



# UNINTENDED CONSEQUENCES – THE FUTURE OF BANK CAPITAL

11 September 2009

Main proposals and bibliography



International Centre for  
Financial Regulation

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# UNINTENDED CONSEQUENCES – THE FUTURE OF BANK CAPITAL

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Section 1: The main proposals on the table



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Financial Regulation

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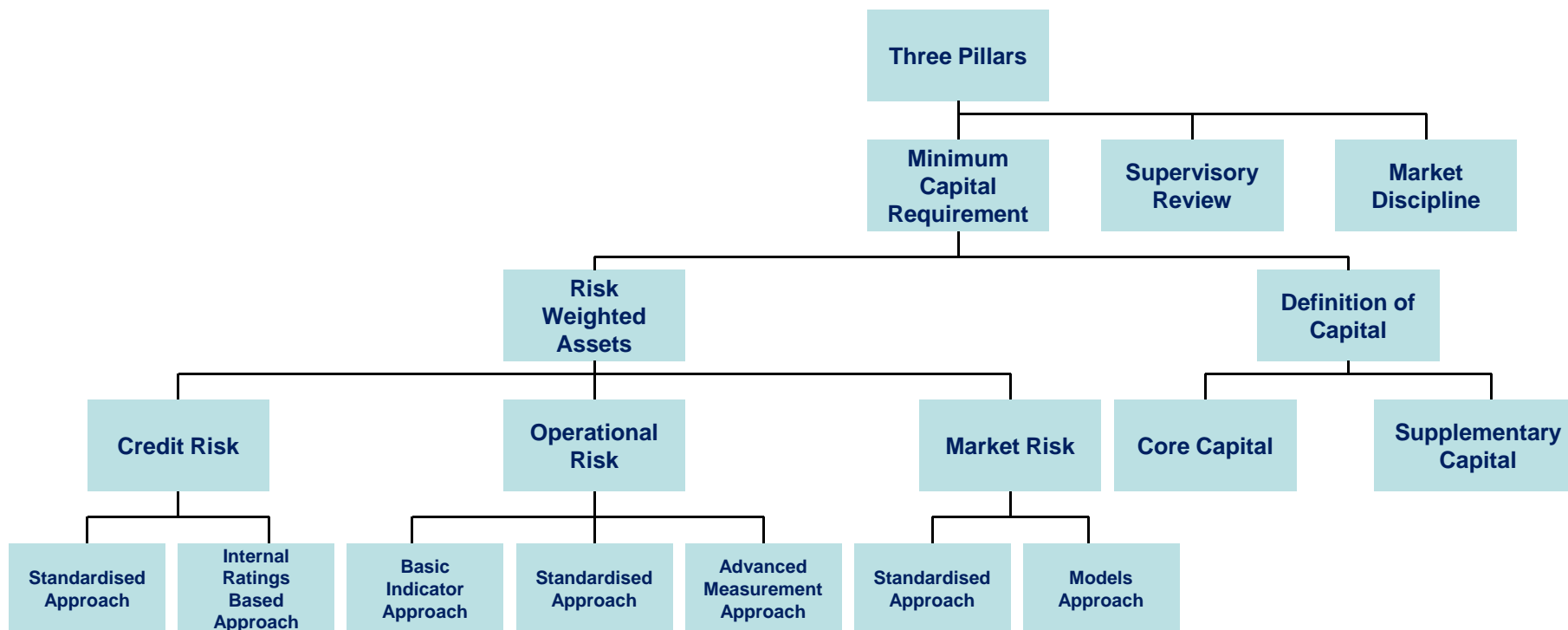
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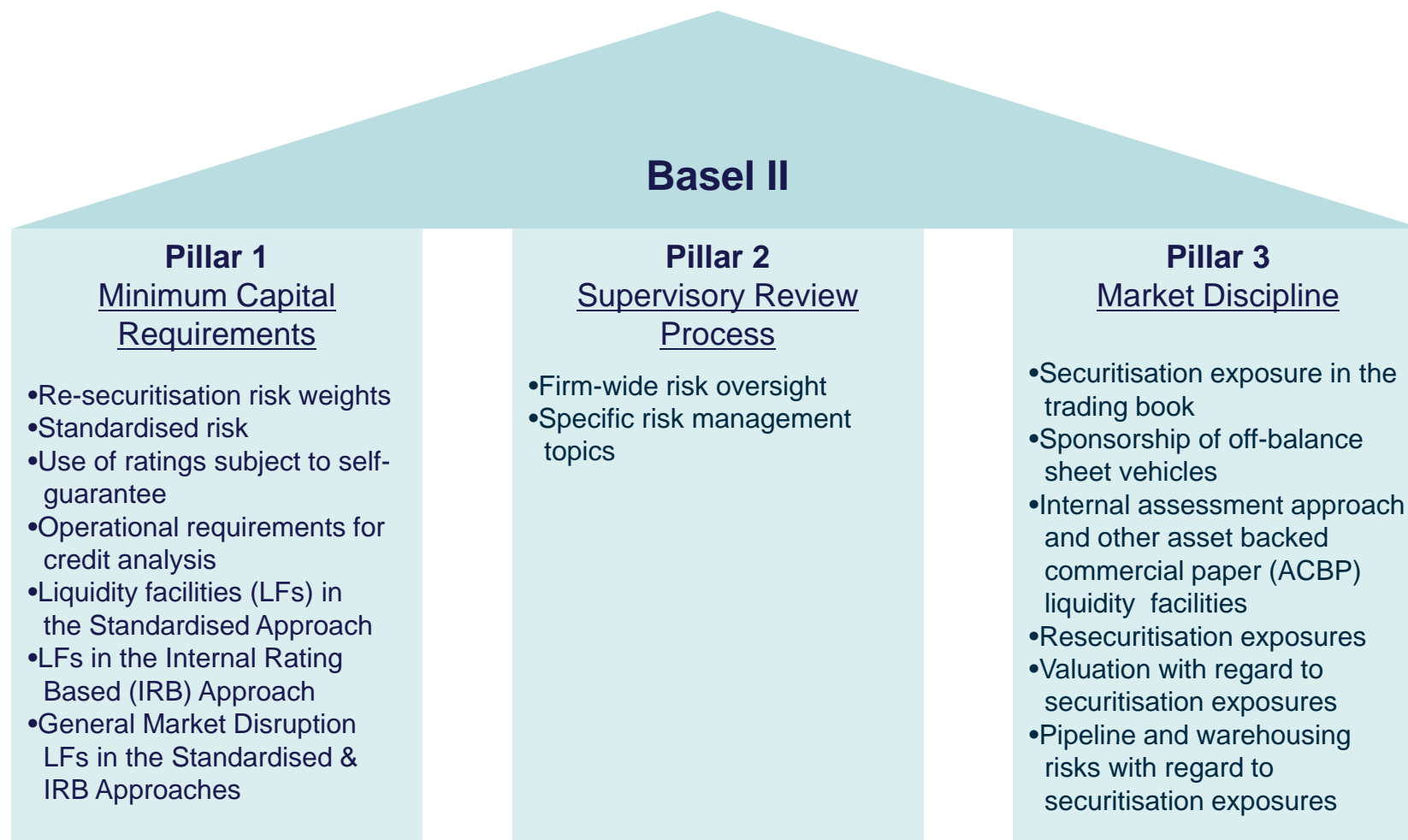
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# Basel: basic structure of the new accord



# Enhancements to Basel II



Source: Basel Committee on Banking Supervision, "Enhancements to the Basel II Framework", July 2009

# Revisions to pillar 1: minimum capital requirements

Re-securitisation risk weights

Banks using the IRB approach to securitisation will be required to apply higher risk weights to re-securitisation exposures.

Standardised risk weights

The risk weights in the Standardised approach should be altered for resecuritisation exposures.

Use of ratings subject to self-guarantee

Banks will not be permitted to use ratings for exposures subject to self-guarantees.

Operational requirements for credit analysis

Banks will be required to perform their own due diligence in order to use the risk weights specified in the Basel II securitisation framework.

LFs in the standardised approach

The credit conversion factor for all eligible liquidity facilities in securitisation will be made uniform at 50%.

Liquidity facilities in the IRB approach

Revised language will clarify when LFs may be treated as senior securitisation exposures.

General market disruption LFs in both approaches

Favourable capital treatment must be eliminated.

# Supplemental pillar 2 guidance: firm-wide risk oversight

- **General firm-wide risk management principles**
- **Board and senior management oversight**
- **Policies, procedures, limits and controls**
- **Identifying, measuring, monitoring and reporting of risk**
- **Internal controls**

# Supplemental pillar 2 guidance: specific risk management topics

- **Risk concentrations**
- **Off-balance sheet exposures with a focus on securitisation**
- **Reputational risk and implicit support**
- **Valuation and liquidity risks**
- **Sound stress testing practices**

# Revisions to pillar 3

Securitisation exposures in the trading book

Banks should include securitisation exposures within the trading book broadly in line with those in the banking book.

Sponsorship of off-balance sheet vehicles

Disclosure on the nature of risks other than credit risk inherent in securitised assets will be required disclosure on sponsorship mandatory.

IAA and other ABCP liquidity facilities

Which regulatory capital approach applies to which type of securitisation exposures will be clarified.

Resecuritisation exposures

Add a description of processes in place to monitor changes in the credit and market risk of securitisation exposures and disclose the aggregate amount of resecuritisation exposures retained or purchased

Valuation of securitisation exposures

The proposals will introduce qualitative disclosure requirements on how banks value their securitisation positions by adding key assumptions for valuing positions.

Pipeline and warehousing risks

The framework will add two disclosure requirements for accounting policies, which will provide the market with information to determine where they can find exposures intended to be securitised in the future, including information about how such exposures are valued.

Banks will be required to disclose the total amount of outstanding exposures intended to be securitised broken down by exposure type.

# UK: Turner Review recommendations (1)

- **Increasing the quantity and quality of bank capital**

The FSA has commissioned analysis by the National Institute of Economic and Social Research (NIESR) on the tradeoffs between capital requirements and cost impact. During 2009 the FSA will publish a paper to stimulate public debate, in the UK and internationally, on the optimal level of bank capital.

- **Significantly increasing trading book capital**

The FSA strongly supports the proposals of Basel Committee. In addition, the FSA proposes a more radical review of trading book risk measurement and capital adequacy requirements. This includes the need to cover the definition of assets appropriately booked in trading and banking books; the use of VAR, stressed VAR and other measures of risk; and the extent to which approaches should vary by trading book activity to reflect, for instance, different liquidity characteristics. The FSA proposes an international level of review be completed within one year.

Source: Financial Services Authority, "The Turner Review: A Regulatory Response to the Global Banking Crisis", March 2009

## UK: Turner Review recommendations (2)

### •Avoiding procyclicality in Basel II implementation

The FSA has already, in its detailed implementation of the Basel II framework, introduced measures to ensure that the procyclical impact of 'point-in-time' based models is minimised as far as is compatible with the maintenance of a risk sensitive approach.

### •Creating counter-cyclical capital buffers

The FSA proposes that two key choices need to be made in designing the details of a countercyclical regime. The first is how the level of buffers is determined; the second how the impact is presented - as required capital ratio itself varies through the cycle or as a reserve but excluded from capital calculations. As a starting point, buffers of the order of magnitude of 2-3% of risk weighted assets might be appropriate at the peak of the cycle, proposed by the FSA.

Source: Financial Services Authority, "The Turner Review: A Regulatory Response to the Global Banking Crisis", March 2009

## UK: Turner Review recommendations (3)

### •**Offsetting procyclicality in published accounts**

The FSA believe it important that the counter-cyclical approach to bank capital is reflected in a significant way in highly visible published account figures. This creates strong shareholder and management awareness of the need to assess profitability in light of the position in the economic cycle.

### •**A gross leverage ratio backstop**

The FSA highlights some of the key requirements for an effective leverage ratio (e.g. the need to cover derivative contracts) as well as some choices (e.g. whether to express the ratio as assets to Tier 1 capital or assets to Core Tier 1 capital).

### •**Containing liquidity risks: in individual banks and at the systemic level**

The FSA has already published liquidity management proposals. In addition, the FSA proposes for debate whether a 'core funding ratio' approach be used either as a rule or as an indicator of potential concerns.

Source: Financial Services Authority, "The Turner Review: A Regulatory Response to the Global Banking Crisis", March 2009

## G-20 recommendations on:



**Procyclicality**



**Capital**



**Liquidity**

Source: G-20 Working Group 1, “Enhancing Sound Regulation and Strengthening Transparency Final Report”, 25 March 2009

# G-20 recommendations on procyclicality

Procyclicality

Capital

Liquidity

## Procyclicality

- The FSB and other bodies, particularly the BCBS, should develop and implement supervisory and regulatory approaches to mitigate procyclicality in the financial system. This should be achieved by promoting the build-up of capital buffers during economic expansion and by dampening the adverse interaction between fair valuation, leverage and maturity mismatches in times of stress.
- Accounting standard setters should strengthen accounting recognition of loan loss provisions by considering alternative approaches for recognizing and measuring loan losses that incorporate a broader range of available credit information.
- They should also examine changes to relevant standards to dampen adverse dynamics associated with fair value accounting, including improvements to valuations when data or modelling is weak.
- Accounting standards setters and prudential supervisors should work together to identify solutions that are consistent with the complementary objectives of promoting the stability of the financial sector and of providing transparency of economic results in financial reports.

# G-20 recommendations on capital

## Capital

- In the near term, capital buffers above required minimums should be allowed to decline in response to deteriorating economic conditions and credit quality, and urgent consideration should be given to measures that would facilitate access to additional private sector capital in the downturn.
- Once conditions in the financial system have recovered, the adequacy of the international standard for the minimum level of capital for banks should be reviewed and the quality and global consistency of capital should be enhanced.
- The BCBS should develop standards to promote the build-up of capital buffers in good times that can be drawn down in periods of stress. The BCBS should also complement risk-based capital measures with simpler indicators to monitor the build-up of leverage.
- The international standard for the minimum level of capital should remain unchanged until the financial system has recovered.
- G-20 leaders should support the progressive adoption of the Basel II capital framework, which will continue to be improved on an ongoing basis, across the G-20.

# G-20 recommendations on liquidity

## Liquidity

- Prudential supervisors and central banks should deliver a global framework for promoting stronger liquidity buffers at banks, including cross-border institutions. This should ensure that they can withstand prolonged periods of market and funding liquidity stress.
- The BCBS should enhance tools, metrics and benchmarks that supervisors can use to assess the resilience of banks' liquidity cushions and constrain any weakening in liquidity maturity profiles, diversity of funding sources, and stress testing practices.

# The U.S. : Geithner recommendations

As outlined in “Financial Regulatory Reform: A New Foundation”, the U.S. regulatory reform should meet five key objectives:

- Promote robust supervision and regulation of financial firms
- Establish comprehensive regulation of financial markets
- Protect consumers and investors from financial abuse
- Provide the government with the tools it needs to manage financial crisis
- Raise international regulatory standards and improve international co-operation

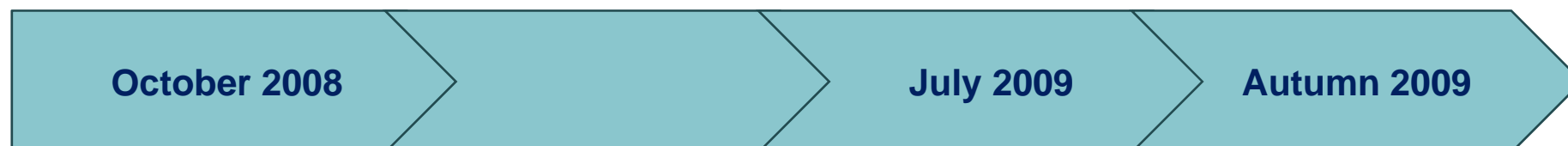
Source: US Treasury, “Financial Regulatory Reform: A New Foundation”, June 2009

## The U.S. : capital, leverage and procyclicality

- The U.S. supports the BCBS's efforts to improve the regulatory capital framework for trading book and securitisation exposures by 2010.
- The U.S. urges the BCBS to strengthen the definition of regulatory capital to improve the quality, quantity, and international consistency of capital. It also urges the BCBS to issue guidelines to harmonize the definition of capital by the end of 2009, and develop recommendations on minimum capital levels in 2010.
- The U.S. urges the BCBS to develop a simple, transparent, non-model based measure of leverage, as recommended by the G-20 leaders.
- The U.S. urges the Financial Stability Board, BCBS, and the Committee on the Global Financial System, in coordination with accounting standard setters, to implement by the end of 2009 the G-20's recommendations to mitigate procyclicality, including a requirement for banks to build capital buffers in good times that they can draw down when conditions deteriorate.

Source: US Treasury, "Financial Regulatory Reform: A New Foundation", June 2009

# European Commission Three waves of the Capital Requirement Directive amendments 2008-2009



- Revision of large exposure regime
- Establishing a more harmonized treatment of hybrid capital instruments within original own funds
- Revision of home-host supervisory and crisis arrangements
- Derogations for bank networks from certain prudential requirements
- Revision of treatment of life insurance as eligible collateral
- Revision of capital requirements for Collective Investment Undertakings under the IRB approach
- Revision of capital and risk management requirement for securitisation positions

- Revision of capital requirements for the trading book
- Revision of capital requirements for re-securitisation positions in the banking book
- Enhancing disclosure requirements of securitisation risks
- Enhancing supervisory review of remuneration policies

- Introduction of supplementary measure to address leverage and/or liquidity risk
- Introduction of counter-cyclical treatment of bank loan provisions
- Making supervisory rules more consistent by reducing number of national options and discretions

Source: European Commission, SEC (2009) 974 Final, 13 July 2009

# European Commission

Capital requirements for trading book

## Problems detected

- Not all material credit risks in trading books are appropriately reflected in current capital requirements.
- Capital requirements of institutions as determined by using Value at Risk (VAR) models are not robust enough to absorb potential trading book losses.
- Swings in capital position, linked to trading losses and volatility of capital requirements for trading activities, risk exacerbating pro-cyclicality of bank lending and investment with possible negative implications for the real economy.
- Regulatory arbitrage possibilities possibly lead to undercapitalization.
- Lack of transparency of banks' exposure to securitisations contributed to the loss of market confidence, which had a negative impact on the liquidity of inter-bank markets, particularly affecting banks who relied on wholesale funding.

Disclosure of securitisations risks

## Operational target

- Enhance alignment of securitisation capital requirements for trading book with those of the banking book
- Introduce capital charges to capture credit rating migration risk
- Make capital requirements more prudent to reflect risks pertaining to extreme future events
- Enhance public disclosure requirements for securitisation positions

# European Commission

Capital requirements for re-securitisations

## Problems detected

- Capital required for re-securitisations does not adequately reflect their higher risk compared with “normal” securitisations.
- Swing in capital position, driven by losses from re-securitisations, exacerbated pro-cyclicality of bank lending with possible negative implications for the real economy.

## Operational target

- Set more prudent regulatory capital requirements for re-securitisation positions in banking book
- Discourage investments in complex re-securitisations

# European Commission: policy options and comparisons–trading book

Policy	Details	Discussion
Option 1	Retaining the current capital requirements under the CRD directive	Option 1 does not achieve any of the stated operational objectives
Option 2	Imposing a set of targeted measures to strengthen existing trading book capital requirement	Option 2 adds VAR based on stress scenario to ordinary VAR, extends the existing charge for default risk in the trading book to capture losses short of issuer default, and bases the charge for securitisation positions in the trading book on the risk weights in the banking book
Option 3	Changing the modelling standard to a 99.9% 1-year level for all positions in the trading book	Option 3 appears less effective overall regarding the specific and general objectives attained by option 2.

# European Commission: policy options and comparisons–resecuritisation

Policy	Details	Discussion
Option 1	Retaining the current CRD treatment	Option 1 has the risk weights same for securitisation and re-securitisation positions with the same credit rating. Banks are required to conduct own due diligence and stress tests for re-securitisation
Option 2	Imposing a separate set of higher risk weights for re-securitisation positions	Option 2 assigns a higher risk weight for re-securitisation positions. This would contribute to achieving all of the general objectives.
Option 3	Imposing higher capital charges to discourage investments in complex re-securitisations with a grandfathering for instruments already on bank’s balance sheet, combined with targeted exemptions	Option 3 has more material impact on bank capital requirements than option 2. Due to its emphasis on bank investment decisions going forward and inclusion of grandfathering provision, this policy option would avoid immediate capital hit for banks that otherwise would be material.
Option 4	Enhancing supervisory oversight of new investments in re-securitisations combined with deductions from capital for highly complex re-securitisations where compliance with due diligence is inadequate	Option 4 implies the Basel approach as discussed under option 2. However, for particularly complex re-securitisation positions, it would introduce a specific safeguard that reinforces both the due diligence requirements and the supervisory process to enforce them.

# European Commission: policy options and comparisons–disclosure of securitisation risks

Policy	Details	Discussion
Option 1	Retaining the current CRD treatment	Option 1 would not address the problems as outlined
Option 2	Enhancing disclosure requirements in line with the Basel Committee’s approach, in particular extending the requirements to the trading book	Option 2 requires enhanced disclosure on securitisation exposures in the trading book, sponsorship of off-balance sheet vehicles, the Internal Assessment Approach for securitisations and other ABCP* liquidity facilities, resecuritisation exposures, valuation with regard to securitisation exposures and pipeline and warehousing risks with regard to securitisation exposures. The incremental administrative burden for the EU banking industry is estimated at Euro 1.3 mn per year

\* Asset-backed commercial paper

# CEBS position paper- using pillar 2 as a tool for dealing with procyclicality

## Portfolio level adjustments

- Probability of Default (PD) scaling factor  $\implies$  to rescale PDs estimated by banks, in order to incorporate recessionary conditions
- Time-varying confidence levels  $\implies$  the buffer is determined by making the confidence level of the risk-weight function time-varying.

## Grade level adjustments

- One-step PD scaling factor  $\implies$  no “tail” default rates included in the IRB formulae
- Two-step PD scaling factor  $\implies$  take into account rating migration

Most CEBS members share the view that portfolio-level tools are preferable as opposed to more granular approaches. While slightly less precise, according to this paper, they represent an effective and pragmatic way for dampening procyclicality while avoiding over-complex and more data-intensive mechanisms.

Source: Committee of European Banking Supervisors, “Position Paper on a Countercyclical Capital Buffer”, 17 July 2009

# Broad conclusions of the CEBS discussions

## Pillar 1 versus pillar 2 tools

- Pillar 1 tools would reduce the authorities' discretion
- Tools based on a buffer would better fit under pillar 2
- Pillar 1 tools may provide banks with the right incentives to use less volatile risk parameters for calculating IRB capital requirement

## Communication strategies

Banks would welcome strong communication policies from supervisors in order to make it clear, ex-ante, that capital buffers may decrease in bad times and that this is indeed the only way to make the banks' capital less cyclical. In that respect, CEBS's approach is accompanied by active communication strategies.

## Preferred options

It seems that most banks would disregard most computational burdensome approaches

## First time application

There is consensus that the approach should be applied after the normalization of credit markets and should be implemented gradually

## Other sources of cyclicity

At this stage, fair value accounting, re-intermediation as well as counterparty risks remain the most important causes of capital requirements fluctuations. The trading book has been the most cyclical portfolio in recent times and that countercyclical tools need to address this

## Dynamic provision versus capital buffers

Banks have a common view that the two tools can effectively complement each other

CEBS recommends that countercyclical tools should be:

- Bank-specific
- Based on risk-sensitive concepts to avoid perverse incentives and arbitrage opportunities
- Not excessively burdensome in terms of data needs and computational efforts
- Transparent and clearly announced ex-ante

# Appendix

# Selected studies – procyclicality in Basel II

Study	Data	Main conclusions	Comments
Ayuso et al (2004)	Spanish data (1986-2000)	An increase of one percentage point in GDP growth reduces capital buffers by 17%.	The overall implication for the procyclicality of Basel II is not clear.
Peura and Jokivuolle (2005)	A dynamic optimisation problem	The procyclicality impact is dampened by up to 50% if endogenous capital buffers are taken into account.	Loan risk is exogenous.
Catarieneu Rabell et al (2005)	Based on a parameterised GE model	Using “through-the-cycle” rather than “point-in-time” ratings can dampen the procyclicality impact.	Endogenously determined loan rates and defaults. The capital requirement is always binding.
Pederzoli and Torricelli (2005)	A static model of banks	Using a forward-looking capital requirement can dampen the procyclicality impact of Basel II.	It focuses on regulatory capital.
Heid (2007)	A static optimisation problem	Under both Basel I and Basel II, procyclicality exists but can be mitigated by capital buffer decisions.	Loan risk is exogenous.

Source: Claudio Borio and Haibin Zhu, “Capital Regulation, Risk-taking and Monetary Policy: A Missing Link in the Transmission Mechanism?” BIS Working Paper No. 268 2008

# Selected studies – capital regulation and constrained bank lending: empirical evidence

Study	Main conclusions
Bernanke and Lown (1991), Berger and Udell (1994), Peek and Rosengren (1995), Furfine (2001) US data	Basel I contributes to a credit constraint during the 1990-91 recession; banks subject to formal regulatory requirements curtailed their loans more sharply than those which were not.
Ito and Nagataki (1998) Japanese data	International active banks, which are subject to a more stringent capital requirements, were more constrained in lending during 1990-92.
Wagster (1999) Cross-country: 5 countries	There is evidence that Basel I contributes to constrained lending in Canada and the UK; no such evidence in Germany, Japan and the US.
Jackson et al (1999)	There is evidence that Basel I contributes to constrained lending in the US and Japan; there is no conclusive evidence on its impact on banks' risk taking and their competitiveness.
Chiuri et al (2001,2002)	Evidence that Basel I can contribute to a credit constraint; the impact is larger for under-capitalised banks.

Source: Claudio Borio and Haibin Zhu, "Capital Regulation, Risk-taking and Monetary Policy: A Missing Link in the Transmission Mechanism?" BIS Working Paper No. 268 2008

# Minimum capital requirement—the current broad definitions of core T1, T1, T2 and T3

Core Tier 1(CT1)	Common equity and retained earnings, which is permanently, fully and immediately available to absorb potential losses
Tier 1(not core)	Preferred stock, with certain restrictions but still having high capacity for absorbing losses
Tier 2	A broad mix of near equity and hybrid capital/debt instruments, including long-term subordinated debt. Total Tier 2 cannot exceed 100% of Tier 1
Tier 3	Short-term subordinated debt. Tier 3 can be used by banks at national discretion but only to meet a proportion of the capital requirements for market risk

# Minimum quantity and quality of capital under current international rules

## Total and Tier 1 requirements (broadly unchanged between Basel 1 and Basel 2)

Total capital (Tier 1+Tier2) must be greater than 8% of risk weighted assets.  
AND  
Higher quality Tier 1 capital must be at least half of total capital.



Tier 1 capital must be at least 4% of risk weighted assets.

## Core Tier 1 (CT1) requirements

Not formally defined within Basel 2 but BCBS guidelines suggest CT1 should be predominant part of Tier 1.  
Many jurisdictions, including UK, treated this as implying CT1 at least half of Tier 1.



Effective minimum Core Tier 1 of 2% of risk weighted assets (except for market risk)

## Core Tier 1 requirements

Basel 2 rules on quality of capital for market risk capital requirements are different from those for credit risk and more lenient.  
As a result, a bank with significant trading book activity could face somewhat lower minimum CT1 than 2% and lower minimum Tier 1 than 4%.

Source: The Turner Review



# UNINTENDED CONSEQUENCES – THE FUTURE OF BANK CAPITAL

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Section 2: Bibliography and selected papers



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# Bibliography and selected papers

In connection with the ICFR's roundtable on bank capital, please find below a list of key documents related to the debate on banks' capital requirements. Also included is a selection of other studies from across academia and additional sources that address wider issues surrounding changes to banks' capital requirements, suggested amendments to the current proposals, and the possible consequences of these changes.

For the purposes of the ICFR roundtable we have highlighted a few of these other studies, some controversial, with a view to helping stimulate a broader debate over the role of capital controls and regulation.

1. W. Wagner, "[Efficient Asset Allocation in the Banking Sector and Financial Regulation](#)", *International Journal of Central Banking* vol. 5 no.1 (March 2009), 75-96.  
The author pursues the idea that due to the inter-linkages between banks, the consequences of banks' portfolio choices (asset structure) on financial stability go well beyond the traditional risk-liquidity trade-off. Depending on the weight of highly correlated banks (i.e. with similar asset structures) versus non-correlated banks (i.e. banks with dissimilar asset structures) the potential impact from negative externalities (failures) can vary enormously. In some cases ***"The optimal regulatory treatment of banks is typically heterogeneous and may involve encouraging more correlation at already highly correlated banks but lowering correlation at other banks"***(p.75). The author therefore argues for flexibility in regulatory treatment.

# Bibliography and selected papers

2. C.W.Calomiris, [“Financial Innovation, Regulation and Reform”](#), *Cato Journal*, Vol. 29, No. 1 (Winter 2009), 65-91.

This paper looks at, among other things, the relationship between regulation and innovation.

**“Financial innovations often respond to regulation by sidestepping regulatory restrictions that would otherwise limit activities in which people wish to engage”(p.65.)** In his view **“There is no doubt that the financial innovations associated with securitisation and repo finance were at least partly motivated by regulatory arbitrage”(p.66).** He takes the line that the sub-prime crisis was not an error of omission, which allowed banks to avoid regulatory discipline, but rather an error of **commission**. This does not mean there is no role for regulation but that regulation must take into account human frailties: **“The trick in regulatory reform is to use the public outrage during a moment of crisis as an opportunity to pass robust reforms that will work after the crisis is gone and the threats of political influence, safety nets and managerial agency have returned”(p.75).**

3. R. Repullo and J. Suarez, [“The Procyclical Effects of Basel II”](#), *CEMFI Working Paper No. 0809* (June 2008).

This is one for the more technically minded. The authors find that the new, risk-sensitive, proposals do indeed change the behaviour of capital buffers from countercyclical to procyclical yet the higher buffers in expansions are insufficient to prevent credit restrictions at the onset of recession. However, they show that **“..cyclical adjustments in the confidence level [probability of loss absorption] can reduce its procyclical effects without compromising banks’ long-run solvency”(Abstract).**

# Bibliography and selected papers

4. B. Biais, J.-C. Rochet, and P. Woolley , [“The Lifecycle of the Financial Sector and Other Speculative Industries”](#), *LSE Financial Markets Group Discussion Paper 632* (April 2009).

An interesting take which compares the financial sector in the last decade to other industries which exploit new technologies/novel techniques. In their analysis, optimal (employment) contracts preclude large managerial compensation after failure so that the large compensations in the financial sector were “sub-optimal” and exacerbated agency and risk taking problems. The research also shows though that better disclosure and transparency can alleviate the moral hazard problem , but that even with the maximum level of disclosure “**(high) rents and risk taking are bound to remain prevalent issues in speculative industries”(p.27)**. This raises the question of whether or not regulators should seek to make a greater part of the financial sector less “speculative”.

5. J.R. Barth, G Caprio Jr., and R. Levine, [“Bank Regulation and Supervision: What Works Best?”](#) paper prepared for Basel Committee event *Basel I: an Economic Assessment* (May 2002).

An older study but based on a wide empirical survey covering 107 countries. On capital regulation the authors are sceptical. They found that the stringency of capital regulations is not very closely associated with bank performance or stability but that “**the marginal impact of capital regulations on bank behaviour may depend importantly on the strength of official supervisors”(p.11)**. This raises the question of the relative importance of the capital requirements versus the effectiveness of the regulators.

# Bibliography and selected papers

6. A.K. Kashyap, R.G. Rajan, and JC Stein [“Rethinking Capital Regulation”](#), paper prepared for Federal Reserve Bank of Kansas symposium on *Maintaining Stability in a Financial System* (August 2008).

This paper somewhat challenges the traditional view as the authors see it embodied in Basel I & II. **“The natural regulatory reaction to prevent a future recurrence of these spillovers (credit rationing) might be to mandate higher bank capital standards, so as to buffer the economy from financial sector problems. But this would overlook a more fundamental set of problems relating to corporate governance and internal managerial conflicts in banks – broadly termed agency problems in financial literature”(p.2).** The authors also note the complications arising from what they term the viral nature of financial innovation and that **“Any command-and-control regime of regulation creates incentives for getting round the rules, i.e. regime arbitrage”(p.20).** This paper also champions the notion that capital insurance has a role to play alongside other measures including more liquidity monitoring.

7. S. Morris and H.S. Shin, [“Financial Regulation in a System Context”](#), *Brookings Papers on Economic Activity* (Sept 2008).

One of a number of papers noting the need for regulation to look beyond risk-based capital requirements. Liquidity and leverage complements are also needed to address problems of inter-related, system wide linkages. **“The rationale for a leverage ratio derives not from the traditional view that capital is a buffer against loss on the assets, but rather from the stability of liabilities in an interrelated financial system”(Abstract).**

# Bibliography and selected papers

8. A. Carvajal and J. Elliott, [\*\*“The Challenge of Enforcement in Securities Markets: Mission Impossible?”\*\*](#), *IMF Working Paper No. 09/168* (August 2009).  
Although not directly related to our roundtable on banks’ capital requirements, this article does highlight one important consideration for the global application of rules: namely the successful **enforcement** of regulation – a G20 objective. In the field of securities enforcement this paper shows a very uneven application of the rules: ***“...regulators throughout the world face significant challenges in implementing credible and effective enforcement programmes. A combination of the need for extensive resources, strong institutional and political support, and a supportive legal environment, make enforcement a particularly difficult challenge and has proven insurmountable in many jurisdictions. In particular we have found that capacity issues, including political will and adequate resources, have proven a stronger challenge to regulators in developing enforcement programmes than have gaps in the legal and regulatory framework”***(p.4).
  
9. D. Tarullo, ***Banking on Basel: The Future of International Financial Regulation*** (Washington D.C., 2008).  
Despite many reservations over the approach of Basel I & II, the author accepts that it’s happening. He cites 4 areas of concern: compliance costs for banks, the supervisory challenge in evaluating risk models, the supervisory challenge in monitoring bank operation of the Basel II risk assessment process, and difficulties in holding the supervisors themselves accountable for their oversight. He moots a Basel II ½ - this involves speeding up the work to define the kinds of capital that qualifies for Tier 1 or 2, making progress on leverage ratios and subordinated debt requirements, consider the elimination of harmonised detailed IRB approaches (in favour of best practice, individualised solutions for individually active international banks, and finally improving the monitoring processes in each Basel committee country. His “Basel II ½” effectively keeps pillars 1,2, & 3 and adds a fourth, strengthening the monitoring capacity of the Basel Committee.

# Bibliography and selected papers

10. Institute of International Finance, [“Restoring Confidence, Creating Resilience: An Industry Perspective on the Future of International Financial Regulation”](#) (July 2009).  
A comprehensive study covering many aspects of how to deliver effective regulation, from the perspective of the financial industry itself. While giving its backing to wide scale reform and the aims of the G20, the report does argue for doing this in a way consistent with an innovative and efficient financial system: **“it is crucial that the cumulative effects of reform be consistent with market efficiency, avoiding rigidities that could stifle growth, job creation, and innovation, or increase the cost of financial services to customers”**(p.7). The report recognises the need for capital resources to be built in accordance with enhanced Basel II risk-adjusted objectives. Leverage should be closely monitored but the IIF strongly argues for consistency between regimes and looks for some flexibility in implementation: **“...the IIF counsels against hardwired “Pillar 1” ratios, which do not take into account actual portfolio composition and may create misaligned incentives. More nuanced leverage indicators should figure in the Pillar 2 supervisory review process”**(p.9). The IIF calls for further impact analysis of proposed capital changes.
  
11. G. Wehinger, [“The Turmoil and the Financial Industry: Developments and Policy Responses”](#), OECD, *Financial Market Trends* No. 96 Volume 2009/1 (July 2009).  
A short but comprehensive “refresher” on how the crisis developed and how the policy response has unfolded, this paper gives a handy summary of the de Larosiere, Turner, G20 and US proposals. The study also notes the longer term consequences for the financial system of the policy reaction: **“The emergency nature of the actions regarding liquidity, solvency and fiscal policies will strain budgets of many governments for years to come, and have in many cases unlevelled the playing field for the financial and non-financial industry”**(p. 14). In common with much of the discussion at the recent Jackson Hole symposium, the OECD is thinking about “exit strategies”. In the OECD’s view **“Such an exit should be towards a sustainable and stable, less crisis-prone institutional and regulatory framework”**(p.14). With a nod in the direction of “unintended consequences”, this OECD study recognises that **“..any new regulation and other measures should be non-distorting and maintain markets competitive within and between countries”**(p.17).

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