MINISTRY OF ECONOMY
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PUBLICATION OF THE RESULTS OF THE TOP-DOWN STRESS TEST FOR THE SPANISH BANKING SECTOR AND THE ROAD MAP FOR THE COMING MONTHS

METHODOLOGY AND RESULTS OF THE INDEPENDENT STRESS TESTS

1. The Council of Ministers, in a Resolution of 11 May, instructed the Ministry for Economic Affairs and Competitiveness to commission external top-down analysis to evaluate the Spanish banking sector resilience to a forceful additional deterioration in the economy. The Bank of Spain, in collaboration with the Ministry of Economic Affairs and Competitiveness, has entrusted Roland Berger and Oliver Wyman as independent consultants to perform this assessment of the Spanish banking sector.

2. The reports, published today by the two consultant firms, include the estimate of the capital needs for the Spanish banking sector in order to address the impact of adverse conditions on the banks' loan portfolios. Under the baseline macroeconomic scenario, and a core capital ratio of 9%, the capital needs would be in the range of €16-26 bn. Under the severe macroeconomic scenario and a core capital ratio of 6%, the capital needs for the Spanish banking sector as a whole would range from €51-62 bn. These figures are considered to be conservative as they do not take into account potential actions to be taken by banks or the building-up of tax assets (i.e. results are gross of tax credits). Also, they do not take into account the detailed risk characteristic information on bank portfolios (e.g. specific geographic distribution of commercial real estate collateral or the quality of loan book in general). Even using, as both firms do, conservative assumptions in this regard, the upper bound of the estimated capital needs for the system is well within the backstop of €100bn agreed by the Eurogroup. The timeframe of the exercise is 3 years: 2012, 2013 and 2014. The scope of the analysis is the valuation of the banks' portfolios of loans to the resident private sector, including real estate assets. The exercises do not take into account other risks such as liquidity, market and operational risks.

3. The results of the stress tests broadly confirm the FSAP findings that the problems are largely concentrated on a group of banks that are participated by the Fondo de Reestructuración Ordenada Bancaria (FROB) or have already requested large public

funds. It is also possible to anticipate that the three largest banking groups in Spain would not need additional capital even under the adverse scenario. Moreover, capital needs for the rest of financial institutions would entail most likely either nil or affordable amounts of public support.

4. The objective of this top-down exercise is to offer an overall figure for the Spanish system as a whole. We are also conducting a bottom-up exercise, with a comprehensive due diligence and detailed bank-portfolio level analysis to decide on bank-specific capital needs based on banks' risk profiles. Indeed, because such information and data are not yet fully available, the top-down estimates were conducted with very conservative assumptions on important parameters along the way, so no additional capital needs for the system are anticipated with this bottom-up exercise.

5. In accordance with the calendar established for this independent evaluation, the two private evaluators have concluded their analysis and have informed the Bank of Spain and the Ministry about the results of the exercise today, 21st of June. This analysis is a standard, top-down stress test that complements the one finalized by the IMF. The two consultant firms have published a detailed report[1] explaining the exercise, their methodology, their models, the assumptions made and the limitations of the analysis. In order to improve the transparency and the clarity of the process a third report is made public today: a report from Promontory[2] assessing and comparing the methodologies, assumptions and results obtained by Roland Berger and Oliver Wyman.

6. Each of the exercises is applied to 14 Spanish banking groups, which represents around 90% of the financial system. They assess the resilience of the Spanish banking sector under two macroeconomic scenarios to maintain a specified core tier 1 capital ratio (definition in the end-2011 exercise carried out by EBA) after the stress.

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[1] http://www.bde.es/webbde/en/secciones/prensa/info_interes/informe_oliverwymane.pdf
http://www.bde.es/webbde/en/secciones/prensa/info_interes/informe_rolandbergere.pdf

[2] http://www.bde.es/webbde/en/secciones/prensa/info_interes/informe_promontorye.pdf

7. This exercise is intended to provide an even more stringent test of the system than the IMF's FSAP stress test conducted jointly with the Bank of Spain, released last 9th of June[3], drawing on the expertise, experience and independent evaluations of the two well-respected consulting firms. This stringency stems from a more adverse and conservative set of assumptions, including with regards to (i) the macroeconomic scenario, which takes into account the severity of recent data releases (table 2); (ii) the time period considered, which extends for an extra year; and (iii) technical assumptions, including those related to refinancing and loan classification. The use of a more stressed scenario and additional conservative parameters is consistent with the objective of the exercise, namely to help to diagnose problems and to provide an indication of the capital required by the sector as a whole.

8. In order to be coherent with other stress tests conducted in the European Union and facilitate comparability, the requirements for core tier 1 capital ratio, based on the EBA definition, in the adverse scenario has been set at 6% and in the baseline scenario at 9%.

9. The macroeconomic scenarios, as well as the benchmark core capital ratios after the stress, have been decided by the Steering Committee, composed by the Ministry of Economic Affairs and Competitiveness and the Bank of Spain, taking into account the recommendations received from the members of the Advisory Panel. The Advisory Panel was originally formed by the ECB, the Bank of France, the Bank of Netherlands and the IMF. Recently, its composition has been enlarged to include the European Commission and the EBA. The enlarged Advisory Panel met with the Steering Committee the 15th of June. These scenarios are presented in tables 1 and 2 below, with the following main elements:
   - In the baseline macroeconomic scenario the core capital ratio after the stress is 9%. This scenario reflects the situation that appears most likely. IMF baseline scenario was taken for this exercise.
   - The severe scenario considered is a stressed one, which considers a

[3] http://www.imf.org/external/np/SEC/pr/2012/pr12212.htm, http://www.imf.org/external/pubs/ft/scr/2012/cr12137.pdf

considerably worse GDP evolution, a pronounced and continuous increase in the unemployment rate, as well as sharp decline in housing and land prices. The selected core capital ratio under this adverse scenario is 6%.

10. The working methodology rests on each consultant firm own models, assumptions and hypothesis. The resilience of the banking sector considers the expected losses derived from the impact of the macroeconomic scenarios already described and other assumptions made by the consultant firms on the risk drivers and parameters used in their own-independent models. It also takes into account the elements available to absorb the hypothetical expected losses, such as income generation capacity and capital buffers.

ROADMAP OF NEXT STEPS

11. The Spanish Government will formally present the request for EU assistance to satisfy the capital needs of those institutions that require assistance in the following days.

12. Following the formal request, negotiations on a memorandum of understanding (MoU) with our European partners will begin. The MoU will present the policy measures to be adopted in order to further strengthen the stability of the banking sector in accordance with a specified timetable. It is foreseen that the MoU could be agreed between the Spanish and EU authorities within 3-4 weeks. During this period, the existing guarantee scheme for new liabilities will be prolonged, a recapitalization scheme will be submitted for approval to the Commission and contingency measures to address urgent problems will be put in place.

Step 1: Bottom-up exercise

13. After the results of the top-down exercise, we are now in a position to conduct a more detailed examination and analysis to encompass a thorough and granular evaluation of bank portfolios. This stage (bottom-up), which is already under way, is meant to achieve this objective and determine precise individual bank capital needs:

a. **Engagement of audit firms.** Four audit firms (Deloitte, PwC, Ernst & Young and KPMG) and a project manager (Boston Consulting Group) have been contracted to conduct a comprehensive, independent analysis of banks' credit portfolios. These institutions started their work at end-May and will release preliminary results by end-July (accounting analysis). The main objective is to independently verify the accuracy of the financial conditions of individual banks. Particular attention will be paid to proper classification of loans (as per segment of business and as per performing, substandard and non-performing), identification of restructured and refinanced loans and the adequate level of provisioning for the Spanish banks' credit portfolios, according to Spanish regulations.

b. **Revised stress tests.** The work of the auditing firms will be expanding to be able to provide the necessary inputs for the bottom-up exercise. One of the consultant firms that has been involved in today's released results will be committed to build this exercise. Moreover, a wider sample analysis of portfolio asset valuation will also be performed for those institutions for which this exercise is deemed useful to fine-tune the estimates of capital needs**.** The new assigned consultant firm will start interacting with the auditing firms immediately and this complementary work is expected to end by September. The work of the auditing firms and the more detailed information on risk characteristics for bank portfolios will be used as a new input for a second round of stress-test exercise to identify bank-specific capital needs. This will allow a greater differentiation at the bank level by taking into account the differences in the risk profiles. For instance, more detailed information on loan vintage and geographic distribution of real estate loans and collateral, which can be used to generate more precise loan-to-value (LTV) estimates, are very relevant for arriving at robust projected stress losses.

Step 2: Approval of recapitalization plans

14. The result of this assessment at individual bank-level will be published by end-September. At this point in time, banks will be required to prepare recapitalisation plans, indicating how any identified capital shortfalls will be addressed while assuring the long-term viability of the bank. By mid-October, these plans will be submitted for assessment

by the Bank of Spain and the Commission in liaison with the ECB. Plans with a credible recapitalisation strategy based solely on private sources will be approved without further requirements. Plans with a credible recapitalisation strategy involving the use of public funds will be approved in accordance with EU state-aid rules and so will involve a restructuring process of the banks concerned.

Step 3: Implementation of recapitalization and restructuring plans

15. Banks will be required to implement the recapitalisation under their plans, as approved, within 9 months. Those banks receiving public funds as part of their recapitalisation will be restructured in accordance with state-aid rules (i.e. under EU state aid restructuring decisions). Implementation of recapitalisation plans will be closely monitored by the Bank of Spain and the European Commission, in liaison with the ECB, while the European Commission will monitor the implementation of the restructuring decisions. In the context of implementing their recapitalisation plans, banks will be required to segregate their performing and impaired assets in anticipation of transferring the impaired ones off balance sheet. To this end, consideration will be given to establishing an Asset Management Company (AMC) to acquire impaired assets at real economic value. Any transfer of assets to an AMC would be mandatory for banks receiving state aid.

16. For those institutions which are already participated by the FROB, measures will be taken to accelerate as much as possible the process of their restructuring.

Annex*

Macro scenarios: baseline and adverse

Table 1: Baseline scenarios (annual growth rates)

	IMF (FSAP)			Private valuators		
	2012	2013	2014	2012	2013	2014
Real GDP	-1.7	-0.3		-1.7	-0.3	0.3
Unemployment Rate (1)	23.8	23.5		23.8	23.5	23.4
Housing Prices	-5.6	-2.8		-5.6	-2.8	-1.5
Madrid Stock Exchange Index	-1.3	-0.4		-1.3	-0.4	0.0
Credit to Other Resident Sectors						
- Households	-3.8	-3.1		-3.8	-3.1	-2.7
- Non-Financial Firms	-5.3	-4.3		-5.3	-4.3	-2.7

(1) % of labour force

Table 2: Adverse scenarios (annual growth rates)

	IMF (FSAP)			Private valuators		
	2012	2013	2014	2012	2013	2014
Real GDP	-4.1	-1.6		-4.1	-2.1	-0.3
Unemployment Rate (1)	25.0	26.6		25.0	26.8	27.2
Housing Prices	-19.9	-3.6		-19.9	-4.5	-2.0
Madrid Stock Exchange Index	-51.3	-0.4		-51.3	-5.0	0.0
Credit to Other Resident Sectors						
- Households	-6.8	-10.5		-6.8	-6.8	-4.0
- Non-Financial Firms	-6.4	-3.0		-6.4	-5.3	-4.0

(1) % of labour force