Cost/Benefits of the Capital Requirement Directive IV Measures for the European Union

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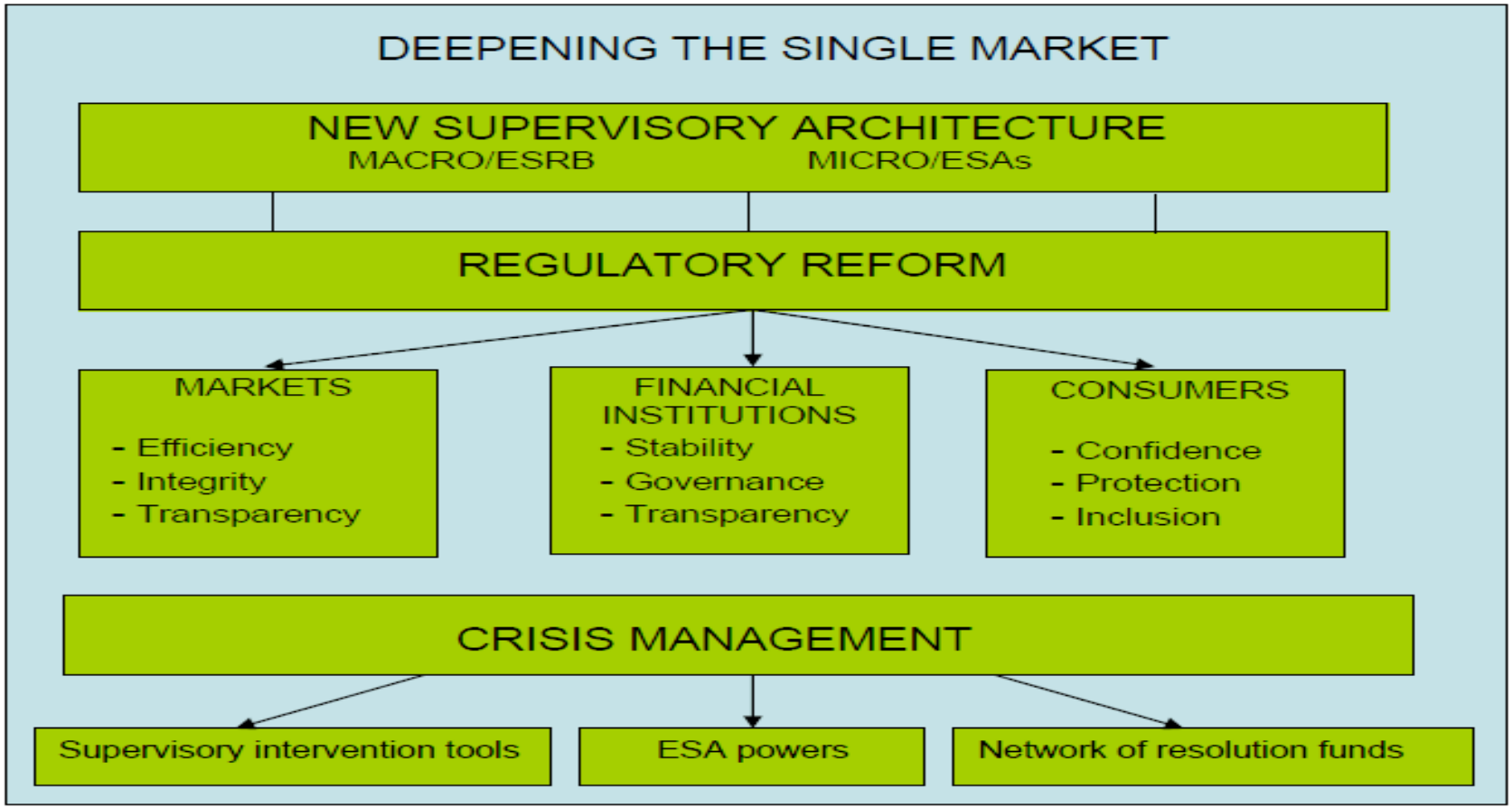
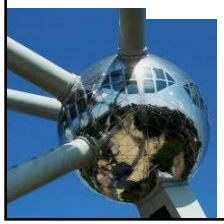
Bank Regulation in Context

Prof. Dr. U. Reifner (iff)

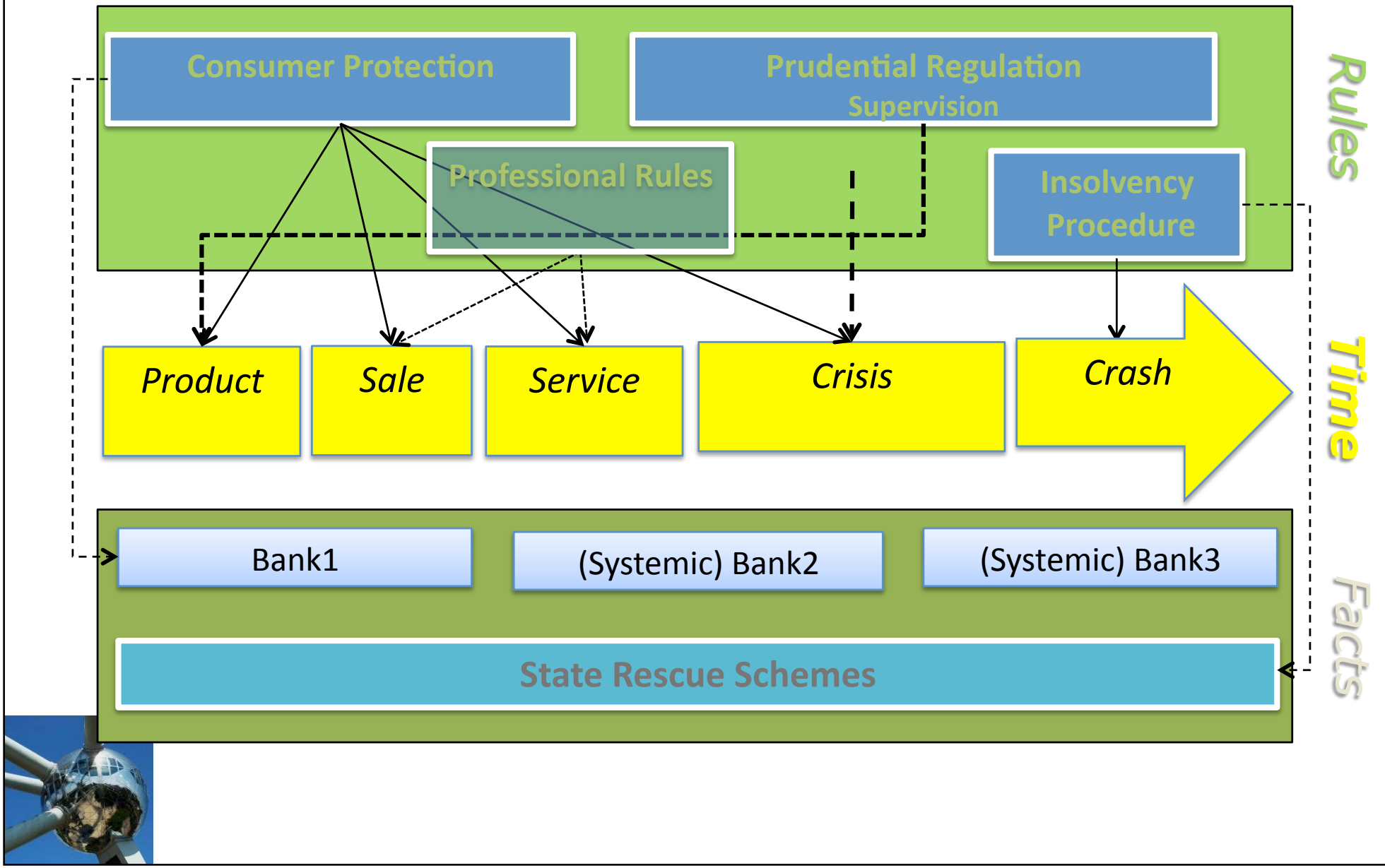
Financial Sector Reform: EU Commission Policy

Annex 2 – schematic representation of policy initiatives





Bank Regulation: Context



Short Overview of the Capital Requirement Directive IV: Measures

S. Clerc-Renaud (iff)

The CRD IV Measures – Overview (1/2)

Goals	Regulation Dimension / Measures Stability of a Single Bank	Banking System Resilience
Strengthening Capital Base of the Banking System	Quality and quantity of capital base: Stricter eligibility rules, core equity, contingent capital, new narrowly defined Common Tier 1 ratio, new/increased deductions; unrealised gains and losses	• Capital buffers to limit excessive credit growth: introduction of capital conservation buffers and a counter-cyclical capital buffers • Pending: Capital surcharges for Systemically Important Financial Institutions • Higher capital requirements for systemic derivatives
Restricting Leverage	Maximum leverage ratio (gross, non-risk-based, on and off balance sheet items at full conversion)	
Increasing Liquidity	• Short-term stressed ratio (Liquidity Coverage Ratio) • Long-term structural ratio (Net Stable Funding Ratio)	Derivatives: Longer margin periods on positions (to reflect potential illiquidity)

The CRD IV Measures – Overview (2/2)

Goals	Regulation Dimension / Measures Stability of a Single Bank	Banking System Resilience
Enhancing Risk Coverage	• Capital incentives for using central counter parties instead of over the counter transactions • Higher capital for inter financial institution exposures • Higher capital for counterparty credit risk (derivatives, repos and securities)	• Derivatives (higher risk weights if not cleared by a central counterparty) • Interconnectedness (higher risk weights to exposures to Financial Institutions due to high correlation of rating drop) • Recognition of default and migration risk of counterparties (trading book)
Improving risk assessment and measurement	Correcting risk-measurement methods (assessing market risk under stress scenarios)	Reducing pro-cyclicality: use probability-of-default estimates from downturn periods, forward-looking expected-loss approach to provisioning

Financial Crisis and Banking Regulation

R. Rissi (HSLU-W, IFZ)

Costs and Likelihoods of Financial Crises

Inefficiently functioning financial systems are a major cause for poor economic growth and economic instability.

•Banking crises occur on average every 20 to 25 years, implying a crisis probability of 4% to 5%.

•There is considerable uncertainty about the magnitude of the effects of a banking crisis on the economy as a whole. The Basel Committee presented evidence indicating that banking crises are associated with (cumulative) losses in output ranging from a minimum of 20% to 158% of GDP.

		Duration (Quarters)			Amplitude (Percent GDP)		
		Recession	Recovery	Expansion	Recession	Recovery	Expansion
All Crises	Mean	3.64	3.22	21.75	–2.71	4.05	19.56
	Std. deviation	2.07	2.72	17.89	2.93	3.12	17.50
Financial	Mean	5.67	5.64	26.40	–3.39	2.21	19.47
Crises	Std. deviation	3.15	3.32	24.74	3.25	1.18	20.46

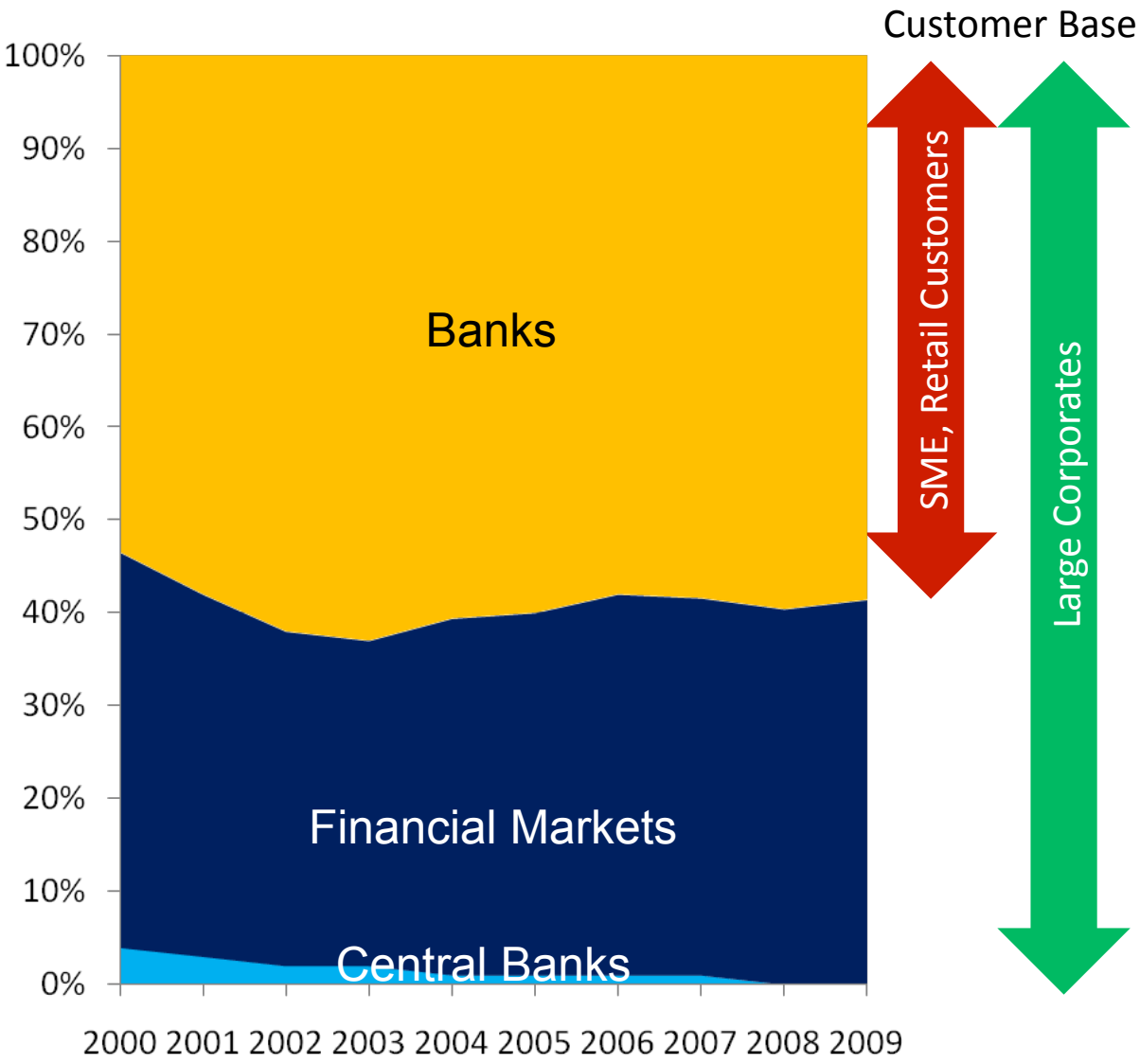
Source: Basel Committee on Banking Supervision, An assessment of the Long-term Economic Impact of Stronger Capital and Liquidity Requirements, August 2010; International Monetary Fund, Crisis and Recovery, World Economic Outlook, April 2009.

Banking and Financial Markets in the European Union

Banks are pivotal for the European financial system.

•Direct financing by banks has a market share of around 60%

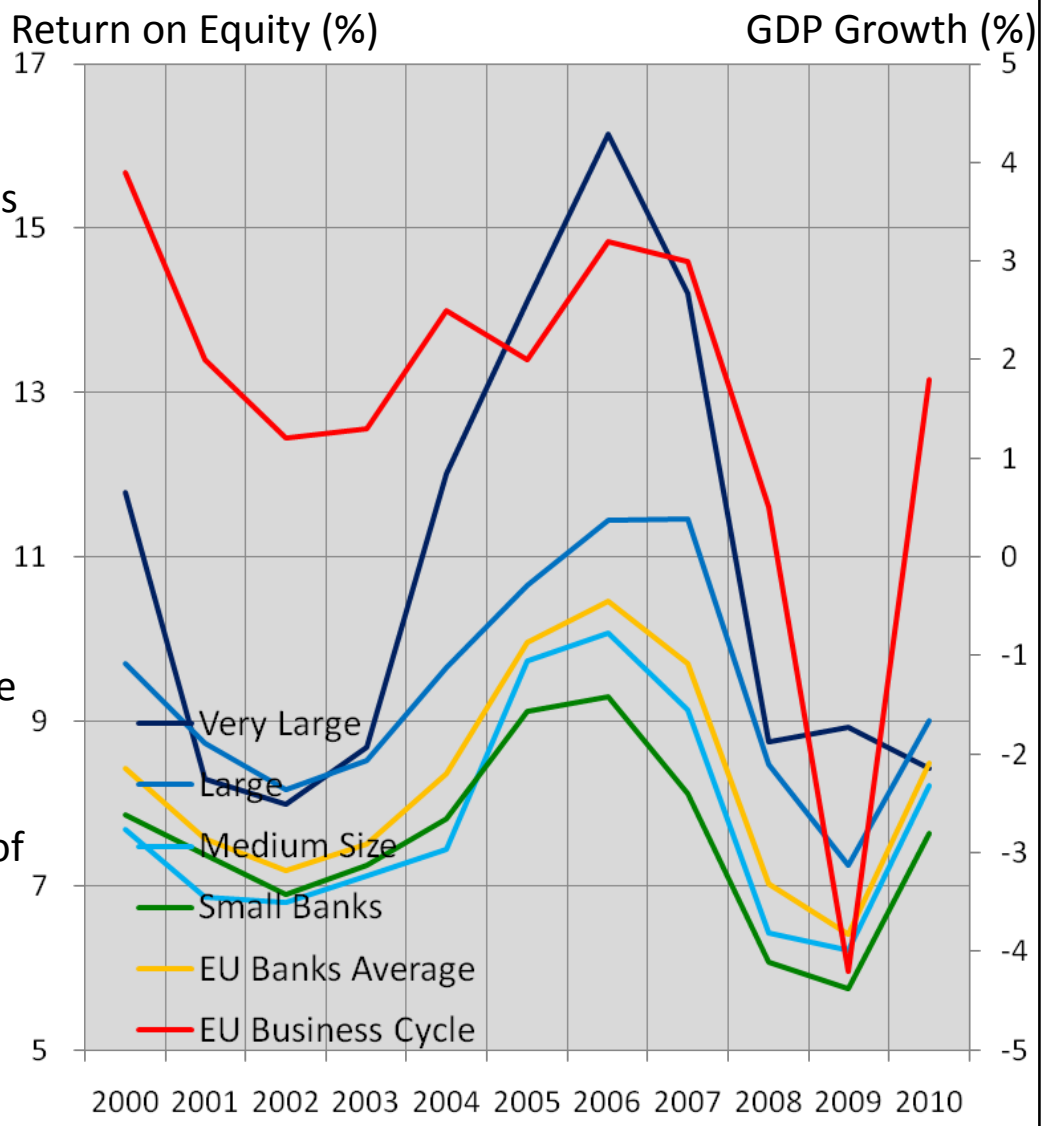
•Transactions on financial markets plays a far less prominent role, with around 40%.



Banking is a Highly Pro-Cyclical Business

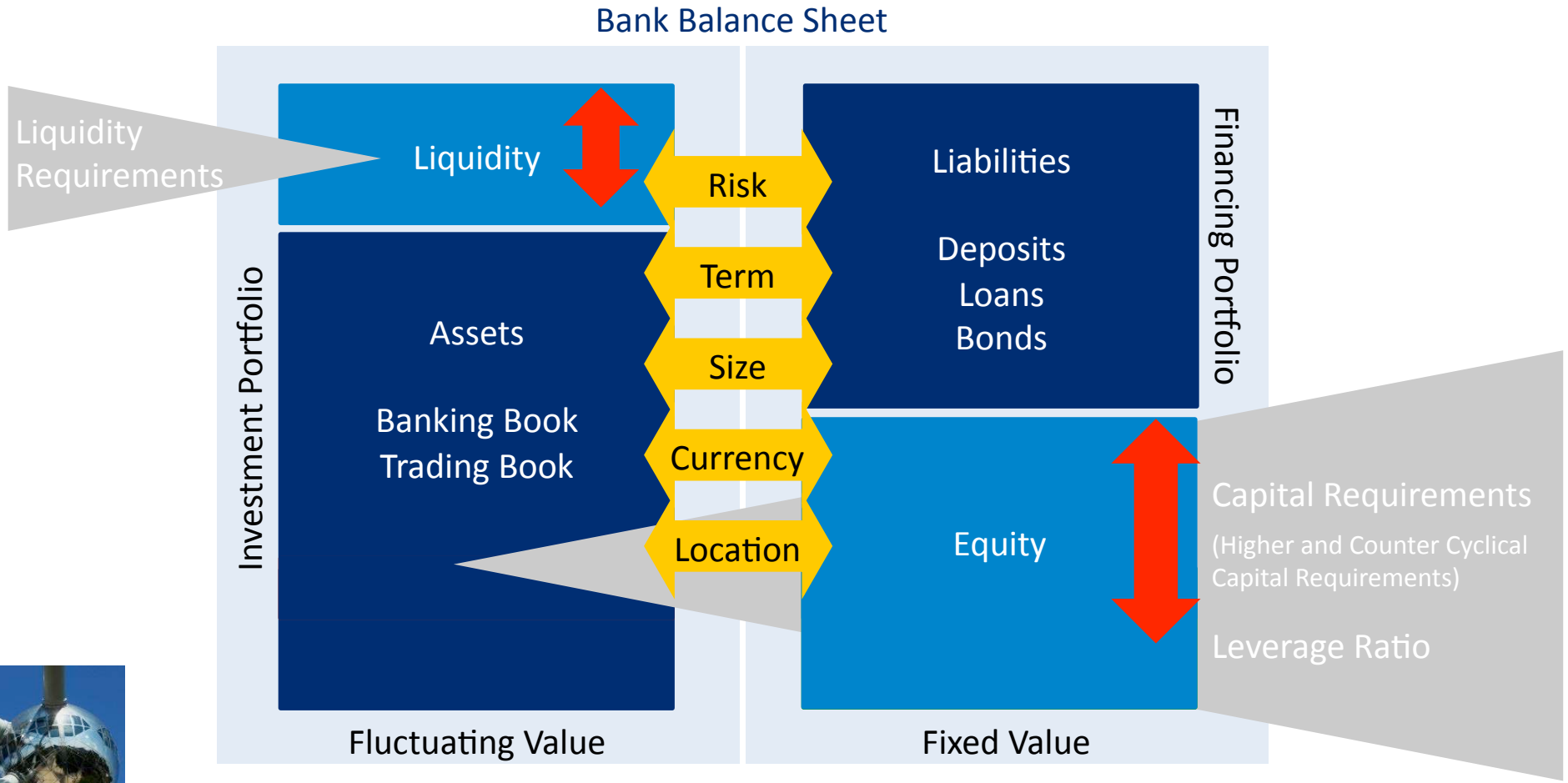
The behaviour of banks over the business cycle is characterised by two characteristics:

- Lending increases (falls) more than the changes in economic activity during expansions (downturns). This stylised fact is evidence for the proposition that banks tend to amplify the business cycles.
- The observed procyclical lending behaviour is also reflected in the bank performance (return on equity). Alan Greenspan noted "the worst loans are made at the top of the business cycle." Since in the lending business it takes time for loan performance problems to emerge (charge offs, past due, nonaccrual, and provisions materialise in downturns and are low in expansion), they increase the volatility of bank returns.



Key Concept of Banking Regulation

The goal of the new regulations is that the risk taking of banks becomes more prudential. The key for successful implementation of capital / leverage and liquidity builds on the financial constraints of banks as well as the incentives and mechanisms of banks decision making.



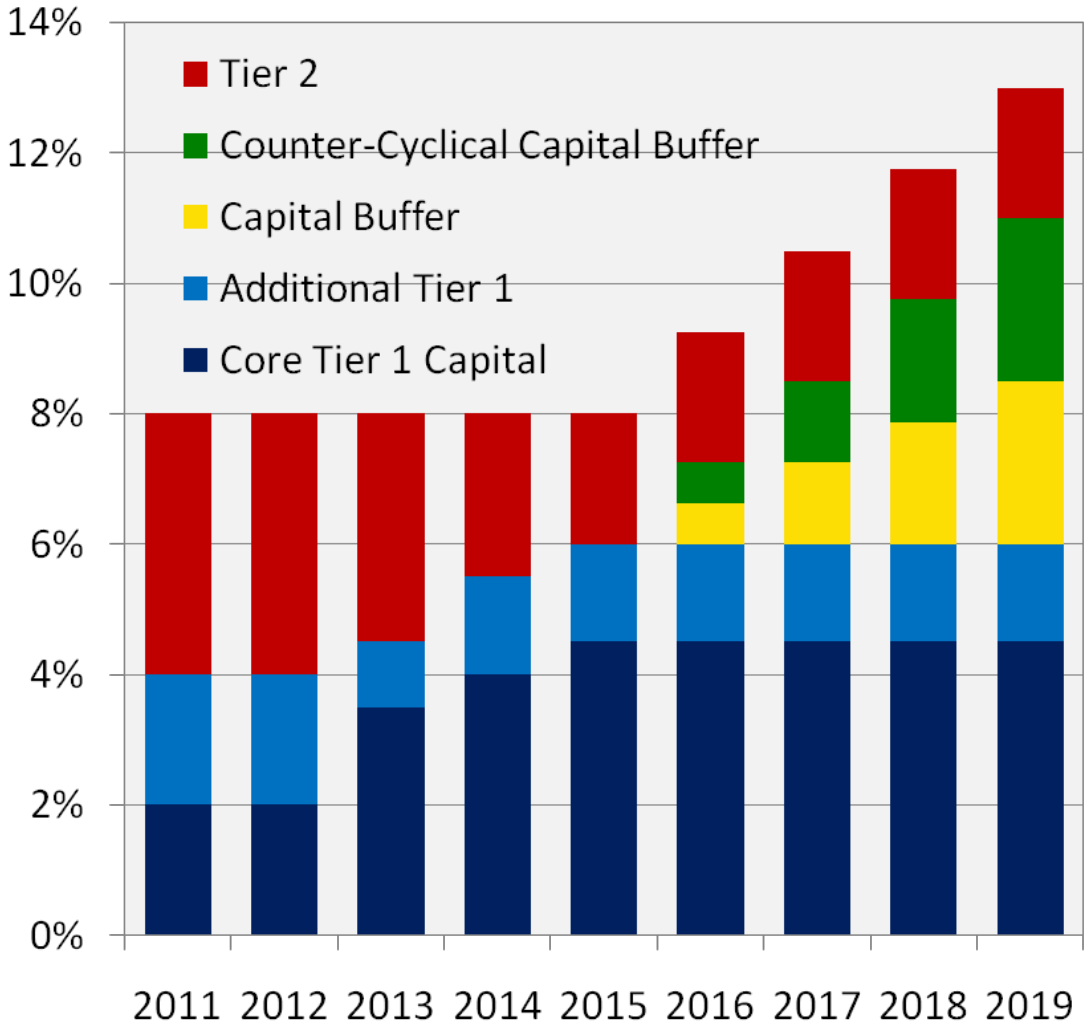
Short Overview of the Capital Requirement Directive IV: Implementation Schedule

R. Rissi (HSLU-W, IFZ)

Phasing-In of the New Capital Requirements 2011-2019

Key Advantages of a Gradual Phasing-In of Capital Requirements

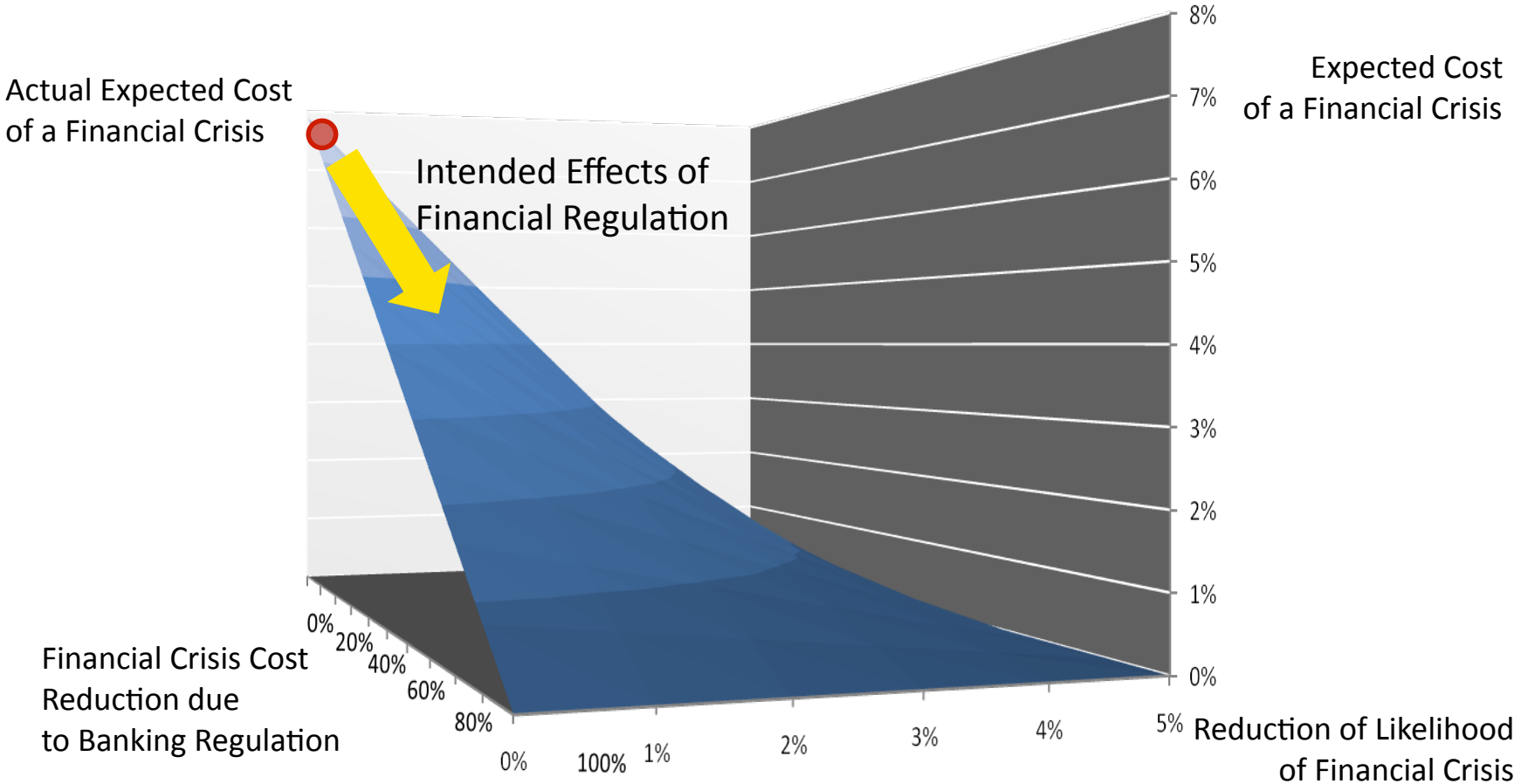
- The phasing-in of the new capital adjustments generates the opportunity for the affected banks for a gradual build-up of capital, reducing frictions and the adjustment costs.
- This transition phase also reduces the short run effects resulting from interest raises on the economy that may arise from adjustment processes in the European banking System.



Regulation may Reduce the Likelihood and/or the Costs of Financial Crisis

Regulation can reduce
(1) the likelihood of financial crisis and/or
(2) the costs, due to an increased capacity to absorb shocks, and thereby having smaller impacts on the economy.

The expected benefit from a 1% reduction in the annual likelihood / 10% decrease of the induced costs of a crisis ranges between 1.58% to 0.2% of output, with a median of 0.6%.

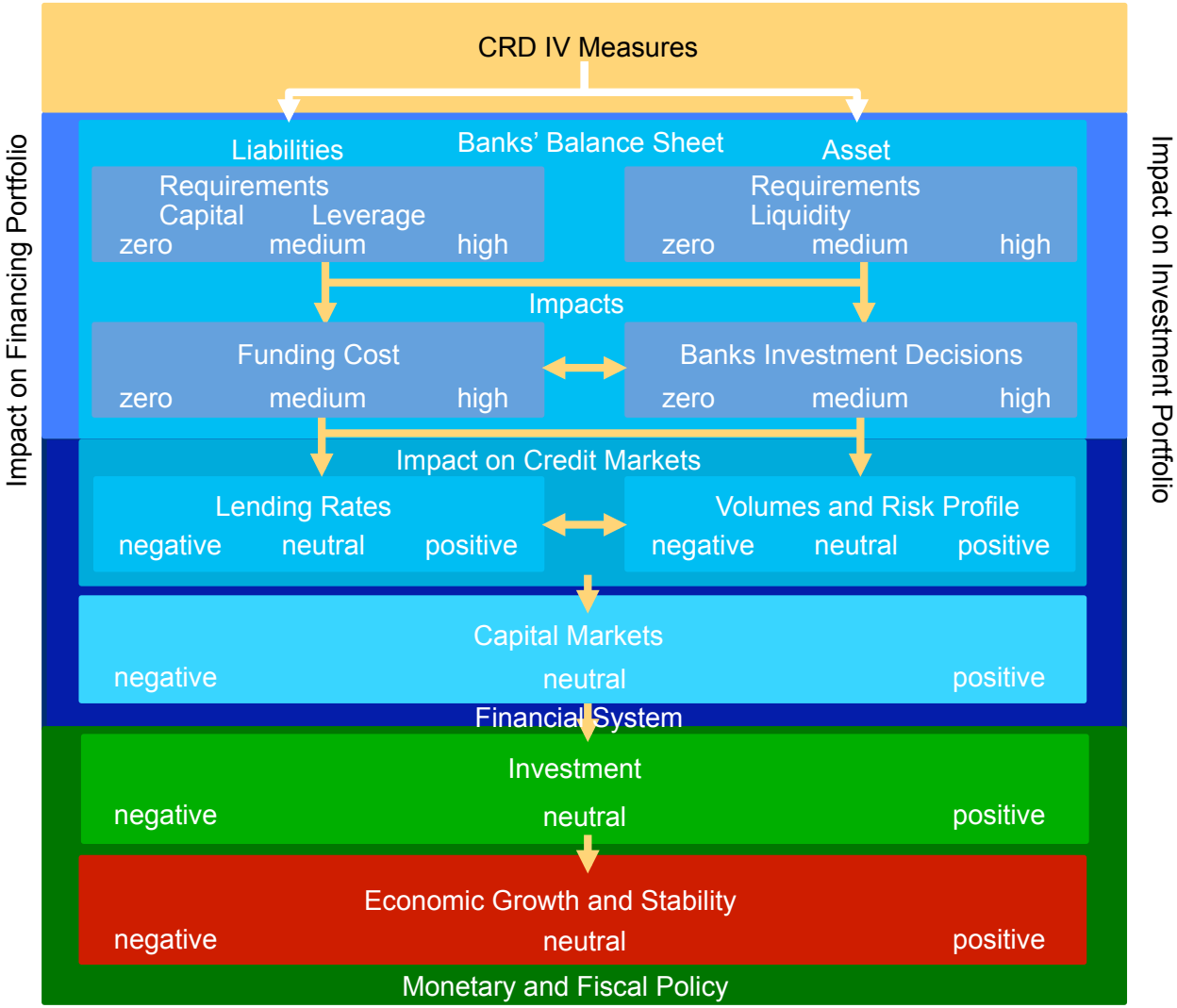


Empirical Evidence on the Efficiency of the Capital Requirement Directive IV

R. Rissi (HSLU-W, IFZ)

Transmission of Capital Regulation Directive Measures on the European Economy

To ensure the economic success of the planned CRD IV measures their impact on the banking industry has to be evaluated taking into account the effects on the economy as a whole by analysing the efficiency/stability of banking, the behaviour of the bank management, the financial market structures, the offerings of the banks to the non-financial sector, fiscal and monetary policy, business cycle and growth, as well as the international effects.



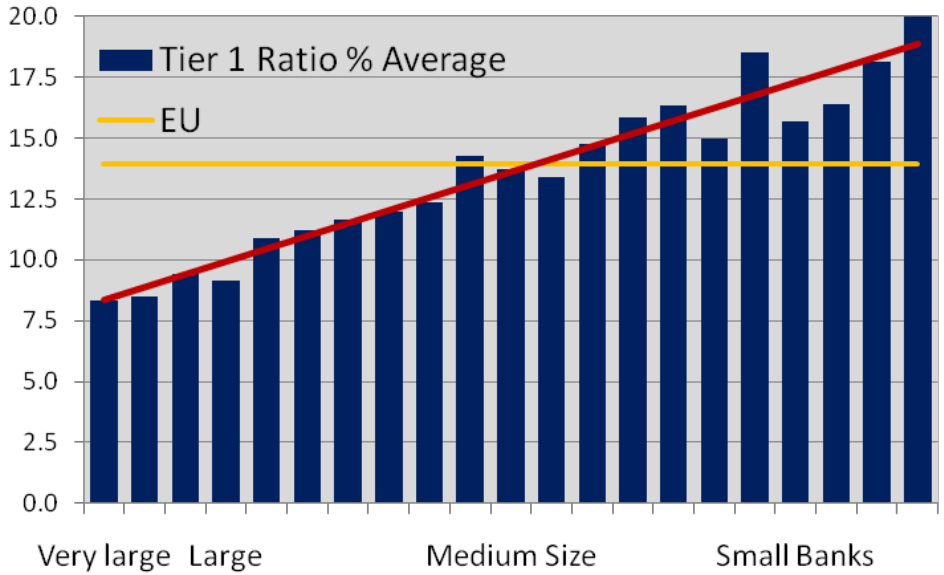
Capital Requirements

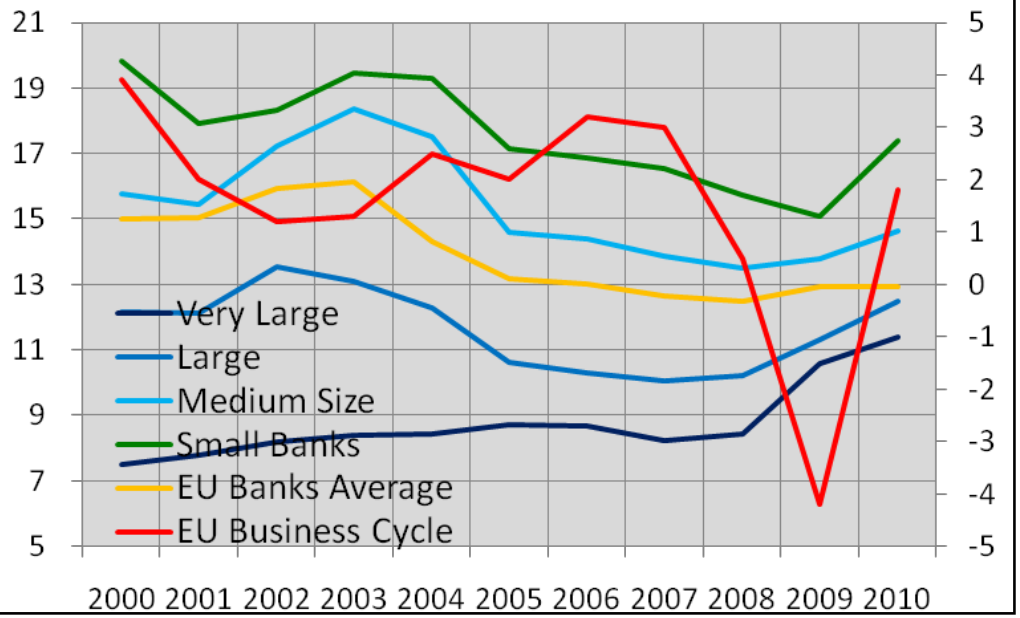
Capital Requirements	Increase / Decrease Financial Stability (+) / (-)
Higher Capital Requirements: Empirical evidence shows that (1) the foundations for the calibration of sound regulatory capital are not robust, (2) capital regulations play a secondary role in banks' capital decisions, (3) well capitalised banks have a better performance over the business cycles.	(+)
Counter Cyclical Capital Buffers: The pro-cyclical capital management of banks amplifies the volatility of the business cycles. The new capital regulations will dampen if not reverse this pattern and thereby increase stability of the financial system and the economy.	(+)
The capital requirements have no significant impact on the investment portfolio failures of banks. As a bank increases its capital base, its equity becomes less risky, and therefore the capital markets require a lower return.	No Effect
Increased capital requirements have only a modest impact on cost of capital and interest rates in the short run and thereby on economic growth.	No Effect
Conclusion: The new capital regulation will increase the stability of the banking system, but only in the sense of bank failure absorption. The likelihood of bank failures is not necessarily reduced directly. Only if the capital regulations restrict the banks' investment portfolio decisions the likelihood of bank failures will fall too.	

Capital Regulations Play a Secondary Role in Banks' Capital Decisions

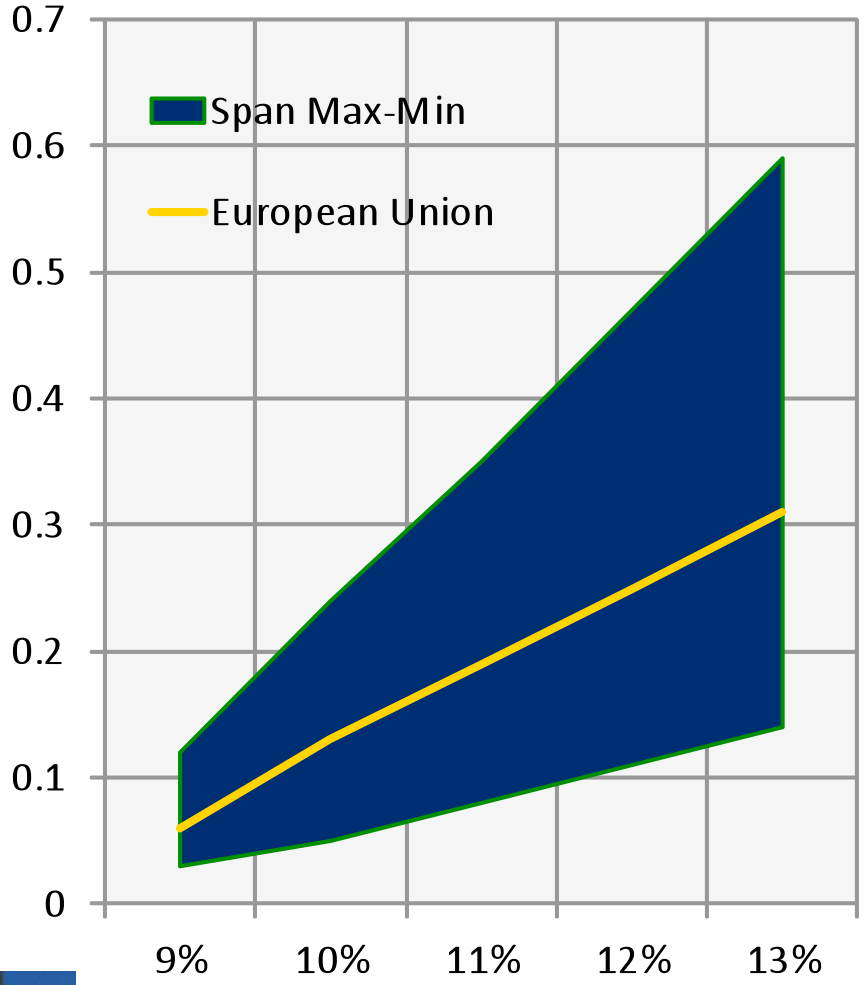
- Empirical evidence shows that (1) the foundations for the calibration of a sound regulatory capital are not robust and (2) capital regulation play a secondary role in banks' capital decisions. Empirical evidence indicates that the credit supply of well-capitalised banks is less dependent on the business cycle and thereby have a stabilising effect on the economy.

- A major drawback of the higher capital requirements are incentives for regulatory arbitrage through the shadow banking system: in order to mitigate them, an additional request for imposing similar capital requirements on a given asset class for intermediaries in the shadow banking system has been raised.





Interest Rate Increase Due to Higher Capital Requirements in the European Union



The immediate effect of higher capital requirements on the weighted average cost of capital and thereby on the credit interest rates, even in the case of unchanged return on equity and interest rates for bank funds, are for the European Union likely to be modest: for the case of an increase of capital requirements to 13% 31 basis points, for the member states the increase varies between 59 and 14 basis points.

Due to the specific nature of competition in the banking industry, especially in the European Union, even these modest increases and cost differentials raise significant incentives to (1) migrate credit-creation activities to the shadow-banking sector and (2) to tilt the level playing field of banks within the European Union. These effects may bring back fragility of the overall financial system.

Leverage Requirements

Leverage Requirements	Increase / Decrease Financial Stability (+) / (-)
Bankers are pro-cyclically gearing their balance sheet to meet investment opportunities at the price of amplifying the financial and thereby business cycles.	
A leverage ratio performs just as well as a risk-adjusted measure of capital.	(+)
Analysis provides the insight that the 5% leverage ratio threshold is more binding than the 6% tier 1 risk-based requirement.	
Leverage ratios, just as capital requirements, have only a modest impact on cost of capital and interest rates in the short run and thereby on economic growth.	No effect
For European banks, the link between banking portfolio quality and leverage ratios is at best weak.	No effect
Conclusion: Leverage ratios are highly linked with capital regulations. It is an open question whether this additional regulation increases stability, compared to the capital requirements and pro-cyclical capital buffers.	

Quality of Credit Portfolio Performance Does Not Depend on Bank Capital / Leverage Ratio

- The key idea of the Basel regulatory framework is, that higher equity capital will increase the soundness of the banking system. This link does not hold for European banks. Capital requirements cannot enforce sounder investment decisions.

- On the contrary, risk based regulatory capital requirements (1) incentivise banks to assign upward biased ratings to reduce regulatory capital burden; (2) in a competitive environment a smaller risk premium charged to the bank's customer, creates a competitive advantage; (3) Point-in-Time risk estimates in boom periods allow bankers to assign good ratings, disregarding the future downturns.

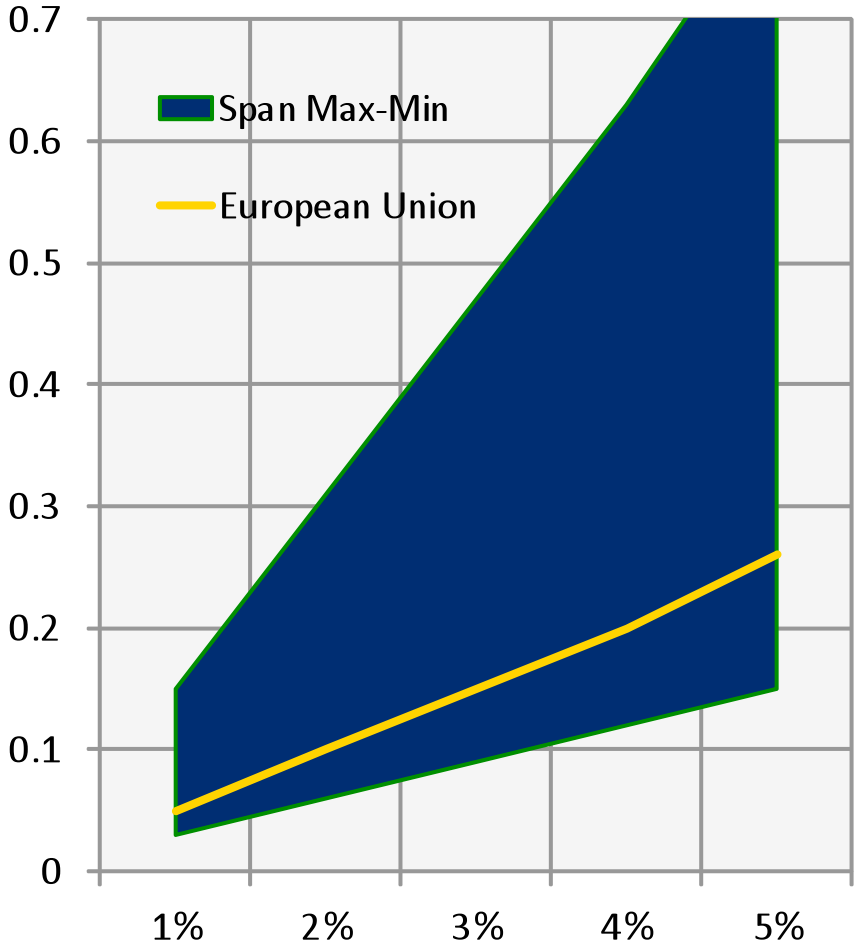
Liquidity Requirements

Liquidity Requirements	Increase / Decrease Financial Stability	(+) / (-)
Significant empirical evidence supports the argumentation that sound liquidity holdings in the banking industry will reduce the risk of contagion and endogenously reinforcing destabilisation of financial market resulting from negative economic shocks. Therefore the introduction of liquidity requirements will foster the stability of banking.		(+)
A 1% increase in liquidity requirements raises the funding costs on average by 5 basis points. The effect on different bank types varies relatively little.		Very modest increase of interest rates

Conclusion: Liquidity standards have a modest impact on reducing the bank failure risk, however, significantly reduce the risk of financial failure propagation.

Remark: The discussion on the implementation of liquidity requirements is still at an early stage.

Interest Rate Increase Due to Higher Liquidity Requirements in the European Union



Increasing the liquidity requirements will reduce the business opportunities of banks to grant loans, because they are forced to hold more 'idle' funds on their balance sheets. This forces banks to charge higher interest rates for their outstanding loans.

A 1% increase in liquidity requirements above the current level raises the interest rates charged to bank borrowers at worst by 5.2 basis points. The impacts on interest rates in the Member States of the European Union varies significantly, because of differences in starting-points, between 3.2 and 15.6 basis points. These interest increases are permanent.

New Banking Regulations and Economic Growth

Effects of CRD IV Measures on Economic Growth

Capital and leverage ratios increase interest rates charged by banks only in a very modest temporary way, so the direct effect on growth is negligible, especially in the long run.

In the event of a financial crisis due to capital and liquidity buffers the effects are significantly dampened.

The combination of capital and liquidity requirements is most efficient for increasing the stability of the financial system. Capital requirements beyond 13% and above 5% additional liquidity are associated with no extra gains from increased economic stability.

Conclusions: For the capital requirements decreasing benefits are observed, levelling off at 13%. This result indicates that increasing capital requirements above this level will not further increase the stability of the banking industry.

Key Points on the Effects of the Capital Requirement Directive IV

R. Rissi (HSLU-W, IFZ)

Key Points (1/3)
Capital Requirements

Key Insights

(1) Capital Requirements do not Reduce the Likelihood of Bank Defaults

The new capital regulation will increase the stability of the banking system, but only in the sense of bank failure absorption. The likelihood of bank failures is not necessarily directly reduced. Only if the capital regulations restrict the banks' investment portfolio decisions, the likelihood of bank failures will decrease, too.

(2) Increased Capital Requirements have only a Modest Impact on Cost of Capital and Interest Rates in the Short Run and thereby on Economic Growth.

A major drawback of the higher capital requirements are incentives for regulatory arbitrage through the shadow banking system, especially in the short run.

(3) Counter Cyclical Capital Requirements have a Small Restraining Effect

At this stage the designing of a fully rule-based mechanism for cyclical capital requirements may not be possible as some degree of judgment seems inevitable. Empirical evaluations allow the conclusion that a cyclical capital requirements rule is capable of reducing in a sizeable way the instability of the financial system and output. Experience however indicates the conclusion that a counter-cyclical capital requirement has a relatively small restraining effect.

Key Points (2/3)
Leverage Ratio Requirements

Key Insights

(1) Leverage Ratio Requirements are a Complement to Capital Requirements

A leverage ratio requirement mitigates the model uncertainties of risk-based approaches and represents a mitigating control helping to offset the banks' potential capital savings by understating their risks. Analysis provides the insight that a 5% leverage ratio threshold would have more impact than the 6% Tier 1 risk-based capital requirement.

(2) Weak Link to Bank Portfolio Quality

For European banks the link between banking portfolio quality and leverage ratios is at best weak.

(3) Only Modest Short Run Increase of Interest Rates

Leverage ratios just as capital requirements have only a modest impact on cost of capital and interest rates in the short run and thereby on economic growth.

Key Points (3/3)
Liquidity Requirements

Key Insights

(1) Liquidity Requirements Reduce the Risk of Contagion and Escalating Destabilisation

Liquidity standards have a modest impact on reducing the bank failure risk, however, significantly reduce the risk of financial failure propagation. Significant empirical evidence indicates that sound liquidity holdings in the banking industry will reduce the risk of contagion and endogenously reinforcing destabilisation of financial market resulting from negative economic shocks.

(2) Liquidity Requirements will Permanently Increase Interest Rates

A 1% increase in liquidity requirements above the current level raises the interest rates by 5.2 basis points. The impacts on interest rates in the Member States of the European Union varies significantly, between 3.2 and 15.6 basis points.

(3) Remark: Early Stage of Discussion

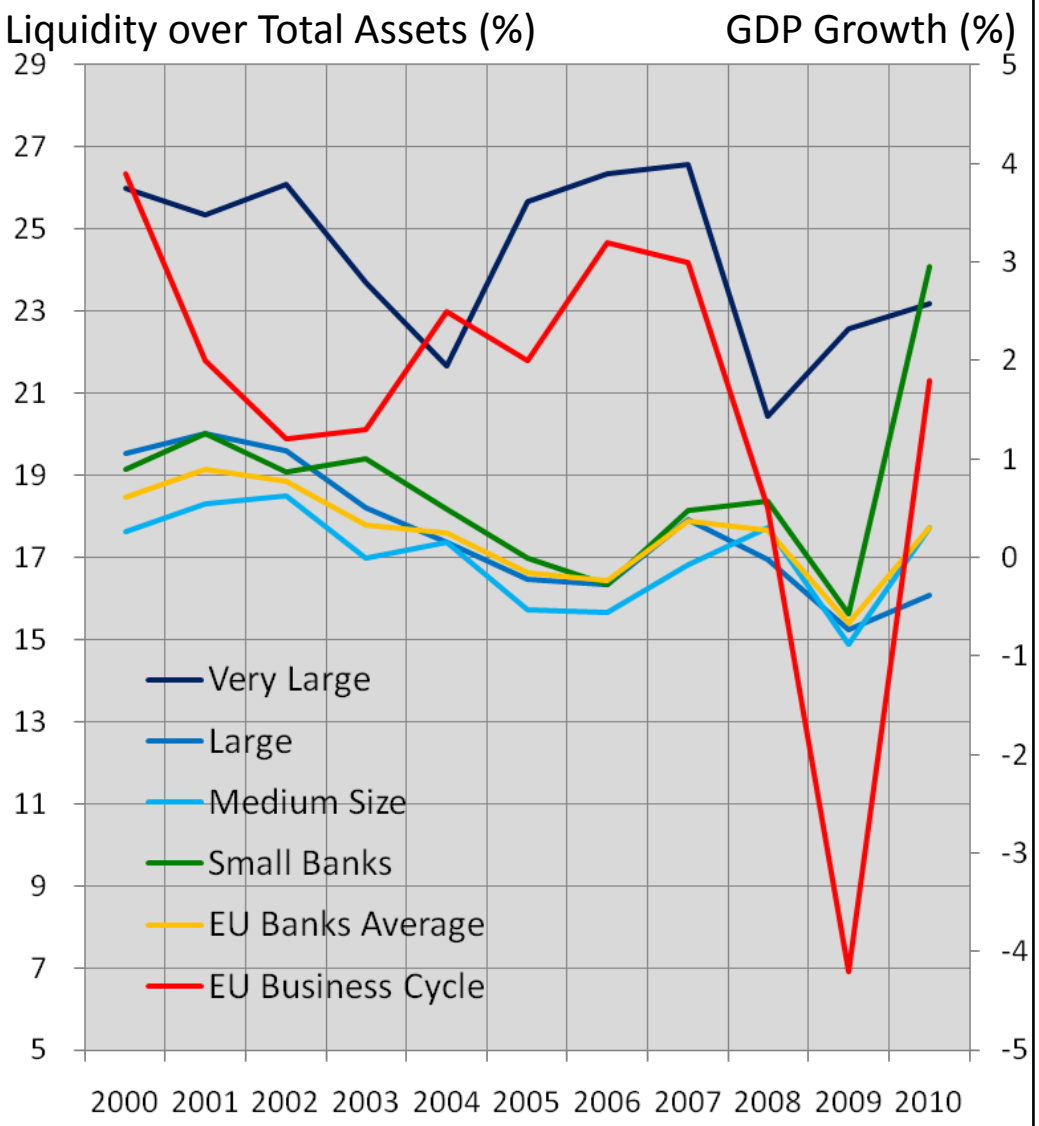
The discussion on the implementation of liquidity requirements is still at an early stage.

Thank you

Appendix

Bank Liquidity over the Business Cycle

- History shows that funding liquidity risk has played a key role in all systemic banking crises.
- Financial institutions with highly leveraged balance sheets are taking the risk of a high volatility of their net-portfolio values with regard to price changes coming from the asset side of their balance sheets. Fixed debt and fluctuating asset prices will magnify these swings of the financial markets, because banks are forced to take corrective actions to bring the risk-return trade-off back in-line. If many market participants are forced to act similarly an acceleration of the declines in asset prices is inevitable. Externally imposed liquidity requirements may have these amplifying effects.



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