# Convegno in memoria di Renato Maino

## *Risk Management failures and repairs after the financial crisis*

## *14 Maggio 2013*

**Sede del Convegno: Sala delle Colonne, Via San Paolo 12, Milano**

# BANKING UNION:
## supervision, corrective action, resolution of banking firms

Rainer Masera

*Ordinario di Politica Economica*
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# RENATO MAINO, un economista di grande spessore

*Laureato all'Università di Torino, 110 e lode, con tesi di economia aziendale. Master in General Management presso l'INSEAD a Fontainebleau. Ha svolto attività accademica presso l'Università di Torino, il Politecnico di Torino e l'Università Luigi Bocconi, con numerose e importanti pubblicazioni.*

*Sotto il profilo professionale, ha lavorato in SanPaolo e successivamente nel gruppo SanPaolo IMI e in Intesa SanPaolo, in particolare nei campi di corporate finance, segreteria tecnica e studi, valutazione e gestione dei rischi.*

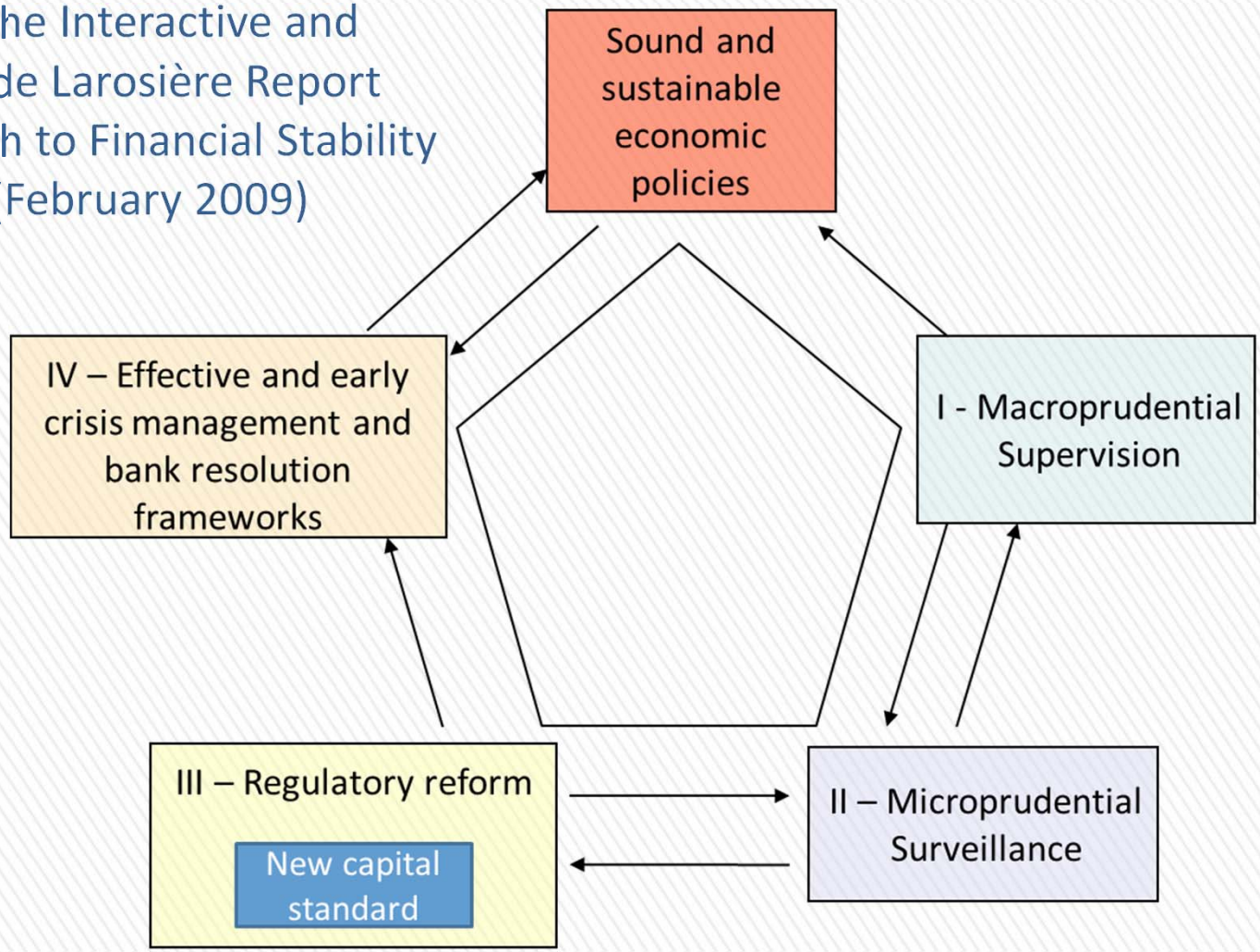
*Ho avuto la fortuna di collaborare con lui sia nel gruppo SanPaolo IMI, sia nella redazione di saggi scientifici: ne ricordo solo due, strettamente attinenti alle tematiche che oggi dibattiamo sulla base di sue scelte, come sempre fortemente anticipatrici:*

- *«Capitale e Rischio»* in Maino R. e Masera R., Impresa Finanza Mercato. Egea, 2005

- *«Reform of the Risk Capital Standard and Systemically Important Financial Institutions» with Mazzoni G. in Forti N. (ed.). Preventing and managing future crises: New Regulation, Resolution Funds and Deposit Insurance as tools for European banking group.* Bancaria, 2010

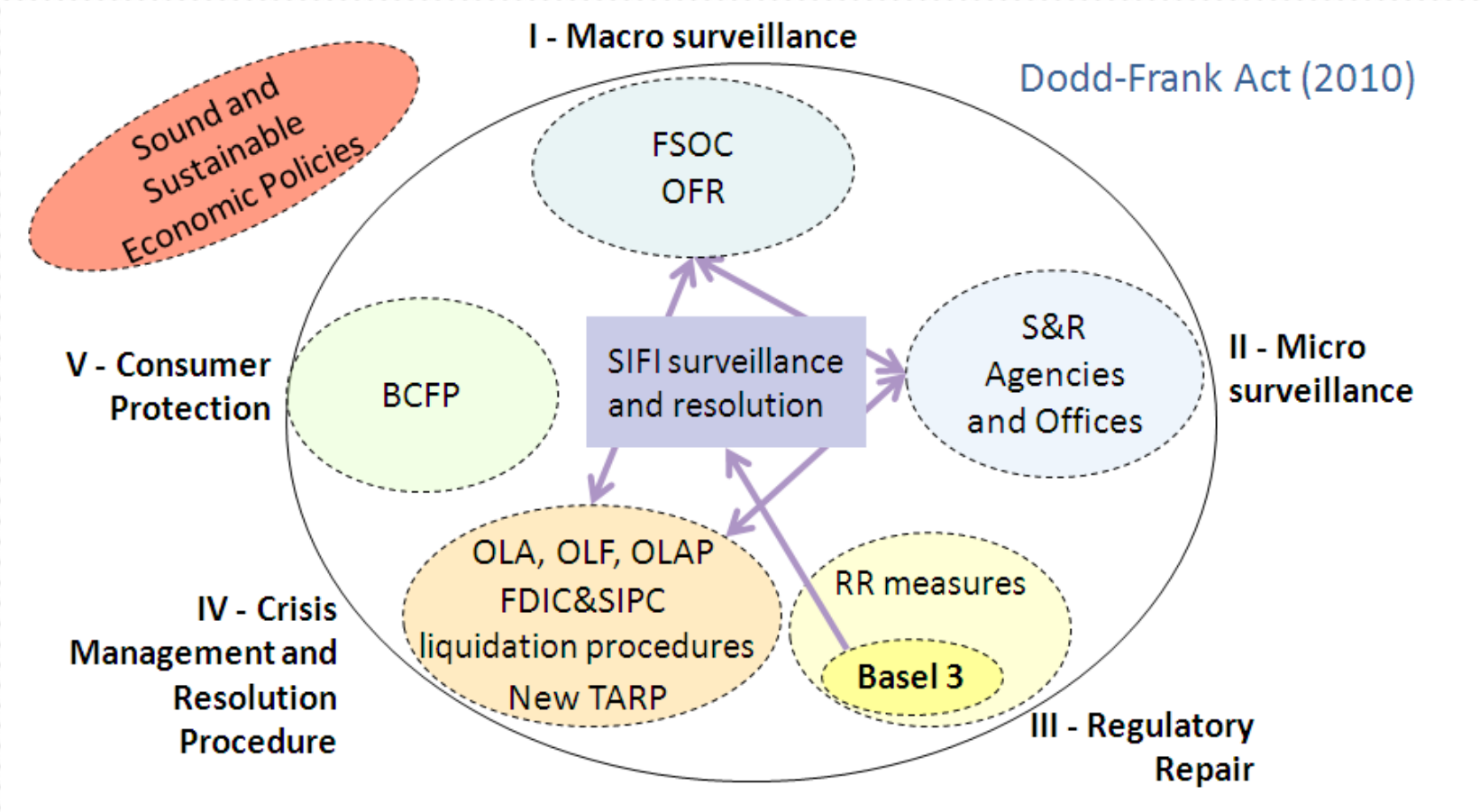
# The need for overall repair of the financial system after the crisis of 2007-2008

Fig. 1 - The Interactive and Holistic de Larosière Report Approach to Financial Stability Reform (February 2009)




Source: Masera (2011)

# Fig. 2 - The new US Regulatory and Supervisory Framework for Safeguarding Financial Stability



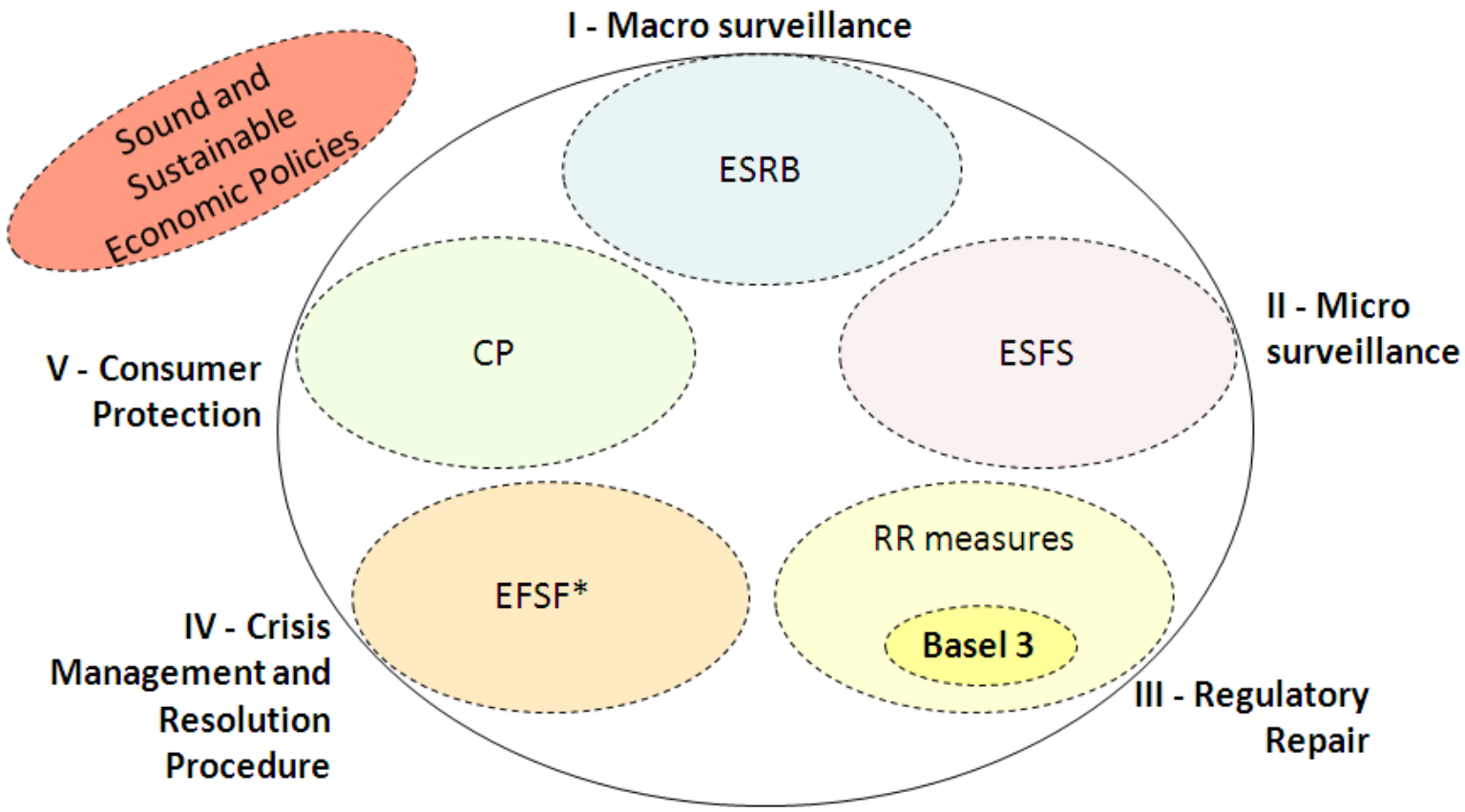

Source: Masera (2011)



Acronyms: **FSOC**: Financial Stability Oversight Council; **OFR**: Office of Financial Research; **S&R**: Supervisory and Regulatory; **SIFI**: Systemically Important Financial Institution; **RR**: Regulatory Reform; **OLA**: Orderly Liquidation Authority; **OLF**: Orderly Liquidation Fund; **OLAP**: Orderly Liquidation Authority Pan; **FDIC**: Federal Deposit Insurance Corporation; **SIPC**: Securities Investor Protection Corporation; **TARP**: Troubled Asset Relief Program

# The evolutionary European framework for safeguarding financial stability

## Fig. 3 - The new EU framework in 2010



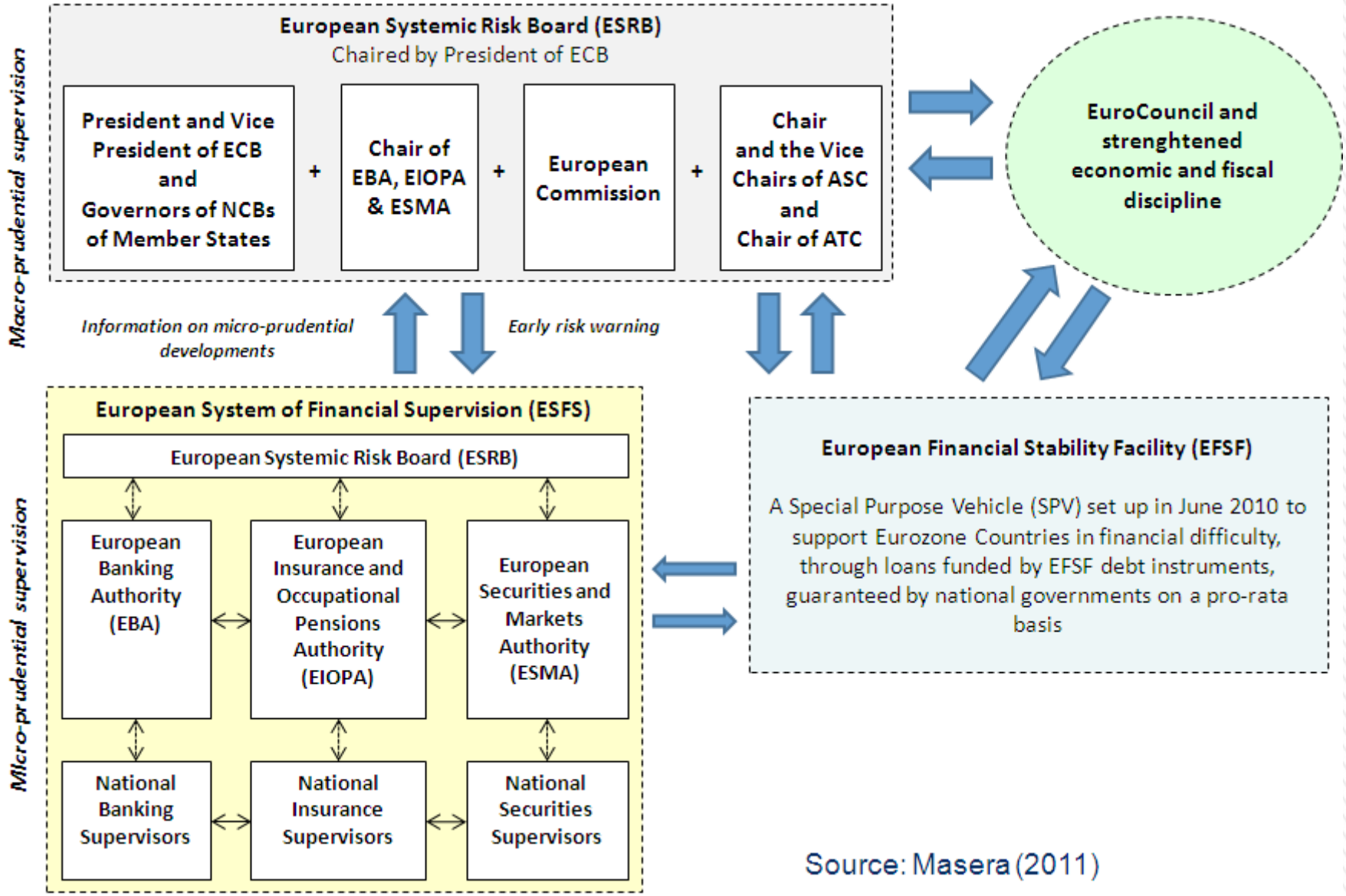

Source: Masera (2011)

* No specific Resolution Framework for banks is foreseen.

Acronyms: **ESRB**: European Systemic Risk Board; **EFSF** European Financial Stability Facility; **RR**: Regulatory Reform; **ESFS**: European System of Financial Supervision; **CP**: Consumer Protection

# The evolutionary European framework for safeguarding financial stability (ctd.)

**Fig. 4 - The new EU framework in 2010**




Source: Masera (2011)

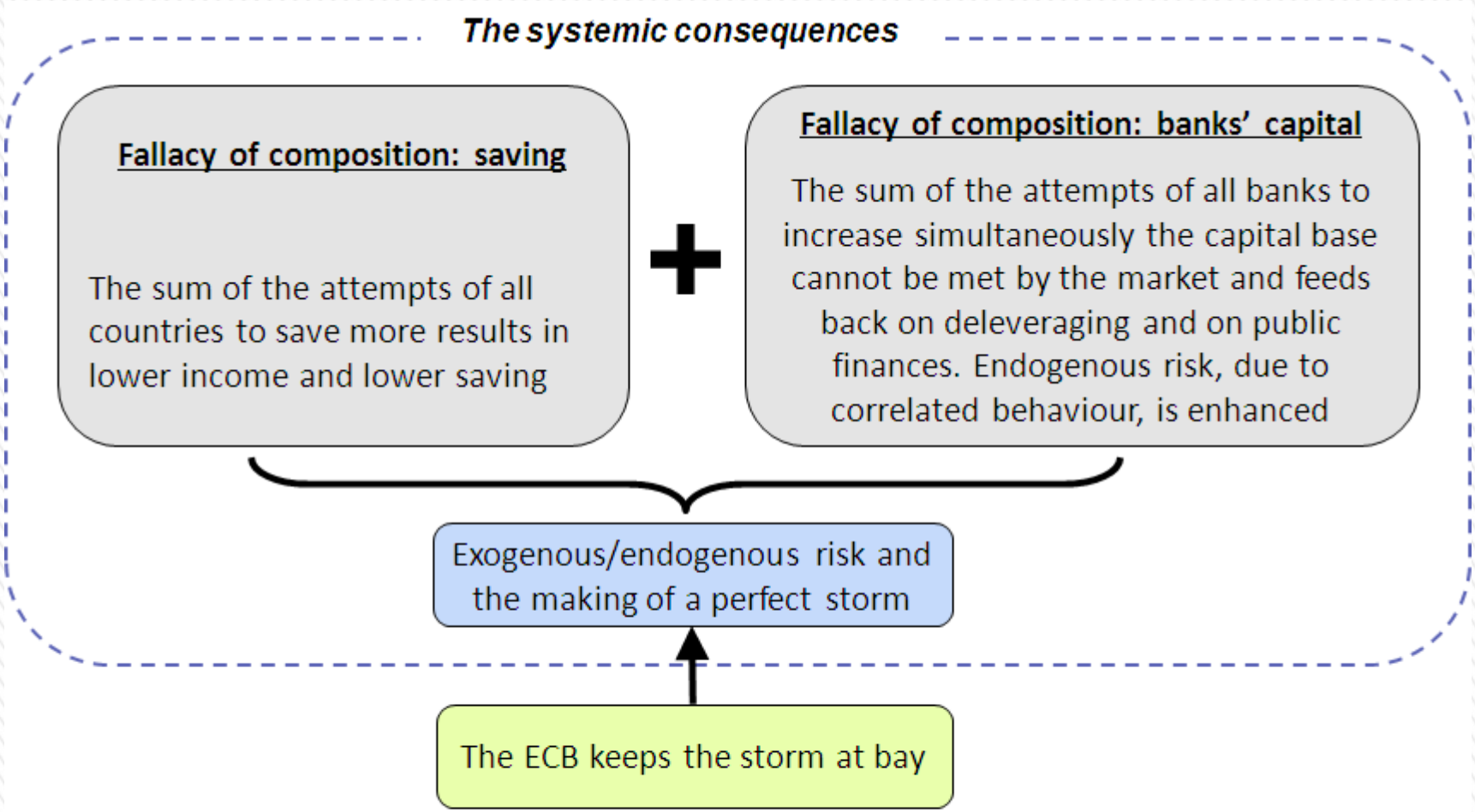
# Fig. 5 - he European policy paradox: from correct premises to wrong conclusions (2012)

| *The correct premises* | *The wrong conclusions* |
| --- | --- |
| Public finances must be placed on a sound sustainable footing in all Eurozone countries (monetary union without economic union).<br><br>Structural reforms must support fiscal rehabilitation to sustain competitiveness, productivity and growth. | All European countries must simultaneously and immediately cut expenditures, and/or increase revenues to guarantee structural budget balances close to zero (0.5% of GDP, with cyclical deficits capped to 3%). No account is taken that deficits and debts exploded after 2009, because of the recession and of support to banks.<br><br>All countries must commit to unilaterally reduce the debt/income ratio to 60%. No golden rule framework to co-financing of infrastructure expenditures is permitted.<br><br>No form of partial pooling of debt (Eurobonds) is foreseen. |
| Financial reform is necessary: it must be holistic and integrated.<br><br>Banks must have sounder balance sheets, gradually rebuilding capital ratios and liquidity cushions. | Banks' capital increases under Basel 3 are implemented rapidly in a renewed environment of economic downturn. EBA stress tests are focused on banking and sovereign risk and use mark-to-market criteria.<br><br>No account is taken that Basel standards increase endogenous* risk under stress conditions, thereby leading to deleveraging and recessionary impulses.<br><br>Basel 3 is implemented without the corollary of parallel reforms of rating agencies and of OtC CDS. |

Source: Masera (2012)

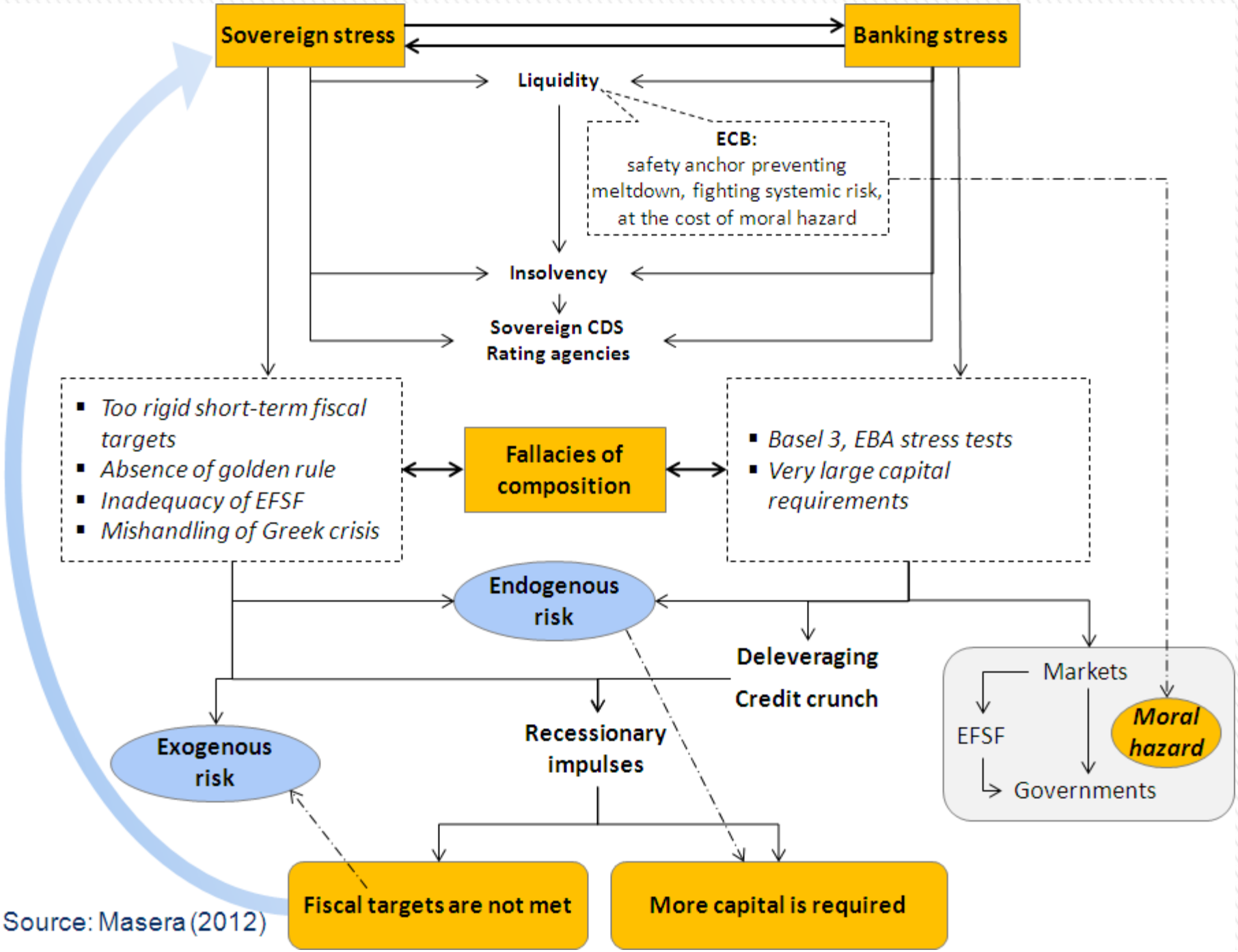
* On the difference between endogenous and exogenous (fundamental) risk, see Daníelsson and Shin (2003) and Masera (2011)

# Fig. 6 - The European policy paradox: from correct premises to wrong conclusions (2012) (ctd.)




Source: Masera (2012)

## Fig. 7 -The European policy paradox: from correct premises to wrong conclusions (2012)




Source: Masera (2012)

# The current scenario and policy corrections (May 2013)

I. Basel III / CRD4 have been postponed for 1 year mainly to avoid procyclicality.

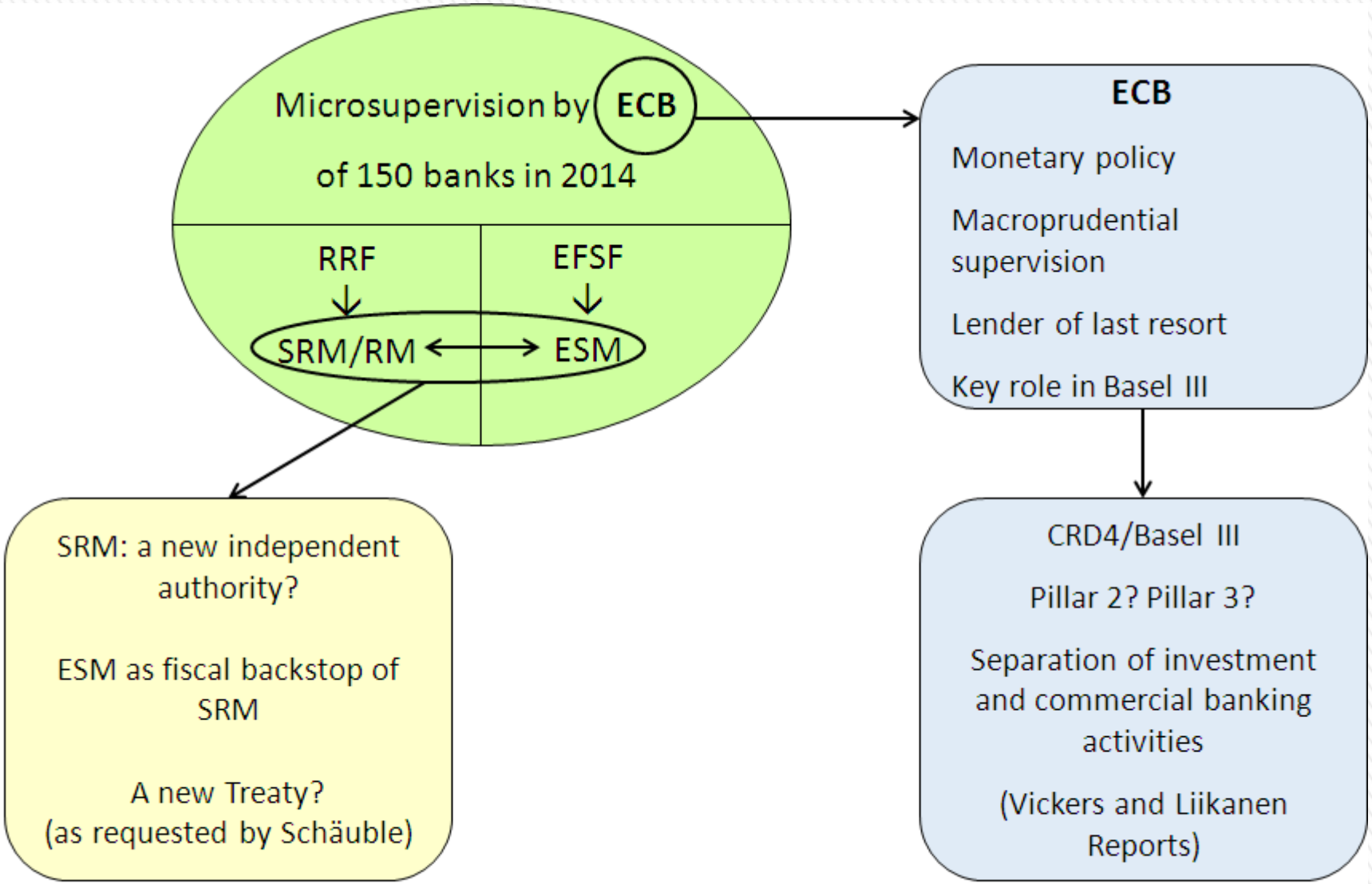
   Liquidity requirements have been significantly revised and postponed until 2015.

I. The extremely rigid interpretations of the fiscal compact have been modified to contain recessionary forces.

II. The EFSF will be modified into ESM (July 2013), which should provide stopgap public finance support also to banks in difficulties.

III. The decision has been taken to move towards Banking Union.

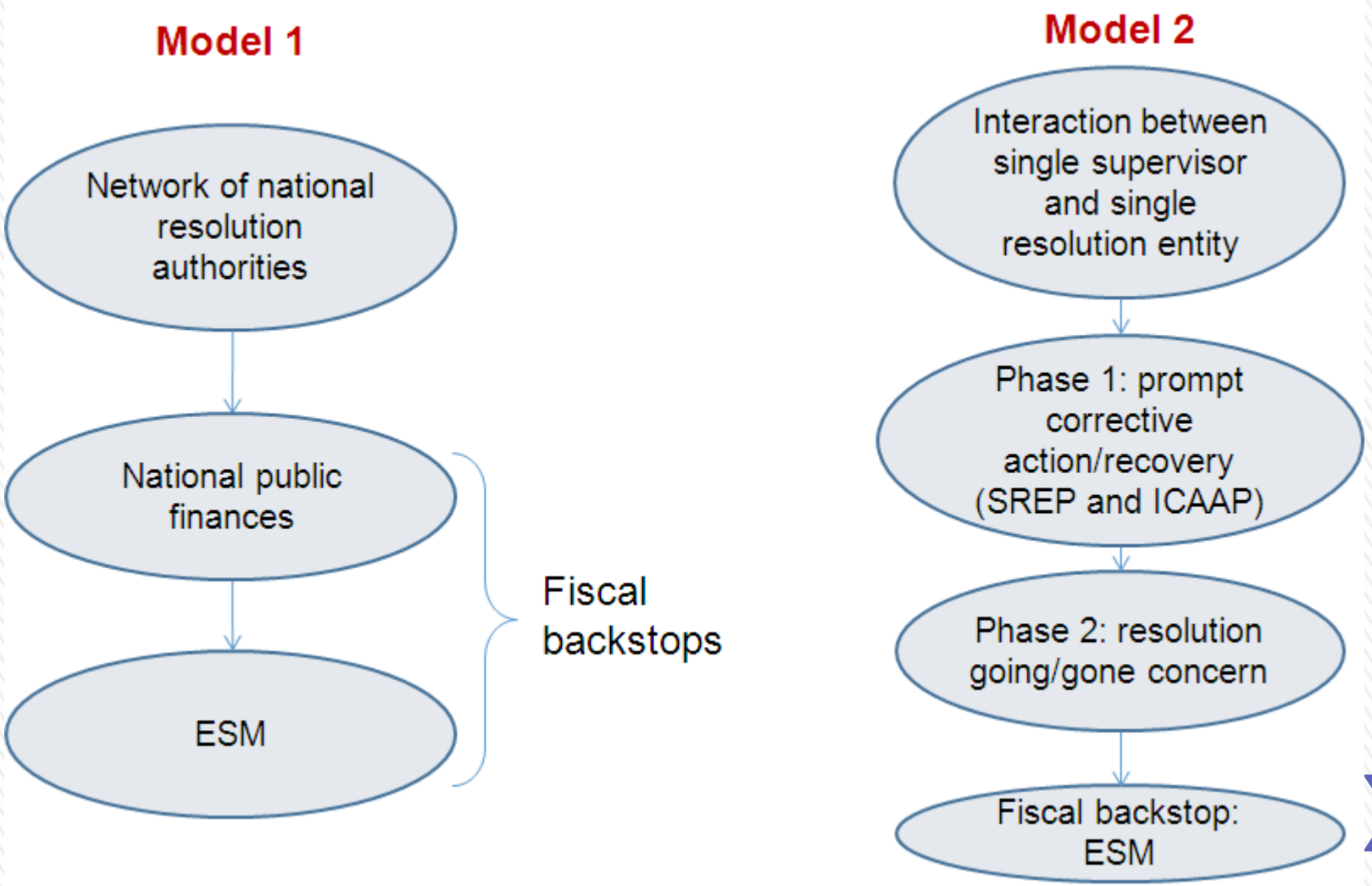
# Fig. 8 - Banking Union in Europe (a May 2013 perspective)




Acronyms: **SRM**: Single Resolution Mechanism; **RM**: Resolution Mechanism; **RRF**: Recovery and Resolution Framework; **EFSF**: European Financial Stability Facility; **ESM**: European Stability Mechanism

# Banking Union in Europe (a May 2013 perspective)

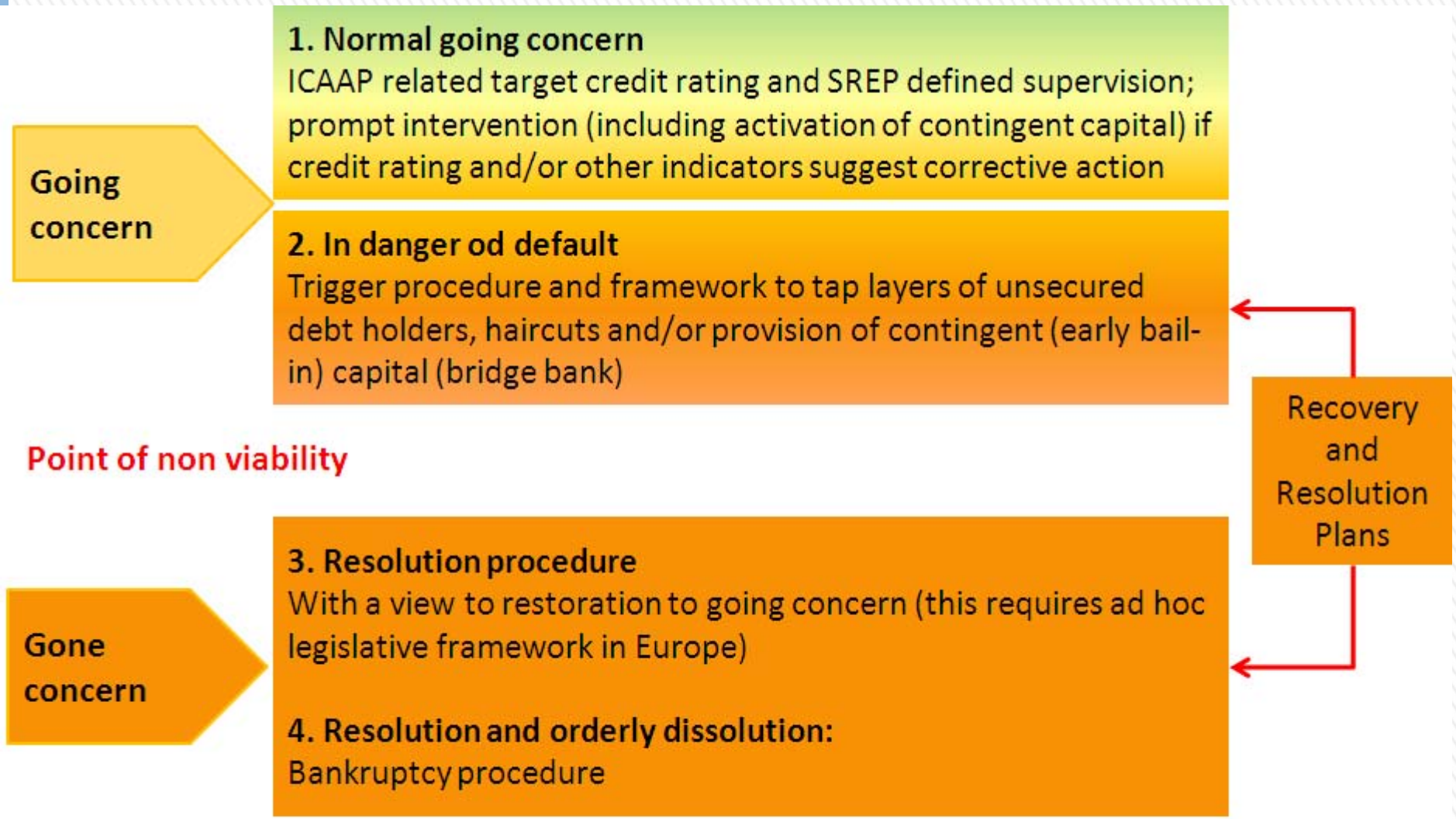
## Fig. 9 - The resolution mechanisms: two options under discussion



# The author's views on recovery and resolution frameworks

- ✓ They are an essential feature of a revised financial framework
- ✓ They should work in close cooperation with macro and micro supervision
- ✓ This line had been clearly indicated already in the de Larosiére Report (2009)
- ✓ Containment of taxpayers' liabilities and of moral hazard is of fundamental importance
- ✓ *These views have been developed in close contact with Renato, in particular with regard to Masera (2011), and I think I can claim that he would share them*

# Fig. 10 - A four-partite framework of reference in terms of the Basel III (Pillar 2) scheme

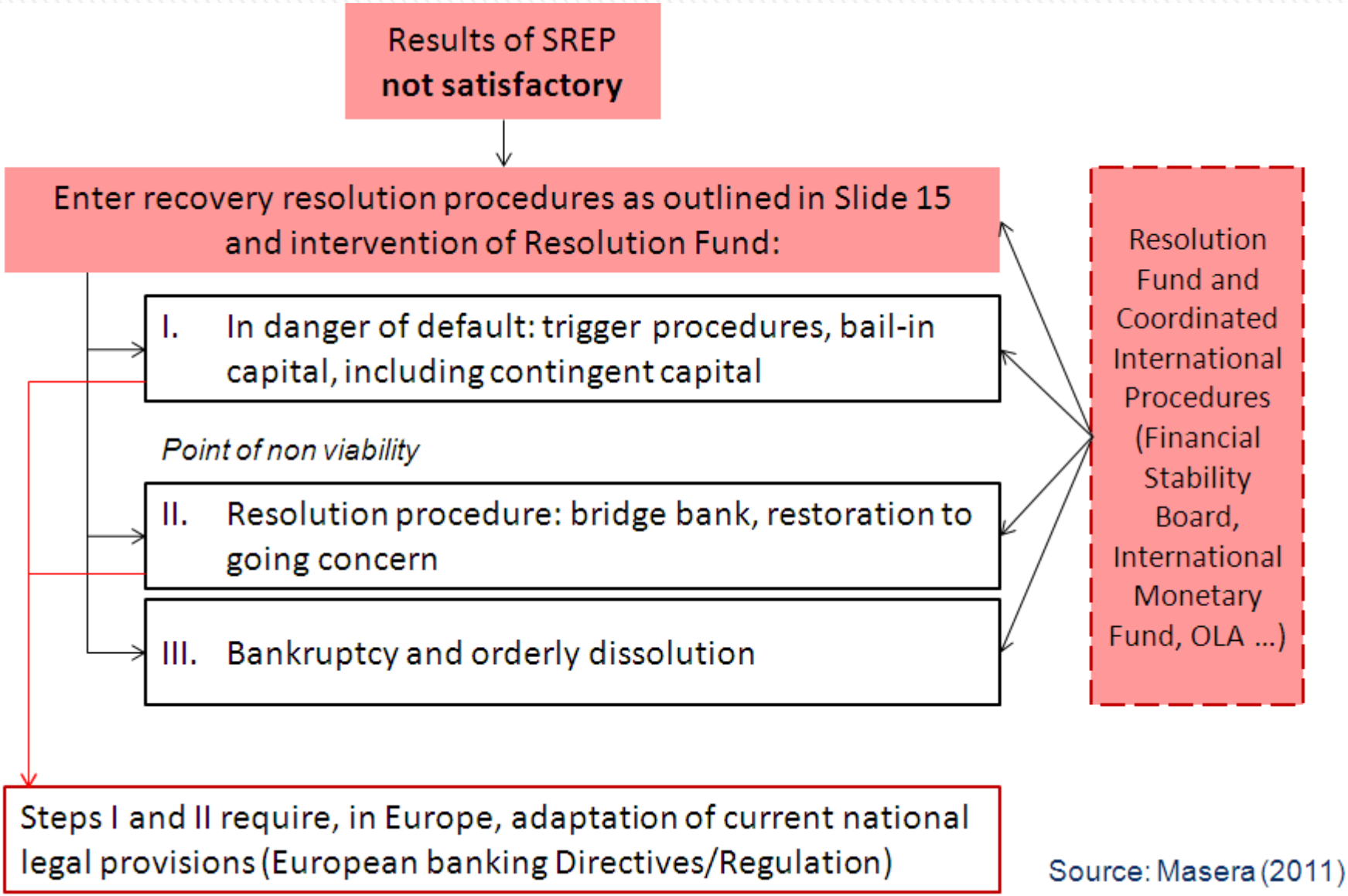



Source: Masera (2011)

# Fig. 11 - A four-partite framework of reference in terms of the Basel III (Pillar 2) scheme (ctd.)

| **ICAAP**<br>Internal Capital Adequacy Assessment Process | **SREP**<br>Supervisory Review and Evaluation Process |
|---|---|
| ↘ Proportional to the complexity and risk exposure, under varying severity of the anticipated economic environment<br>↘ Definition of Risk Strategy, Appetite and Capacity (e.g. AA rating)<br>↘ Transparent indication of the firm risk appetite and desired credit rating to supervisory authorities and markets<br>↘ Time-to-market, comprehensive monitoring and assessment (VaR, economic capital, stress tests ...) of risk exposure<br>↘ Prompt corrective action in case of anticipation of/effective departure from desired and declared risk capacity<br><br>Source: Masera (2011) | ↘ Proportional to the overall risk situation of financial institutions, account being taken of the severity of the economic environment and the systemic relevance of the financial firm<br>↘ The (micro)supervisory authority is tasked with:<br>▪ Review and evaluation of the firm's risk profile, account being taken of its systemic risk implication, official stress tests and their benchmarking<br>▪ 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<br>▪ Power to intervene by activating resolution procedures<br>▪ Ensuring full disclosure and transparency, and thus effective market discipline, by taking out the implicit bail-out guarantee. |

# Fig. 12 - A four-partite framework of reference in terms of the Basel III (Pillar 2) scheme (ctd.)




Source: Masera (2011)

# The vicious circle between bank subsidies and moral hazard

- ✓ «We must break the vicious circle which has led to over €4.5 trillion of taxpayers money being used to rescue banks in the EU» (Barroso, June 2012)
- ✓ Without a sound and credible recovery and resolution system the EU risks being like a snake biting its on tail
- ✓ Banks are subsided firms. Subsidies and bail-out promises increase with size and complexity, with the perverse result of leading to larger and more complex banks, and ultimately to more risks for public finances
- ✓ CRD4 already contains perverse disincentives for small banks (too complex models)
- ✓ The US Dodd-Frank approach represents a useful model which starts from the premise that in principle taxpayers should no longer asked to pay for bank losses

# Current US regime: titles I and II of Dodd-Frank Act

The framework provided by the Dodd-Frank Act in the U.S. greatly enhances the ability of regulators to address the problems of large, complex financial institutions in any future crisis.

Title I of the Dodd-Frank Act requires each G-SIFI to periodically submit to the FDIC and the Federal Reserve a resolution plan that must address the company's plans for its rapid and orderly resolution under the U.S. Bankruptcy Code.

The FDIC and the Federal Reserve are required to review the plans to determine jointly whether a company's plan is credible. If a plan is found to be deficient and adequate revisions are not made, the FDIC and the Federal Reserve may jointly impose more stringent capital, leverage, or liquidity requirements, or restrictions on growth, activities, or operations of the company, including its subsidiaries.

Ultimately, the company could be ordered to divest assets or operations to facilitate an orderly resolution under bankruptcy in the event of failure. Once submitted and accepted, the SIFIs' plans for resolution under bankruptcy will support the FDIC's planning for the exercise of its resolution powers by providing the FDIC with an understanding of each SIFI's structure, complexity, and processes.

Source: FDIC and BoE (2012)

# Current US regime: titles I and II of Dodd-Frank Act (ctd.)

Title II of the Dodd-Frank Act provides the FDIC with new powers to resolve SIFIs by establishing the orderly liquidation authority (OLA). Under the OLA, the FDIC may be appointed receiver for any U.S. financial company that meets specified criteria, including being in default or in danger of default, and whose resolution under the U.S. Bankruptcy Code (or other relevant insolvency process) would likely create systemic instability.

Title II requires that the losses of any financial company placed into receivership will not be borne by taxpayers, but by common and preferred stockholders, debt holders, and other unsecured creditors, and that management responsible for the condition of the financial company will be replaced.

Once appointed receiver for a failed financial company, the FDIC would be required to carry out a resolution of the company in a manner that mitigates risk to financial stability and minimizes moral hazard.

Any costs borne by the U.S. authorities in resolving the institution not paid from proceeds of the resolution will be recovered from the industry.



Source: FDIC and BoE (2012)

# The various forms of public subsidy to banking firms

I. Deposit insurance, without an harmonised risk related ex ante funding by contributions from the banking sector

II. Safety nets for bonds (in varying degrees): reduced credit spreads

III. Implicit guarantees for equity holders: lower credit spreads automatically increase the value of the equity

IV. Special liquidity lines from the Central Bank (as lender of last resort and provider of special refinancing support [LTRO])

# The principal consequences

I. Bondholders/creditors do not monitor the bank, hence equity holders/bank managers take excessive risks (win-win situation)

II. When more capital is imposed by regulatory authorities, it is expensive as a source of finance and can incentivise perverse risk taking

III. In conclusion, the more widespread and “credible” are the safety nets, the more acute the moral hazard problems become

# An apparent digression on the relation between government subsidies and the Basel capital rules

- ✓ It is now commonly held by many central bankers and some reputed academicians that capital is not costly as a source of finance, following the extreme Modigliani and Miller model (1958; 1963)
- ✓ If capital is costly, there are obvious incentives of bankers to game capital rules (accounting capital calculation, RWA)
- ✓ If a bank is in distress, stockholders have an incentive to take high risk gambles at the cost of bondholders; equity becomes (very) costly, as the "risk-shifting problem" indicates (Masera and Mazzoni, 2013)
- ✓ Quite apart from other considerations on the extreme M&M assumptions, notably the absence of bankruptcy costs, government guarantees in themselves make capital expensive as Miller himself (1995) clearly recognised:

  *«If the government is ensuring bank deposits, either explicitly or implicitly via the too-big-to-fail doctrine, then it effectively stands as a creditor vis-à-vis the bank's owners… raising new equity may then transfer wealth from the old shareholders to the bondholders»*
- ✓ The issue of the cost of capital is, therefore, of fundamental importance to assess the supervisory process and the internal capital adequacy assessment (SREP and ICAAP)

# Book vs. financial accounting

- ✓ Book accounting (the point of reference of the Basel standards) is not capable of recognising the issue and the relevance of the distortions created by government subsidies, because fees are not paid by the banks and counterpart liabilities are not recorded in public accounts

- ✓ Financial accounting and notably the Merton model (1977) show instead that markets price the risk of default faced by bank bondholders (the price of the embedded put in the Merton framework [Maino and Masera, 2005]) by taking into account the implicit bail-out promises even for senior unsecured debt holders

- ✓ Growing substantial evidence on the relevance of these issues is now available from academic and official sources*. An example is offered here in Figures 12 and 13

* Reference is made to Haldane (2010), Baglioni and Cherubini (2010, Estrella e Schich (2011), Moody's (2011), Gray (2012), Noss and Sowerbutts (2012), Schich and Lindh (2012), Ueda and Weder (2012), Masera and Mazzoni (2013).

# The applicability of the M&M's leverage irrelevance theorem to banks

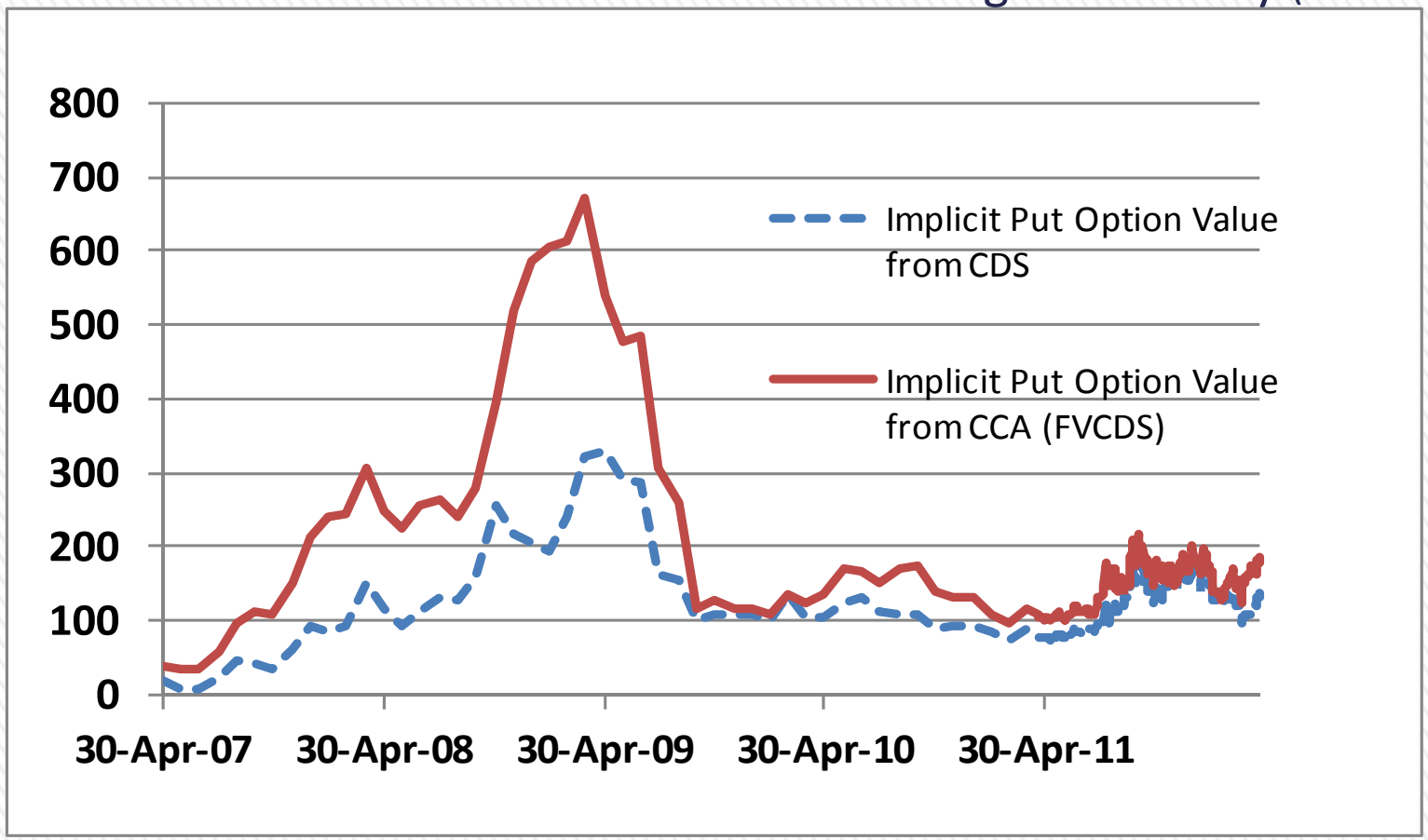
[The following pages are taken from

Masera and Mazzoni (2013)

a paper which might have been coauthored by Renato, as a development of our joint paper of 2010]

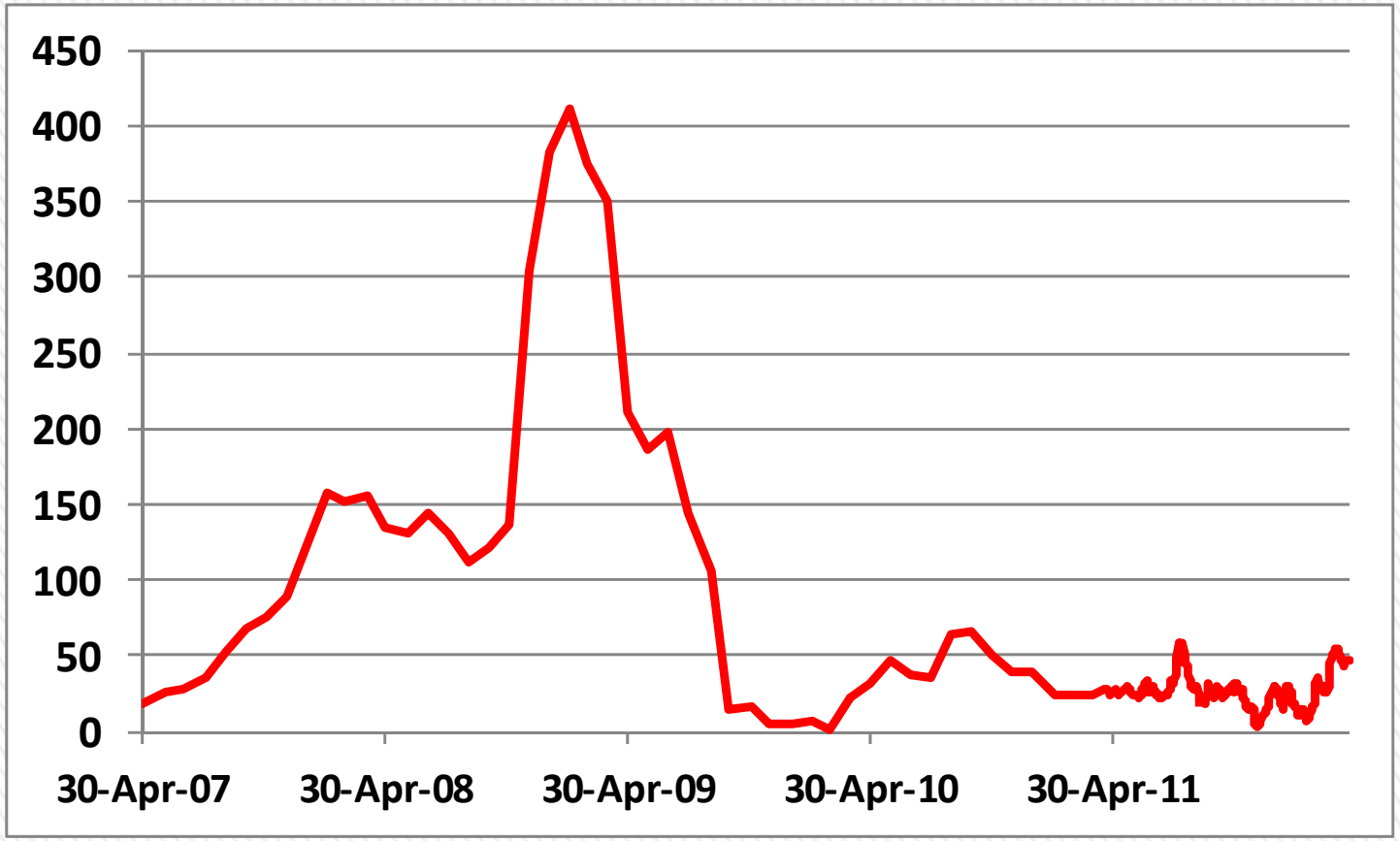
# The relevance of government guarantees in favour of systemic banks (the case of Citi)

Fig. 12 - Citigroup: Example of Implicit Put Option Value Extracted from CDS vs from CCA model and Estimated Contingent Liability (billions of US$)




Source: Gray (2012)

# Fig. 13 - Citigroup: Estimated “market implied" government contingent liability

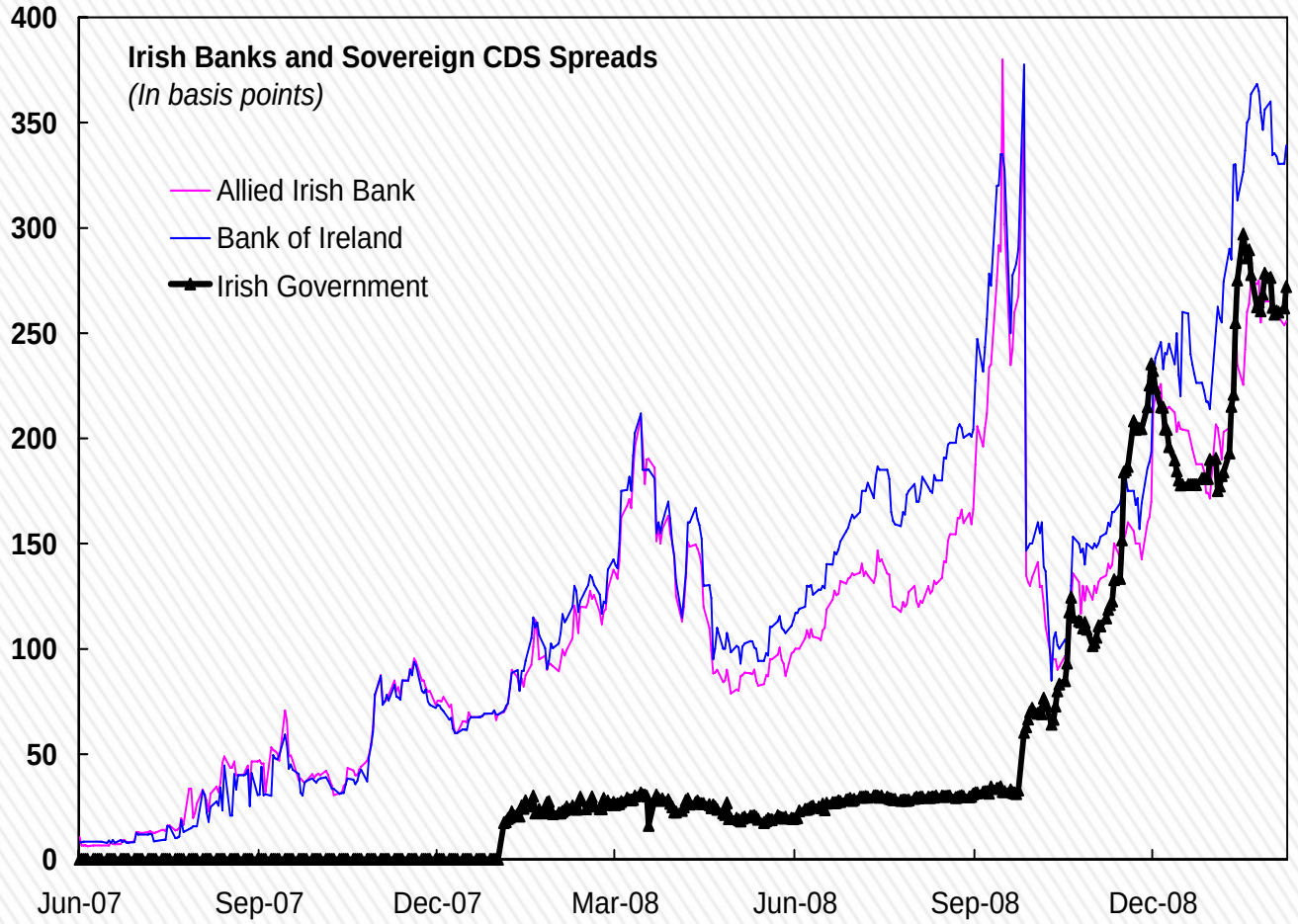



Source: Gray (2012)

# The intertwining of sovereign and banking risks

- ✓ The intertwining of bank and sovereign risk through government guarantees is especially relevant and dangerous in the Eurozone [Gros, 2012]
- ✓ This issue is graphically exemplified in the following chart.

Fig. 14 -Transfer of Risk: Ireland CDS spreads of banks declined following guarantees in 4Q 2008 and sovereign spread increases




Source: Bloomberg L.P.

✓ The need for prompt corrective action and the advantages of market-based risk measure for bank are illustrated in Charts 15 and 16

Fig. 15 - Prompt corrective action and P/B ratio: SNS REAAL

# Fig. 16 - Prompt corrective action and P/B ratio: BANKIA

# Conclusions

- ✓ The “banking union” addresses fundamental issues for the functioning of EMU: microsupervision, recovery and resolution and the role of government promises in favour of banks
- ✓ The safety nets reduce the cost of overall funding at the cost of taxpayers and distort market discipline (the third Basel pillar).Their opacity and uncertainty of application make it difficult to offer a precise book accounting representation, but this should not lead to their disregard in the regulatory and supervisory Basel framework. Evidence on these issues is offered by approaches based on financial accounting
- ✓ Moral hazard inevitably arises if banks (especially SIFIs) and uninsured lenders believe that rescue nets will be activated at taxpayer costs: on the one hand, banks will increase their risk appetite, on the other hand providers of finance will not perform their disciplinary role. Government interventions in favour of bondholders undermined market discipline and created wrong incentives
- ✓ Debt holders, without implicit government guarantees and subject, at least for subordinated debt, to bail-in clauses would have aligned interests with those of deposit insurance funds and, hence, ultimately with the taxpayer. Holders of debt do not profit from risky investments undertaken by the bank, as shareholders and bank managers do, but they share the losses if excessive risk taking takes its toll

# Conclusions (ctd.)

- ✓ The distortions are amplified if government finances are not credible as providers of safety nets, as has been the case in the Eurozone monetary union
- ✓ Even without government guarantees, if banks are in severe stress and face default perspectives, the risk shifting “incentive” arises: imposition of more capital requirements leads to more risk taking by equity holders, which attempt to shift the burden to bondholders
- ✓ The move to a single supervisor must be accompanied by the simultaneous activation of RRF: the single supervisor requires a EU resolution mechanism
- ✓ The measures to create a viable recovery and resolution framework should had been taken years ago, as was envisaged in the de Larosiére Report
- ✓ This joint exercise must be conducted at European level, to address the fundamental, very complex legal problems encountered in enacting early corrective interventions on banks which are still on a going concern basis
- ✓ The Banking Union would also help contain the destabilising loop between bank and sovereign risk
- ✓ Prompt correction action is vital to reduce costs, but banks should not be always saved

# Conclusions (ctd.)

- ✓ Early warning systems must be in place to facilitate PCA: P/B ratios contain highly relevant information, especially when the ratio stays below unit for prolonged periods
- ✓ In order to address the difficult choice between recovery and resolution, the fundamental M&M lesson should be used: reference must be made to the enterprise value, i.e. the sustainable relationship between ROA and WACC
- ✓ The angel-guardian and the terminator should be different entities, naturally working on a cooperative basis (see US model)
- ✓ In order to contain SIFIs problems, more capital cannot be the main answer: a fund financed with fees related to the pollution to the system created by each systemic bank should be in place (Maino, Masera and Mazzoni, 2009 and Acharaya and Öncü, 2012)
- ✓ The extreme M&M irrelevance propositions do not hold; in general, private and social benefits/costs of capital increases diverge

# Conclusions (ctd.)

- ✓ Final point: Corporate and Risk Governance (CRG) of the banks plays an essential role to ensure stability, efficiency and competitiveness of the individual firms and of the industry. CRG must be managed primarily inside the firm, with solutions and choices aimed at fostering sustainable wealth creation and consistent with regulatory and prudential constraints. The latter are justified and required by the externalities of the banking system. CRG should overcome the focus on short-term objectives, which neglect risk profiles. In the context of close and prompt interaction of ICAAP and SREP, supervisory authorities should closely overview the adequacy of CRG (as rightly indicated in the Basel III approach). Should bondholders be represented in the Board of Directors?

- ✓ Special emphasis must be given to the huge litigation costs of large banks (mis-sold products, Libor fixing, money laundering, tax evasion, …) with total estimated costs of over $230 billion (Credit Suisse, 2013 and Masera, 2013), which betray evident flaws in corporate governance.

## Acronyms

| | |
|---|---|
| ASC | Advisory Scientific Committee |
| ATC | Advisory Technical Committee |
| BCFP | Bureau of Consumer Financial Protection |
| CCA | Contingent Claims Analysis |
| CDS | Credit Default Swap |
| CP | Consumer Protection |
| CRD | Capital Requirements Directive |
| CRG | Corporate and Risk Governance |
| EBA | European Banking Authority |
| ECB | European Central Bank |
| EFSF | European Financial Stability Facility |
| EIOPA | European Insurance and Occupational Pensions Authority |
| EMU | Economic and Monetary Union |
| ESFS | European System of Financial Supervision |
| ESM | European Stability Mechanism |
| ESMA | European Securities and Markets Authority |
| ESRB | European Systemic Risk Board |
| EU | European Union |
| FDIC | Federal Deposit Insurance Corporation |
| FSOC | Financial Stability Oversight Council |
| G-SIFIs | Global Systemically Important Financial Institutions |
| GDP | Gross Domestic Product |
| GSF | Global Financial System |
| ICAAP | Internal Capital Adequacy Assessment Process |
| M&M | Modigliani and Miller |
| NCB | National Central Banks |
| PCA | Prompt Corrective Action |
| OFR | Office of Financial Research |

## Acronyms (ctd.)

| | |
|---|---|
| OLA | Orderly Liquidation Authority |
| OLAP | Orderly Liquidation Authority Panel |
| OLF | Orderly Liquidation Fund |
| OtC | Over the Counter |
| RM | Resolution Mechanism |
| ROA | Return On Assets |
| RR | Regulatory Reform |
| RRF | Recovery and Resolution Framework |
| RWA | Risk-Weighted Assets |
| SIFI | Systemically Important Financial Institution |
| SIPC | Securities Investor Protection Corporation |
| S&R | Supervisory and Regulatory |
| SREP | Supervisory Review and Evaluation Process |
| SRM | Single Resolution Mechanism |
| TARP | Troubled Asset Relief Program |
| US | United States |
| VaR | Value at Risk |
| WACC | Weighted Average Cost of Capital |

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