DEUTSCHE BUNDESBANK
EUROSYSTEM

Macro-prudential policy and its instruments

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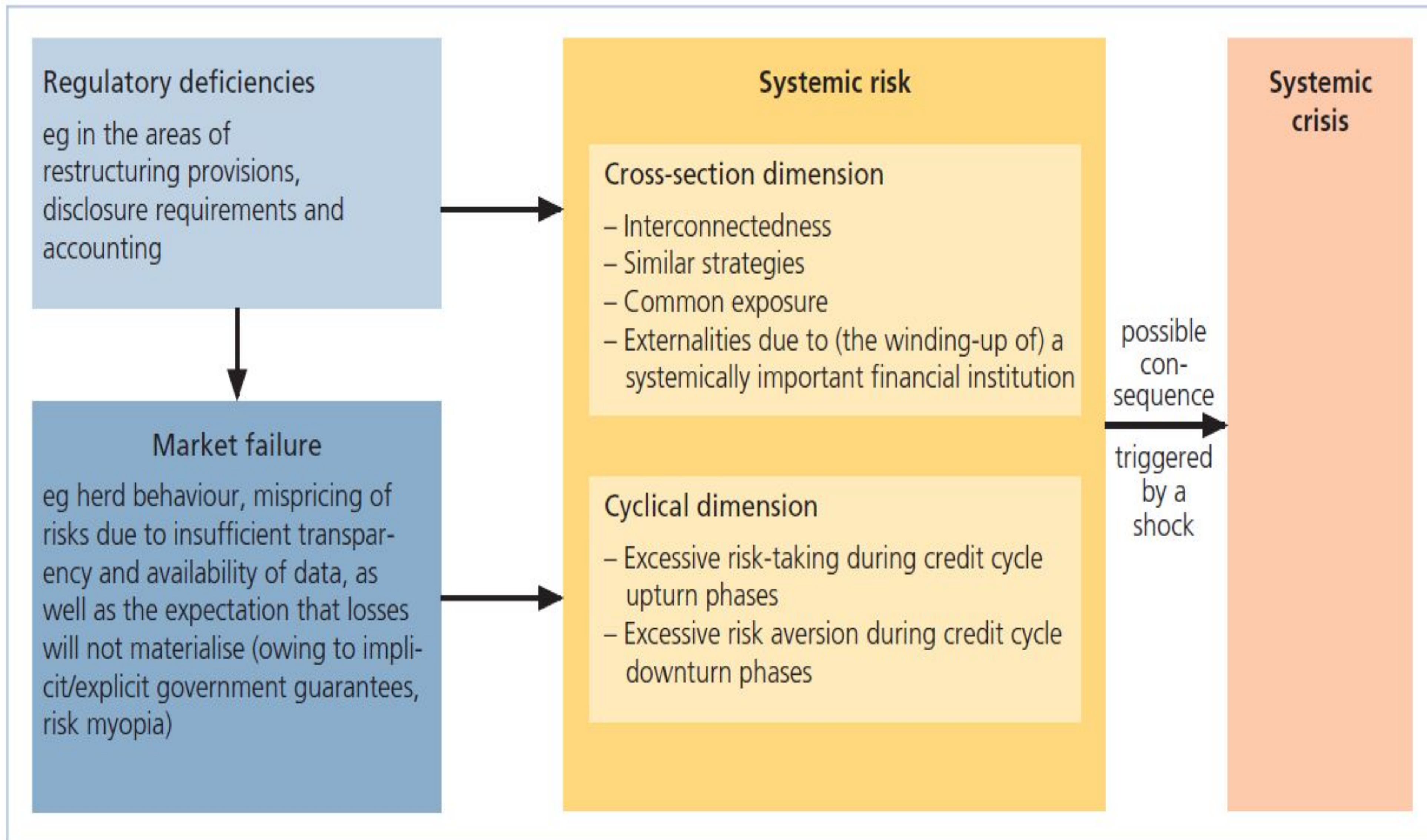
The views expressed in this presentation are those of the author and do not necessarily reflect the official views of the Deutsche Bundesbank

Macro-prudential policy and its instruments
Overview

- **Introduction**
- **Macro-prudential toolkit**
- **Macro-prudential instruments in European banking regulation**
- **Transmission mechanisms and channels**
- **Review of initial experiences**

Macro-prudential policy and its instruments

Introduction – Evolution of systemic risk



Macro-prudential policy and its instruments

Introduction – Evolution of systemic risk

Dimensions of systemic risk

Structural

Cyclical

Macro-prudential policy and its instruments
Introduction – Benefits and costs of using instruments

Benefits and costs of using MPIs

	No crisis next period	Crisis next period
No MPIs	*0*	*Cost of crisis*
Impose MPIs	*Cost of regulation*	*(1- α)Cost of crisis + cost of regulation*

α is between zero and one and summarizes the effectiveness of the macroprudential tool

Source: BIS (2012)

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Systemic perspective required for regulation

- Regulatory arbitrage between banking, insurance and shadow banking sector to be avoided
- Cumulative impact of reforms must be considered
- Possible counteractive effects or conflicting incentives should be noted
- Lack of consistency can reduce the intended effect of the new rules

Macro-prudential toolkit

Types of instruments

Three types of macro-prudential instruments

„Soft“ instruments

„Medium“ instruments“

„Hard“ (policy) instruments

Macro-prudential toolkit

”Soft” instruments

Communication

- Speeches
- Articles and interviews
- Financial Stability reports
- Discussion Papers
- Journal publications
- Conferences

Macro-prudential toolkit

”Hard” (policy) instruments

(1) Excessive credit growth/ Leverage

- Sectoral capital requirements
- Leverage ratio
- LTV/LTI/DTI limits
- Margin and haircut requirements

(2) Excessive maturity mismatch

- Weighted liquidity ratio
- Restrictions on funding sources
- Unweighted liquidity ratio (e.g. Loan-to-deposit ratio)

Macro-prudential toolkit

”Hard” (policy) instruments

(3) Exposure concentrations: direct and indirect

- CCP clearing requirement
- Large exposure restrictions

(4) Expectations of bail-out

- Recovery and resolution plans
- Deposit guarantee schemes
- SIFI capital surcharges
- Systemic risk buffer

(5) Resilience of financial infrastructures

- Structural
- Margin and haircut requirements for CCP clearing
- disclosure

Macro-prudential toolkit

- Owing to complexity of markets and intermediaries, systemic risk can arise in a wide variety of highly unpredictable forms
- Not possible to create a conclusive list of specific threats and suitable instruments
- Important to constantly check and , if necessary, update the toolkit of instruments
- To adequately and promptly counter stability dangers, the responsible macro-prudential supervisors require sufficient flexibility in the use of instruments

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Macro-prudential instruments

International perspective

Basel Committee on Banking Supervision reforms - Basel III

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

	Capital				
	Pillar 1			**Pillar 2**	**Pillar 3**
	Capital	Risk coverage	Containing leverage	Risk management and supervision	Market discipline
All Banks	**Quality and level of capital** Greater focus on common equity. The minimum will be raised to 4.5% of risk-weighted assets, after deductions. **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. **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. **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.	**Securitisations** Strengthens the capital treatment for certain complex securitisations. Requires banks to conduct more rigorous credit analyses of externally rated securitisation exposures. **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. **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. **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.	**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.	**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.	**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.
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.				

Liquidity

Global liquidity standard and supervisory monitoring

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.

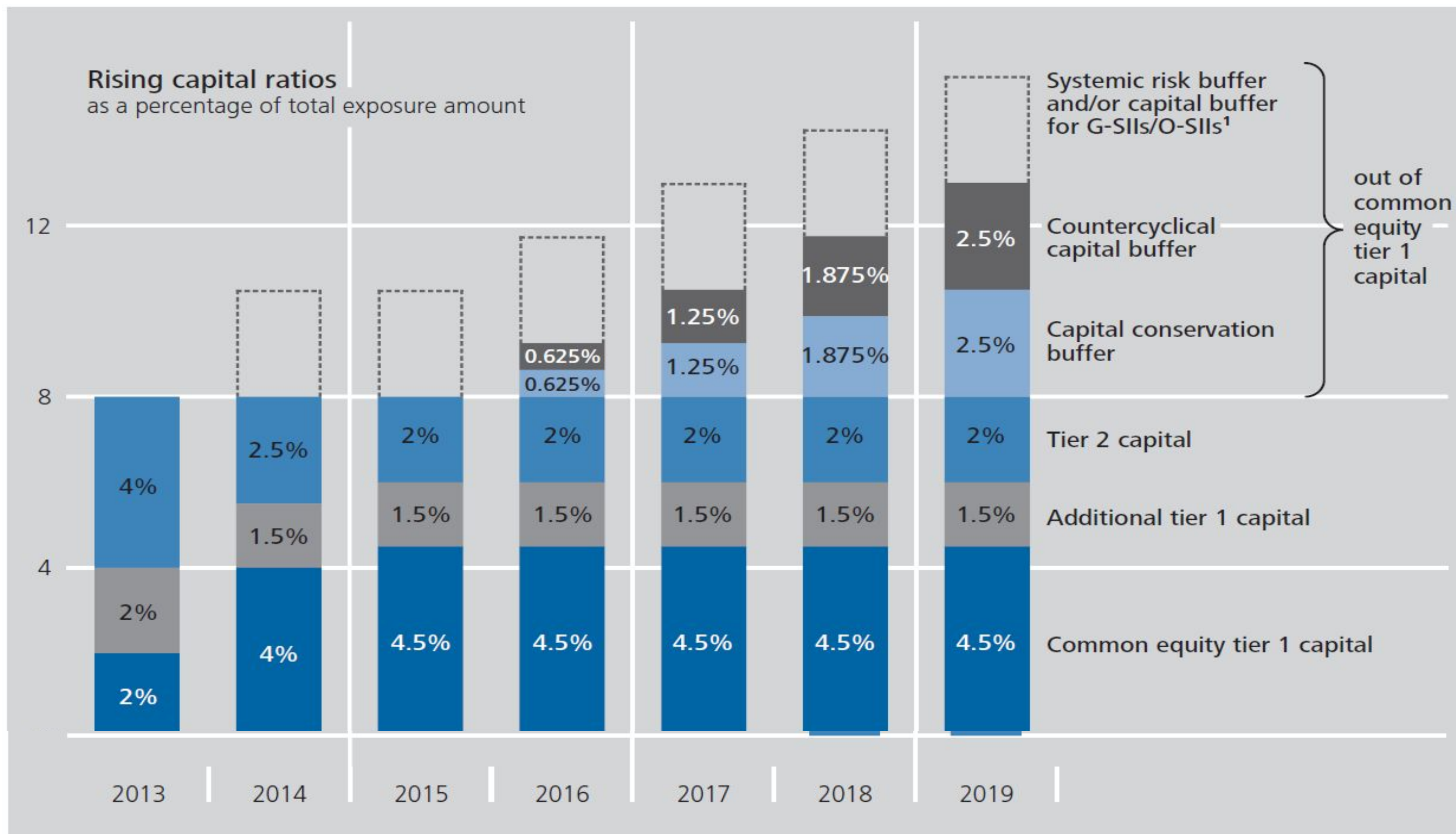
Net stable funding ratio
The net stable funding ratio (NSFR) is a longer-term structural ratio designed to address liquidity mismatches. It covers the entire balance sheet and provides incentives for banks to use stable sources of funding.

Principles for Sound Liquidity Risk Management and Supervision
The Committee's 2008 guidance *Principles for Sound Liquidity Risk Management and Supervision* 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.

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.

Macro-prudential instruments

International perspective: Basel III phase-in arrangements



Macro-prudential instruments

European perspective

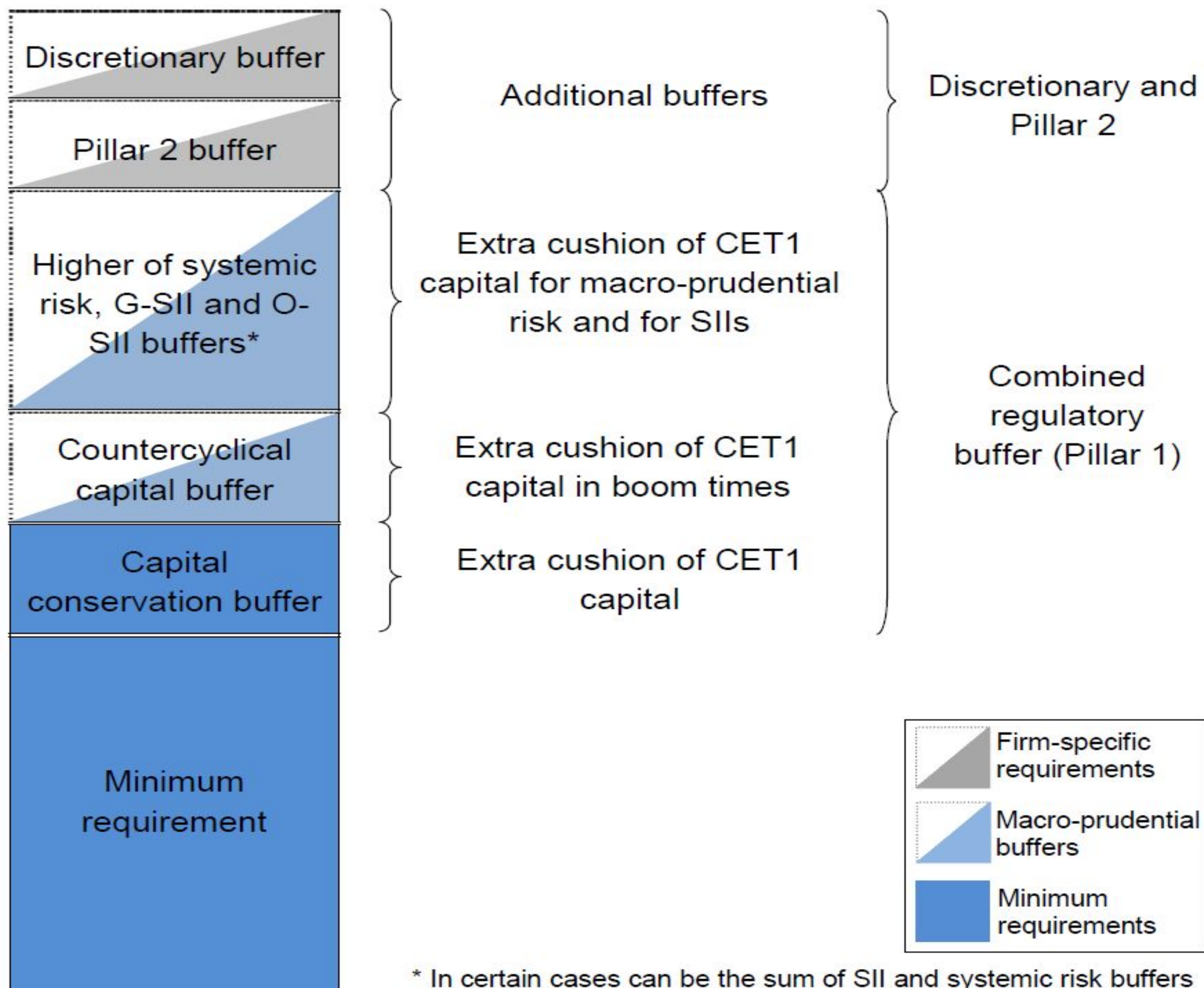
Basel III is implemented in the EU through a directive and a regulation (CRD IV/CRR)

- Temporary tightening of supervisory requirements at national level, including:
- Capital requirements
- Risk weights
- Disclosure obligations
- Liquidity requirements

- Systemic risk buffer

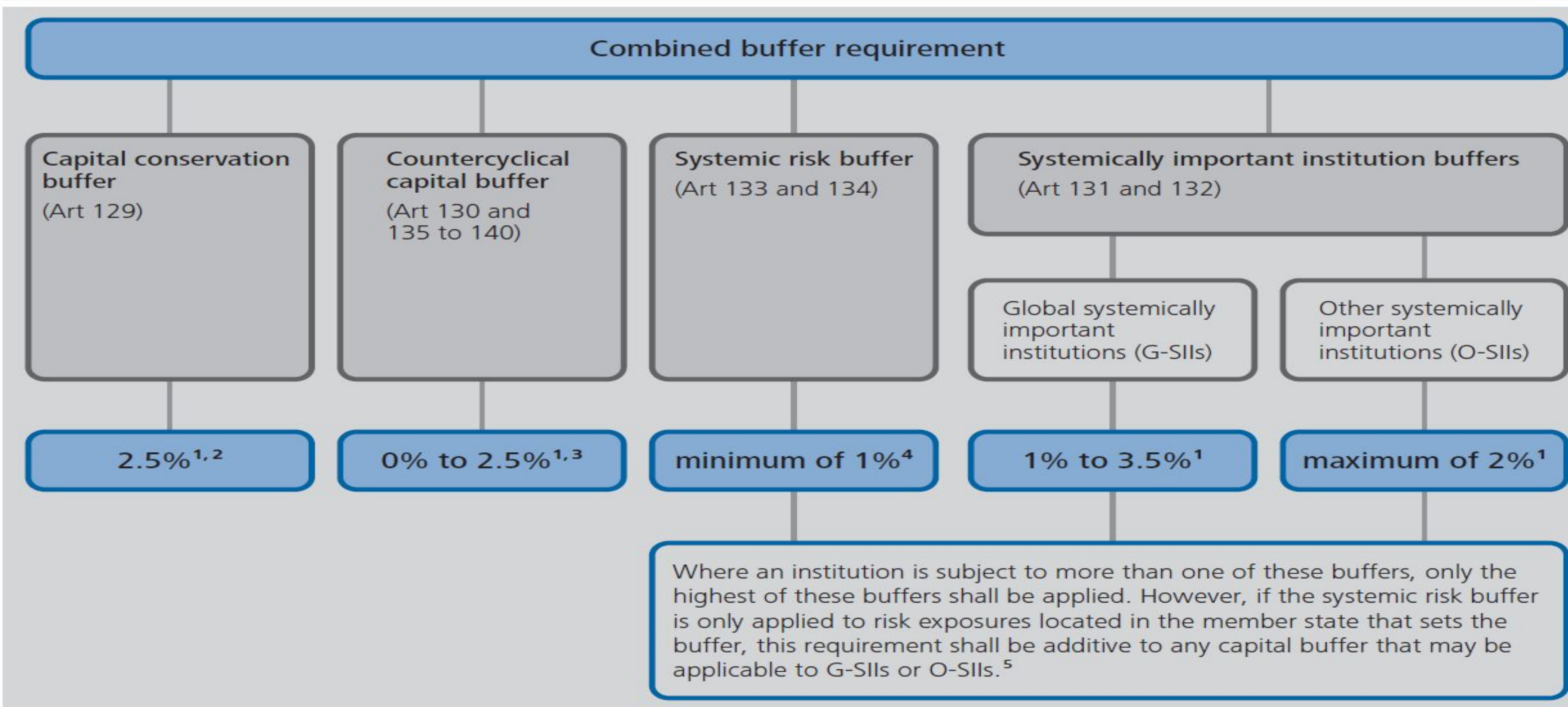
- Countercyclical buffer

Macro-prudential instruments
Capital requirements in CRD IV / CRR



Source: ESRB staff based on European Commission (2013)

Macro-prudential instruments
Capital requirements in CRD IV



1 As a percentage of the total exposure amount. **2** National authorities can increase this rate pursuant to Art 458 CRR as appropriate. **3** May be higher; cross-border reciprocity is generally mandatory up to a buffer rate of 2.5%. **4** As a percentage of the risk-weighted exposure values of those risk exposures in respect of which the systemic risk buffer is imposed. The procedures for imposing the buffer vary depending on the amount and location of the risk exposures to which the buffer is applicable. **5** If an O-SII is the subsidiary either of a G-SII or an O-SII domiciled abroad that is subject to an O-SII capital buffer on a consolidated basis, the capital buffer for O-SIIs may not exceed 1% on a consolidated basis for these subsidiaries.

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A macro-prudential policy framework for Europe

The instruments under the CRD IV/CRR for macro-prudential use

Instruments under the CRD					Instruments under the CRR			Other
Countercyclical capital buffer (CCB)	**Systemically important institution (SII) buffer**	**Systemic risk buffer (SRB)**	**Liquidity requirements under Pillar 2**	**Other macro-prudential use of Pillar 2**	**Higher requirements on capital / liquidity / large exposures / risk weights**	**Higher real estate risk weights and stricter lending criteria**	**Higher minimum exposure-weighted average LGDs**	**Including LTV/LTI/DSTI and LTD limits and a leverage ratio**
CRD 130, 135-140	CRD 131	CRD 133 and 134	CRD 105	CRD 103	CRR 458	CRR 124	CRR 164	National legal framework
Mandatory buffer: Member States have to decide on a buffer rate informed by a buffer guide based on the credit-to-GDP gap. Other relevant variables also have to be considered. Member States can decide to apply the CCB from 2014 and must apply it from 2016. Mandatory reciprocity up to a buffer rate of 2.5% applies from 2019.	1) Mandatory surcharge for global systemically important banks (G-SII) applicable from 2016. A surcharge between 1% and 3.5% of RWAs, depending on the degree of systemic importance of an institution. 2) Optional surcharge for other SIFIs (O-SII) applicable from 2016. A surcharge up to 2% of RWAs. 3) Combination rules between G-SII and O-SII buffers and the SRB ensure a floor/cap on all three buffers at the consolidated and subsidiary level.	Optional buffer on all or a subset of institutions. Until 2015 the competent or designated authority can set a buffer between 1% and 3% subject to notification to the European Commission, EBA and ESRB. An SRB above 3% requires authorisation by the European Commission after the EBA and ESRB have provided opinions. From 2015, the same authorisation is required for an SRB of above 3% on exposures in other Member States and of above 5% on local and third country exposures.	Optional: Competent authorities may impose specific requirements to address systemic liquidity risks. These include administrative penalties, including prudential charges that relate to the disparity between the actual liquidity position and any liquidity and stable funding requirements.	Optional: Competent authorities have the power to impose additional requirements on institutions with similar risk profiles in a similar manner if – inter alia – they pose similar risks to the financial system. These requirements include own funds and additional disclosures.	Optional: National authorities may apply stricter rules for a number of selected measures subject to an EU procedure. It has to be established that the measure is necessary, effective and proportionate, and that other specified measures cannot adequately address the systemic risk. These measures are subject to a notification and non-objection process, with the Council having the final decision on whether to block a measure if objections are raised.	Optional: Competent authorities can set higher risk weights up to 150% based on financial stability considerations, taking into account loss experience and forward-looking market developments.	Optional: Competent authorities can set higher minimum exposure-weighted average LGDs (no upper limit) based on financial stability considerations, taking into account loss experience and forward-looking market developments. Applies only to retail exposures.	Optional: Member States can assign macro-prudential instruments that are not covered by the scope of EU legislation. This includes instruments, such as LTV/LTI/DSTI limits (e.g. to dampen a boom in real estate mortgage lending or to curb excessive consumption lending), liquidity instruments, such as LTD limits, and a leverage ratio. These instruments are based on national law.

Source: ESRB (2014)

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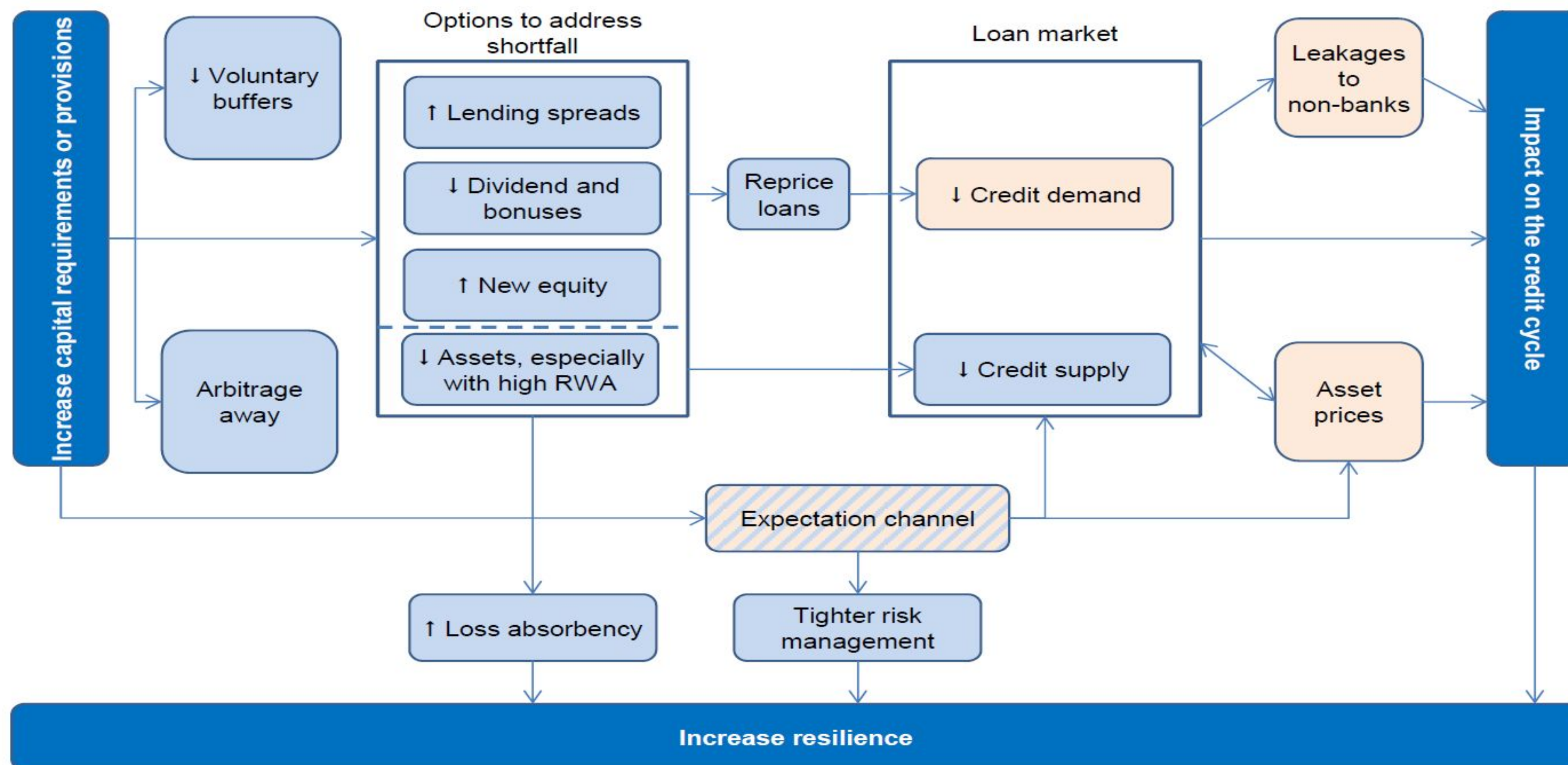
Transmission mechanisms and channels

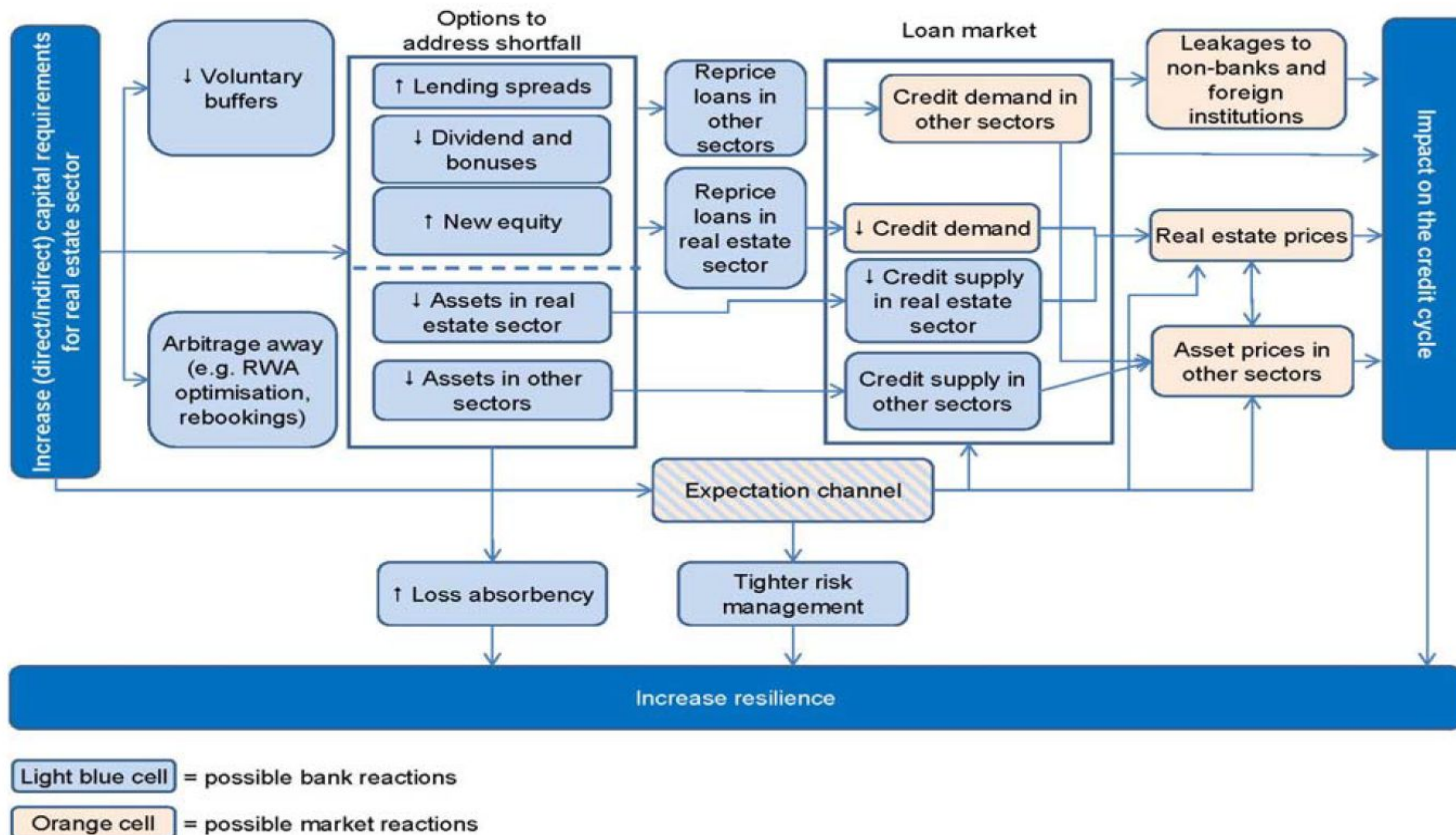
Transmission map of raising capital or provisioning requirements



Source: ESRB (2014)

Transmission mechanisms and channels

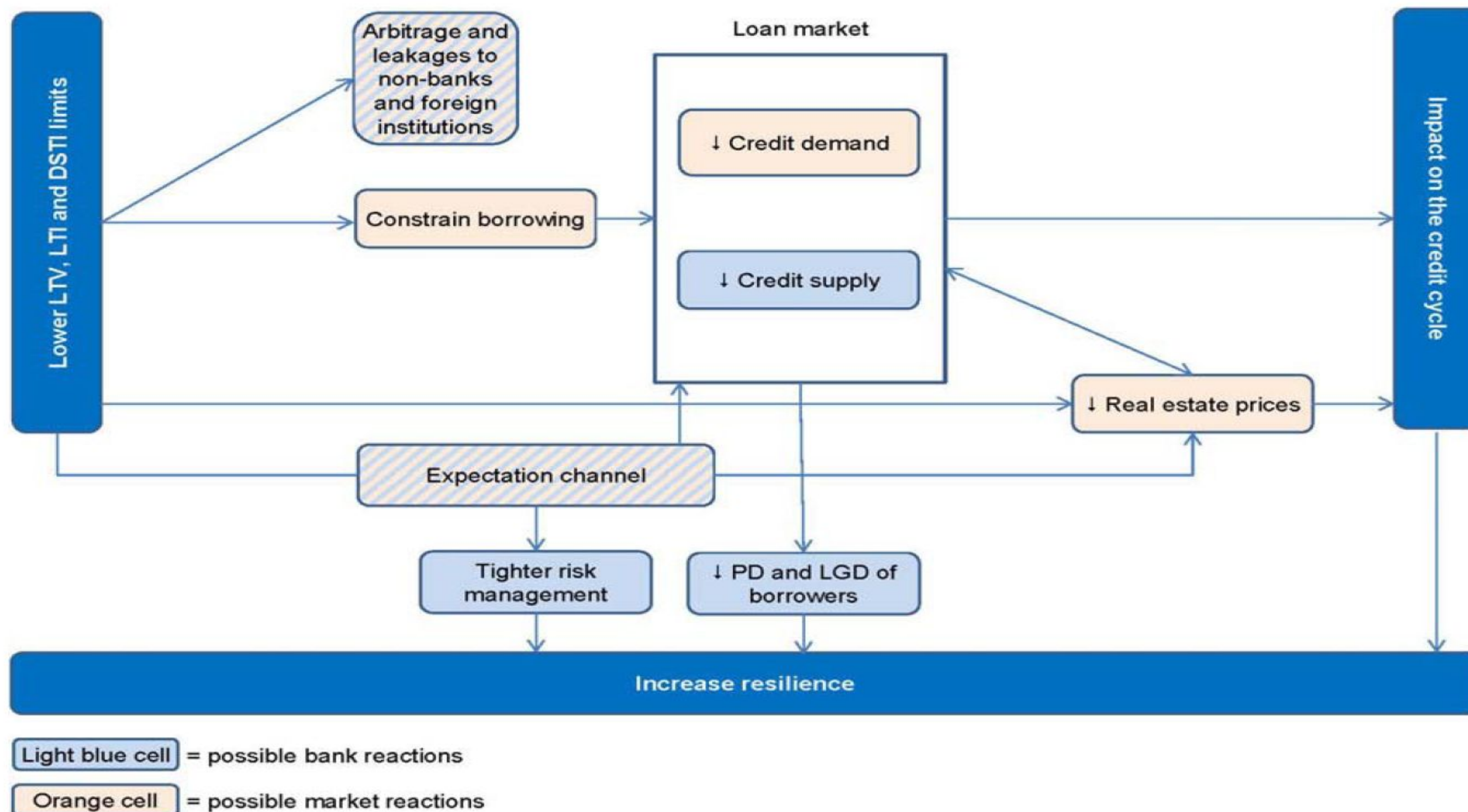
Transmission map of raising sectoral capital requirements



Source: Adapted from CGFS (2012).

Source: ESRB (2014)

Transmission mechanisms and channels
Transmission map of a tightening of the LTV, LTI and DSTI limits

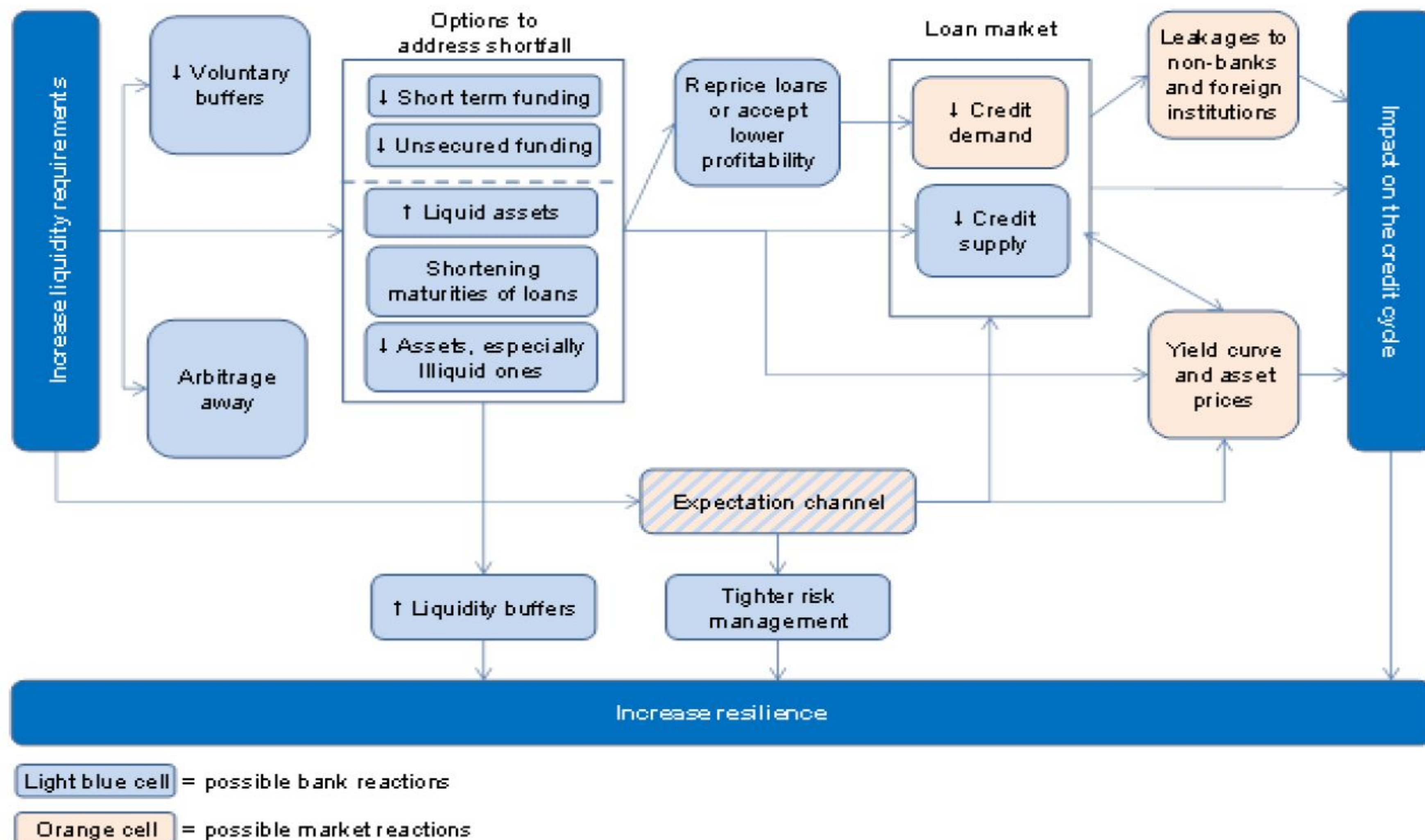


Source: Adapted from CGFS (2012).

Source: ESRB (2014)

Transmission mechanisms and channels

Transmission map for the use of liquidity instruments



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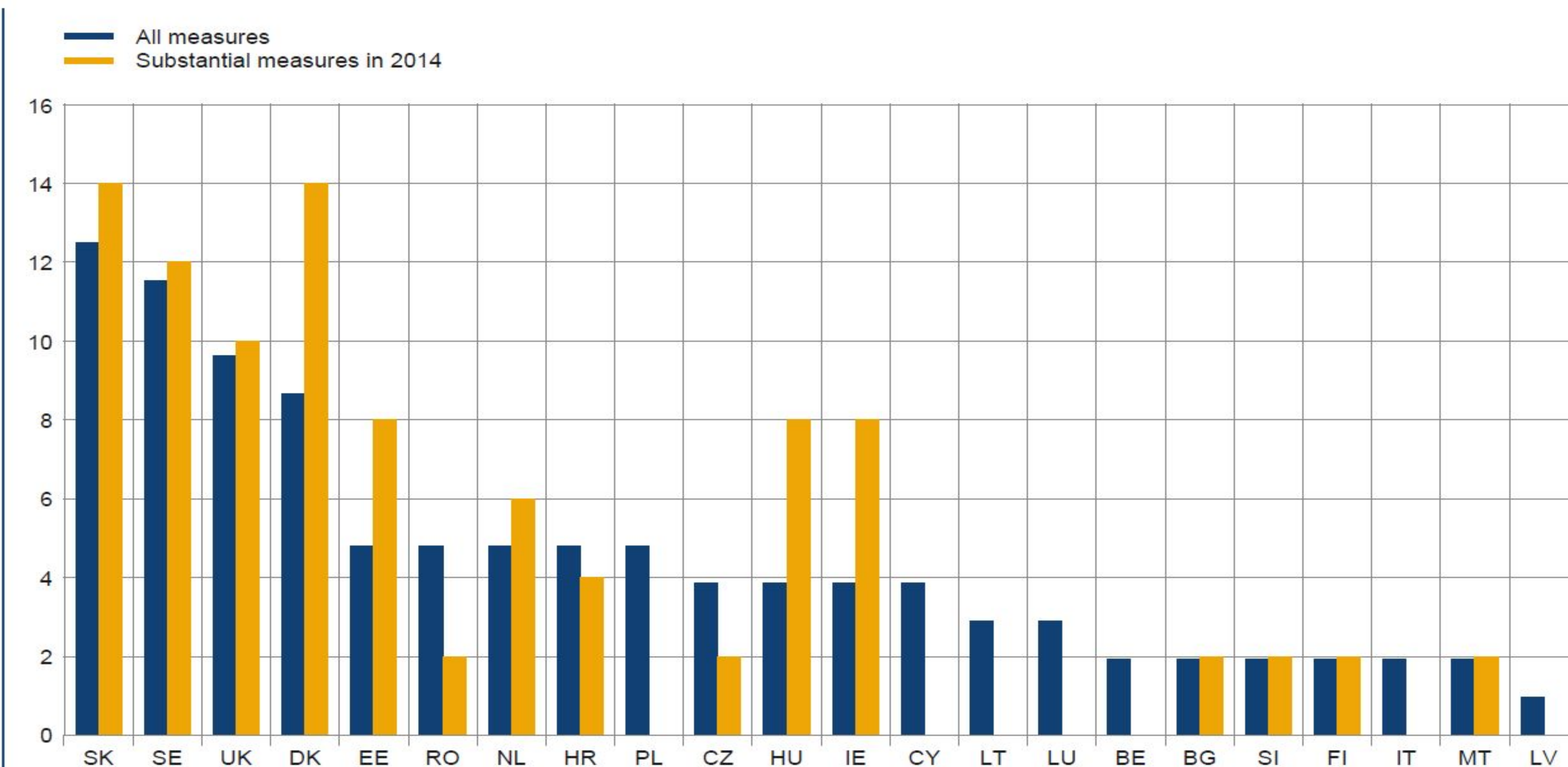
General overview

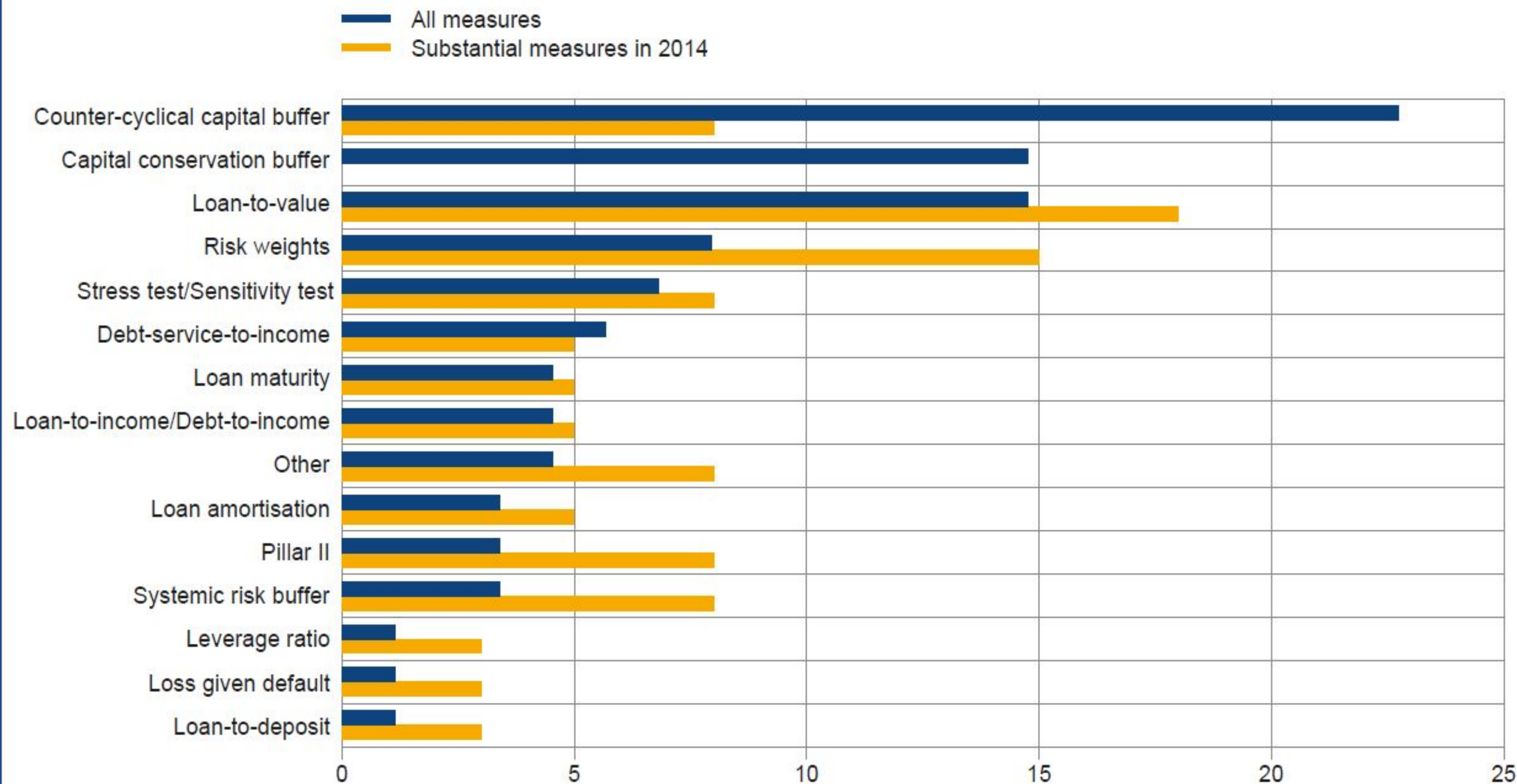
Relative frequency of use of measures by Member State (percentages)



Source: ESRB.
Notes: Measures adopted or announced in 2014. Substantial measures exclude measures of a more procedural/administrative nature (e.g. early introduction of the capital conservation buffer, decision to keep the counter-cyclical capital buffer rate unchanged).

Measures to address excessive credit growth and leverage

Relative frequency of use of various types of measures (percentages)



Source: ESRB.

Note: Measures adopted or announced in 2014.

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Thank you very much for your attention!

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