

The Sovereign Crisis- Key issues & perspectives for financial supervision (*)

Workshop “Dette souveraine, fragilité bancaire et risque systémique ”

Université Paris Ouest-Nanterre-La Défense, 30 mai 2012

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ACP

(*) The contributions by A. Aqochih and A. Bousquet are gratefully acknowledged

Introduction

1-The Greek problem and beyond:

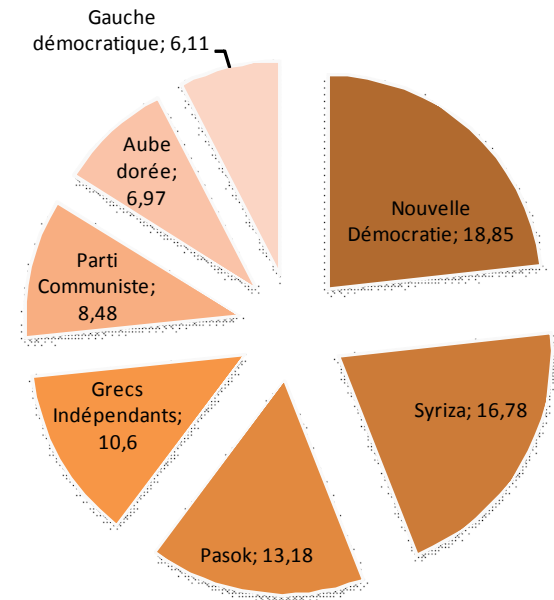
How to define a win-win exit from the austerity *trap* ?

**2- Consequences for banks: the bank-sovereign nexus :
how to break it?**

The Greek problem

Summary of the latest events

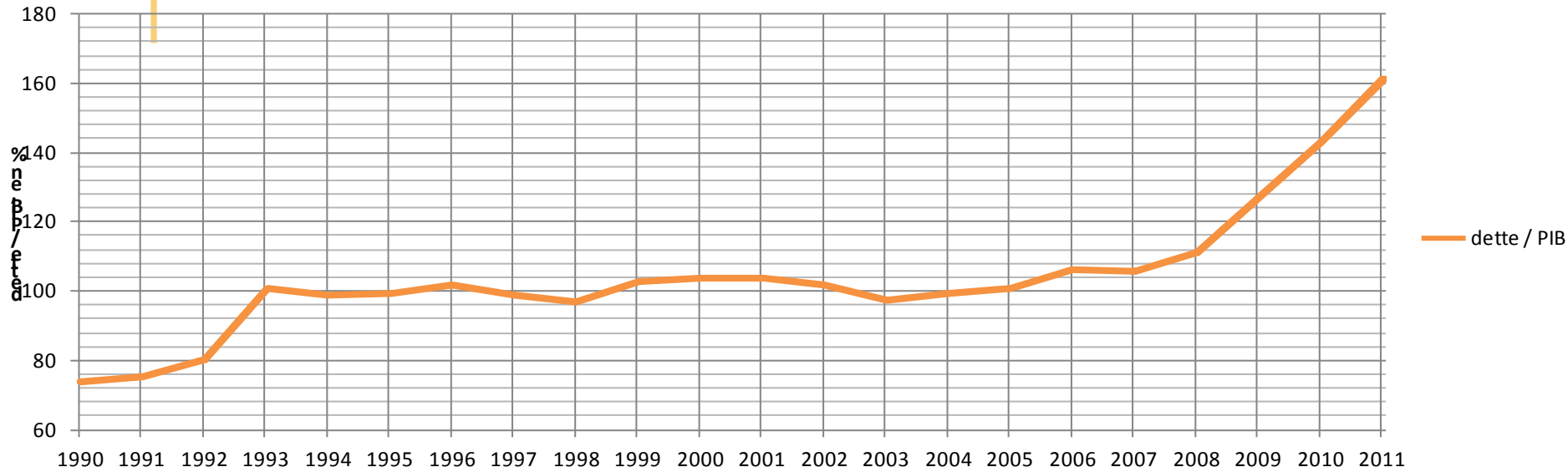
- Greek PSI on 21 February 2012 : *haircut* by 53.5% (in nominal value, and more than 70% in present value of new claims) for Greek debt held by private sector
- General elections, on May 6 : no majority
- New ballot on June 17



Source : Greek Ministry of Interior

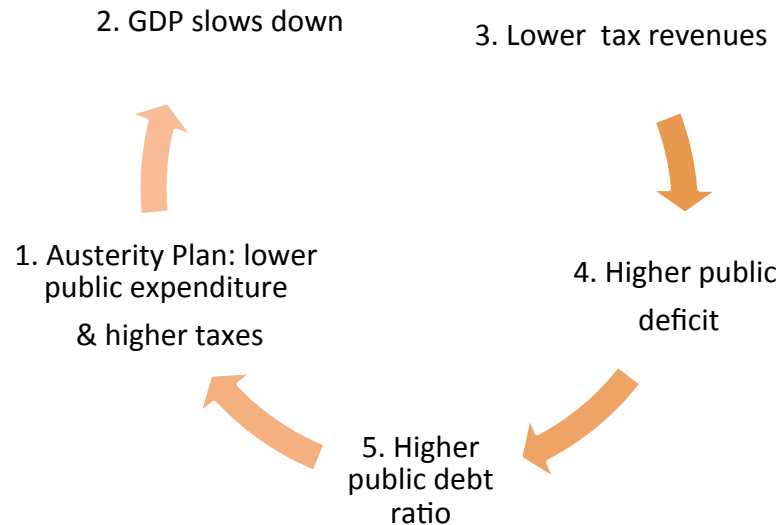
- Governments in Euro area call for keeping Greece

Grèce : ratio dette / PIB



Source : FMI

Austerity trap



**To exit the *austerity trap* :
need to foster GDP
growth, but how?**

Structure of presentation

- 1. The sovereign crisis : implications for the banking sector**
- 2. Does prudential regulation provides financial institutions the right incentives to address sovereign risk ?**
- 3. Regulatory changes and the deepening of supervision : towards a new monitoring framework for sovereign risk?**

1. The sovereign crisis: implications for the banking sector

1. The sovereign crisis : implications for the banking sector

1.1. Where are we now and how did we get there?

- a. Hyper-sensitivity of financial markets
- b. Fiscal landscape still very much under strain
- c. French banks and sovereign debt : deleveraging

1.2. From bank risk to sovereign risk : the main channels of transmission

- a. Asset side
- b. Liability side
- c. ECB tools to break the bank-sovereign nexus-how efficient?

1.1. . Where are we now and how did we get there?

1.1.a. Financial markets have become hyper sensitive to sovereign risks

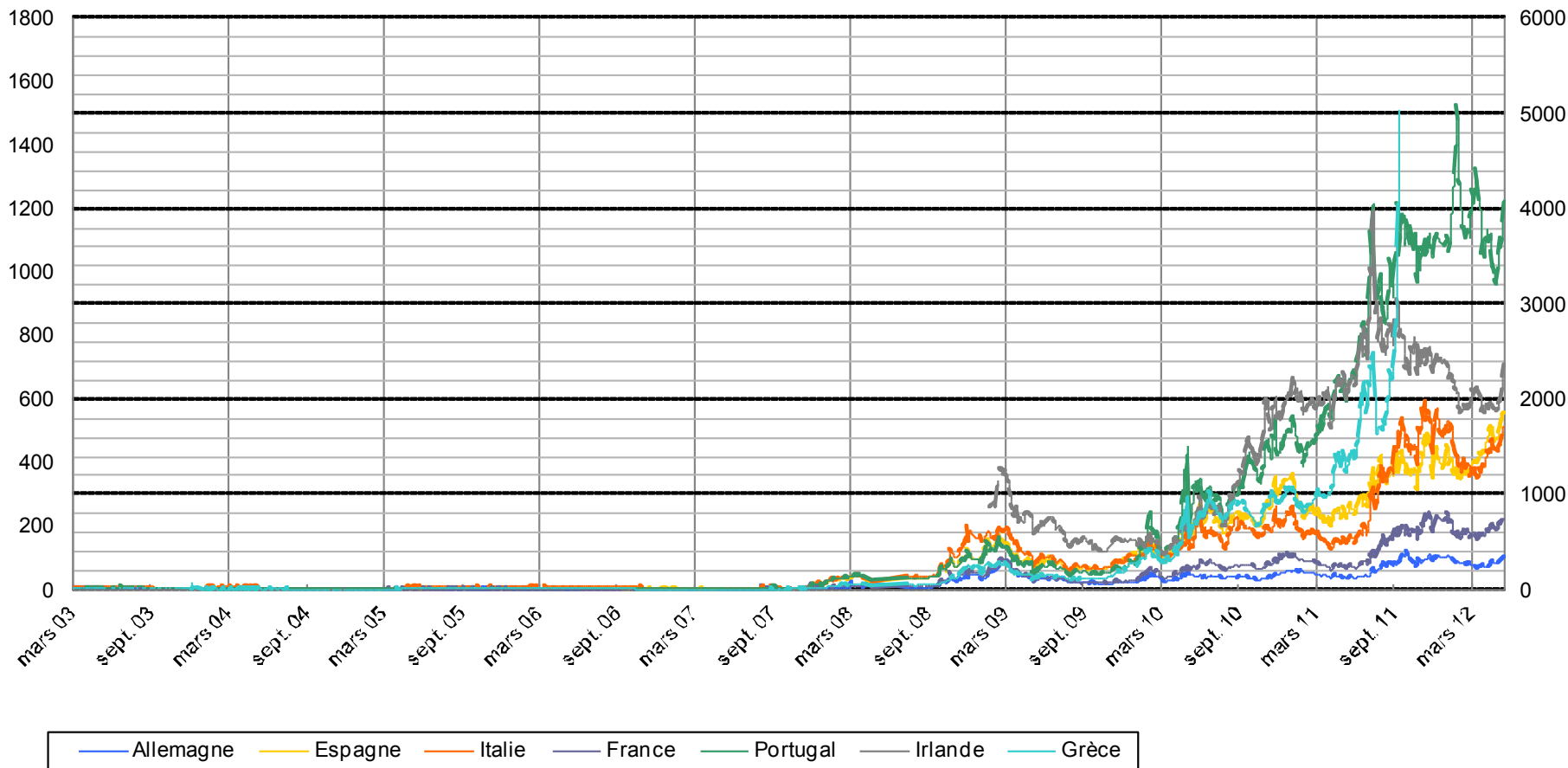
⇒ 1999-2008 : no discrimination across sovereign (*Great Moderation effect*)

Greek sovereign risk ↔ German sovereign risk

⇒ 2009-2012 : markets discriminate very severely across sovereigns

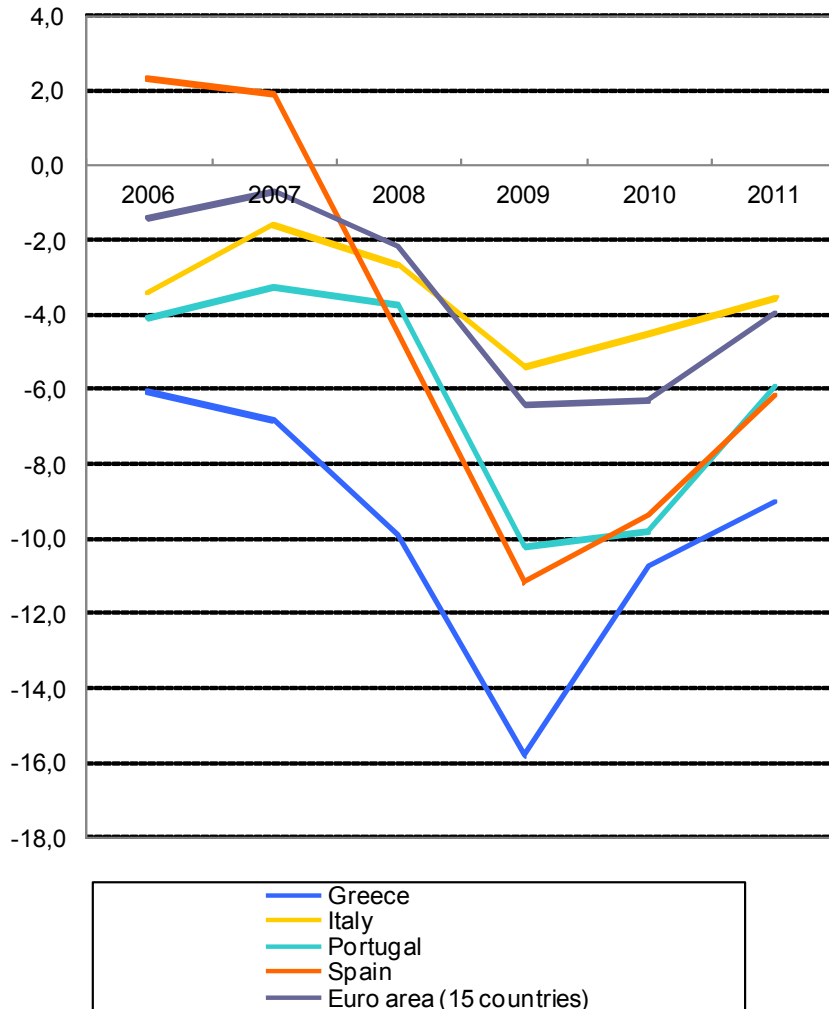
Greek sovereign risk >>>>> German sovereign risk

CDS premiums on Sovereigns, in basis points – France, Germany and Europeriphery (incl. Greece, right scale).

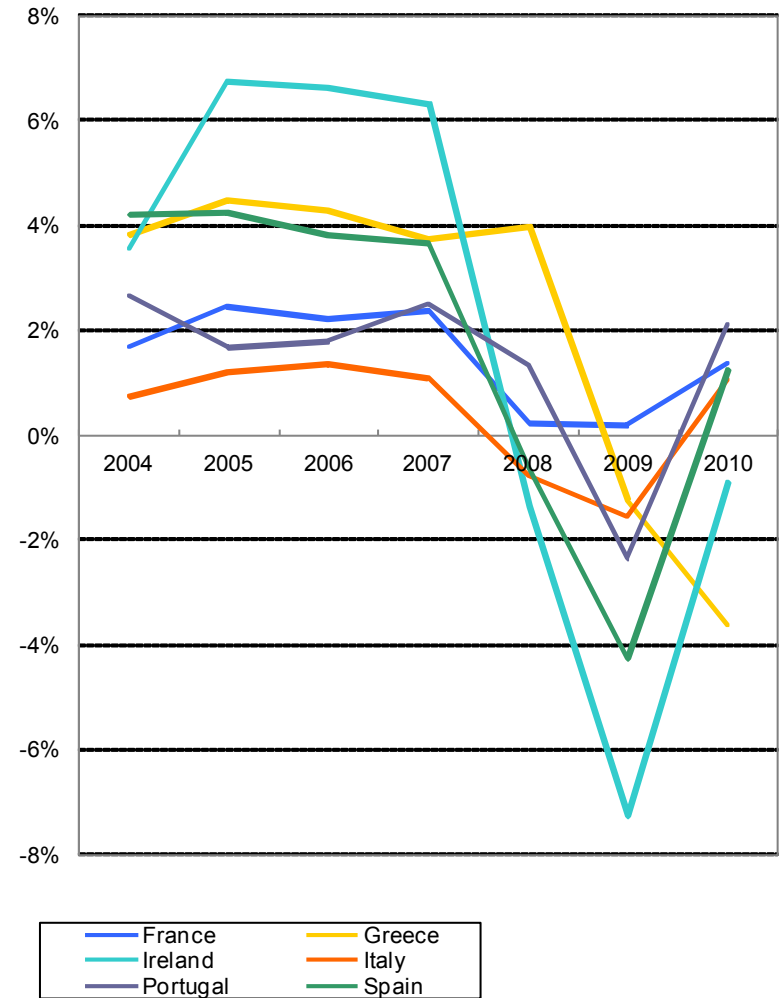


Source : Bloomberg

1.1.b. Only timid improvement in the fiscal landscape, still under considerable strain



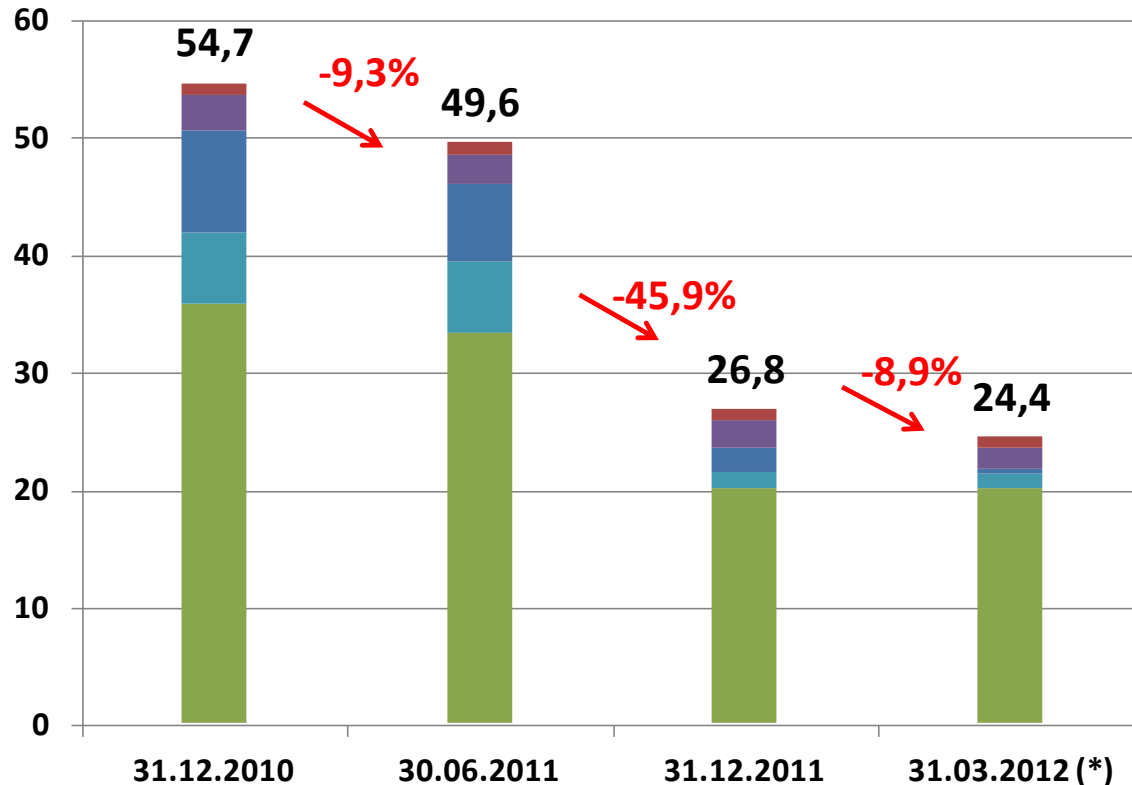
Source : OCDE



Source : OCDE

1.1.c. French banks and sovereigns : deleveraging is under way

Expositions souveraines (pays euro-périphériques) en portefeuille bancaire
(BNPP+SG+GCA+BPCE, en GEUR)

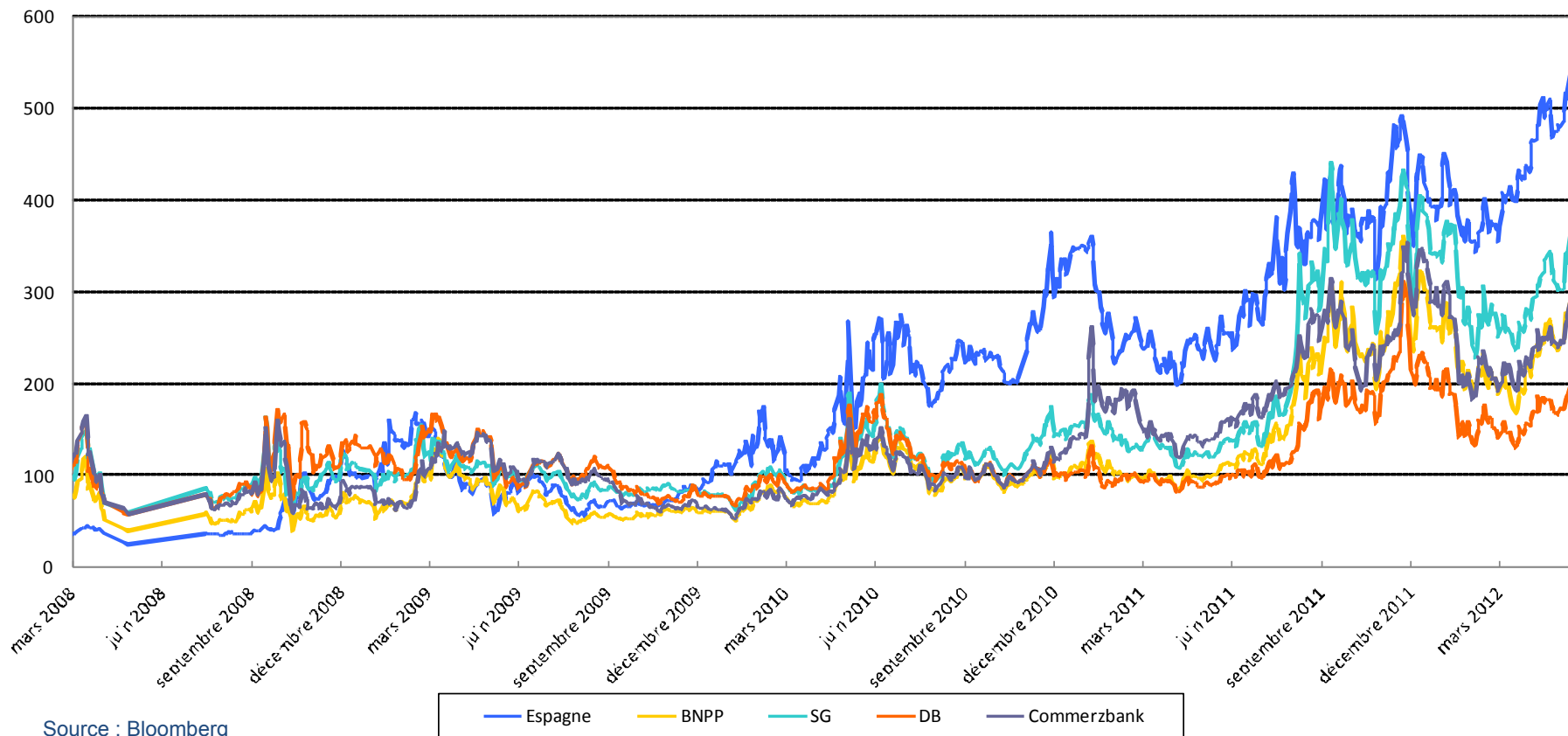


(*) Données au 30/04/2012 pour BNPP Source : communication financières des établissements

■ Italie ■ Espagne ■ Grèce ■ Portugal ■ Irlande

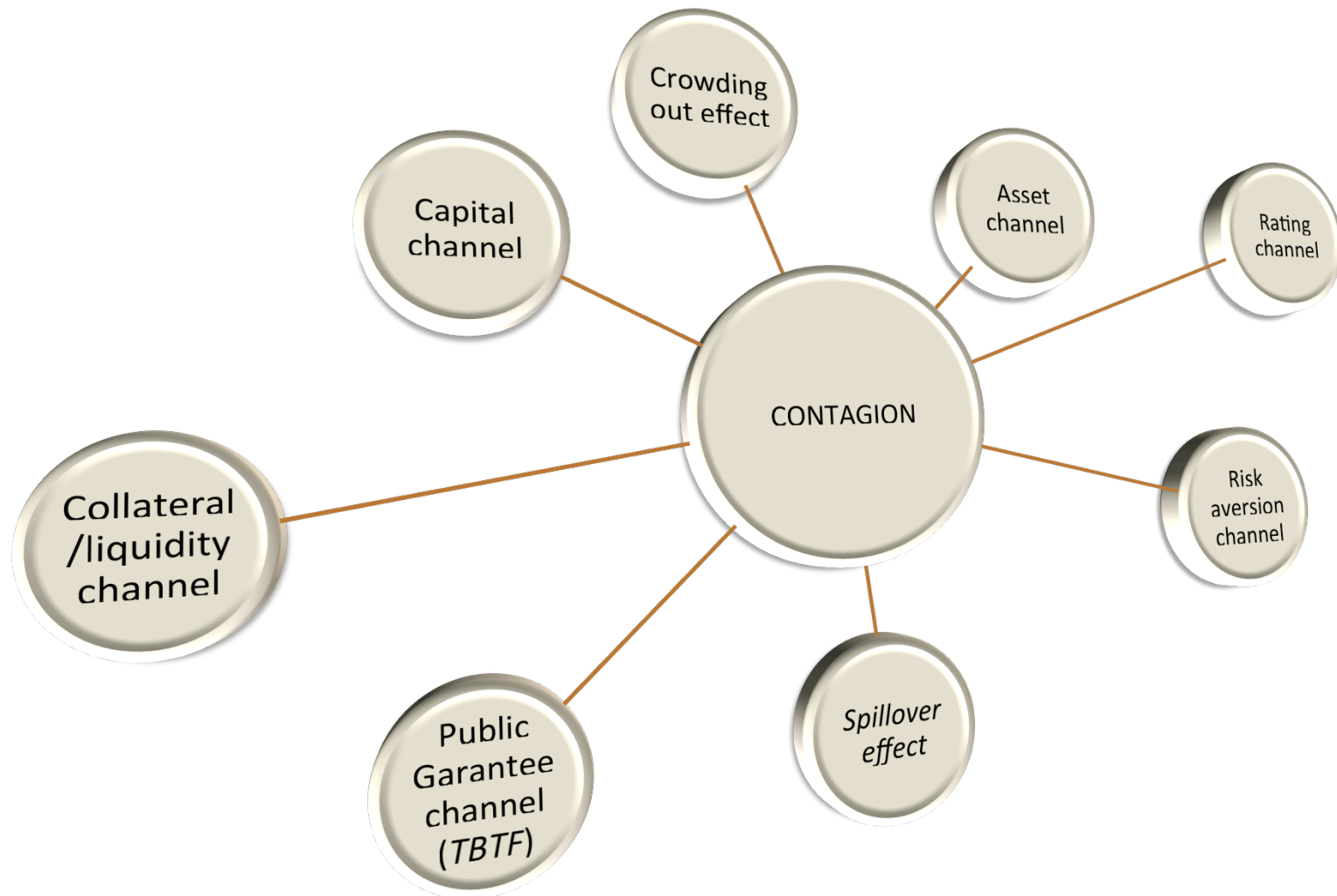
Source : ACP

CDS premiums, in basis points : Spanish sovereign vs 4 Euro area banks



⇒ in crisis times, international banks known to have significant exposures to europeripheral sovereign debt comove with those sovereigns -here measured by CDS spreads

1.2. From sovereign risk to bank risk : main channels



1.2. From sovereign risk to bank risk : main channels

Bank assets		Bank liabilities
First round effect	Asset channel	Collateral/liquidity channel
		Risk aversion channel
		Public guarantee channel (TBTF)
Second round effect	<i>Spillover effect</i>	Crowing out effect
		Rating channel
		Capital channel

1.2.a. On the asset side



1st
round

Increase in public debt in country A leads to the depreciation of sovereign assets held by banks in country A (prices factor in higher depreciation risk) = **assets channel**

THEN

2nd
round

Lower value of sovereign assets in other countries that have economic links (e.g. trade) with country A = **spillover effect**

1.2.b On the liability side :

1st
round

Higher sovereign risk in country A requires banks to pledge more collateral for refinancing operations (**collateral/liquidity channel**). On top of that, in a context of increased risk aversion, interbank funding becomes more costly (**risk aversion channel**).

Government in country A offers implicit guarantee, on the basis of the **too big too fail** principle (**public guarantee channel**), but such a protection loses its relevance for globally systemic institutions

THEN

2nd
round

In the bond market, the **higher volume of sovereign issuance by country A constrains the ability of private banks to issue bonds** (crowding out effect). In addition, the existence of an **implicit sovereign debt ceiling** leads to rating downgrades for the sovereign in country A, hence on banks in country A, as the sovereign's capacity to bail-out home banks is curtailed, leading to **higher financing costs for banks** in country A (rating channel des notations). At the same time, the **lower quality of bank assets** requires banks to increase capital (**capital/solvency channel**).

1.2.c. ECB tools to break the bank-sovereign nexus

Warning : ECB cannot, according to the current Treaties, implement a *Quantitative Easing policy* similar to the US, but several tools are available.



2. Does prudential regulation provides financial institutions the right incentives to address sovereign risk ? (*)

(*) for complements see D. Nouy “Is sovereign risk properly addressed by financial regulation” Financial Stability Review,

April 2012

2. Does prudential regulation provides the right incentives to address sovereign risk ?

2.1. Sovereign risk in Basel II and the Capital Requirement Directive

- a. Standard Approach**
- b. IRB Approach**

2.2. For long, prudential regulation has not required financial institutions to hold sufficient capital against sovereign debt, often viewed as a low risk asset

- a. Sovereign risk in banking regulation**
- b. Sovereign risk in insurance regulation**

2.1. Sovereign risk in Basel II and the Capital Requirement Directive

a) Standard approach:

- Risk weights depends on the currency of issuance of sovereign debt :

→ in local currency : *full discretion by local authorities.*

→ in foreign currency : *based on a regulatory matrix:*

Credit assessment	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
Risk weight	0%	20%	50%	100%	150%	100%

2.1. Sovereign risk in Basel II and the Capital Requirement Directive

b) Under internal ratings-based approach (IRB) :

- Used by most international banks
- Weighted risks associated to exposures on sovereign borrowers are computed according to a regulatory formula
- Computations through a risk weight function developed by the Basel Committee (Gordy, 2003) with :
 - ✓ **PD** : default probability ;
 - ✓ **LGD** : loss given default ;
 - ✓ **EAD** : exposure at default.

2.2. For long, prudential regulation has not required financial institutions to hold sufficient capital against sovereign debt, often viewed as a low risk asset

2.2.1. Prudential regulation in the banking sector

- **Under Basel II and CRD: low capital requirements, incentive to hold sovereign debt**
 - **In standard approach:** debt in local currency, in practice often zero RWA (in Euro area, this includes sovereign debt from other Euro area countries) ; in foreign currency, preferential treatment as compared to other asset classes
 - **In IRB approach:**
 - ✓ While not automatic, it allows banks to use a PD of zero
 - ✓ Banks may be authorized under some circumstances to implement standard approach (but only for the sovereign portfolio), as the estimation of credit risk parameters for sovereigns remains an challenging task

2.2.1. Prudential regulation in the banking sector

- ❑ Under Basel III, the liquidity coverage ratio provides incentive to hold sovereign debt
- To meet the LCR regulation, banks will need to hold a more significant portfolio of liquid assets in order to cover liquidity needs in a specific stress test scenario (30 day net outflows, or floor on 25% of outflows -the latter being actually not binding for European banks) :

Liquidity coverage ratio (LCR)

$$\frac{\text{Stock of high-quality liquid assets (Level 1+Level 2)}}{\text{Cash outflows} - \min[\text{inflows}; 75\% \text{ outflows}] \text{ over the next 30 calendar days}} \geq 100\%$$

- Level 1 assets, mainly including government bonds, can be included without limit in the portfolio of liquid assets, while level 2 assets are capped to 40% of their amount, hence providing further incentives to hold government bonds.

2.2.1. Prudential regulation in the insurance sector

- ❑ **Capital requirements under Solvency I for insurance companies are not directly asset risk-sensitive :**
 - Concentrates on the liability side (insurance risk)
 - Regulation in non-life activities, solvency depends on premiums and claims ;
 - Regulation in life activities, solvency depends on mathematical provisions

 - ❑ **Arguably, there are additional qualitative rules :**
 - ✓ Principle of security and congruence of assets ;
 - ✓ Rules on asset diversification (category and proportion of the total).

 - ❑ **But no rule targeted at exposures to sovereign borrowers.**
- **Solvency I may be viewed as providing an incentive to hold sovereign debt**

3. Regulatory changes and the deepening of supervision : towards a new monitoring framework for sovereign risk?

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3.1. Regulatory changes under way in the banking area provide encouraging signals

3.2. New regulations in the insurance sector

3.3. The deepening of surveillance at the European level

3. 1. Regulatory changes under way in the banking area provide encouraging signals

- Regulatory changes – Basel 2.5 et III / CRD II-IV Directive enhance asset risk management:
 - Reduction in the reliance on ratings provided by rating agencies will foster a better assessment of the quality of financial instruments and management of exposures
 - New rules for trading assets, known as Basel 2.5, introduce new capital requirements – in the form of an *incremental risk charge (IRC)*
 - ✓ Takes into account of losses associated to default or rating migrations for the trading portfolio (including government bonds), with charges computed separately for each issuer
 - ✓ In Europe as of end 2011
 - ➔ IRC allows a better monitoring of sovereign risk in the trading book (but no change for sovereign bonds held in the banking book)
- Regarding liquidity, the definition of ratios is still under way :
 - ✓ Observation phase until Mid-2013.

3. 2. New regulations in the insurance sector

□ Solvency capital, or SCR :

- **SCR** (*solvency capital requirement*) is based on a value-at-risk measure calibrated on a 99.5% confidence level at a one year horizon ;
- SCR cover all risks (insurance, market, operational risk) ;
- Based on standard formula or internal model validated by supervisory authorities.

□ Draft directives :

- ✓ **In level I directives (higher level), the question of government bonds issued by member states is not directly addressed** but this point could be reviewed by directive Omnibus II currently under negotiation : the Parliament wishes to consider the sovereign risk...
- ✓ **In draft level 2 directive, government bonds would be excluded from the computation of SCR for spread risk and concentration risk (at least in standard formula)→ this provides an incentive to invest in government bonds** issued by member states;
- ✓ By contrast, the treatment of sovereign bonds included as underlying complex “structured products” is still an open issue.

3. 2. New regulations in the insurance sector

- ❑ Even if many issues are still under discussion, Solvency II introduces a sea change in the management of risk by insurance companies, hence on sovereign risk
 - *Own Risk and Solvency Assessment (ORSA)* :
 - ✓ Insurance companies are required to think ahead of the future changes that are likely to affect their financial situation, including the increase in sovereign risk ;
 - ✓ Need to review regularly their solvency needs, given their specific risk profile
 - ✓ Even if no quantitative constraints for sovereign risk, this risk has to be factored in the ORSA process.

3. 3. Towards a deepening of surveillance in the European context

□ Stress tests by EBA and EIOPA

- EBA formulates **guidelines on stress testing** : *how to use information from stress tests as well as how to implement them in practice.*
- Stress-tests are run jointly by national authorities and EBA.
- 2 types of exercices :
 - ✓ **Bottom-up approach using the sovereign harmonized module** (EBA and EIOPA) ;
 - ✓ Simulations run by supervisors in the **top-down approach** on sovereign exposures by banks and insurance companies.

□ Sovereign Risk was not directly addressed in Summer 2011, but incentive to provide detailed information on sovereign exposures, notably during the end 2011 EBA recapitalization exercise → more information, based on actual regulation, helps reduce risk aversion by market participants.

□ However, need to be aware of difficulties :

- ✓ Given the high level of uncertainty, difficult for supervisors to communicate a sovereign scenario, in particular 6-months ahead ;
- ✓ Difficult to assess contagion risk from a sovereign default and its implication on liquidity
- ✓ Need to avoid unintended consequences from bad communication

Conclusion

Conclusion : towards a new business model?

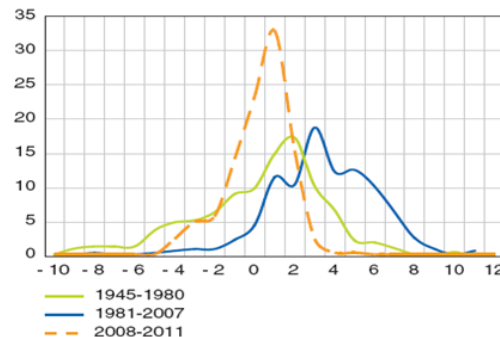
1- A new fiscal and economic environment: different scenarios possible

- (i) exit from austerity gap, thanks to structural reforms
- (ii) return of financial repression

-Financial repression from 1945 to 1980 in the US (Reinhart et Sbrancia, 2011) characterized by

- (i) ceiling on interest on deposits
- (ii) negative real interest rate on govt bonds,
- (iii) massive purchase of govt bonds by Central banks

Return of US Tbills 1945-2011



2- banking supervision: transparency/disclosure by banks to reduce risk aversion by financial markets and intensified supervision, but banks need to remain active investors in their home sovereign