BASILEA 3 2013
L'EVENTO ANNUALE

Roma - Palazzo dei Congressi **27/28 giugno**

SESSIONE PLENARIA DI CHIUSURA

GUARDARE AVANTI: UN'AGENDA PER IL 2014

Draft, 19.06.2013

Regolazione, supervisione e risoluzione nella prospettiva dell'Unione Bancaria

Rainer Masera

Professore Ordinario di Politica Economica
e Preside della Facoltà di Economia,
Università G. Marconi, Roma

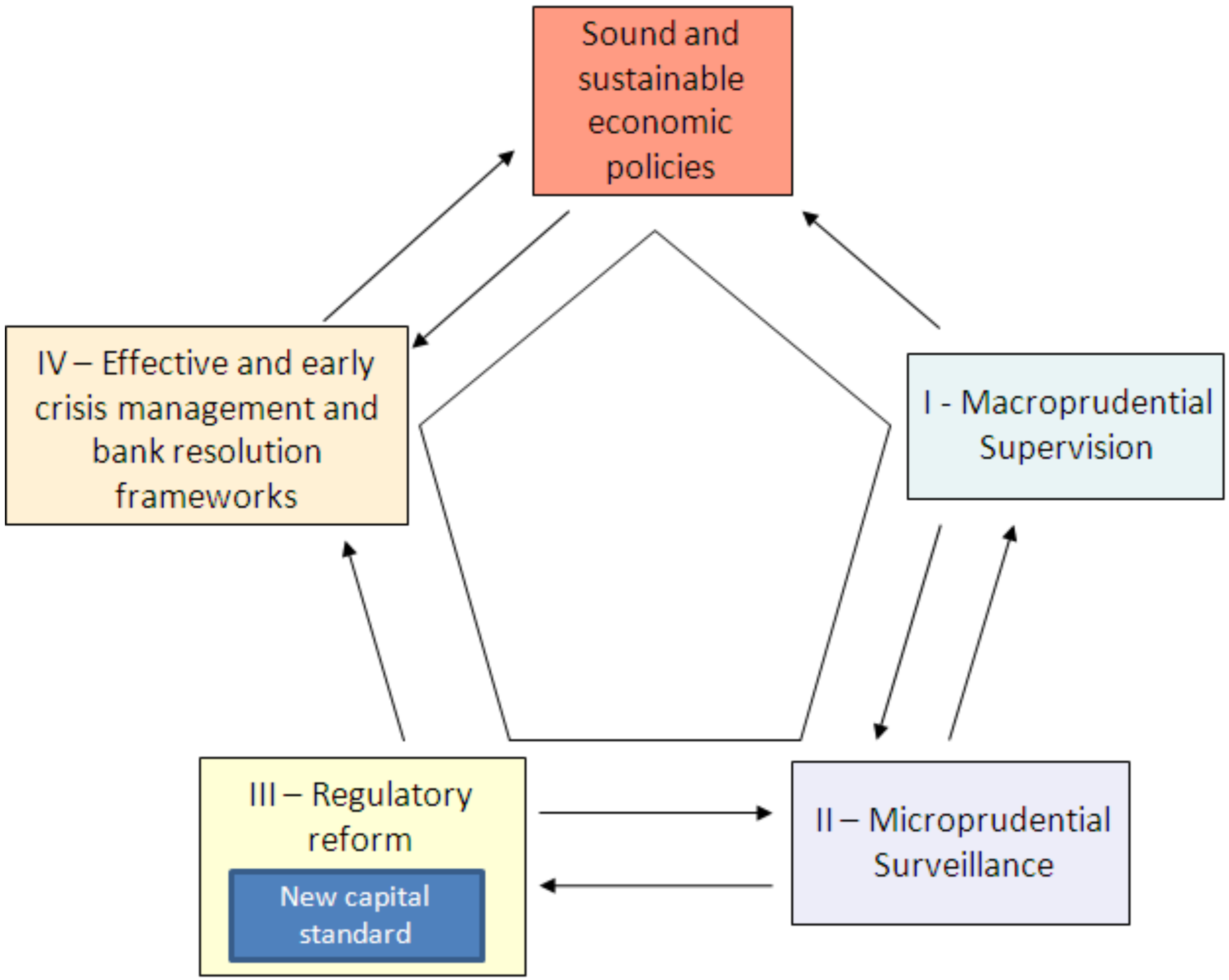
List of contents

I. Introduction

- ✓ The discussion on Banking Union is often focused on microprudential supervision of baking firms in Europe, to be executed by a Single Supervisory Mechanism (SSM), governed by the ECB, in 2014.

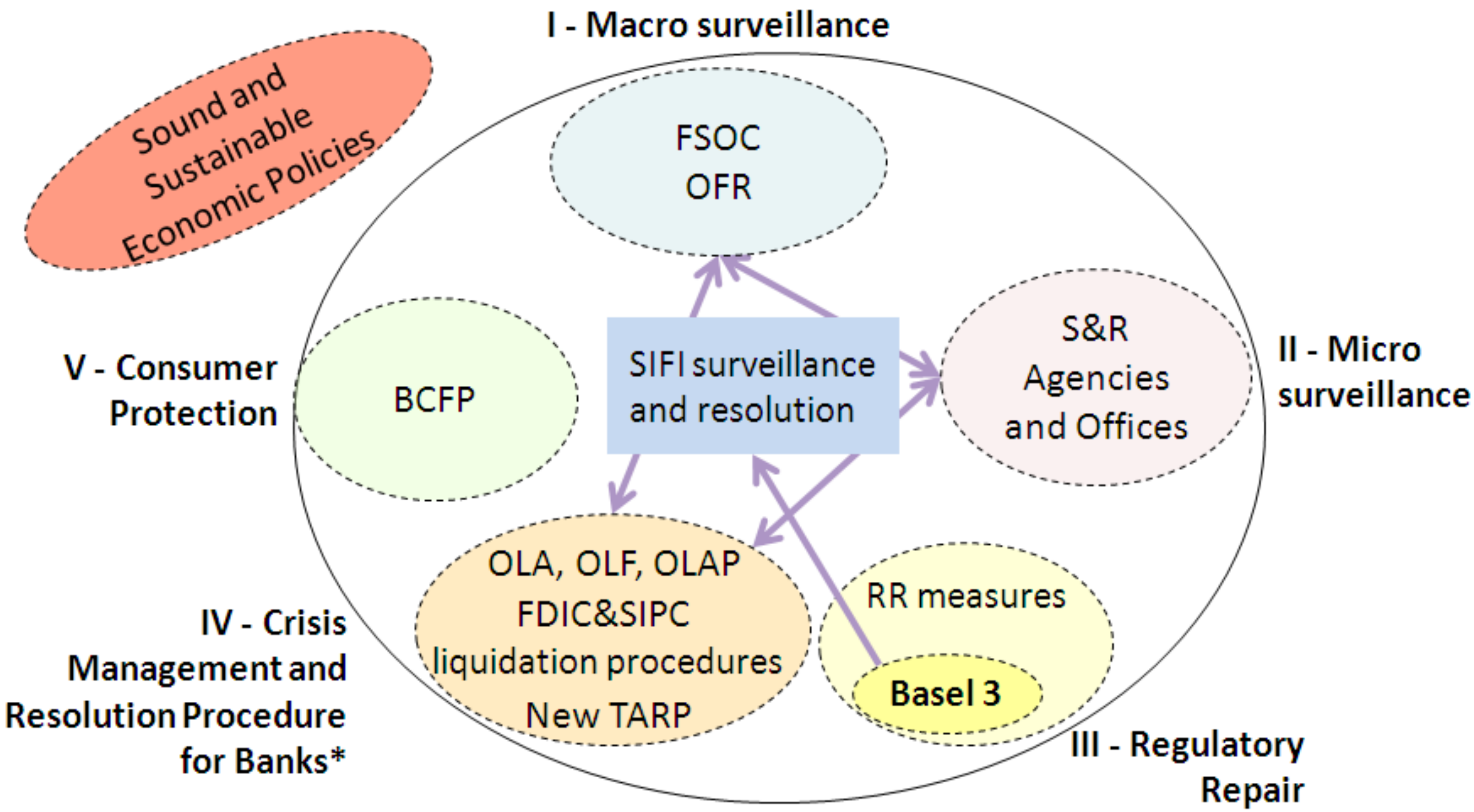
- ✓ This is, however, a narrow and incomplete perspective. A broader approach is necessary. The crisis which started in 2007 and continues in Europe brought to the fore the need for a holistic approach to reform and repair of the banking system, as envisaged in the de Larosiére Report (2009) (**Chart 1**), and as enacted in the US in the Dodd-Frank Act (2010) (**Chart 2**), but not in Europe.

Chart 1 - The Interactive de Larosière Report Approach (2009) to Financial Stability Reform



Source: Masera (2011)

Chart 2 - The US Regulatory and Supervisory Framework for Safeguarding Financial Stability: Dodd-Frank Act (2010)



Source: Masera (2010)

* The emphasis on SIFI supervision, prompt corrective action and resolution must be underlined.

Acronyms: see appendix

II. Banking Union: the need for a broad perspective

- ✓ The aim of this paper is to identify the key components (and their dynamic links) of a sound Banking Union (BU) in Europe. It will be argued that the narrow definition should be seen as a synecdoche: a part used to represent the entire hole.
- ✓ Broadly, by BU, reference should be made to the multiple components which interact in making for a sound, stable and effective banking system, of which microsupervision is only one – albeit – key element.
- ✓ According to this view, BU is a complex interactive and dynamic network of interconnected components. BU cannot be seen as a static system of carefully designed building blocks: what is especially relevant is their dynamic interaction, which shapes and conditions the good functioning of BU.
- ✓ It must be recalled that the banking sector in Europe is by far the largest in the world and that bank credit is the most important source of finance for the private sector (see **Table 1** and **Chart 3**).

Table 1 - Size of EU, US and Japanese banking sectors (2010)

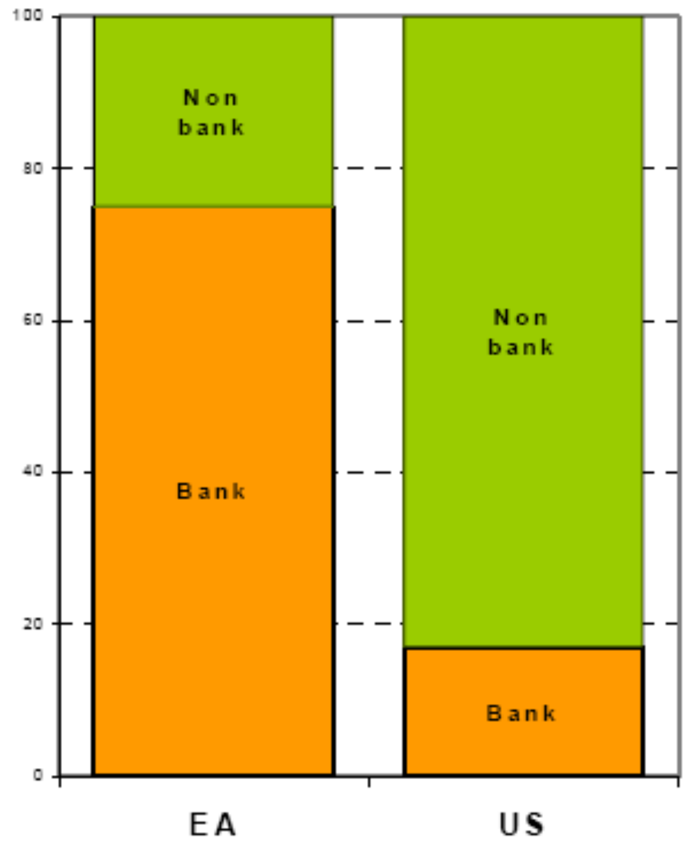
	EU	USA	Japan
Total bank sector assets (€ trillion)	42.9	8.6	7.1
Total bank sector assets/GDP	349%	78%	174%
Top 10 bank assets (€ trillion)	15.0	4.8	3.7
Top 10 bank assets/GDP	122%	44%	91%

Notes: Top 6 banks for Japan.

Source: Liikanen Report (2012) and European Banking Federation (2011)

Chart 3 - Funding of non-financial corporations in the Euro area and the United States

(shares in accumulated debt transactions 2002-2012Q1)



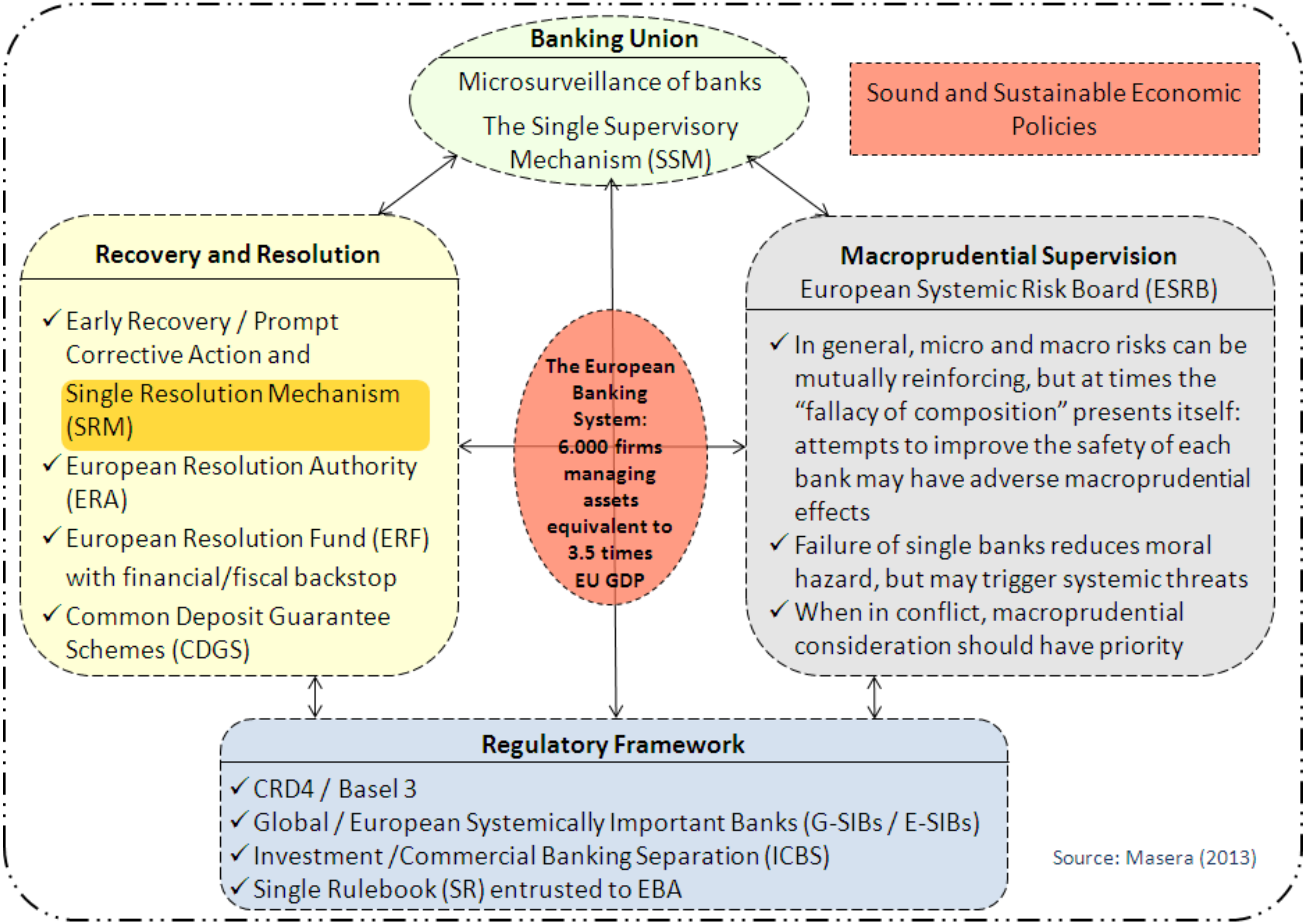
Note: EA stands for the euro area.

Source: Cour-Thimann and Winkl (2013)

II. Banking Union: the need for a broad perspective

- ✓ **Charts 4** and **5** present a holistic, even if simplified, representation of the links between BU narrowly defined and the broader concept adopted here. More specifically, the first chart refers to supervisory, regulatory and institutional reforms; the second focuses on the interaction between banks' surveillance and the corporate governance of the banking firms.

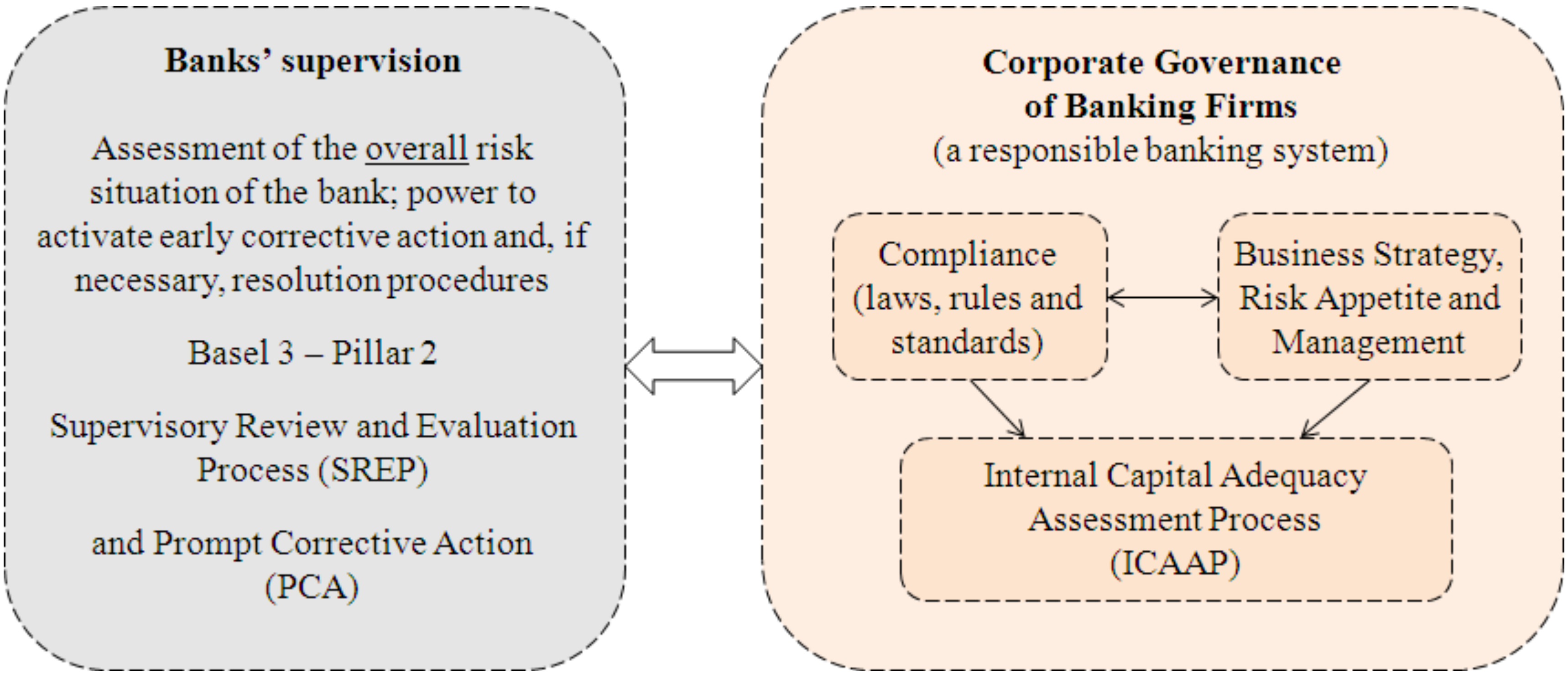
Chart 4 - Banking Union: unveiling the synecdoche



II. Banking Union: the need for a broad perspective [ctd.]

- ✓ The issue of the structural reform aimed at separating commercial and investment banking activities is hotly debated. European and American banking associations are against this type of reform. Even in the US the effective application of the Volcker Rule is still uncertain, because of delays in secondary rulemaking (Volcker, 2013). In any event, a decision should be taken in Europe on the proposals made in the Liikanen Report.
- ✓ What, in my view, is crucial in Europe is that decisions on SSM should be taken simultaneously with those on ERA, ERF, CDGS and on E-SIBs.
- ✓ This is fundamental: (i) to reduce the moral hazard implicit in government guarantees, by making it possible and viable to achieve orderly resolution of large systemic financial institutions; and (ii) to shelter taxpayers form the consequences of bank failures.

Chart 5 - Effective goal-driven microsupervision to implement sound corporate governance, compliance and risk management standards in banking firms: from theory[1] to practice[2]



[1] BCBS (2005, 2006).
[2] The effective action to be implemented by SSM.

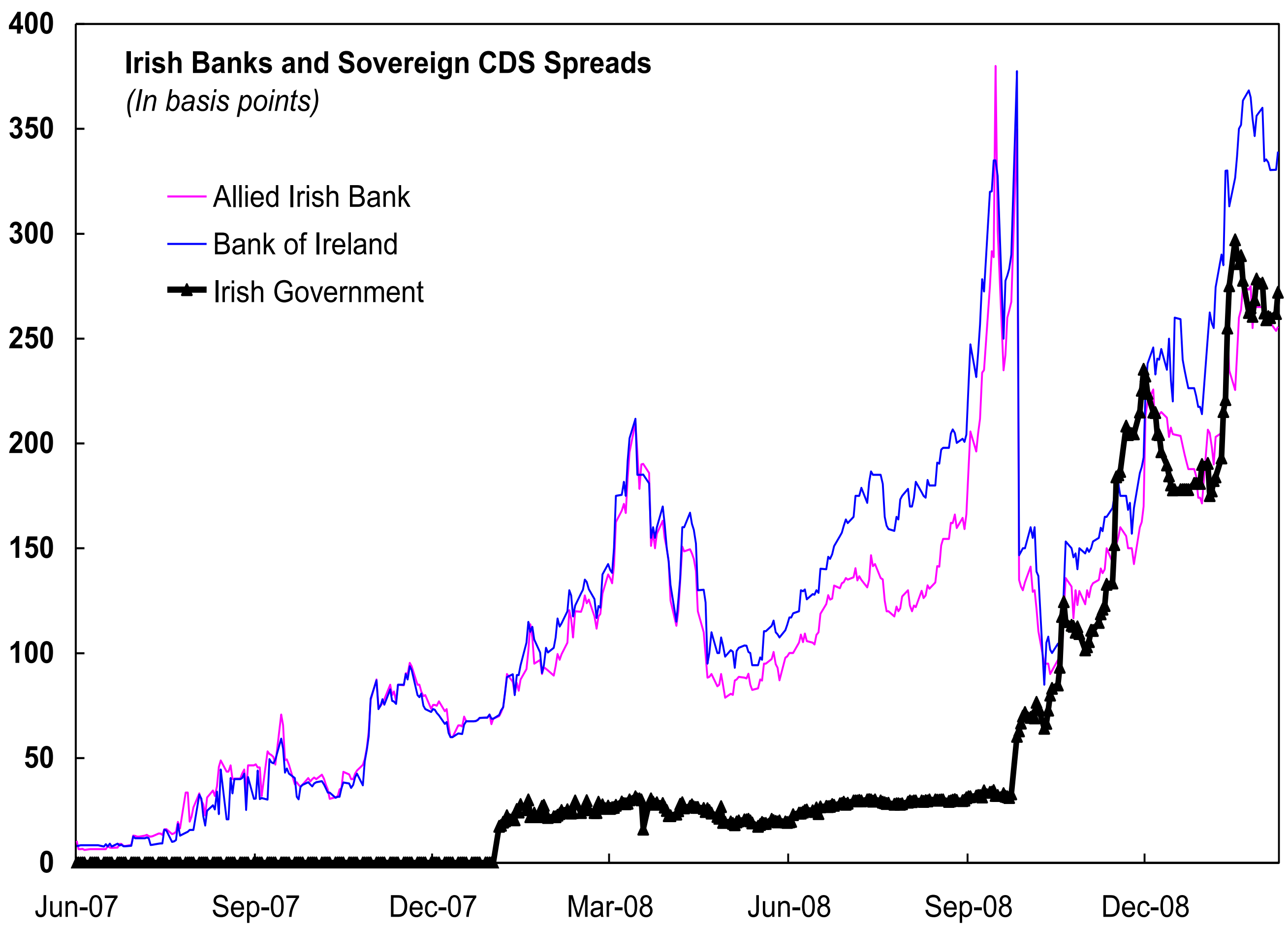
II. Banking Union: the need for a broad perspective [ctd.]

- ✓ «Compliance starts at the top. It will be most effective in a corporate culture that emphasises standards of honesty and integrity and in which the board of directors and senior management lead by example. It concerns everyone within the bank and should be viewed as an integral part of the bank's business activities. A bank should hold itself to high standards when carrying on business, and at all times strive to observe the spirit as well as the letter of the law. […] The board of directors and senior management remain responsible for compliance by the bank with all applicable laws, rules and standards» (BCBS, 2005).
- ✓ «The board of directors and senior management at each institution have an obligation to understand the risk profile of that institution and ensure that capital levels adequately reflect such risk» (BCBS, 2006).
- ✓ «Banks' capital position clearly lies outside the remit of central banks. In fact, it is – first and foremost – the responsibility of shareholders to ensure that their bank is solvent and able to sustain its core business. And if the private sector is unable or unwilling to provide the capital necessary to achieve solvency, it is for the fiscal and regulatory authorities to decide whether and how to act» (Draghi, 2013).

II. Banking Union: the need for a broad perspective [ctd.]

- ✓ Narrowly defined BU operates in a framework which must comprise concurrent and complementary operation of:
    - i. macroprudential supervision (ESRB)
    - ii. recovery and resolution mechanisms and common deposit insurance schemes: key missing blocks of EU banking architecture;
    - iii. the new capital based regulatory framework (not yet implemented) and the structural reforms to be defined and enacted on: a) E-SIBs and b) on the regulatory borderline between investment/commercial banking (investment/commercial banking separation – ICBS).
- ✓ Lack of simultaneous enactment/operation of points (i) and (ii) would weaken/endanger the whole surveillance exercise and the effective break up of the vicious loop between bank and sovereign risks (see, for instance, **Chart 6**) and the Eurozone's financial fragmentation. In this respect, the ECB program to purchase government bonds defused fears of a Euro break-up and strongly contributed to BU.
- ✓ The surveillance design must be characterised by strong proactive interaction with banks' corporate governance.

Chart 6 – Transfer of Risk: Ireland CDS spreads of banks declined following guarantees in 4Q 2008 and sovereign spread increases



Source: Bloomberg L.P.

II. Banking Union: the need for a broad perspective [ctd.]

✓ Key interactive processes:

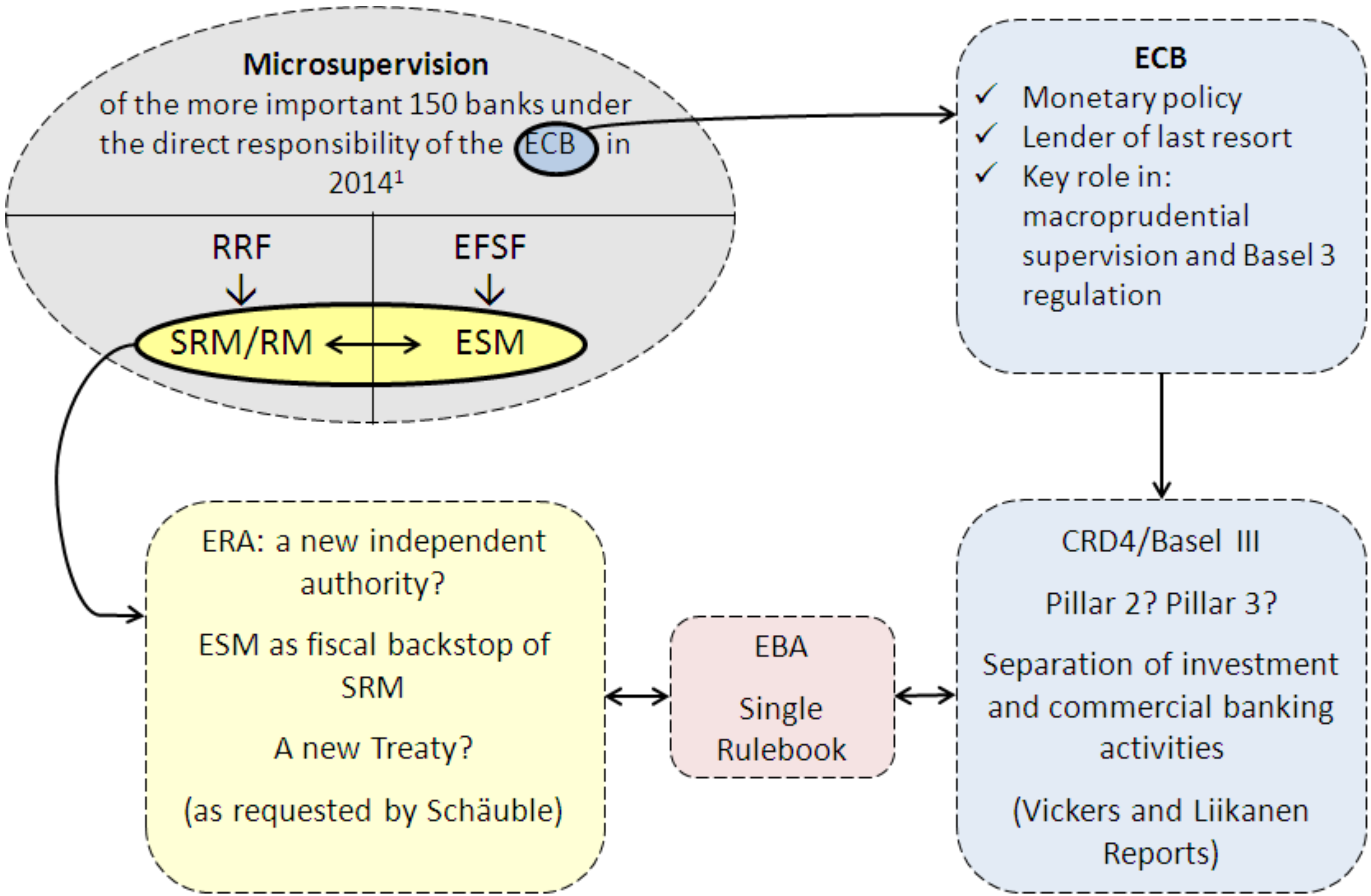
- Micro-macroprudential links (the ESRB should adopt, under current circumstances, adequate flexibility in the application of Pillar 1 matrix);
- Cost of capital: private vs. public capital to support banks;
- SSM and CRD4: Pillar I and II; monitoring of both weighted and unweighted leverage;
- Moral hazard/Risk management/Incentives/Recovery and Resolution: the issue of E-SIBs (16 global SIBs are based in Europe; 12 in the rest of the world [see below **Table 2**];
- Analysis, measurement and management of risk in complex, dynamic, interconnected systems: fundamental vs. endogenous risk: the deficiencies of VaR and the possible shift from normal to power distributions.

III. Banking Union and resolution mechanisms: the two models under discussion (June, 2013)

✓ The options are outlined in **Charts 7** and **8**.

Chart 7 - Banking union (SSM) and resolution mechanisms (a June 2013 perspective)

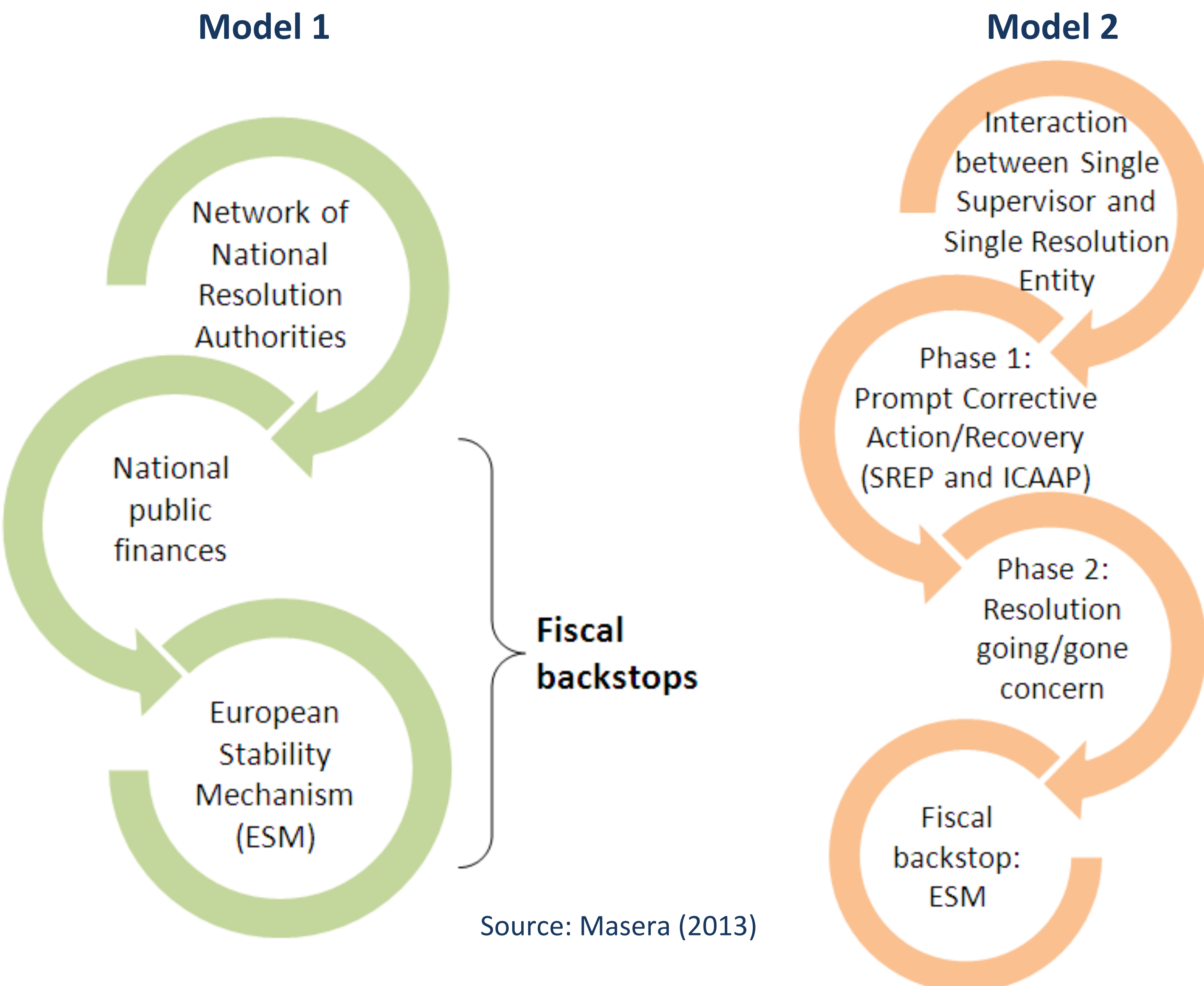
SSM operates as a system with all (6,000) banks falling under its remit



[1] These banks would cover some 25 trillion euros of total Euroarea's banking assets.

Source: Masera (2013)

Chart 8 - Banking union and resolution mechanisms (a June 2013 perspective): the two options



Source: Masera (2013)

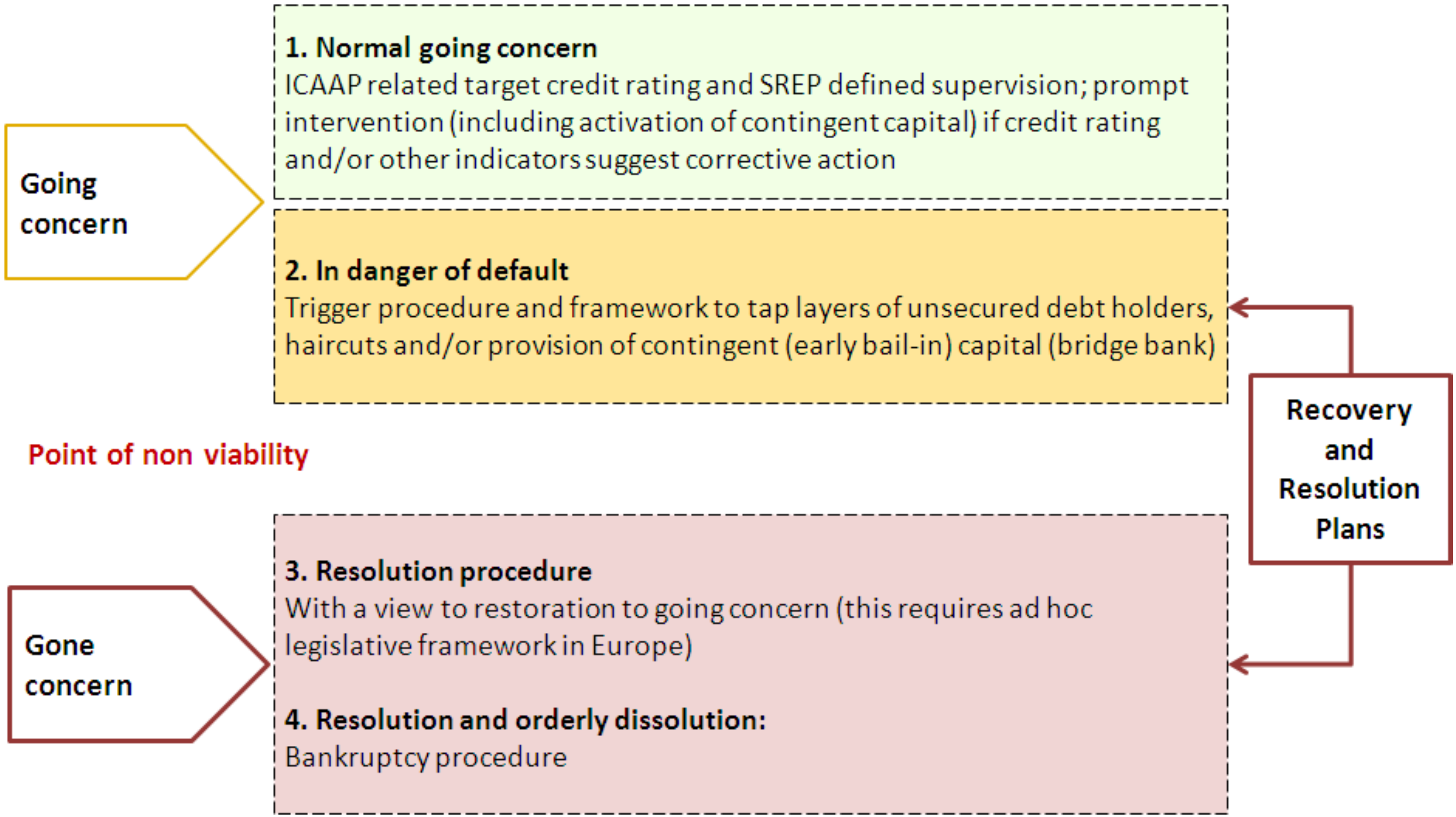
III. Banking Union and resolution mechanisms: why model 2 is preferable

- ✓ Large banks are cross-border and national “solutions” are not viable.
- ✓ A European fiscal backstop is necessary to break the negative loop between bank and sovereign risk.
- ✓ A common solution is also required: (i) to check moral hazard (and implicit distortions) with respect to banks based in countries with a strong fiscal position, and hence (ii) to help restore market discipline.
- ✓ The fundamental problem of prompt corrective intervention, before technical insolvency, requires new, wide-ranging, legal instruments, which would allow actions by special/legal administrative authorities, empowered to act before ordinary bankruptcy courts (see Dodd-Frank Act, 2010).
- ✓ This is a complex legal issue, because – in principle – it can interfere with “constitutional” rights of shareholders (a problem especially relevant in Germany).

IV. Focus on the interaction between microsurveillance, Basel 3, corporate governance and resolution schemes

- ✓ Major shortcomings of banking governance, compliance and risk management were one of the root causes of the great financial crisis.
- ✓ The Basel Committee on Banking Supervision (BCBS) identified the issues and offered good principles, notably in 2005 (*compliance*) and 2006 (*governance and risk management*).
- ✓ But the principles were not translated into effective codes of supervision.
- ✓ Lack of implementation was fundamentally due to the principle-based approach to supervision, the opposite of a rule-based on sight system.
- ✓ Supervisors should have and should be ready to use discretionary powers forcefully in terms of dynamic, independent, competent goal driven actions. Less rules and models, more on sights, case by case evaluation and assessment, with great attention to compliance (the "Italian" model vs. the "Anglo-German" models).
- ✓ The interaction between SREP and ICAAP should be a pillar stone of this approach (**Charts 9**, **10**, **11**).

Chart 9 - A suggested framework of interaction between Basel 3 (Pillar 2) and resolution schemes



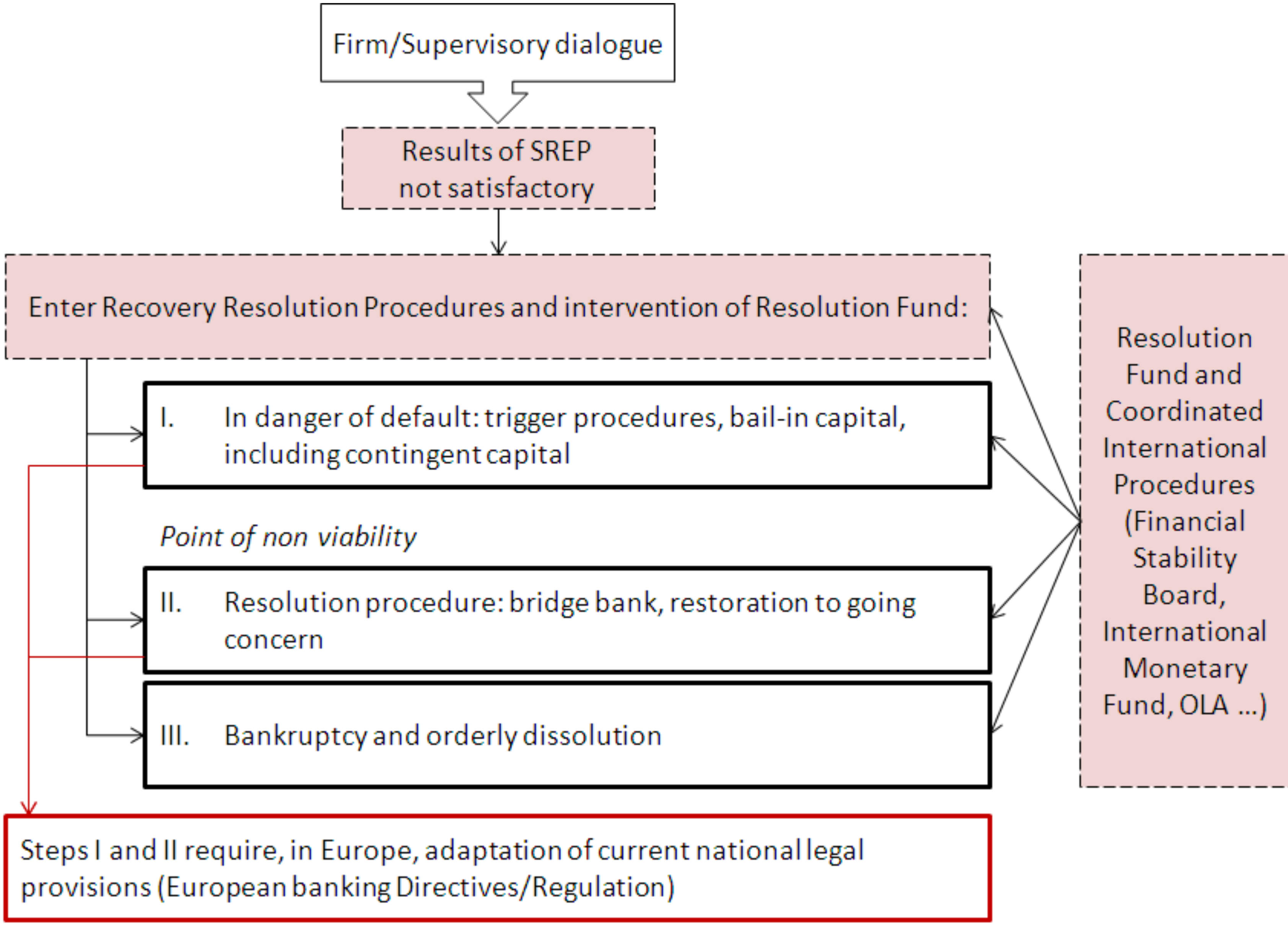
Source: Masera (2011)

Chart 10 - A suggested framework of interaction between Basel 3 (Pillar 2), ICAAP, SREP and resolution schemes

ICAAP Internal Capital Adequacy Assessment Process	**SREP** Supervisory Review and Evaluation Process
↘ Proportional to the complexity and risk exposure, under varying severity of the anticipated economic environment ↘ Definition of Risk Strategy, Appetite and Capacity (e.g. AA rating) ↘ Transparent indication of the firm risk appetite and desired credit rating to supervisory authorities and markets ↘ Time-to-market, comprehensive monitoring and assessment (VaR, economic capital, stress tests …) of risk exposure ↘ Prompt corrective action in case of anticipation of/effective departure from desired and declared risk capacity	↘ Proportional to the overall risk situation of financial institutions, account being taken of the severity of the economic environment and the <u>systemic relevance</u> of the financial firm ↘ The (micro)supervisory authority is tasked with: ▪ Review and evaluation of the firm's risk profile, account being taken of its systemic risk implication, official stress tests and their benchmarking ▪ Assessment of the adequacy and reliability of the firm's ICAAP, and therefore of the capital adequacy in relation to the risk strategy, capacity and effective profile of the firm, account being taken of its systemic importance and of the severity of the economic environment ▪ Power to intervene by activating resolution procedures ▪ Ensuring full disclosure and transparency, and thus effective market discipline, by taking out the implicit bail-out guarantee.

Source: Masera (2011)

Chart 11 - A suggested framework of interaction between Basel 3 (Pillar 2) and resolution schemes



Source: Masera (2011)

V. The issue of the cost of capital

- ✓ The view has been advanced that equity is not expensive, applying the extreme Modigliani-Miller propositions (1958, 1963) to banking firms (**Chart 12**).
- ✓ This is not correct, partly as a consequence of the peculiarities of banks' operations and funding sources; fundamentally, because of the role played by the government in protecting – in various degrees and forms – banks' liabilities (Tsesmelidakis and Merton, 2013).
- ✓ Contingent public guarantees violate the M&M propositions, which are based on fully anticipated market equilibrium conditions.
- ✓ More equity decreases the value of guarantees and represents a transfer of wealth from existing equity holders to bondholders (and to taxpayers): «floating new shares then is like pumping gas into another man's car» (Miller, 1995).
- ✓ It is, therefore, impossible to accept the general proposition on the irrelevance of capital structure for banks. Banks' equity is expensive for shareholders, especially under conditions of systemic risk and/or when the profitability of the banking industry is heavily affected (**Chart 13**).

Chart 12 - Equilibrium expected returns in the standard M&M model

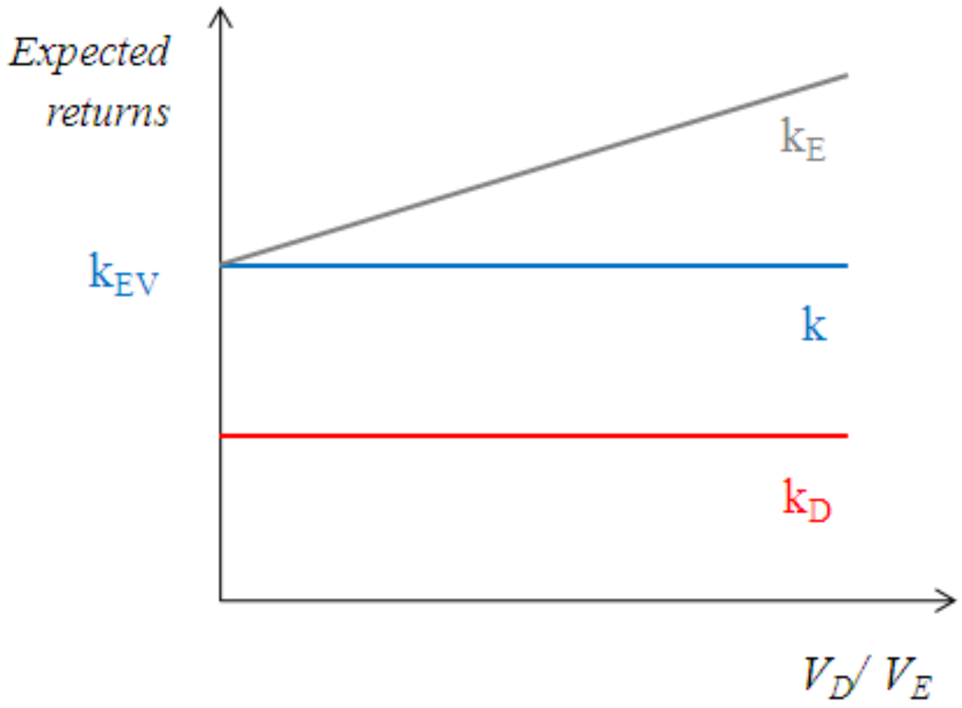
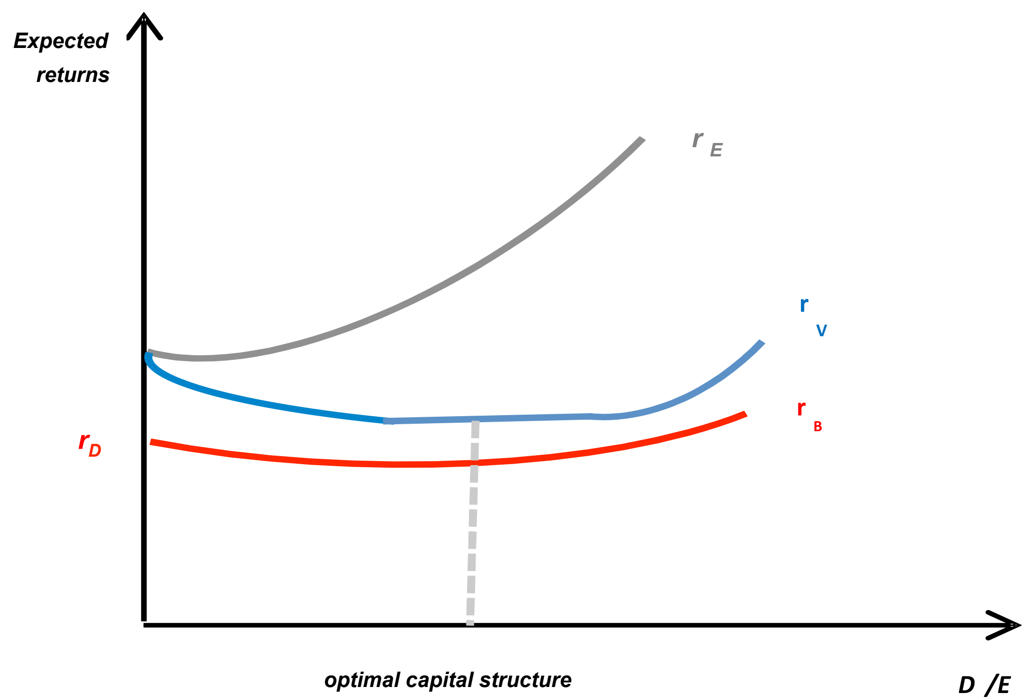


Chart 13 - Equilibrium expected returns in a realistic model



V. The issue of the cost of capital [ctd.]

- ✓ Even the argument that higher capital requirements always reduce social costs can be challenged. Expensive capital injections may determine "risk shifting", by creating an incentive for shareholders to increase risk taking [Masera and Mazzoni, 2013].
- ✓ If capital is costly, the incentive for banks to game capital rules is strong. Additionally, moral hazard may lead to gambles at taxpayers' cost. This incentive compatibility is the Achille's heel of RWA regulation.
- ✓ The fundamental message of M&M remains, however, true. Value creation of the banking firm lies primarily on the assets side of the balance sheet. For given required returns to financial investors set by market conditions, the capital structure of the bank is not of critical importance: what matters is that the expected profitability should be higher than the overall cost of finance.

VI. Focus on G-SIBs / E-SIBs capital regulation, surveillance, resolution, separation

- ✓ The issue of global systemically important banks (**Table 2**) should be approached in terms different from a mere increase of capital requirements, as suggested by the FSB (2012).
- ✓ The solutions given to (i) the resolution framework, including the issue of possible fees paid by systemic banks in relation to the pollution created [Masera and Mazzoni, 2010 and Acharya and Öncü, 2012] and (ii) the possible separation of utility/casino banking [Hoenig and Morris, 2012], have obvious implications on G-SIBs, on financial stability and on systemic risk (**Table 3**).
- ✓ More generally, G-SIBs create problems of moral hazard, also as a result of implicit/explicit public support [Gray, 2012].

Table 2 - G-SIBs as of November 2012 allocated to buckets corresponding to required level of additional loss absorbency

Bucket[4]	G-SIBs in alphabetical order within each bucket
5 (3.5%)	(Empty)
4 (2.5%)	Citigroup Deutsche Bank HSBC JP Morgan Chase
3 (2.0%)	Barclays BNP Paribas
2 (1.5%)	Bank of America Bank of New York Mellon Credit Suisse Goldman Sachs Mitsubishi UFJ FG Morgan Stanley Royal Bank of Scotland UBS
1 (1.0%)	Bank of China BBVA Groupe BPCE Group Crédit Agricole ING Bank Mizuho FG Nordea Santander Société Générale Standard Chartered State Street Sumitomo Mitsui FG Unicredit Group Wells Fargo

Note 4. The bucket approach is defined in Table 3 of the Basel Committee document Global systemically important banks: Assessment methodology and the additional loss absorbency requirement, November 2011. The numbers in parentheses are the required level of additional common equity loss absorbency as a percentage of risk-weighted assets for each bucket.
Source: FSB (2012)

Table 3 - Commercial vs. investment banking: the policy agenda for separation

Volcker / Dodd-Frank (US) 2010-2013 (legislation enacted, but operational rule making not implemented [Volcker, 2013])	Institutional separation of deposit taking and proprietary trading
Vickers (UK) 2011-2013 (to be enacted in 2014)	Ring-fencing of deposit banks
Liikanen (EU Commission) (report published in) 2012	Subsidiarisation of proprietary trading and high risk activities
French banking law proposal 2013	Deposit taking and market making allowed. Subsidiarisation of risk activities
German Parliament draft law 2013	Separation of deposit banking, if assets engaged in prop and high frequency trading, and in hedge funds are higher than a given proportion (to be determined) of total assets

VII. Focus on Basel 3, RWA/A and possible misalignments between EU and US

From A to RWA

1) A → RWA

- ✓ If the link is uncertain, because of gaming, risk measurement problems (endogenous risk), shortcomings of VaR (see for instance **Chart 14**), it follows that stress testing represents a fundamental complement to the Basel capital standard. This appears to be the line taken by the US.
- ✓ This is also true for “community” (small) banks, which may prefer stress testing to the complications and complexities of internal models and of Basel 3.
- ✓ In the US, weighted and notably unweighted capital ratios of large banks (**Charts 15** and **16**) are higher on average than in Europe, but RWAs continue to decline with respect to total assets (**Chart 15**). These results are, however, partly the consequence of the different accounting rules in respect of derivatives, which “reduce” total assets of US banks. European banks are, in general, compliant to IFRS rules, while American banks adopt US GAAP.

VII. Focus on Basel 3, RWA/A and possible misalignments between EU and US [ctd.]

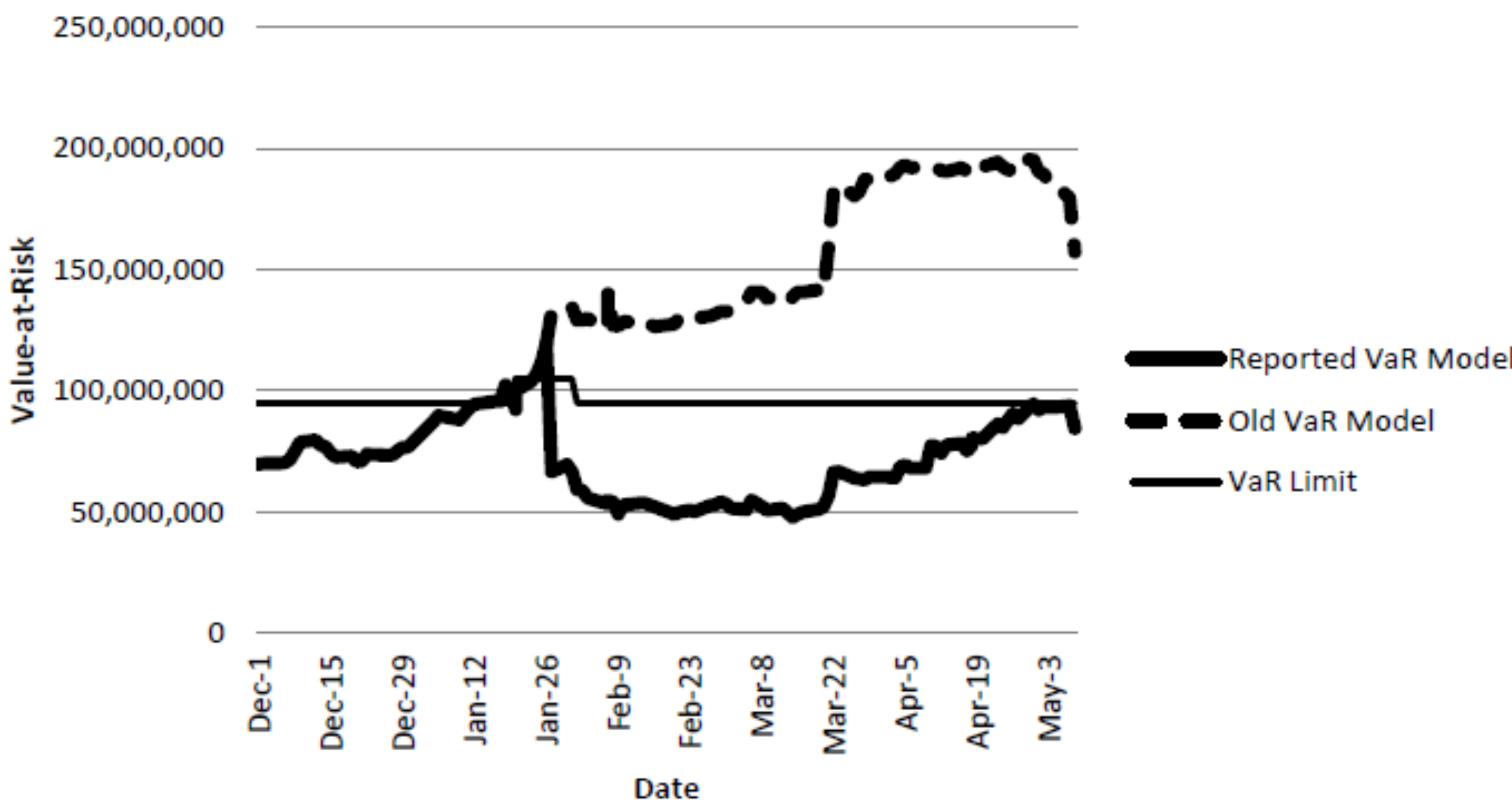
From A to RWA

1) A → RWA

✓ According to US GAAP principles, banking groups with derivative operations under a single master netting agreement with the same counterparty are given the option of reporting assets, liabilities, cash collateral, repos and reverse-repos on a net basis (this does not require any commitment of the banks to effectively settle the cash flows on a net basis). The same downward bias arises because of more favorable consolidations rules of off-balance sheet vehicles in the US.

✓ Italian banks are in a stronger position with respect to European peers with respect to leverage ratios (**Chart 17** and **Table 4**).

Chart 14 – Gaming the rules: JPMorgan Chase. Derivatives and VaR Models (10Q VaR)



✓ The change in VaR methodology effectively masked the significant changes in the risk portfolio. US Senate Permanent Committee on investigations (March 15, 2013)

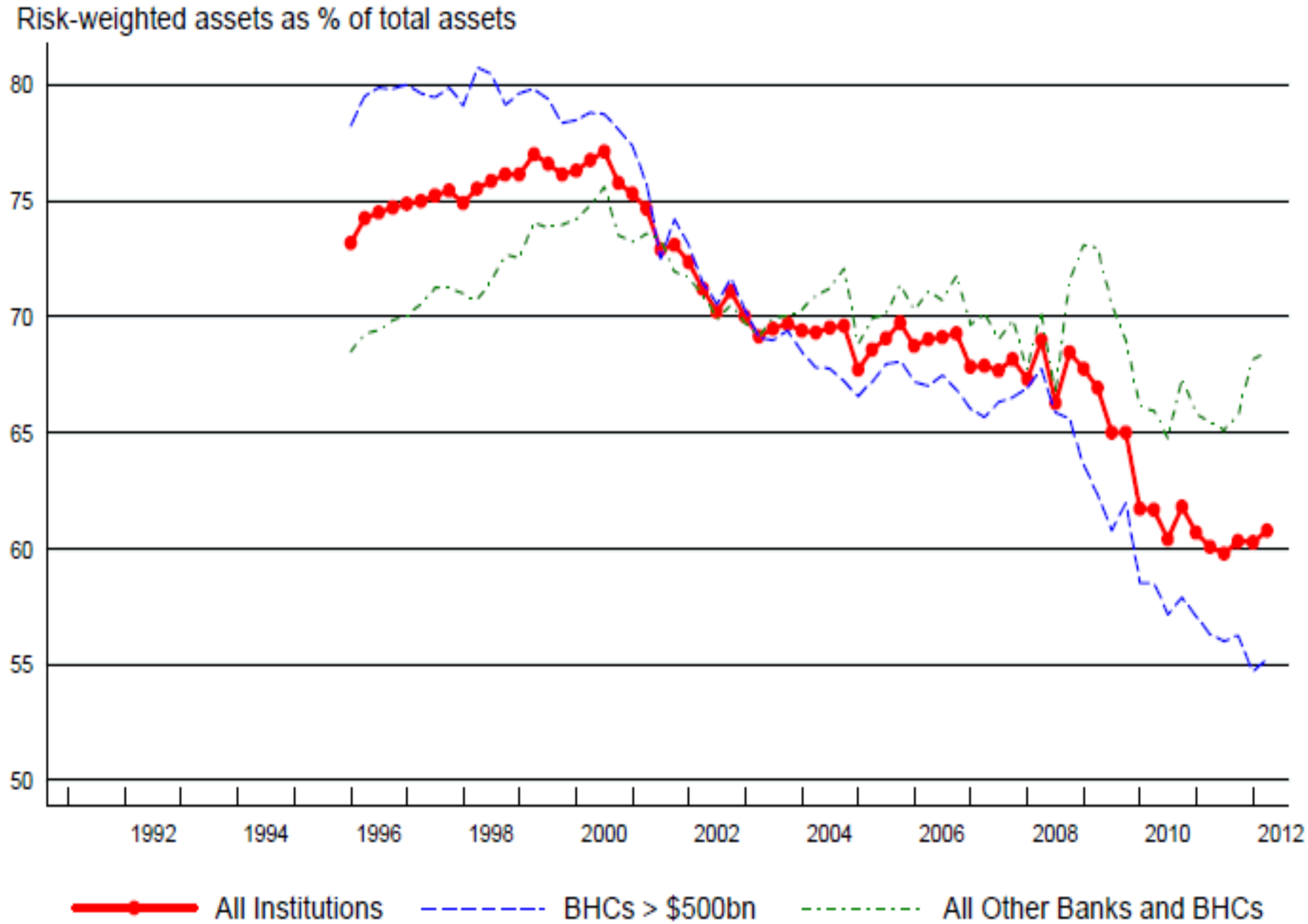
VII. Focus on Basel 3, RWA/A and possible misalignments between EU and US [ctd.]

From A to RWA

2) A → RWA

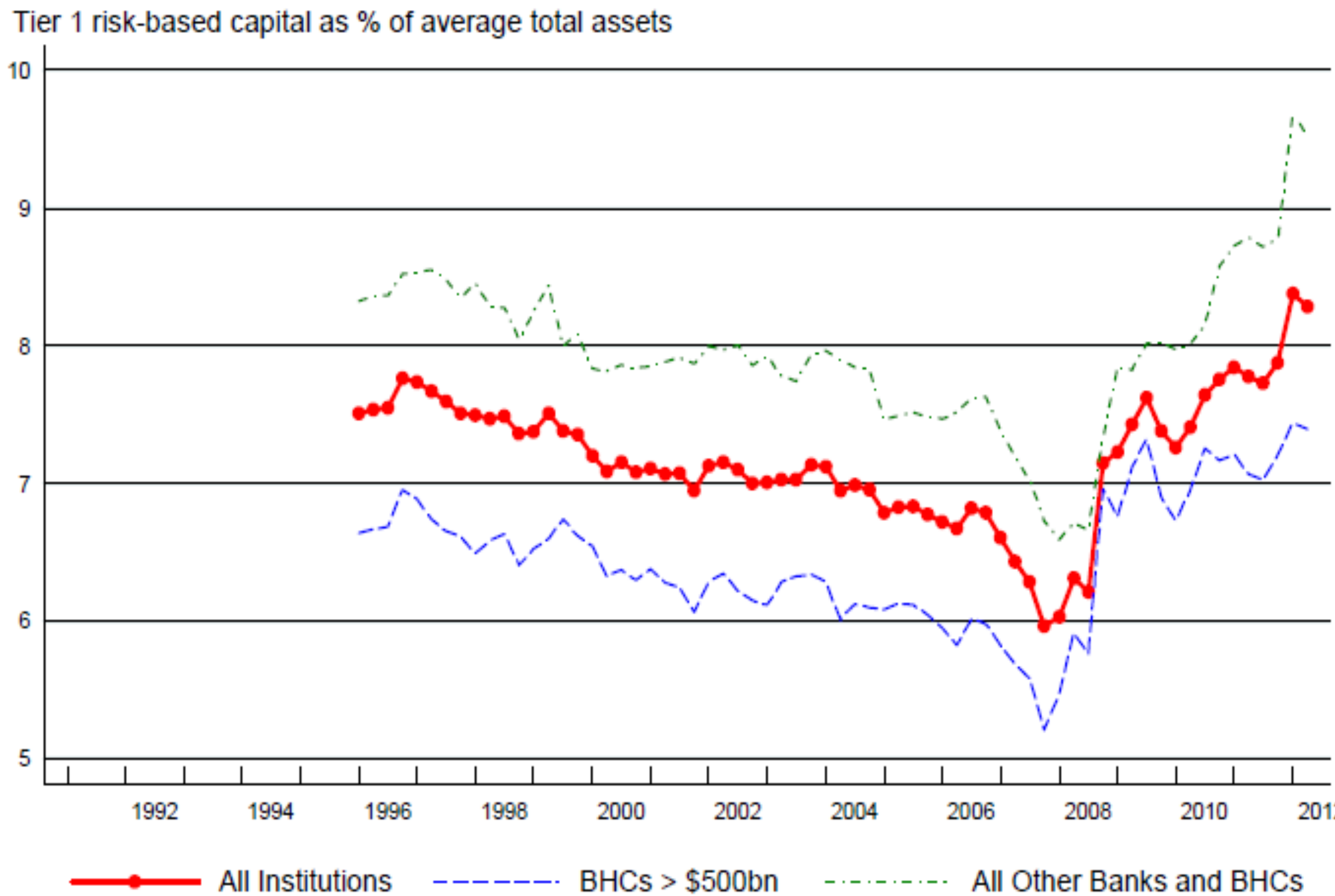
- ✓ If the link is considered reliable, supervisory emphasis is on asset quality/ measurement. This appears to be the approach taken by the ECB. In these conditions, accounting capital may become an insufficient statistic, because of deficiencies of book accounting, which are suggested if P/B « 1.
- ✓ Value accounting can help overcome these difficulties, by offering early warning.

Chart 15 – US banks Risk Weighted Assets Ratio



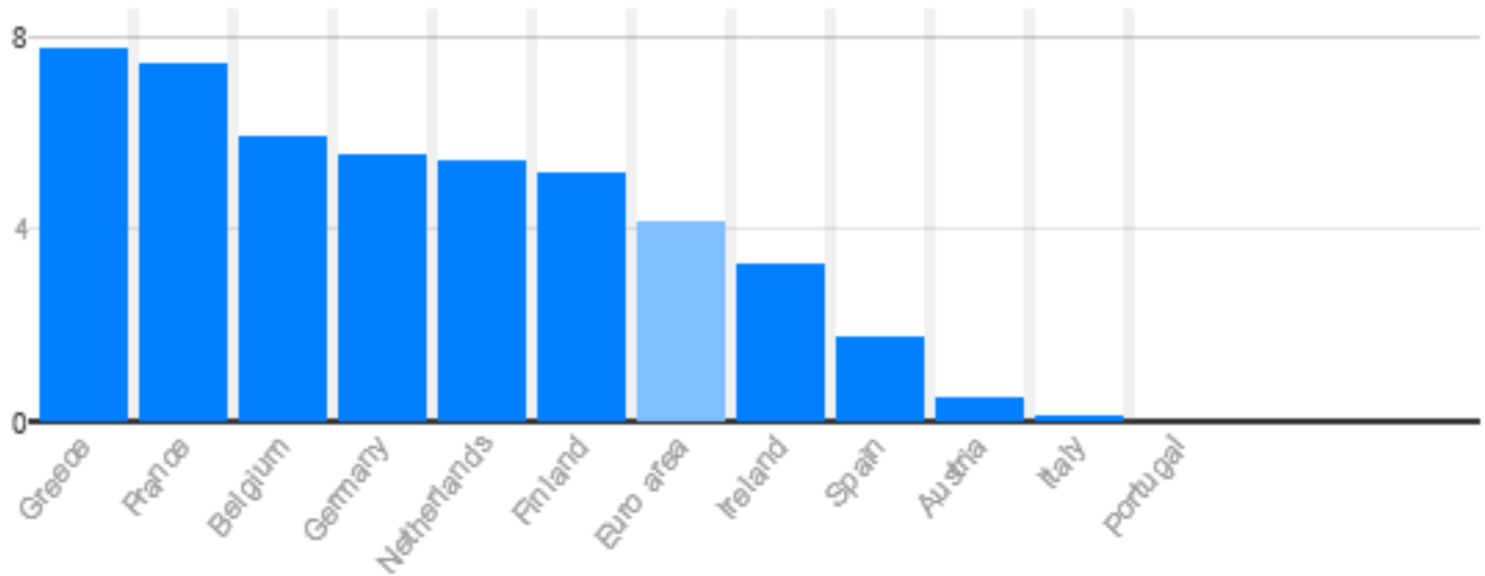
Source: Federal Reserve Bank of New York (2012)

Chart 16 – US banks Leverage Ratio



Source: Federal Reserve Bank of New York (2012)

Chart 17 – Required increase in capital of large banks to reach 5% of total assets, in % of GDP



Source: OECD (2013)

Table 4 – Comparison between Deutsche Bank and Banca Intesa SanPaolo (end 2012)

(€ billion)	Total Assets (A)	Risk Weighted Assets (RWA)	Accounting Equity (AE)	Tier 1 capital (T1)	Market Cap (MC)
DB	2022.3	333.68	54.2	50.49	30.6
ISP	673.5	298.6	50.2	36.01	21.3

%	AE/RW	T1/RW	AE/A	T1/A	Price-to-Book (P/B)
DB	15.1%	15.13%	2.68%	2.50%	56.7%
ISP	16.8%	12.06%	7.45%	5.35%	43.0%

Source: SNL Financials

VII. Focus on Basel 3, RWA/A and possible misalignments between EU and US [ctd.]

- ✓ More generally, owners of contingent capital require that RWA internal models should be standardised to allow for consistent trigger conversion for bonds into equity.
- ✓ An additional divergence between US and the EU lies in the potential impact of eliminating AFS prudential filters, which could lead to regulatory capital volatility with different impacts because of the different rules of IASB (International Accounting Standards Board) and FASB (Financial Accounting Standards Board) [Papa, 2013].
- ✓ In particular, EBA 2011 recapitalisation tests show that prudential filters resulted in 55% of gains or losses related to sovereign exposure being excluded from regulatory capital levels.

VII. Focus on Basel 3, RWA/A and possible misalignments between EU and US [ctd.]

- ✓ The previous arguments are consistent with greater emphasis on the simple leverage ratio in the new Basel III framework and on the need for uniform accounting regimes in the US and in Europe.
- ✓ The differences between the risk-adjusted leverage and the unweighted statistic should be closely monitored by supervisors.
- ✓ In this connection, a helpful early-warning indicator is represented by market value leverage (E/A), which is especially relevant when P/B is well below unity. To recall,

$$\frac{E}{A} = \frac{K}{RWA} \cdot \frac{RWA}{A} \cdot \frac{E}{K} \qquad [1]$$

where: E/K is the price-to-book ratio, K/RWA is the risk-weighted leverage and RWA/A is the risk-weighted to total assets ratio.

VIII. Conclusions

- ✓ The discussion on financial reform in Europe is now focused on Banking Union: BU is often narrowly defined as the SSM for banks, led by the ECB.
- ✓ The aim of this paper is to show that a well-functioning, sound and efficient BU requires a holistic approach, with simultaneous enactment of goal-driven on-sight supervision, effective macroprudential action, a well-balanced capital regulation, common deposit guarantee schemes and a Single Resolution Mechanism (comprising ERA and ERF, with financial/fiscal backstop).
- ✓ This note highlights the relevance and explores the interactive processes which link the nodes of the complex, interconnected BU network, which <u>is centered on the largest and most important banking system in the world</u>.
- ✓ BU comprises over 6,000 firms managing some €40 trillion assets; they represent the vital credit and monetary mechanisms for the workings of the EU economy.

VIII. Conclusions [ctd.]

- ✓ Corporate governance and compliance mechanisms of these firms play a fundamental role. Regulation and supervision should adopt an incentive-compatible framework, notably to avoid risk shifting and gambles by SIBs at taxpayers' cost.
- ✓ More generally, Banking Union requires sound and sustainable economic policies.
- ✓ Excessive, simultaneous, fiscal contraction is a root cause of the prolonged recession with negative consequences for the banking sector; on the other hand, monetary policy - and notably the OMT program to purchase government bonds of peripheral Eurozone countries - has prevented the break up of the Euro and the collapse of many European banking firms.
- ✓ Banking Union should represent the opportunity to re-examine certain features of the Basel 3 framework [Masera, 2012].

VIII. Conclusions [ctd.]

- ✓ First and foremost, there is the need to shift from the exceedingly complex rule-based system to effective intelligent on-sight supervision (the traditional Italian model), with a close interaction between SREP and ICAAP.
- ✓ This is necessary also to contain the gaming of the rules, based on risk weighted filters, through the use of ever more sophisticated derivative structures and model adaptations. The non-weighted tangible capital leverage should have the same dignity in supervision, compared to the RWA leverage.
- ✓ The "one-size-fits-all" approach should be reconsidered, notably to avoid the strong disincentives for small banks, which feed back on SMEs.
- ✓ A Single Resolution Mechanism for SIBs should be enacted to avoid public finances (and the ordinary taxpayer) to become hostage of these banks.
- ✓ Higher capital requirements, to foster self-insurance of banking firms against unforeseen losses, are necessary in the medium term. But the fallacy of composition and the procyclicality of forcing the build up in

VIII. Conclusions [ctd.]

- ✓ Better balance should be achieved between measures to sustain long-term investment and finance, and the current regulatory and accounting framework.
- ✓ In this respect, a good step foreword is the revision of liquidity rules, adopted by the BCBS in 2013. This was a very clear improvement with respect to the 2012 formulation, which revealed fundamental shortcomings [Resti, 2012], but would been adopted if CAD4 had followed the originally planned timetable.

Acronyms

A	Asset
AFS	Available For Sale
BCBS	Basel Committee on Banking Supervision
BU	Banking Union
CDGS	Common Deposit Guarantee Scheme
CDS	Credit Default Swap
CRD	Capital Requirements Directive
E-SIBs	European Systemically Important Banks
EBA	European Banking Authority
ECB	European Central Bank
EFSF	European Financial Stability Facility
ERA	European Resolution Authority
ERF	European Resolution Fund
ESM	European Stability Mechanism
ESRB	European Systemic Risk Board
EU	European Union

Acronyms [ctd.]

FASB	Financial Accounting Standards Board
FDIC	Federal Deposit Insurance Corporation
FSB	Financial Stability Board
FSOC	Financial Stability Oversight Council
GAAP	Generally Accepted Accounting Principles
GDP	Gross Domestic Product
G-SIBs	Global Systemically Important Banks
IASB	International Accounting Standards Board
ICBS	Investment/Commercial Banking Separation
ICAAP	Internal Capital Adequacy Assessment Process
IFRS	International Financial Reporting Standards
M&M	Modigliani and Miller
OECD	Organisation for Economic Co-operation and Development
OFR	Office of Financial Research
OLA	Orderly Liquidation Authority
OLAP	Orderly Liquidation Authority Plan
OLF	Orderly Liquidation Fund

Acronyms [ctd.]

P/B	Price-to-Book Ratio
PCA	Prompt Corrective Action
RM	Resolution Mechanism
RR	Regulatory Reform
RRF	Recovery and Resolution Framework
RWA	Risk Weighted Asset
S&R	Supervisory and Regulatory
SIFI	Systemically Important Financial Institution
SIPC	Securities Investor Protection Corporation
SR	Single Rulebook
SREP	Supervisory Review and Evaluation Process
SRM	Single Resolution Mechanism
SSM	Single Supervisory Mechanism
TARP	Troubled Asset Relief Program
UK	United Kingdom
US	United States
VaR	Value at Risk

References

Acharya, V.V. and Öncü, T.S., 2012. A Proposal for the Resolution of Systemically Important Assets and Liabilities: The Case ofthe Repo Market. Presented at the Federal Reserve Board of Governors conference Central Banking: Before, During and After the Crisis, in honor of Don Kohn, former Vice Chairman of the Board of Governors on March 23-24, 2012.

Basel Committee on Banking Supervision (BCBS), 2006. Enhancing corporate governance for banking organisations, Bank for International Settlements, Basel, February.

Basel Committee on Banking Supervision (BCBS), 2005. Compliance and the compliance function in banks, Bank for International Settlements, Basel, April.

Cour-Thimann, P. and Winkler, B., 2013. The ECB's non-standard monetary policy measures. The role of institutional factors and financial structure. Working Paper Series, No. 1528, April.

de Larosière, J., Balcerowicz, L., Issing, O., Masera, R., Mc Carthy, C., Nyberg, L., Pérez, J., Ruding, O., 2009. Report of The High Level Group on Financial Supervision in the EU.

Dodd-Frank Wall Street Reform and Consumer Protection Act 2010. (4173) Washington (DC): HR.

Forti, N. (ed.), 2010. Preventing and managing future crises. New Regulation, Resolution Funds and Deposit Insurance as tools for European banking groups. Rome: Bancaria Editrice.

Gray, D., 2012. Using Contingent Claims Analysis (CCA) to Measure and Analyze Systemic Risk, Sovereign and Macro Risk. Presentation to Macro Financial Modeling Conference, IMF. September 13, 2012

Liikanen, E., 2012. On the structural reforms of banking after the crisis. Speech of the Governor of the Bank of Finland and Chairman of the Highlevel Expert Group on reforming the structure of the EU banking sector, at the Centre for European Policy Studies, Brussels, October 23, 2012.

Masera, R., 2010. Reforming financial systems after the crisis: a comparison of EU and US. PSL Quarterly Review, vol. 63, n. 255, pp. 299-362. ISSN 2037-3651

Masera, R., 2011. Taking the moral hazard out of banking: the next fundamental step in financial reform, PSL Quarterly Review, vol. 64, n. 257, pp.105-142.

Masera, R., 2013. Banking Union: supervision, corrective action, resolution of banking firms. Speech at the "Italy's challenges in the midst of the euro-crisis" Jointly Workshop of Bruegel and Dipartimento del Tesoro – Ministero dell'Economia e delle Finanze, Rome, May 8, 2013.

Masera, R. and Mazzoni, G., 2013. Cost of equity, enterprise value and capital regulation of banking

References

Resti, A. and Petrella, G., 2013. Defining liquid assets. An analysis of European bonds. European Comission Joint Research Centre and Arime.

Tsesmelidakis, Z. and Merton, R.C., 2013. The Value of Implicit Guarantees. Available at SSRN: http://ssrn.com/abstract=2231317 or http://dx.doi.org/10.2139/ssrn.2231317