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Results of the independent evaluation of the Spanish banking sector

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Context and purpose of the exercise

The Memorandum of Understanding (MoU) stipulates that the estimation of capital needs is an essential element of the roadmap established for the recapitalisation and restructuring of the banking system

A key component of the programme is the review of the vulnerable segments of the Spanish banking system, which comprises the three following elements:

- ✓ **Determining the capital needs** of each bank, by means of the general analysis of the quality of the banking sector's assets and a bank-by-bank stress test under a hypothetical and highly stressed macroeconomic scenario
- ✓ **Recapitalisation, restructuring and/or resolution** of the most vulnerable banks, on the basis of plans that address the capital shortfalls detected in the stress test
- ✓ **Segregation of the impaired assets of banks** that need public support for their recapitalisation and transfer to an external asset management company

With the aim of building up confidence in the solvency of Spanish banks and determining the level of capital that will ensure their long-term viability, an external analysis was commissioned to **evaluate the resilience of the Spanish banking sector in the face of a further severe deterioration in the economy**

Top-down analysis

Bottom-up analysis

Top-down vs. Bottom-up analysis

Top-down analysis

On 21 June the independent consultants Roland Berger and Oliver Wyman published their reports with the results of the exercise conducted under two macroeconomic scenarios

- Recapitalisation needs of between €16 billion and €26 billion in the baseline scenario
- Recapitalisation needs of between €51 billion and €62 billion in the adverse scenario

Capital needs substantially lower, at the aggregate level, than the €100 billion of the European backstop (financial assistance facility)

Bottom-up analysis

Today the bottom-up analysis conducted by Oliver Wyman, a natural extension of the top-down analysis made, has been published

- Examination and a more detailed analysis of the sector's resilience which includes an exhaustive and detailed valuation of each bank's credit portfolios (from the end-June to end-September)
- The exercise is a rigorous one given:
  - The richness of the information used by OW in performing the exercise
  - The harshness of the macroeconomic scenario considered
  - The governance of the process

Scope of the exercise

Banking groups	• In keeping with the top-down analysis, the exercise is applied to 14 Spanish banking groups that account for around 90% of the Spanish banking system – Santander; BBVA & Unnim; Popular & Pastor; Sabadell & CAM; Bankinter; Caixabank & Banca Cívica; Bankia - BFA; KutxaBank; Ibercaja & Caja3 & Liberbank; Unicaja & CEISS; Banco Mare Nostrum; CatalunyaBank; NCG Banco and Banco de Valencia
Focus of the stress test analysis	• Portfolio of loans to the resident private sector, including real estate assets
Period	• Three years: 2012, 2013 and 2014
Reference	• Balance sheets as at 31 December 2011

Main parties participating in the process

Lead-management of the project:
National and international authorities:
Strategic Coordination Committee
Expert Coordination Committee

Advice: BCG

Valuation and review of the credit portfolio

- 4 leading audit firms with specialist teams

Deloitte. Ernst & Young Quality In Everything We Do pwc KPMG

Performance of the bottom-up analysis

In order to determine the capital needs for the system and for each banking group

OLIVER WYMAN

22 banks, made up by the Spanish banking sector's 14 biggest groups

Banco Popular, Banco Pastor, Bankia, Sabadell, CAM, Kutxabank, Santander, Banesto, Bankinter, Unnim, CX, BBVA, CEISS, BMN, Unicaja, NovaGalicia, liberbank, Caja3, CaixaBank, Banca Cívica, Ibercaja, BIV

Valuation of real estate assets

- 6 national and international real estate appraisal companies

CBRE CB Richard Ellis, Tinsa, Gesvalt, Madiva, Valtecnic, Aguirre Newman, Jones Lang LaSalle

Exhaustiveness of the information used

Loan-by-loan granular information	• The databases available both at the banks and at the Banco de España were used – for the detailed analysis of 36 million loans and 8 million guarantees – along with historical information on risk parameters (CCR)
Audit firms' input	• More than 400 auditors from the four biggest firms in Spain verified the quality of the data to be used in the exercise • In addition to analysing whether the level of provisioning in more than 115,000 operations was correct
Review of asset valuation	• 6 real estate appraisal companies (3 national and 3 international) performed an exhaustive review exercise of real estate assets throughout Spain – Considering foreclosed assets and collateral – 1.7 milion house appraisals and more than 8,000 singular assets
Banking groups' business plans	• The 14 banking groups shared their business plans for the next three years with Oliver Wyman – The plans were adjusted to ensure consistency with the hypothesis and scenarios of the exercise validated by the ECC and the SCC

Characteristics of the scenarios considered (I)

Macroeconomic scenarios

Baseline scenario
- Scenario considered most likely to occur

Adverse scenario
- Scenario assuming a severe additional deterioration in the Spanish macroeconomic picture

The scenario already used in the top-down analysis

Methodology

Calculation of expected losses in each of the scenarios and for each of the banking groups

Calculation of loss-absorption capacity for each of the banking groups

Independent evaluation by Oliver Wyman on the basis of its models, hypotheses and assumptions, validated by the SCC and ECC

Capital ratio (Core Capital, CT1)

Baseline scenario
- Core Capital (CT1) = 9%

Adverse scenario
- Core Capital (CT1) = 6%

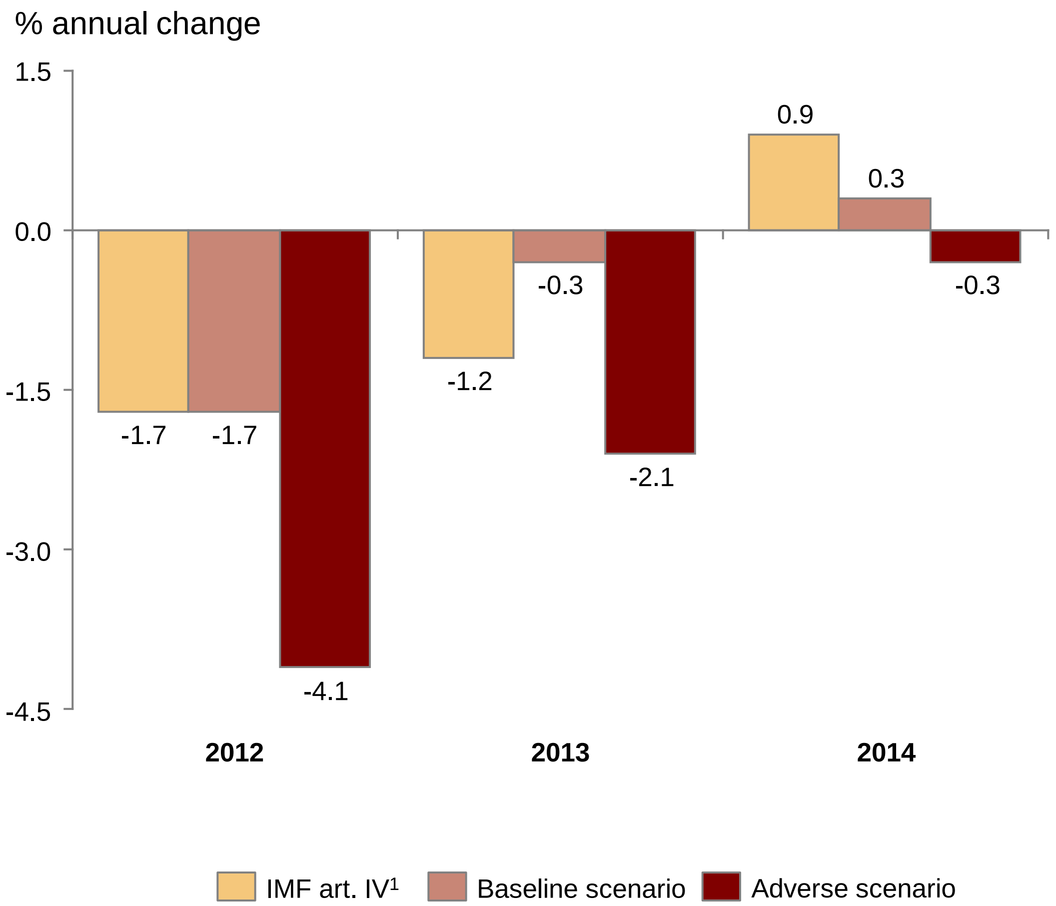
Levels consistent with the top-down exercise, validated by the international authorities

Capital needs for each of the banking groups analysed

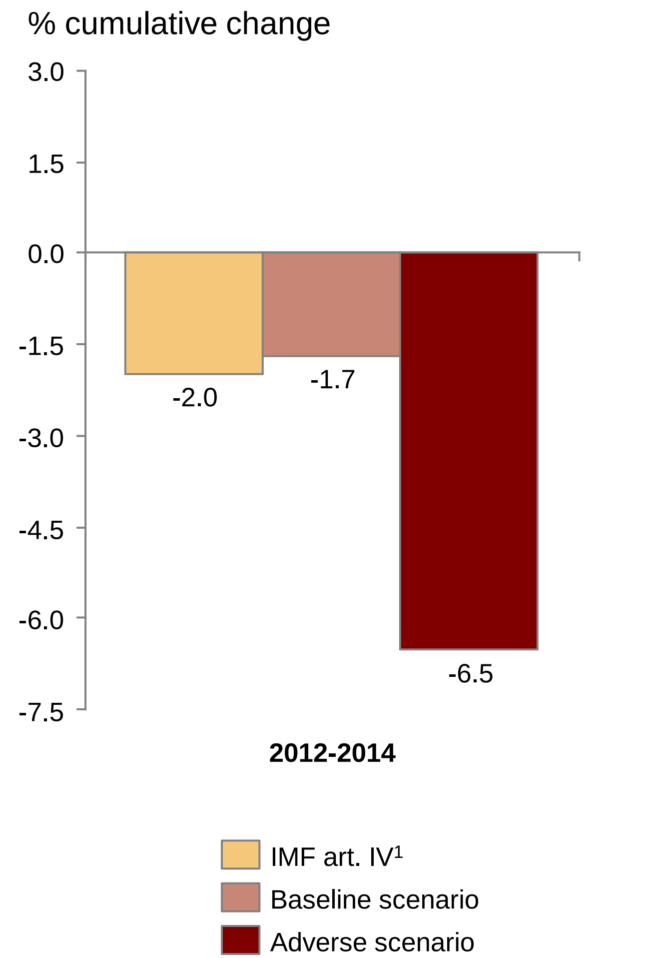
Characteristics of the scenarios considered (II)

Harshness of the macroeconomic scenario

Annual change in GDP



Cumulative change in GDP 2012-2014



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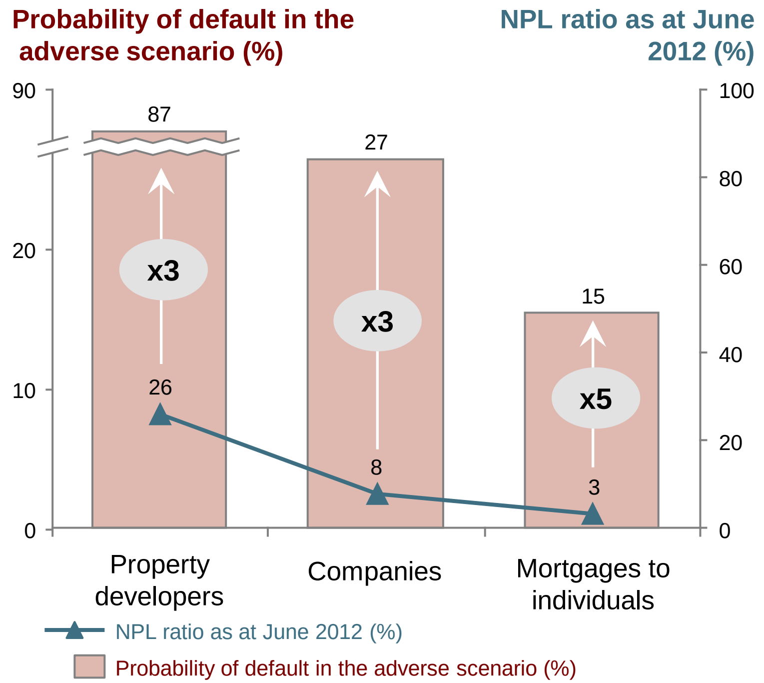
1. IMF projections contained in the Article IV Report for Spain dated 27 July 2012.

Characteristics of the exercise
Harshness of the working hypotheses

The severity of the exercise is reflected in the levels of probability of default used and in the adjustments applied to estimate loss-absorption capacity

Probability of default in the adverse scenario and NPL ratio as at June 2012 by portfolio



In addition, an expected loss of 64% is considered for foreclosed assets

Loss-absorption capacity

Banks' business plans have been adjusted to ensure consistency with the scenarios and hypothesis of the exercise

Examples of adjustments to business plans:

- The business decisions of the management team that have not yet been implemented have not been considered
  - They may be included in subsequent recapitalisation plans (if any)
- 30% reduction applied to dividend income
- Limitation of income in respect of income on financial assets and liabilities and on the investment portfolio

Governance of the process

Composition

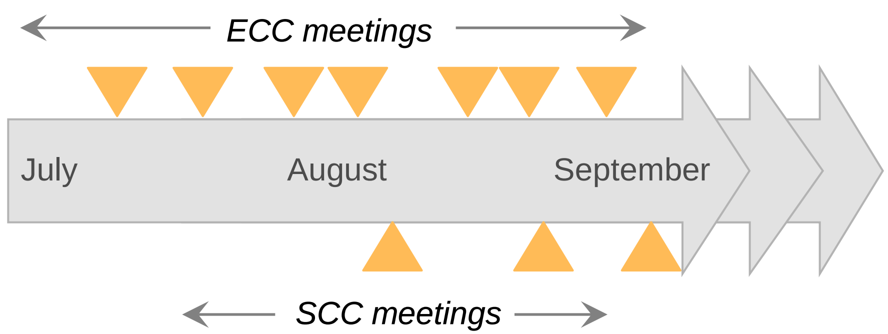
"Expert Coordination Committee" - ECC

- ✓ **BdE**
- ✓ **Min. of Economic Affairs and Competitiveness.**
- ✓ **European Commission**
- ✓ **ECB**
- ✓ **EBA**
- ✓ **IMF (Adviser)**

"Strategic Coordination Committee" - SCC[1]

- ✓ **BdE**
- ✓ **Min. of Economic Affairs and Competitiveness**
- ✓ **European Commission**
- ✓ **ECB**
- ✓ **EBA**
- ✓ **IMF (Adviser)**

Exhaustive and strict control of the exercise



- *ECC and SCC have held regular meetings ensuring exhaustive control of the process*
- *The international authorities have been involved at all stages of the process*

Functions

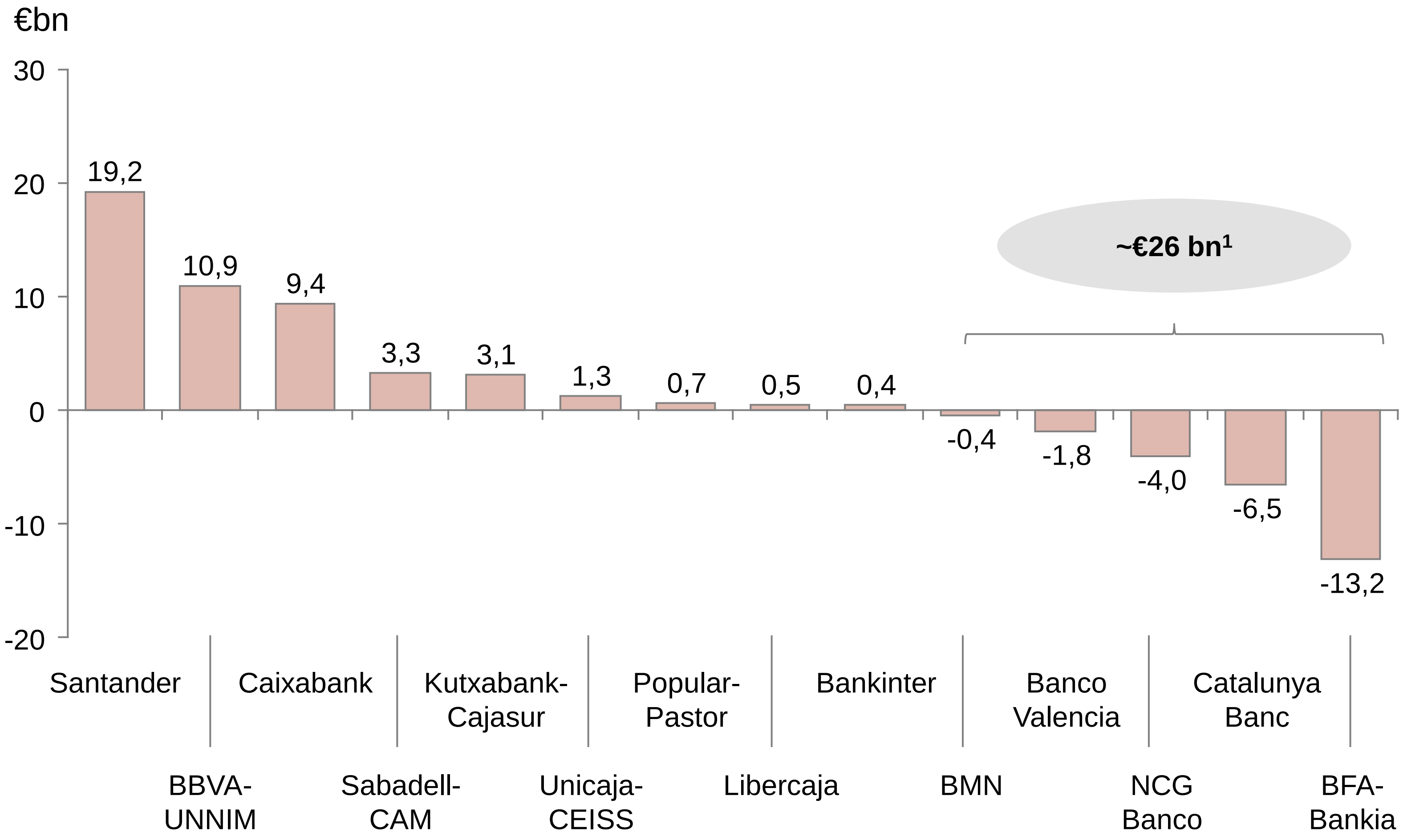
- Close and strict monitoring of the process
- Technical-level control of the exercise
- Questioning and validating the working hypotheses and the consultant's use of inputs

- Monitoring of the process of the strategic level
- Ensuring the integrity of the exercise
- Validating the results on the basis of the ECC's recommendations

1. The State Secretary for Economic Affairs (Chairman) and the Deputy-Governor of the Banco de España participate.

Surplus capital at the level of each bank in the baseline scenario (figures net of tax effect)

Baseline scenario
Core Tier 1: 9%



1. ~€24 bn before the tax effect

Results of the bottom-up analysis at the system level in the adverse scenario

Adverse scenario
Core Tier 1: 6%

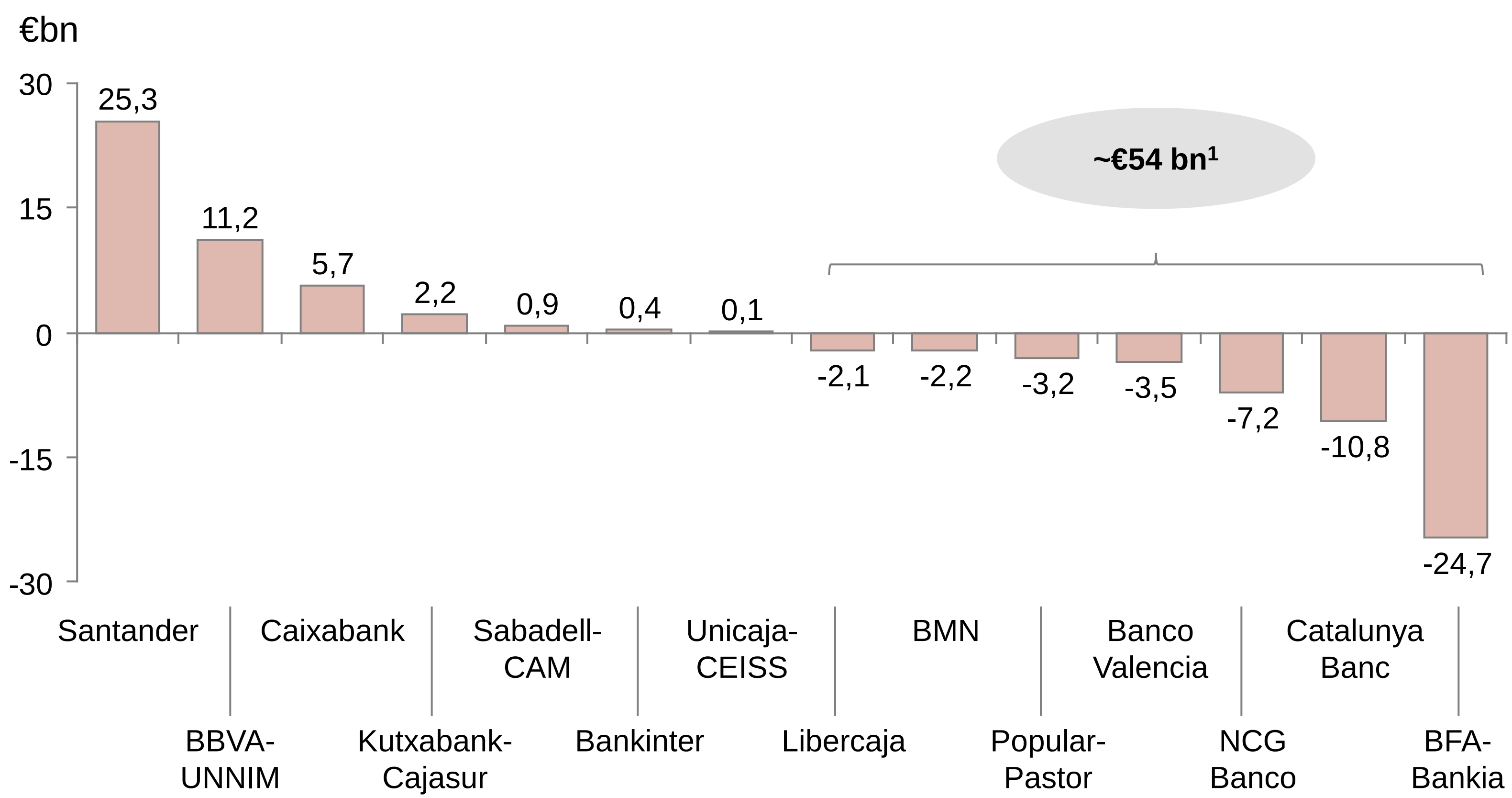
The analysis conducted for the three-year period (2012-2014) gives the following results

Cumulative expected losses	• **€270 bn** in the adverse scenario
Capital needs	• Below **€60 bn** in the adverse scenario • €59.3 bn without considering either the integration processes under way or the tax effect • €53.7 bn considering the 14 banking groups as a whole and the tax effect

- The expected loss in the adverse scenario is significantly greater than in the baseline scenario, increasing by around €90 bn
- Capital needs in line with the top-down analysis, and substantially lower, at the aggregate level, than the €100 billion envisaged in the Eurogroup agreement

Capital surplus at the level of each bank in the adverse scenario (figures net of tax effect)

Adverse scenario
Core Tier 1: 6%



7 groups, accounting for 62% of the credit portfolio analysed, do not require additional capital as a result of the exercise

1. ~€57 bn before the tax effect

Main conclusions

- **The exercise is highly rigorous, owing both to the exhaustiveness of the information used and to the harshness of the scenarios considered and to the close monitoring and international governance of the process**
- **The capital needs estimated for the system as a whole in the adverse scenario are in line with those in the top-down analysis, and are substantially lower than the maximum amount of the European financial assistance facility**
- **In the most likely (i.e. baseline) scenario, only banks in which the FROB has a stake require a significant amount of additional capital to meet the minimum required**
- **In the adverse scenario, 7 banking groups accounting for 62% of the credit portfolio analysed will not require any additional capital (Group 0 of the MoU)**
- **In the adverse scenario, 86% of the sector's capital needs are at the 4 banks majority-owned by the FROB (Group 1 of the MoU)**
- **For the remaining banks, the need for State aid and, where necessary, the amount thereof will be determined as a result of the analysis of the recapitalisation plans envisaged in the MoU**

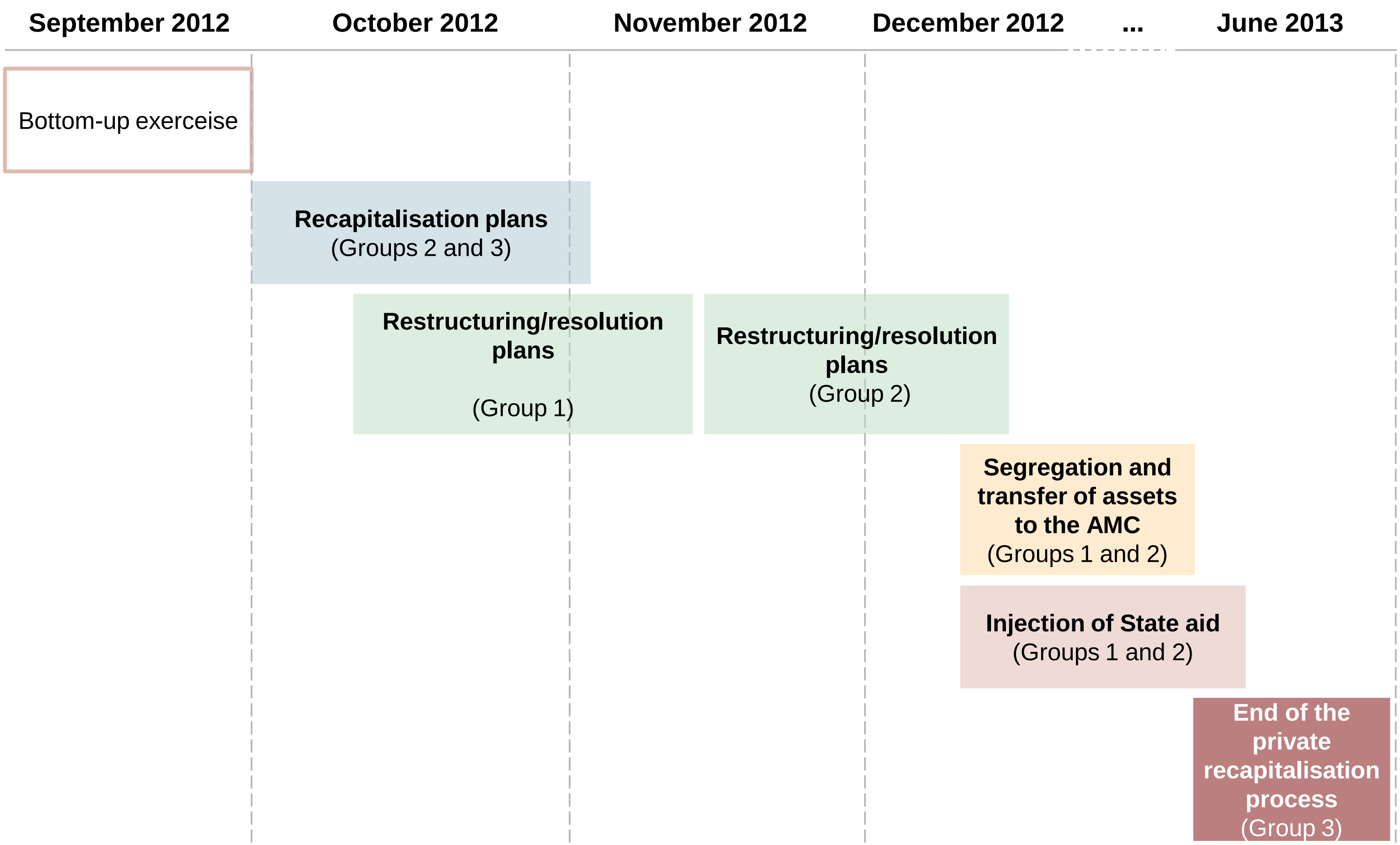
Next steps

The capital needs published today **will not coincide in general with the State aid that the banks will receive and which is to be set by the Banco de España and the European Commission after examining the recapitalisation plans**

The need for aid will be conditional upon the various measures the banks undertake to reduce their final capital needs. Such actions may be summarised in the following categories:

- Disposal of assets by the banks
- Transfer of assets to the Asset Management Company (AMC)
- Conducting of loss-assumption exercises by holders of hybrid instruments (voluntary or imposed by the authorities)
- Raising of capital that may be obtained privately on the markets

Roadmap for the recapitalisation and restructuring of the Spanish financial system (MoU)



Final comments

As a result of all these recapitalisation and restructuring measures, the Spanish banking system will be:

- **Amply capitalised,** as a result of private and public measures
- **Profoundly healthy**, as a result of the demanding provisioning levels and the transfer of assets
- **Significantly more efficient,** as a result of the restructuring and consolidation process

This will ensure the soundness and profitability of the Spanish banking sector, which will contribute to the recovery of the Spanish economy