Columbia Business School

National banking in a monetary union: the case of Spain

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Introduction

- An overview of the Spanish banking sector in the context of the real estate bubble:

    ① Private credit in Spain: The time series and the cross section

    - Growth of private credit: Luis's presentation

    ② Spain: A "banking" economy

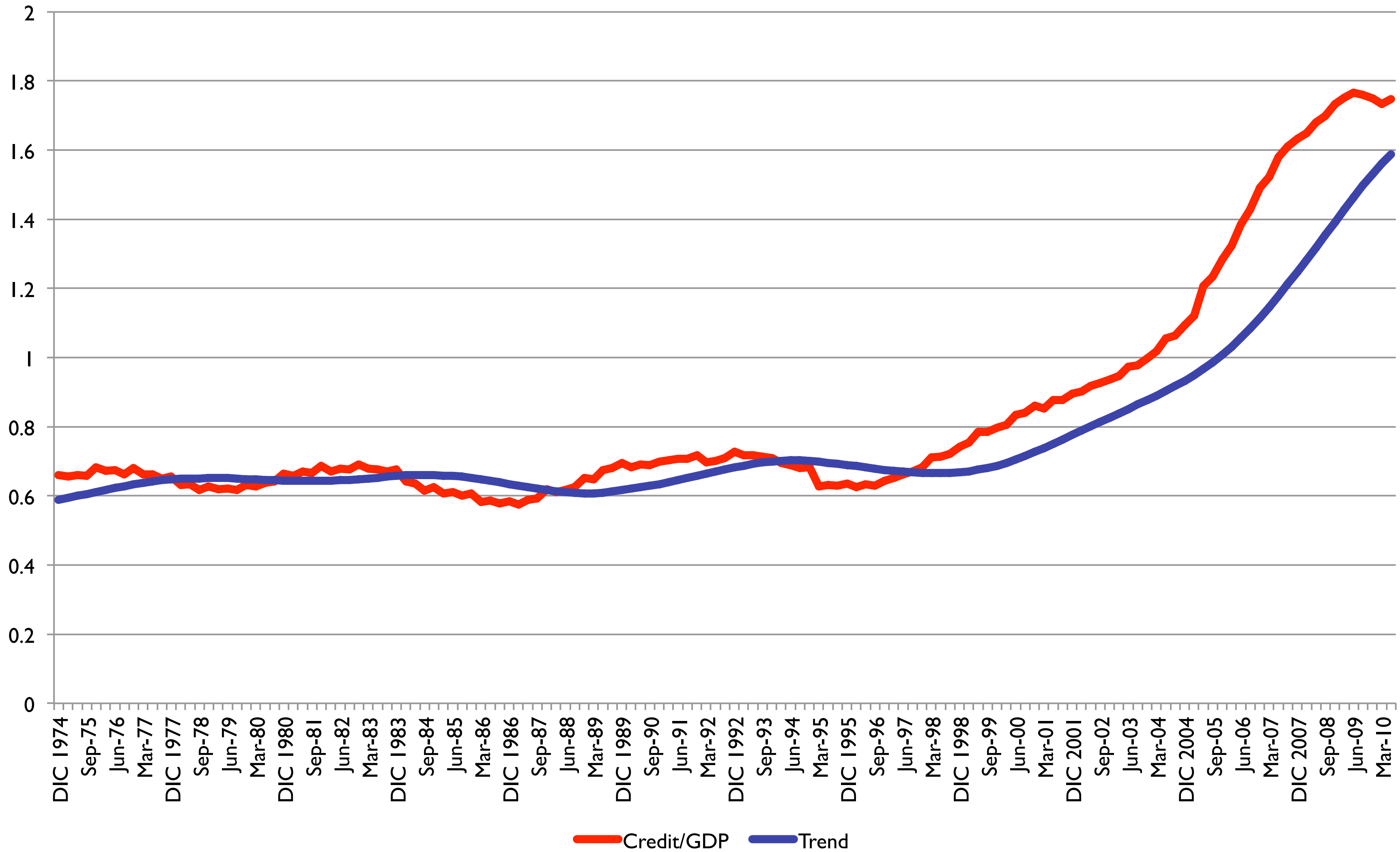
    - Banks and Cajas: What were the cajas?
    - The evolution of the aggregate balance sheets:

    ③ Policy responses to the crisis: Before and after the crisis

    ④ Going forward

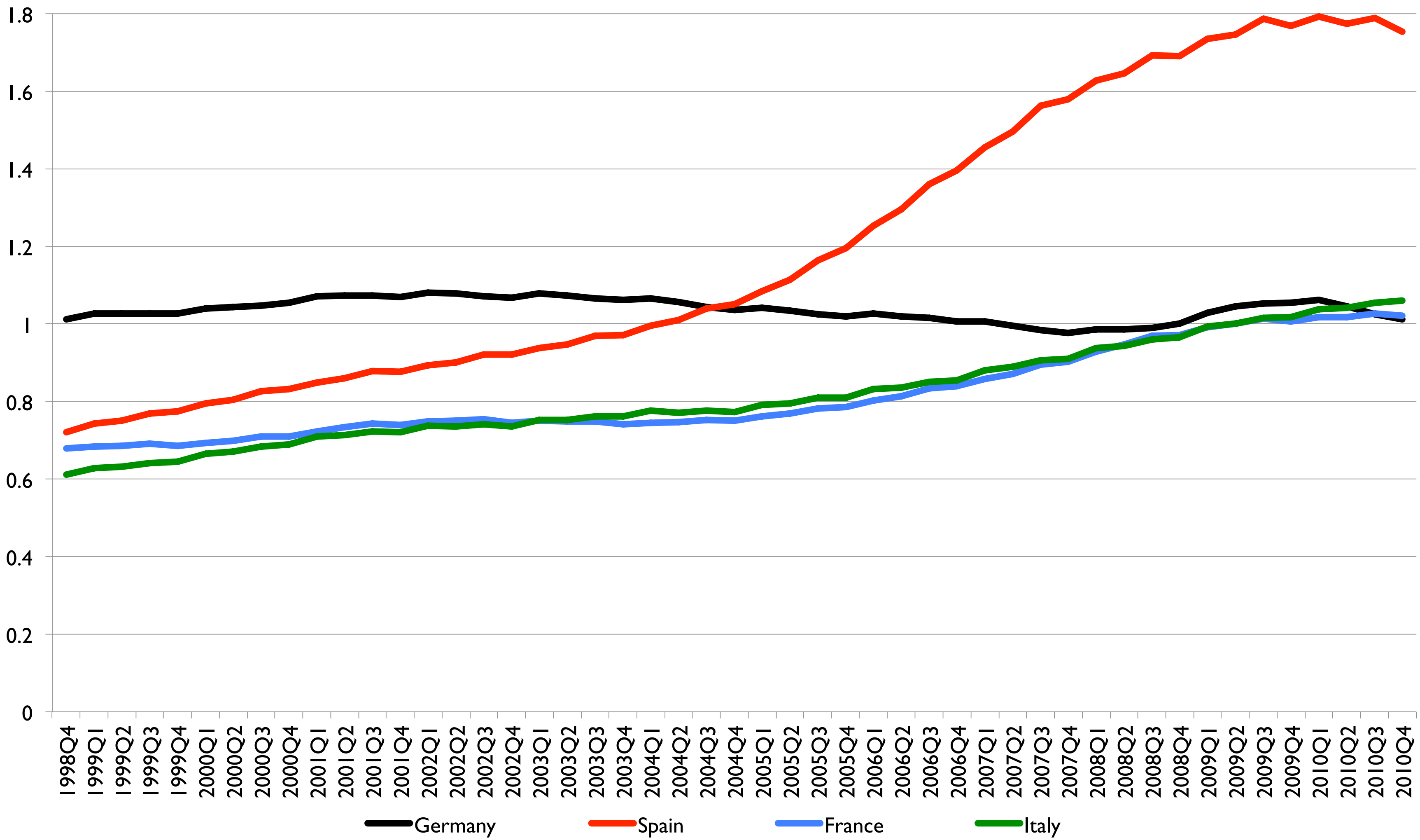
THE CREDIT CYCLE

Spain: Credit: The long view



Credit to other resident sectors by credit Institutions (BE041301) as a fraction of GDP. Quarterly. 1974Q4 to 2010Q2. The trend is estimated with a backward MA-20. Source: Bank of Spain and INE

Spain: Credit: The cross sectional view



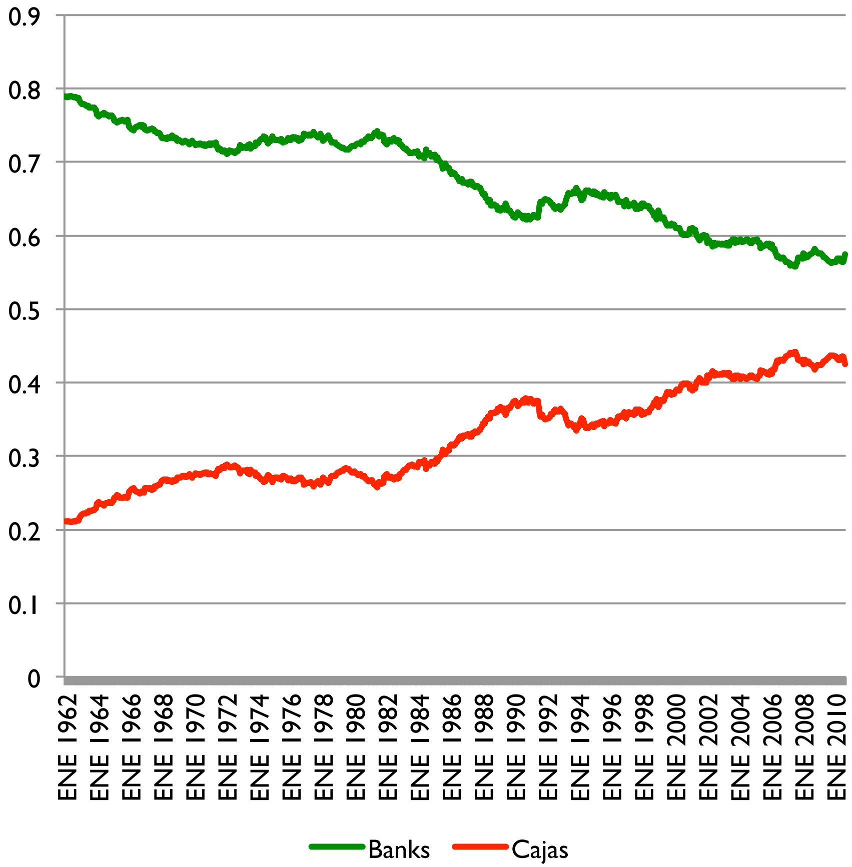
Loans to other residents granted by monetary financial institutions as a fraction of GDP for Spain, Germany, France and Italy. Quarterly. Smoothed with an MA-4. 1998Q4-2010Q4. Data source: Eurostat

THE SPANISH BANKING SECTOR

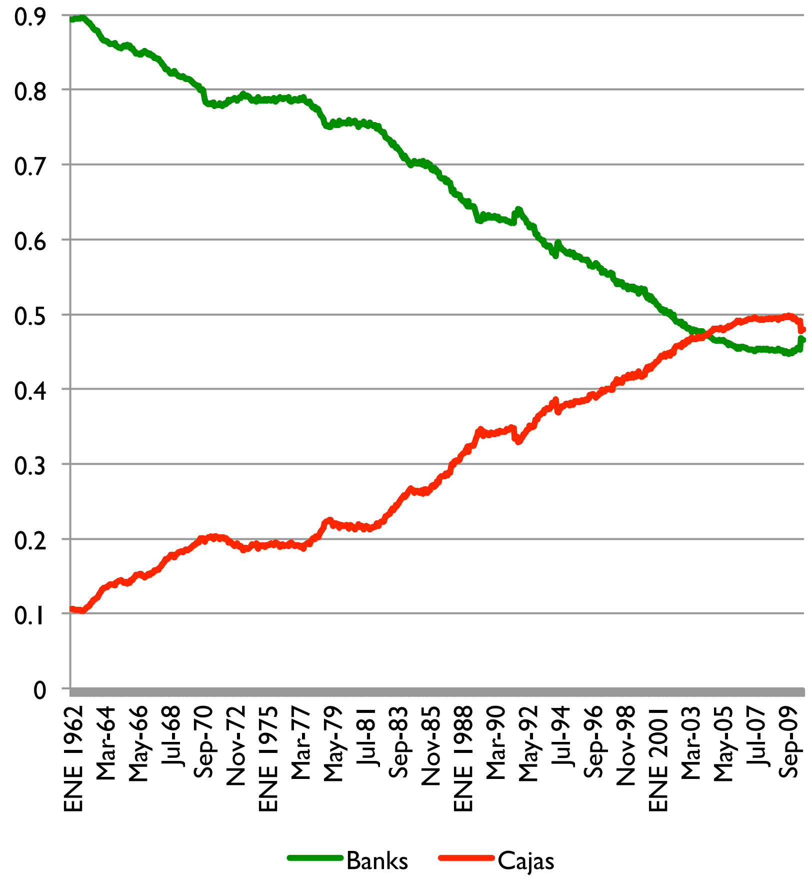
The Spanish banking sector: A quick look

- The Spanish banking sector has changed enormously over the last 25 years as a consequence of the rise of the "cajas"
  - Deposit institutions with all banking activities but owned by non-for-profit foundations
  - Supervised by the bank of Spain
  - Strong political connections: To a large extent some of them, not all, dominated by local political elites.
  - Fundamental difference with banks:
    - Corporate governance issues
    - No mechanism for recapitalizations
- The cajas no longer exist!

The Spanish banking sector: The rise and fall of the cajas

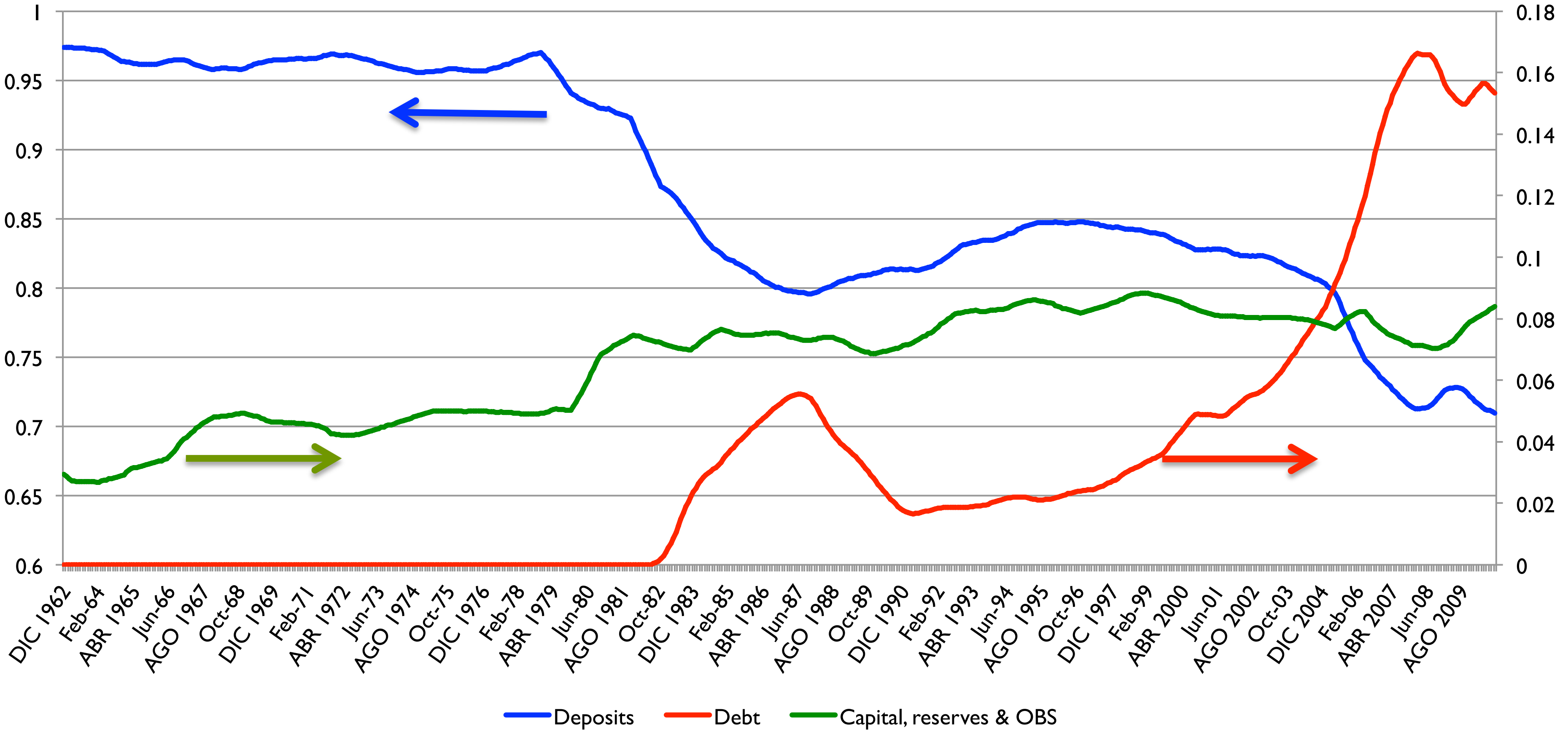


Banks vs. Cajas: Assets of each of these institutions as a fraction of total assets of both. Banks (BE045101) & Cajas (BE046101) divided by total assets, respectively. Monthly. January 1962 to September 2010. Source: Bank of Spain



Banks vs. Cajas: Loans to the private sector by banks (BE041203) and cajas (BE041204) as a fractions of loans to the private sector by credit institutions (BE041202). Monthly. January 1962 to November 2010. Source: Bank of Spain

The Spanish banking sector: Cajas: The liability side



Cajas: Balance sheet – Liabilities as a percentage of total assets

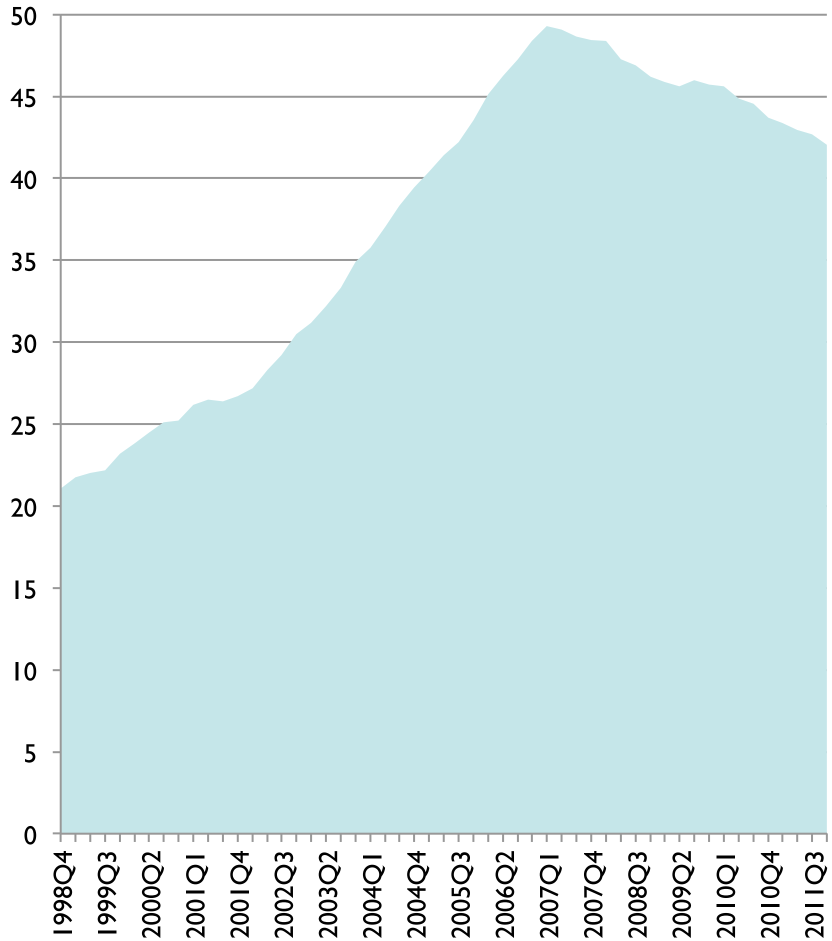
Deposits (BE046202; left axis), debt issued (BE046207; right axis), and capital, reserves and "obra benefica y social" (OBS, BE046208 plus BE046209; right axis) as a percentage of total assets (BE046201).

Monthly. MA-12. December 1962 to September 2010. Source: Bank of Spain

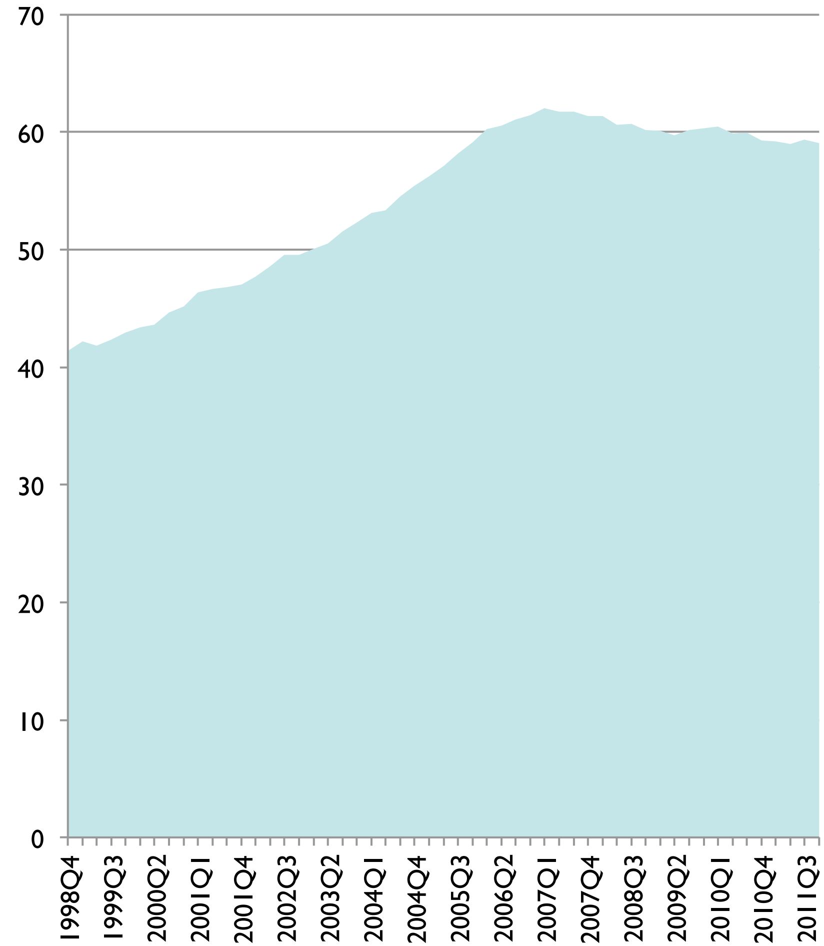
The Spanish banking sector: Credit institutions: Wholesale funding

Credit institutions: Debt as a percentage of total assets. Debt (BE04.2.7) as a percentage of total assets (BE04.2.1). Monthly: January1962 to January 2012.
Data source: Bank of Spain

The Spanish banking sector: The asset side



Credit institutions: Loans to construction and real estate developers as a percentage of loans granted to firms
(BE4.18.4 plus BE4.18.10 divided by BE4.18.1)
Quarterly: 1998Q4-2011Q4. Data source: Bank of Spain



Credit institutions: Real estate exposure
Loans to construction companies, real estate developers and mortgages as percentage of loans to the private sector
(BE4.18.4 plus BE4.18.10 plus BE4.13.4 divided by BE4.13.1)
Quarterly: 1998Q4-2011Q4. Data source: Bank of Spain

THE POLICY RESPONSE

The policy response: Did Spaniards know about the bubble?

- The real estate bubble had been the focus of policy debates since the early 2000s:

① Fall 2003: Report from the European Commission alerting of the dangers of house appreciation in Spain

② Fall 2003, Rodrigo Rato, Spanish VPM, acknowledges that the housing market is overheated but that this did not mean a brusque adjustment

③ 2002-2003, several studies from the Bank of Spain pointing out that the housing market was overpriced between 8% and 20%

④ 2004: General election campaign rotates around the “bricks and mortars” growth model of the conservative party, in power until then.

⑤ Miguel Sebastián, future head of the PM’s economic office and M.A. Fdez.-Ordoñez, future governor of the Bank of Spain, write extensively in the press about the dangers of a brusque bursting of the bubble and its long run impact.

The policy response: Before the crisis

- The Bank of Spain took some decisions prior to the crisis that were instrumental in the ability of the banking sector to withstand the first hit:

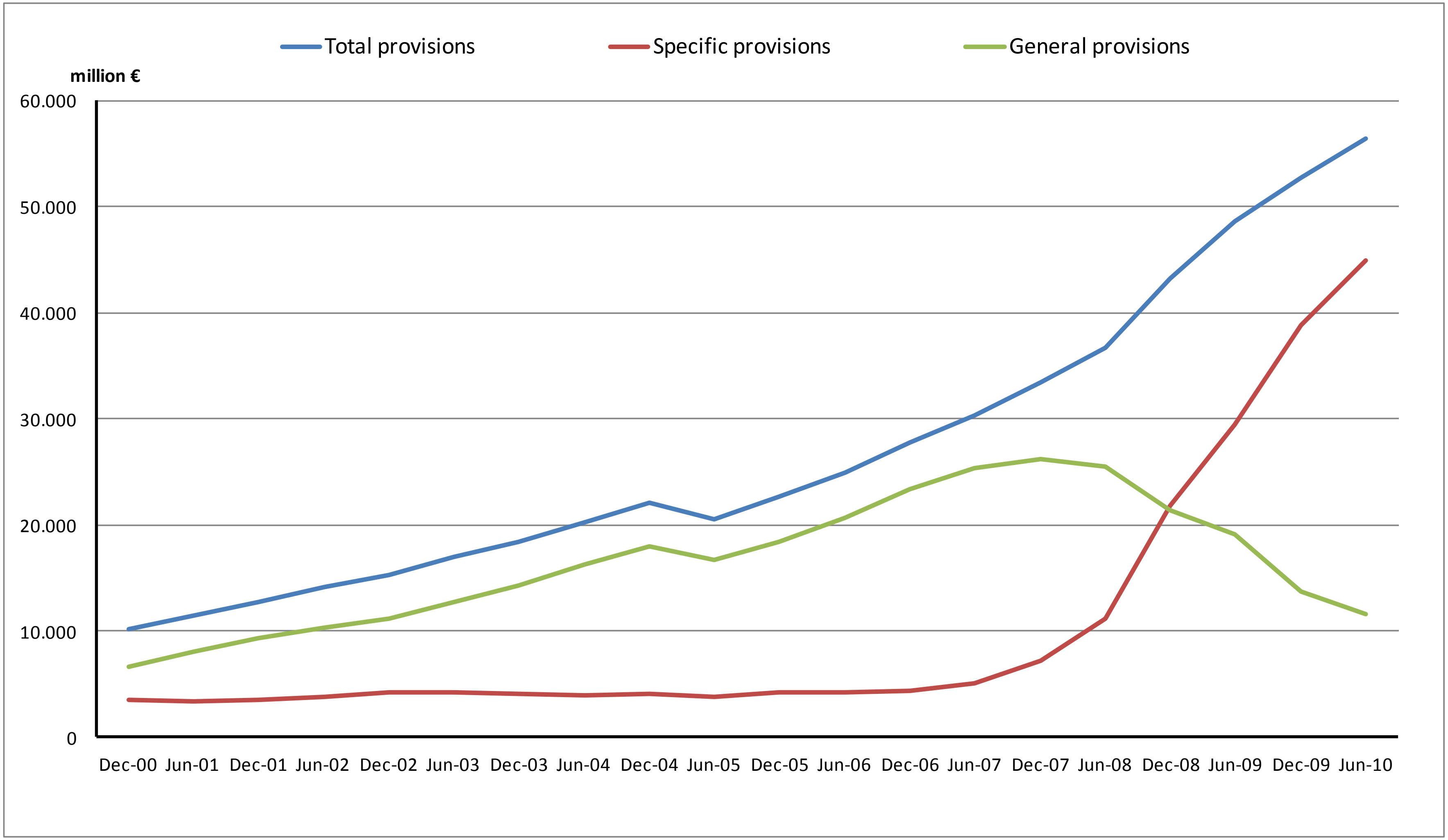
① Dynamic provisioning

- Banks had "generic provisions" of about 3% of GDP (€28bn) at the start
- Spain was unique amongst developed countries in this aspect
- Buffer: In the private sector and in the public sector (low debt/GDP)

② Off-balance sheet transactions

- The Bank of Spain successfully prevented banks from going "Citi" withstanding pressure from the large banks.

The policy response: Before the crisis



Provisions (in millions of euros) in Spain, 2000-2010: Total, Specific and General
Source: Jesus Saurina, Bank of Spain, Working Macroprudential Tools; a presentation given at the 13th Annual International Banking Conference, Chicago, 23-24, September 2010.

The policy response: The crisis comes

- Some (contradictory) ideas have dominated the policy response:

  ① The taxpayer should not bear the burden of rescuing the banking sector

  ② Debt holders should not suffer losses

  - Given the wholesale funding needs there was a fear that imposing losses to debt holders and the doubts about the extent of real estate losses liquidity would drain for the entire system
  - Debt holders have yet to have a loss (except preferred)

  ③ The system, in the aggregate, was solvent:

  - Once you include the ability to recap through retained earnings
  - And the reserves that the system had accumulated

The policy response: The crisis comes

- Given the assumptions, what was the strategy?
  - Strong provisioning against P&L
  - Mergers amongst good and bad financial institutions:
    - Funded with loans from the public sector
    - Asset protection schemes with some, minimal, "bad banks" created
  - Limited recap efforts
  - Losses borne by the FGD (Spanish FDIC): Socialization of losses amongst banks
- But, first, Fall of 2008 market dries up:
  - Debt guarantee program

The policy response: The crisis comes

- Throughout one has the feeling that the authorities felt that they did not have a "net:"
  - All promises were fiscal in nature
  - Were depositors going to get nervous in case of substantial losses by the FGD?
  - If losses were to be imposed on debt holders, would wholesale liquidity disappear?
  - If the FROB were to issue massively (up to maximum €100bn), would the market infer something about the extent of losses? Would the sovereign be affected?
- Still, there was a slow drift linking public and private balance sheets, which eventually limited the set of options available to policy makers.
- At some point thus the strategy started rotating around what could be funded, rather than funding the actual capital needs
  - Stress testing without funds available compromises credibility

The policy response: The crisis comes

- There are two responses to the banking crisis:

  ① Government:

  a) Debt guarantee program: Approved in the fall of 2008 (RDL 7/2008)

  b) Overhaul of the banking system to, effectively, do away with the cajas (RDL 11/2010)

  c) Creation of SPV (the FROB) to lend and recap banks

  d) Force credit institutions to recognize and provision for losses (RDL 2/2012)

  ② Bank of Spain

  - Intervention and merger strategy: Incentivize mergers to avoid losses to the taxpayers (and debt holders)

The policy response: The timeline

2012

March 2012: Unnim sold to BBVA for €1; Asset protection scheme

January 2012: RDL 2/2012: New provision and loan los recognition

December 2011: RDL 20/2011: New debt guarantee program; Max. €100bn

November 2011: B.Valencia intervened; FROB2 recap €1bn plus €2bn liquidity

September 2011: Unnim intervened; FROB2 recap €953m

July 2011: CAM intervened

- *November 2011: Sale to Sabadell; FGD: Capital inyection of €6bn plus asset protection scheme; FROB: Liquidity*

2011

July 2011: Compliance with RDL 2/2011

- *Bankia, Caixabank and Banca Cívica IPOs to comply with RDL 2/2001 capital requirements*
- *CatalunyaCaixa, Unnim, Novacaixagalicia, CAM request FROB2 assistance*

February 2011: RDL 2/2011

- *8% capital on RWA for banks (10% for those that remained cajas)*
- *FROB2: The FROB can recap credit institutions in distress*

Summer 2010: Amendment of accounting rules on loan write downs

- *Recognition of value of real estate collateral applying significant haircuts and acceleration of provisioning*
- *Increased minimum provision for foreclosed assets*

2010

July 2010: RDL 11/2010: Reform of the cajas; legal framework for recap and governance; cajas to disappear

May 2010: Cajasur intervened; Asset protection scheme granted by the FROB1; sole loss so far

July 2009: RDL 9/2009 FROB1 created: An SPV created to channel public funds to aid the restructuring of the banking sector via debt

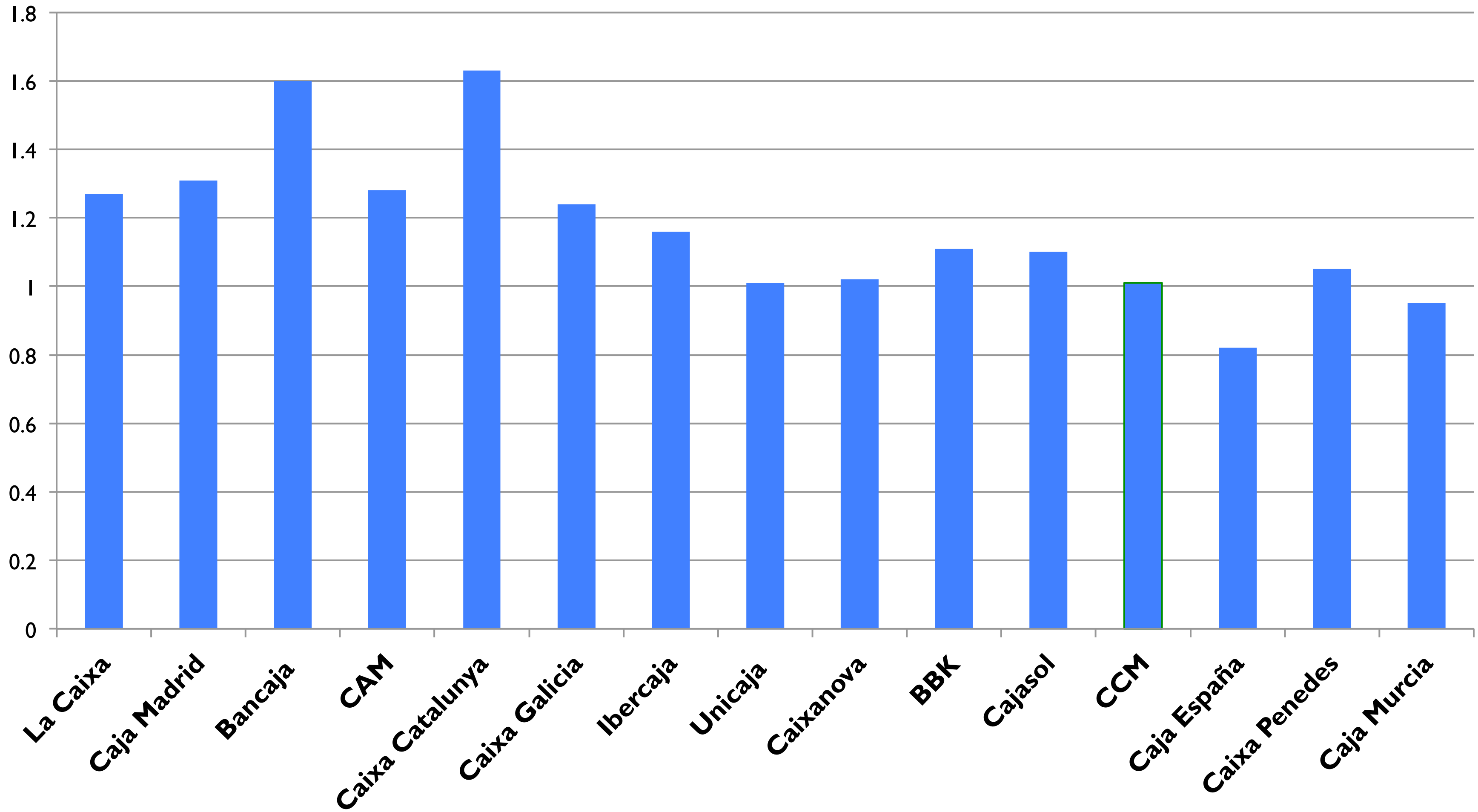
2009

March-2009: CCM intervened by the FGD: Capital injection plus asset protection scheme; "good bank" sold to Cajastur

2008

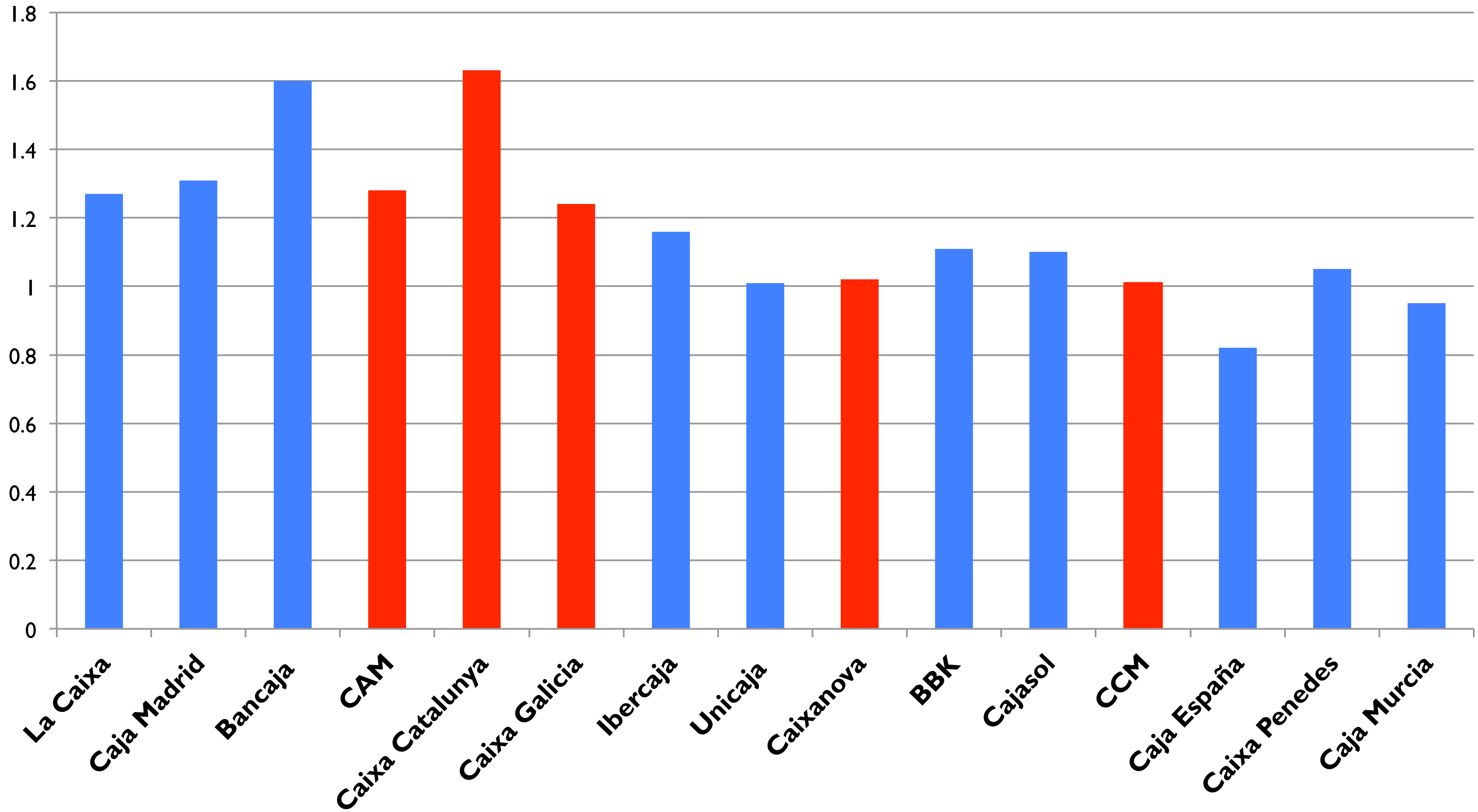
October-2008: RDL 7/2008: Debt guarantee program; Maximum size €100bn; Final date: 12/31/09; Renewed several times

The policy response: The merger strategy



Cajas: Loan-to-Deposit ratio for the top fifteen cajas by assets as of December 2009.
Source: Citi "Spanish Savings Banks: Survival of the Fittest," June 4th, 2010

The policy response: The merger strategy



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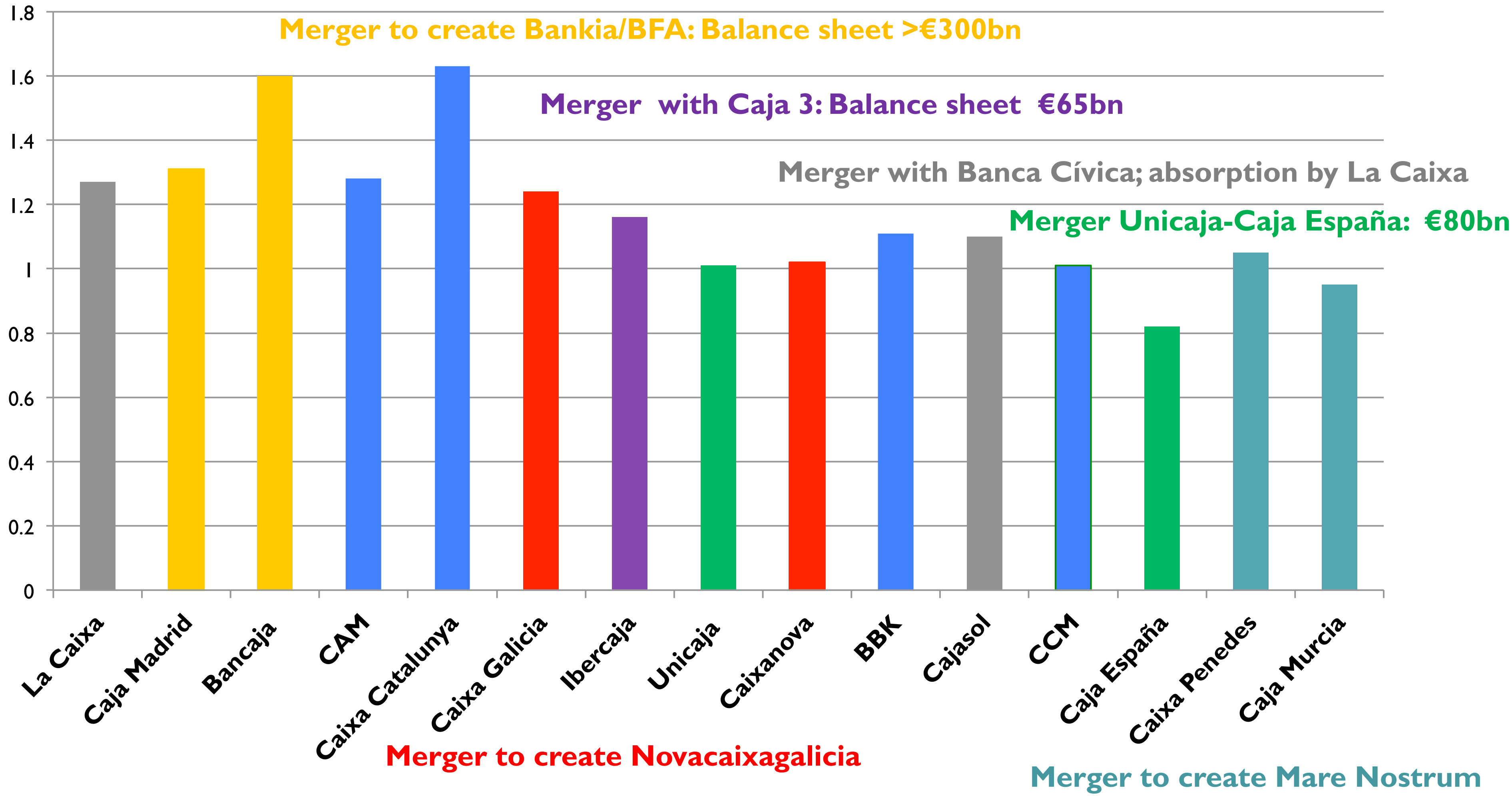
The policy response: The merger strategy



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Source: Citi "Spanish Savings Banks: Survival of the Fittest," June 4th, 2010

The policy response: Credibility

- The Spanish authorities faced credibility issues from the beginning of the crisis:
  - Difficult inference for investors: Were the lack of loss recognition real, gambling for survival or simply that recognizing the losses would affect the sovereign?
- In addition authorities did not handle early interventions well sending mixed signals:
  - Example: Caja Castilla-La Mancha (CCM)
    - Intervened by the BoS on March 2009 after merger with Unicaja fell apart
    - PwC did due diligence on behalf of Unicaja on the 2008 numbers and uncovered an equity gap of €3bn.
    - NPL ratios jumped from 9.32% to 14.15% after intervention casting doubts on the numbers in the entire sector
    - Intervention wiped out 90% of the funds at the FGD. Obscure sale to Cajastur.

The policy response: Credibility

- The CAM (€70.8bn balance sheet as of December 31st 2011) as an example:
  - Caja del Mediterráneo (CAM) was in the middle of the real estate boom
    - Operations in eastern Spain
    - Heavy political control by the conservative party in power in the region of Valencia for the last 20 years. Now also in power in Madrid.
      - CCM: Castilla-La Mancha, socialist party, in power for 20 years too.
  - 2010 stress tests: Evaluated as part of Banco Base, a merger encouraged by the Bank of Spain of good and bad cajas (Cajastur, C. Cantabría and C. Extremadura.)
    - Capital needs: 0
  - Banco Base falls apart in March 30th 2011: CAM is left "hanging"

The policy response: Credibility

- April 28th 2011: CAM requests FROB2 recap. of €2.8bn to meet the RDL 2/2011
  - With that recap, CAM below the 5% but not with the generic provisions
- July 21st 2010: Bank of Spain grants 10 days to CAM's board to present a viable plan
- July 22nd 2011: CAM's board *requests* the Bank of Spain intervention
  - Recap of €2.8bn and €3.0 credit line
- NPL of CAM in 2011: 20.8%
- December 7th 2011: Sale to Banco Sabadell
  1. FGD acquires 100% of CAM for €5,249bn for a posterior sale to Sabadell for €1
  2. FGD grants a 10-year asset protection scheme to Sabadell to absorb 80% of the losses of a set of assets valued at €24.6bn, after provisions of €3.9bn.
  3. FROB extends liquidity line of €12.5bn

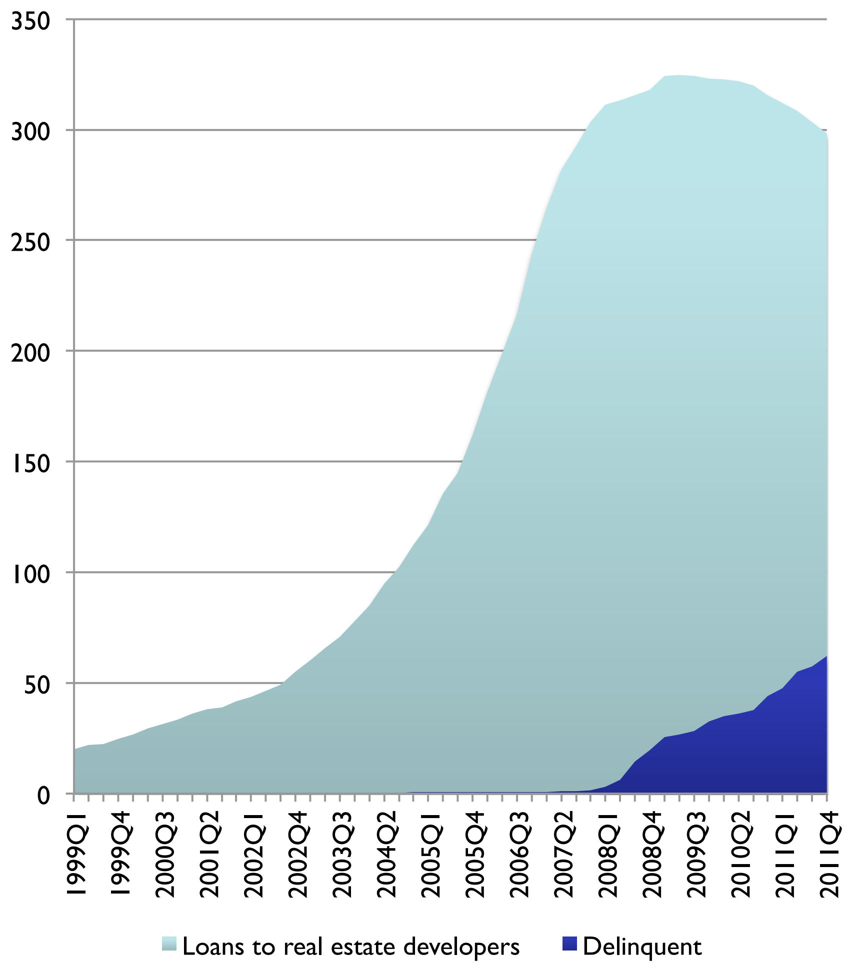
The policy response: Credibility

ISIN	Amount guaranteed (€mill)	Interest (%)	Issue date	Maturity date
ES0314400096	1.500	3,125	26/03/2009	26/03/2012
ES0314400104	200	3,350	27/04/2009	27/04/2012
ES0314400112	73	Quart.: Euribor (3m) + 90pb	08/05/2009	08/05/2011
ES0314400120	1.000	2,875	14/05/2009	14/05/2012
ES0314400146	45	3,000	29/05/2009	29/05/2012
ES0314400153	136	2,875	19/06/2009	19/06/2012
ES0314400161	1.000	2.850	30/07/2009	30/07/2012
ES0314400187	1.000	3,000	12/11/2009	12/11/2014
ES0314400195	500	Biannual: Euribor (6m) + 33pb	01/12/2009	01/12/2014
ES0314400187	357	3,000	23/06/2010	23/06/2014
Total	5.811			

Caja del Mediterráneo: Debt issuance under the debt guarantee program

Source: Tesoro Público

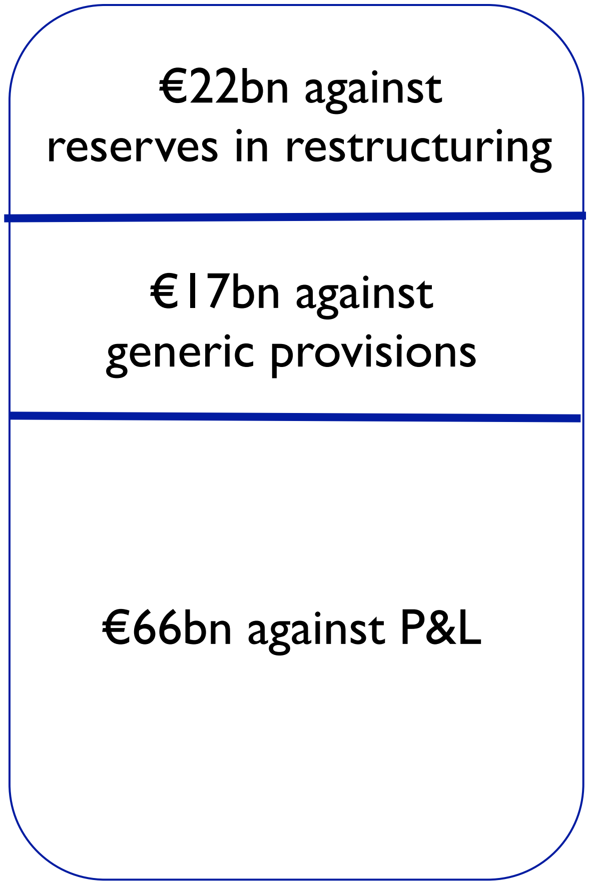
The policy response: Credibility



Loans (in €bn) to real estate developers (BE4.18.10)
and delinquent loans (BE4.18.21)
Quarterly: 1999Q1-2011Q4.
Data source: Bank of Spain

- Loans to real estate developers kept growing and peaked in 2009Q2 at €324.6bn
  - Real estate developer cycle difficult to stop
  - At that time delinquent loans were "only" €26bn
- These type of plots created some form of " cognitive dissonance"
  - How come the level was not dropping faster?
  - What percentage of these loans were being refinanced?

The policy response: Credibility



Write-offs: January 2008-june 2011
Source: AFI

- There has been substantial write-offs in the system
  - Against reserves and P&L
  - Total: €105bn
- There has been some injection of public capital via equity & preferreds
  - About €20bn
  - Some private capital in the IPO of Bankia, SEO of Sabadell, …
- But all in all little in terns of fresh capital to absorb losses

The policy response: Credibility

	€mn	%RWA
BFA-Bankia	4,465	2.3
NovaCaixaGalicia	3,627	7.2
CatalunyaCaixa	2,968	6.1
CAM	2,800	6.1
Banca Civica	977	2.2
Unnim	953	5.6
Grupo BMN	915	2.3
Caja España-Duero	525	2.1
BBK-cajasur	392	1.3
	17,617	

FROB injections up to November 2011

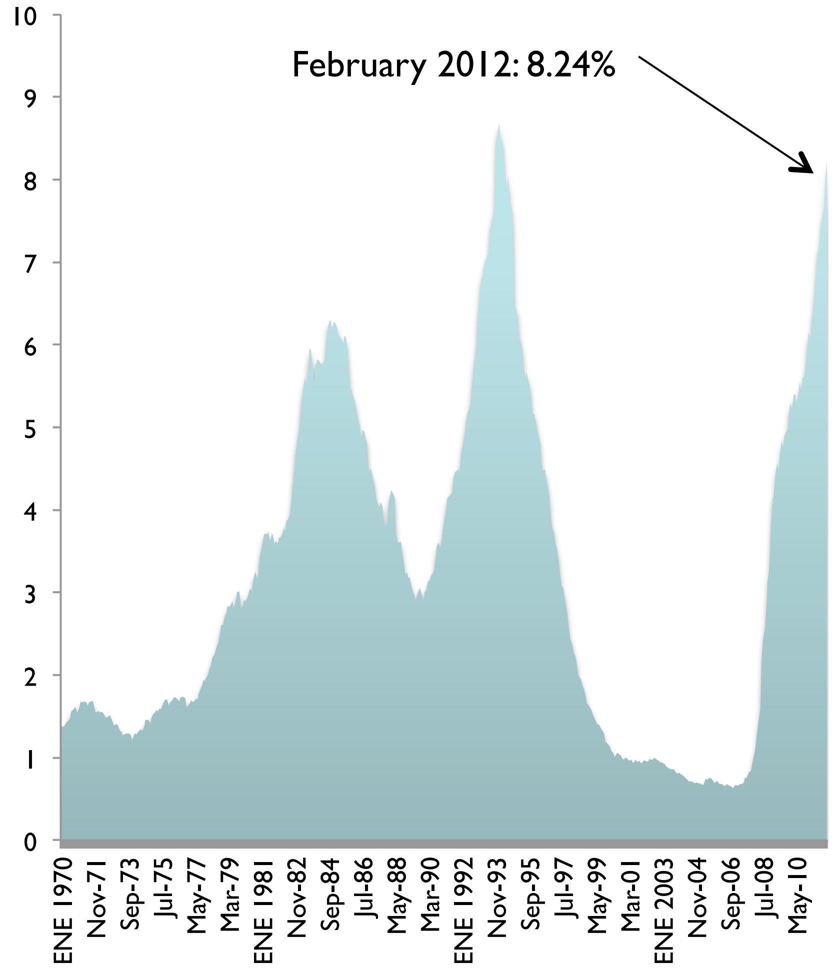
- The FROB has distributed relatively little to institutions in distress
- The only loss so far are the €392mn on an asset protection scheme granted to BBK when it took over Cajasur
- Of the list there are two pending resolution CatalunyaCaixa and NovaCaixaGalicia
- Banco de Valencia was intervened late in 2011 and the FROB injected €1bn

The policy response: An evaluation

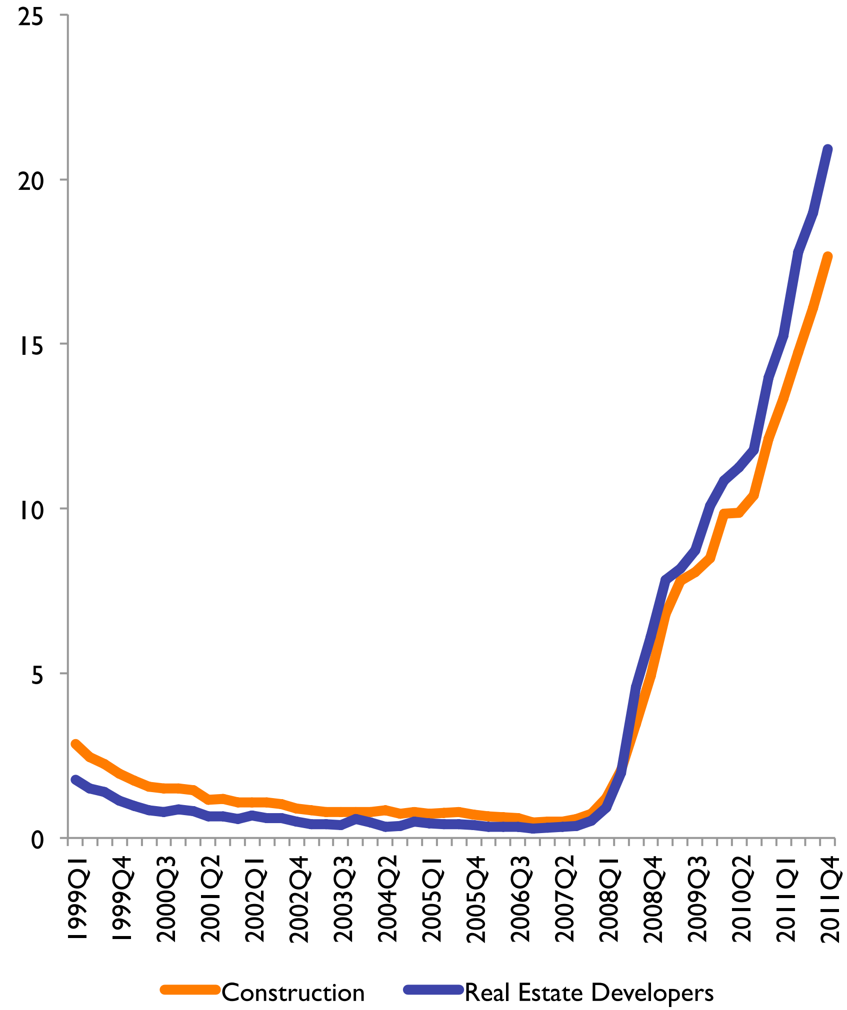
- Good things:
  - Resolution of secular problems in the Spanish banking sector
  - The cajas no longer exist
  - Removal of political influence in the Spanish credit sector
- Spanish authorities have not succeeded in removing the doubts over the losses:
  - Merger strategy made the problem of adverse selection worse making it difficult for private capital to come in.
  - Wholesale funding is closed for most Spanish banks
  - They are wholly dependent on LTRO liquidity
  - Credit crunch: New credit down by 30% in 2011

GOING FORWARD

Going forward: NPL ratios: The aggregate picture

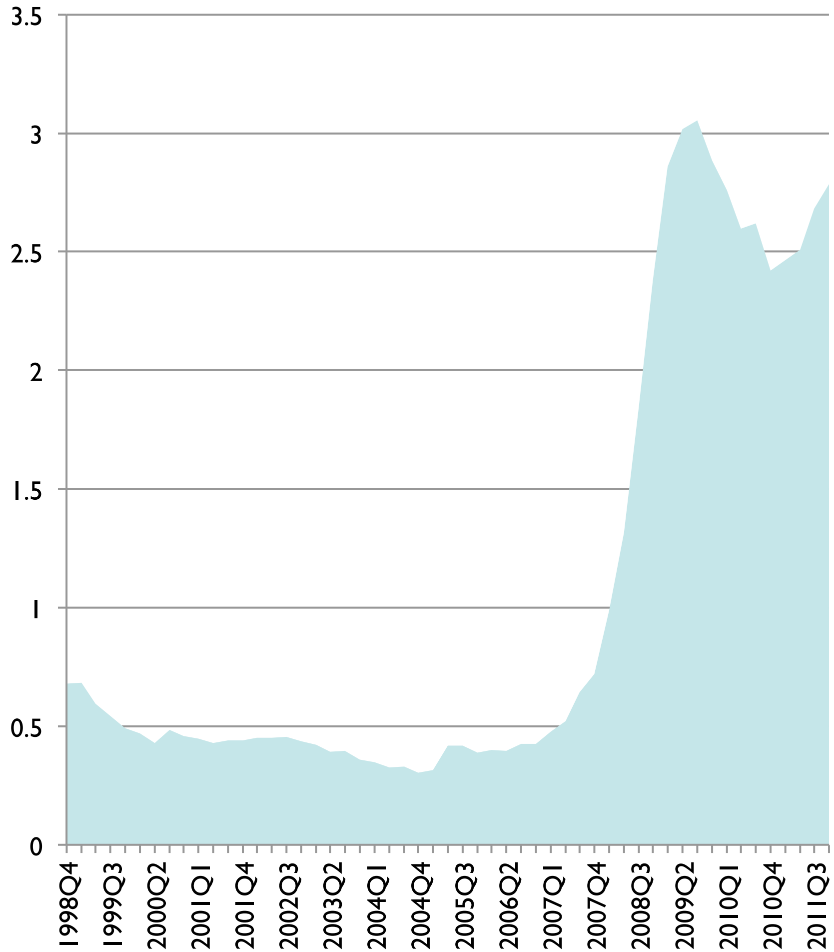


NPL ratio: Private sector credit (BE4.53.12 divided by 4.53.1)
Monthly: January 1970- February 2012
Data source: Bank of Spain

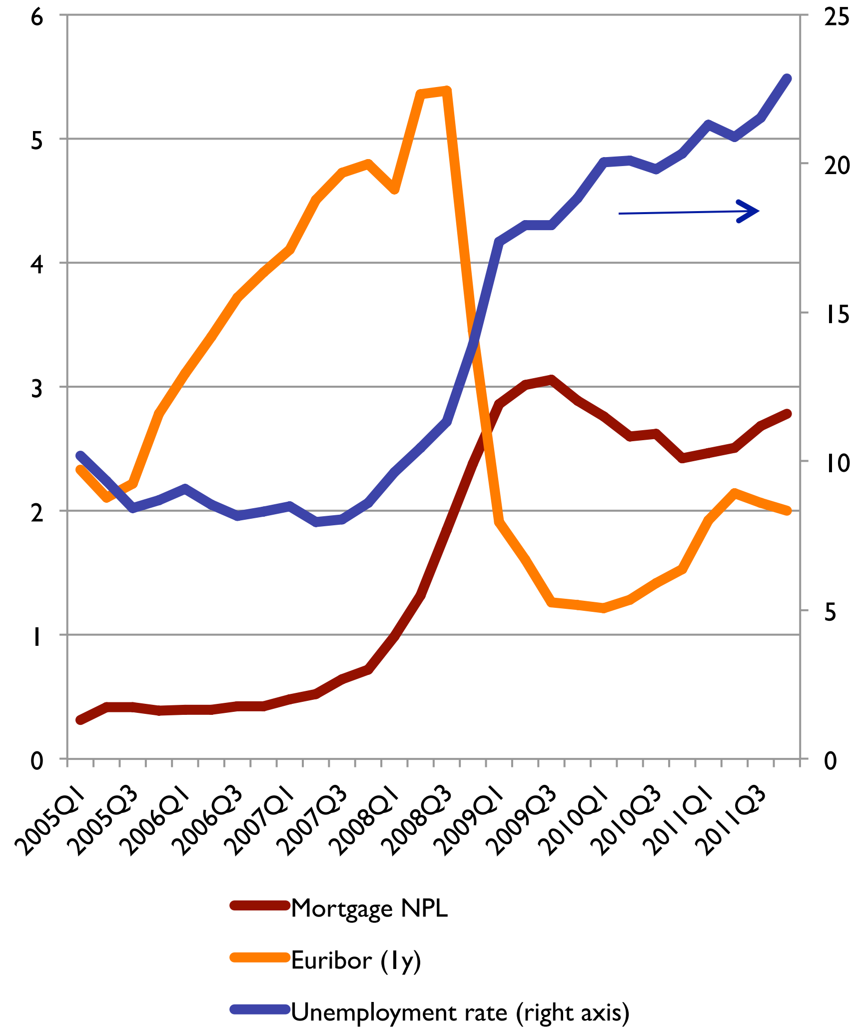


NPL ratio (%): Construction and real estate developers (BE4.18.15 Divided by 4.18.4 & BE4.18.21 divided by 4.18.10))
Quarterly: 1999Q1-2011Q4. Data source: Bank of Spain

Going forward: NPL ratios: The aggregate picture

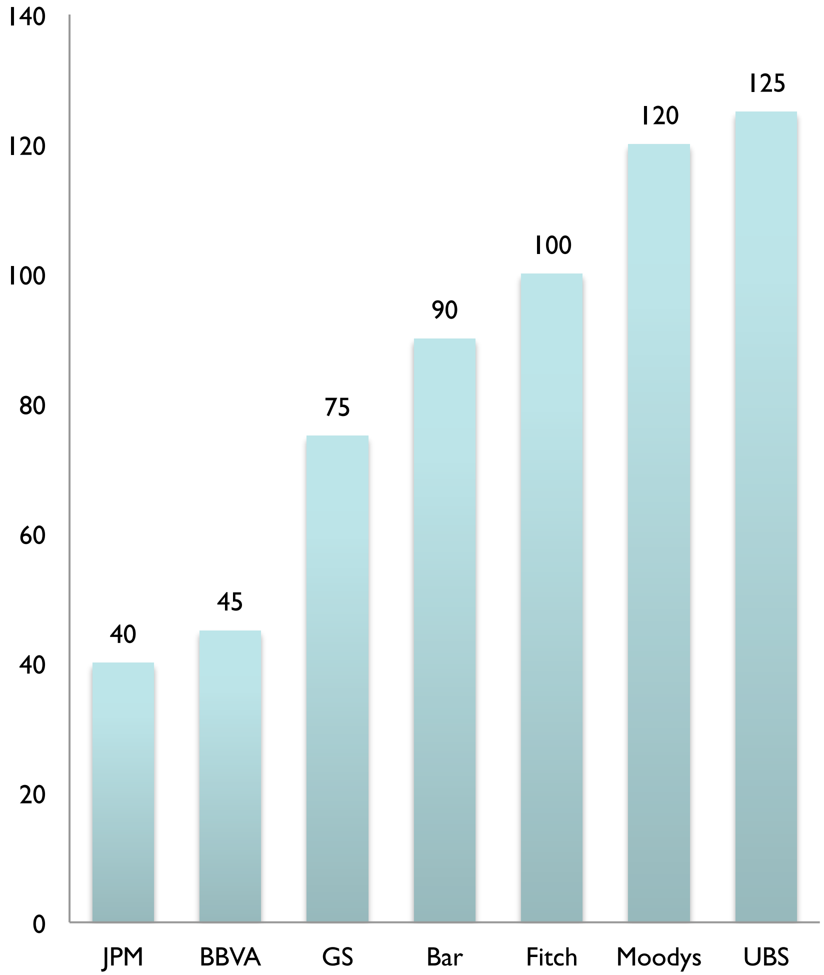


NPL ratio: Mortgages (BE4.13.17 divided by BE4.13.4)
Quarterly: 1998Q4-2011Q4
Data source: Bank of Spain



Mortgages NPL, 1 year euribor and unemployment rate
Quarterly: 2005Q1-2011Q4. Data source: Bank of Spain & INE

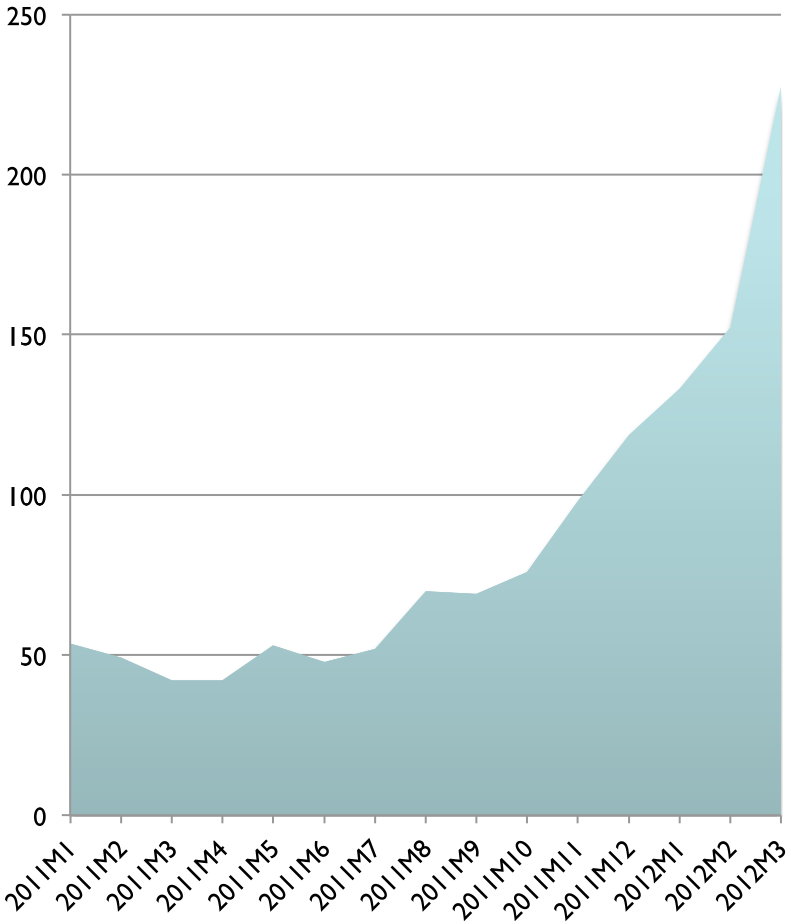
Going forward: Private estimates



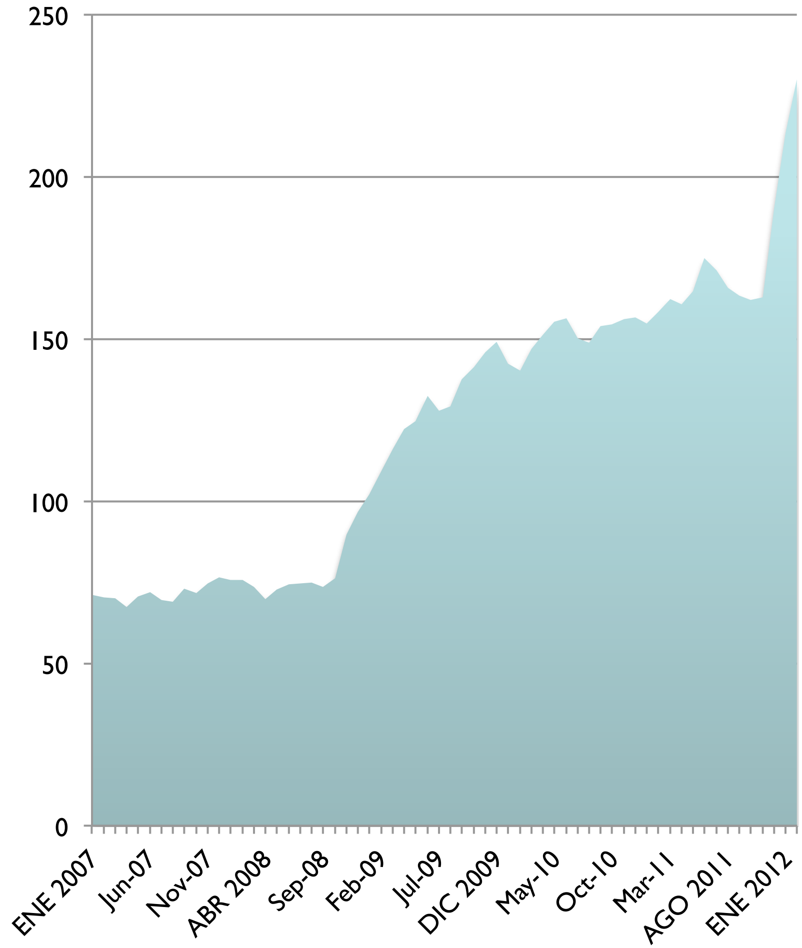
Private estimates of recapitalization needs for the Spanish banking system.
Source: "Spain: Stressed Out", independent Strategy, April 2012

- The private estimates of capital needs vary widely
- This creates enormous problems for the Spanish authorities who are left with little options: Either the satisfy the most pessimistic of the estimates or doubts will persist.
- There are challenges in estimating the extent of losses:
  - A unique situation in Spain's banking history

Going forward: LTRO and the diabolic loop



Net lending to Spanish credit institutions (in €bn)
Data Source: Table 8.1.b Balance sheet Bank of Spain



Credit Institutions: Assets (in €bn) other than shares issued by the public sector (BE4.4.4)
Data Source: Table 8.1.b Balance sheet Bank of Spain

Going Forward: Options

- There are two options:
  ① Bad bank à la NAMA
    - Example: Buy *all* real estate developer loans, mark them down by 60% (as in NAMA)
    - This would provide capital relief from RWAs of €26bn
    - Assuming Tier-1 targets of 9-10% leaves an estimated capital deficit of €60bn
    - Other losses? Political problems (what about me)?

  ② Intervention of other institutions and creation of "several" bad banks
    - Take on problematic systemic institutions, chop them off creating a very good bank that can attract private capital and a bad bank