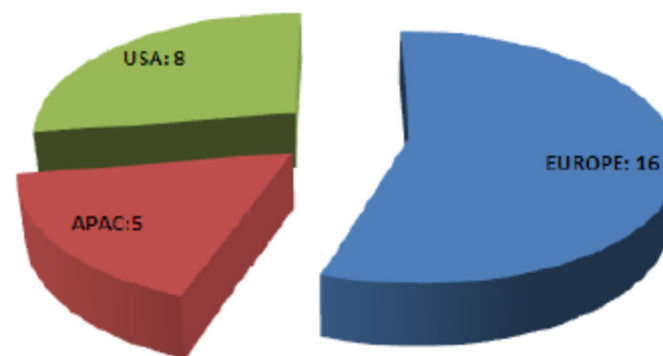
The 29 Global-Systematically Important Banks (G-SIBs)

G-SIFIs

For which the resolution-related requirements will need to be met by end-2012¹

Bank of America
Bank of China
Bank of New York Mellon
Banque Populaire Cde
Barclays
BNP Paribas
Citigroup
Commerzbank
Credit Suisse
Deutsche Bank
Dexia
Goldman Sachs
Group Crédit Agricole
HSBC
ING Bank
JP Morgan Chase
Lloyds Banking Group
Mitsubishi UFJ FG
Mizuho FG
Morgan Stanley
Nordea
Royal Bank of Scotland
Santander
Société Générale
State Street
Sumitomo Mitsui FG
UBS
Unicredit Group
Wells Fargo

- List to be updated every year by FSB
- Additional capital buffer
- In addition: list of “domestic SIFIs” to be published by local regulators

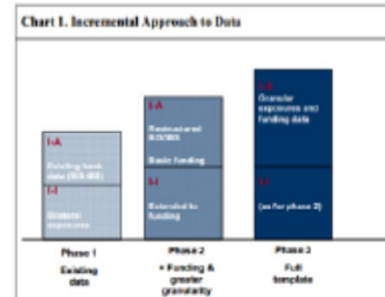


New reporting requirements to the FSB for G-SIBs:

http://www.financialstabilityboard.org/publications/r_111006.pdf

Table 1. Overview of the types of information in the proposed data template

Institution-to-institution	Institution-to-aggregate	Structural and Systemic Importance	Passive and Ad-hoc data
Bilateral credit exposures & funding dependencies to assess network risks and resilience	Credit exposures & funding dependencies to countries, sectors and markets to understand risk concentrations and vulnerabilities	Information to facilitate the assessment of systemic importance, and support crisis management	Predefined data “on-request” and “ad-hoc” requests to meet increased information needs to assess emerging systemic risk



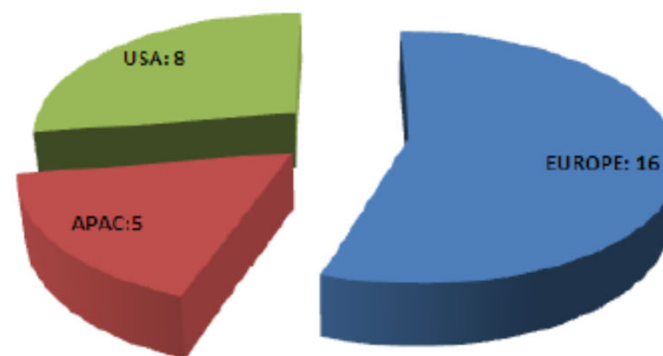
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Group Crédit Agricole
HSBC
ING Bank
JP Morgan Chase
Lloyds Banking Group
Mitsubishi UFJ FG
Mizuho FG
Morgan Stanley
Nordea
Royal Bank of Scotland
Santander
Société Générale
State Street
Sumitomo Mitsui FG
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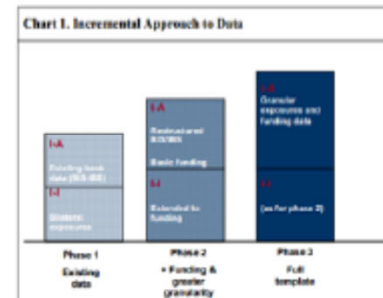


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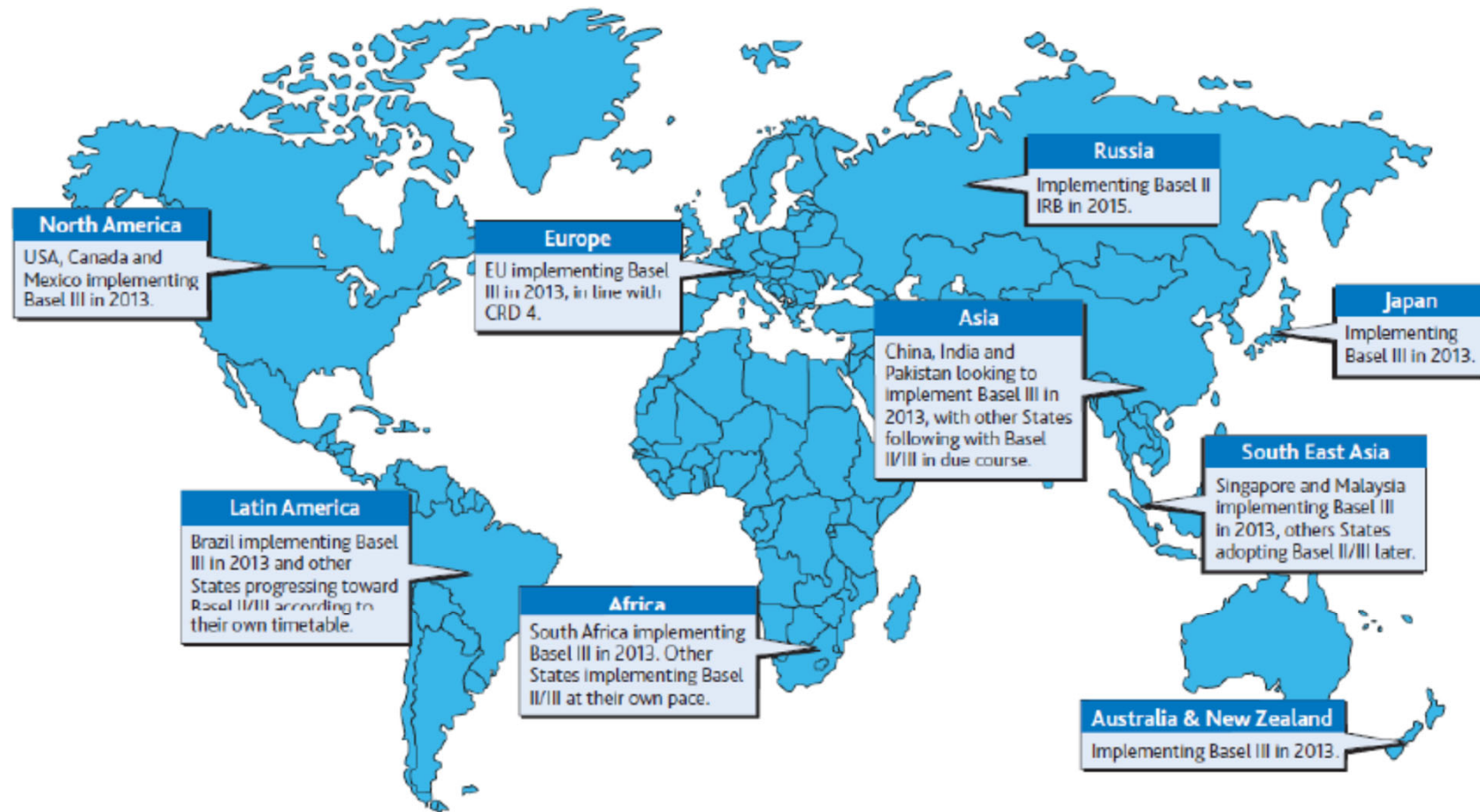
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Rest of the World

G20 country members are committed to implement Basel III from 2013





Basel III phase-in arrangements

(All dates are as of 1 January)

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

Updated Schedule

Transitional arrangements

Table 5 summarises the implementation dates and transitional arrangements related to the standards described above.

Implementation dates of Basel III post-crisis reforms and transitional arrangement for phasing in the aggregate output floor		Table 5
Revision	Implementation date	
Revised standardised approach for credit risk	• 1 January 2022	
Revised IRB framework	• 1 January 2022	
Revised CVA framework	• 1 January 2022	
Revised operational risk framework	• 1 January 2022	
Revised market risk framework	• 1 January 2022 ⁶	
Leverage ratio	<ul style="list-style-type: none">Existing exposure definition:⁷ 1 January 2018Revised exposure definition: 1 January 2022G-SIB buffer: 1 January 2022	
Output floor	<ul style="list-style-type: none">1 January 2022: 50%1 January 2023: 55%1 January 2024: 60%1 January 2025: 65%1 January 2026: 70%1 January 2027: 72.5%	

Four Questions

- Will the new regulatory structure make the financial system more robust to shocks by providing institutions the tools to heal themselves?
- Does the Dodd-Frank Act adequately deal with monitoring and measuring systemic risk?
- Do the provisions of the Act deal adequately with the problem of too-big-to fail institutions?
- To what extent will the Dodd-Frank Act involve the right mix of automatic “stabilizers” (e.g. higher capital requirements), fixed rules (e.g. the Volcker Rule) and discretion (e.g. Federal Reserve’s ability to lend to illiquid, potentially insolvent, institutions at flexible haircuts), to be an effective framework for financial stability?

Dodd-Frank

Robust to Shocks?

- The key issue is whether a financial firm or market participants will have adequate capital and liquidity to withstand adverse events whether they be due to idiosyncratic shocks or aggregate shocks.
- ... regulatory capital requirements, both under Dodd-Frank and under Basel III rules.

Dodd-Frank and Systemic Risk

- Orderly Liquidation Authority (OLA) (FDIC)
- Liquidation versus resolution
- SIFI's versus markets (e.g., repo) or
- “herds of firms” (e.g., money market funds)

Stabilizers vs. Rules vs. Discretion

- Stabilizers (capital requirements)
- Rules - Volcker rule specifically prohibits a bank or institution that owns a bank from engaging in proprietary trading, and from owning or investing in a hedge fund or private equity fund, and also limits the liabilities that the largest banks can hold.
- Discretion: Is liquidation necessarily the right way to go, or resolution.

Backlash?

- The CHOICE Act of 2017
- Klein, Brookings Institution (2018)
- ‘Bank SIFI’ threshold, increased from \$50 billion, unindexed for inflation or economic growth to \$250 billion
- The Federal retains discretion to apply enhanced regulatory standards to any bank > \$100 billion assets