Spain's bank-level stress tests and "bad bank" solution (Sareb[1]): Key steps in the resolution of the banking crisis

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The Spanish banking sector is going through an intense process of institutional and structural changes following agreement on the Memorandum of Understanding (MoU) between the Spanish and European authorities for contingent financial assistance to Spanish banks. Two relevant recent developments are the bank-level stress tests results and creation of Spain's "bad bank" (Sareb). Both aim to increase transparency, deal with banks' asset impairment, and determine the extent to which Spanish banks will rely on European financial assistance.

The bank-level stress tests and the creation of an asset management company are key steps in the resolution of the Spanish banking crisis. As for the stress tests, although certain methodological aspects may still need some clarification -and there are some remaining concerns over the potential impairment losses from specific asset classes- they are probably the most detailed bank transparency exercises carried out in Europe during the crisis years. As for the "bad bank", or Asset Management Company (AMC), the so-called Sareb incorporates the desirable ingredients that a modern 'bad bank' should probably include, although consideration of implementation issues and, in particular, those regarding ownership and management, will be critical in the assessment of its final success.

Spain is meeting the MoU targets

A good benchmark for the evaluation of the two main institutional developments that have occurred in the Spanish banking sector over the period of September through October 2012 –the bank-level stress tests and the Sareb– is the preliminary set of conclusions presented by the International Monetary Fund (IMF) staff team following their surveillance mission on MoU implementation. The mission took place during October 15th - 26th and the (brief) preliminary conclusions were published on October 26th [4]. The IMF acknowledges that "important progress has been made in reforming

[1] Sociedad de Gestion de Activos Procedentes de la Restructuracion Bancaria, in English Asset Management Company for Assets Arising from Bank Restructuring.

[2] Bangor Business School and Funcas.

[3] University of Granada and Funcas.

[4] http://www.imf.org/external/np/sec/pr/2012/pr12400.htm

the financial sector" as "all deadlines established in the Memorandum of Understanding (MOU), agreed between the Spanish and European authorities, have been met." Importantly, a reference is made to the improvement of financial market conditions that has taken place since the announcement of the ECB's Outright Monetary Transactions (OMT) program.

As for the stress tests results that were presented on September 28th, 2012, they are considered by the IMF as "technically robust" and "a sound basis for identifying undercapitalized banks". The IMF also recommends that in light of the stress tests, the recapitalization process should be made as fast as possible and should be accompanied by the burden-sharing tools considered in the MoU. Importantly, the Fund also recommends avoiding any bank merger processes that do not clearly generate value.

In the case of the Sareb, a key distinction is made between the main design features that have already been presented and the strong efforts that will still be needed to make it fully operational by the end-November deadline set by the MoU.

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Bank-level stress tests: Main features and implications

On September 28th, 2012, the results of the bank-level stress tests were presented and published on the Bank of Spain's website[5]. These tests provided a response to the requirement established by the MoU that "a bank-by-bank stress test conducted by an external consultant with regard to banking groups comprising 90% of the Spanish banking system will be completed by the second half of September 2012 (Stress Test). The Stress Test, following the results of the top-down exercise published on June 21st, 2012, will estimate the capital shortfalls for individual banks and give rise to a recapitalization and restructuring process for groups of banks".

It is also important to keep in mind that on the basis of the stress test results and recapitalization plans, banks will be categorized accordingly into four groups:

- Group 0: banks for which no capital shortfall is identified and no further action is required.
- Group 1: banks already owned by the Fund for Orderly Bank Restructuring (FROB) (BFA/Bankia, Catalunya Caixa, NCG Banco and Banco de Valencia).
- Group 2: banks with capital shortfalls identified by the Stress Test and unable to meet those capital shortfalls privately without having recourse to State aid.
- Group 3: banks with capital shortfall identified by the Stress Test with credible recapitalization plans and able to meet those capital shortfalls privately without recourse to State aid.

The MoU also mentions that "the AMC will manage the assets with the goal of realizing their long-term value. The AMC will purchase the assets… The FROB will contribute cash and/or high quality securities to the AMC for an amount corresponding to a certain percentage… and in exchange for the assets, the banks will receive

[5] http://www.bde.es/bde/en/secciones/prensa/infointeres/reestructuracion/

a suitably small equity participation in the AMC, bonds issued by the AMC and guaranteed by the State, or cash and/or high quality securities". Hence, the challenge was to create an AMC where most of the impaired assets of the Spanish banking sector are transferred and with a sufficiently robust and flexible financial structure to give support to the sale of those assets.

The bank-by-bank stress tests are the basic ingredient in the process of increased transparency in the Spanish banking sector. This process has involved four major working areas. The so-called Work Area 1 corresponds to the top-down analysis that was presented in June 2012 and that was undertaken by two independent consultants, Roland Berger and Oliver Wyman. The results published on June 21st, 2012, reflect under an adverse macroeconomic scenario and a core Tier 1 requirement of 6%, that the additional capital needs of the Spanish banking sector range between 51 and 62 billion euros.

Work Area 2 corresponds to the detailed accounting review of the loan portfolio and of foreclosed assets or repossessed assets. Four private auditors (Deloitte, PwC, Ernst & Young and KPMG) were responsible for this work area and they mainly dealt with itemizing the loan portfolios of the 14 banking groups evaluated in the stress tests. Even if these auditing companies were not commissioned to produce the bottom-up analysis and final report, they had a key role in identifying if the portfolios of assets of individual banks were adequately segmented and properly provisioned for. Some figures are very illustrative of the magnitude of this accounting review process under Work Area 2. In particular, the auditors reviewed a sample of more than 115,000 operations and the average sample per bank amounted to 770 borrowers. The coverage ratio of the sample represented 11% of the credit exposures in Spain of the banks evaluated.

One of the key issues that has been largely criticized over the last few years as far as the magnitude of the banks' asset impairment is concerned is the potential reclassification of certain assets under categories that do not correspond to their nature and/or credit risk. The analysis in Work Area 2 concluded that "a low level of exposures had been included by mistake in the SME and Corporate segments, which should have been in real estate development and construction. These data are considerably lower than the assumptions made by Oliver Wyman in the top-down exercise". Additionally, the auditors noticed that as for the level of refinancing by segment, "the sample selected disclosed low levels of refinancing which were not marked in the SME and retail segments (3% and 1%, respectively) and were higher in the real estate development sector (21%)".

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The work of the four independent auditors did not end with Work Area 2. Under Work Area 3, they were also commissioned to analyze the non-performing loans (NPL) management processes and systems. The auditors concluded that the 14 banks evaluated had complete NPL management systems and considered that "these systems are able to absorb the current volume of NPLs and potential future increases in them".

The final process to elaborate the results of the bank-by-bank stress tests was done under Work Area 4, which was established to evaluate the additional capital needs according to the bottom-up analysis. Oliver Wyman took the lead role in this area, in cooperation with the Bank of Spain and under the supervision of the European Commission, the European Central Bank and the IMF, as established by the MoU. This final stage of the stress tests was also undertaken using sample information. The

Bank of Spain has specified "in order to refine the assumptions and parameters used, the auditors took a random sample of more than 16,000 operations, which enabled Oliver Wyman to extrapolate the results obtained in the auditors' work to the whole population".

The timeframe for the analysis was 2012-2014. Importantly, the tests included all the assets in the resident private sector credit portfolio and not just real estate assets. The reference capital requirement was the same as the one established by the European Banking Authority - 6% of total assets for the adverse scenario and 9% for the baseline scenario. The accounting valuation was made on the credit portfolios as of 31/12/2011.

It is also important to note that this final step of the stress tests implied supervision by the Bank of Spain to assure that all the inputs from Work Areas 2 and 3 were homogeneously produced for comparative purposes.

As for the baseline and adverse scenarios, they are exactly the same ones that were used in the top-down results presented in June 2012[6]. The main results are shown in Table 1. The total estimated capital deficit under the baseline scenario is 25.8 billion euros while the estimated deficit in the adverse scenario is 53.7 billion euros.

Table 1
Capital deficit of Spanish banks (billion euros)

Baseline Scenario		Adverse Scenario	
Bankia-BFA	-13.230	Bankia-BFA	-24.743
Catalunyabank	-6.488	Catalunyabank	-10.825
NCG Banco	-3.966	NCG Banco	-7.176
Banco de Valencia	-1.846	Banco de Valencia	-3.462
BMN	-368	Popular	-3.223
Bankinter	393	BMN	-2.208
Ibercaja+Caja3+Liberbank	492	Ibercaja+Caja3+Liberbank	-2.108
Popular	677	Unicaja+CEISS	128
Unicaja+CEISS	1.300	Bankinter	399
Kutxabank	3.132	Sabadell+CAM	915
Sabadell+CAM	3.321	Kutxabank	2.188
Caixabank+Cívica	9.421	Caixabank+Cívica	5.720
BBVA	10.945	BBVA	11.183
Grupo Santander	19.181	Grupo Santander	25.297
Total	-25.898	Total	-53.745

Source: Bank of Spain and own elaboration.

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As of now, the supervision authorities have made clear that they do not expect that these capital needs will fully materialize for three reasons: i) many of the banks with capital deficit will be

[6] These scenarios were discussed in Carbó, S. and F. Rodríguez (2012), Resolution of the Spanish banking crisis: Implications of recent developments, *Spanish Economic and Financial Outlook,* vol. 1, n.2: 5,-4.

able to apply their own strategies to partially or even fully manage the capital shortfall; ii) a substantial amount of impaired assets will be transferred to the Sareb, which in turn will reduce the capital needs; and iii) the probability of occurrence of the adverse scenario is considered unlikely.

Some aspects of the bank-by-bank stress tests have been criticized. In particular, more information will be needed on how the top-down exercise was conducted from sample information and to what extent there is still some misclassification of assets. In any event, the tests have been ratified by the European Commission (EC), the European Central Bank (ECB), the European Banking Authority (EBA) and the International Monetary Fund (IMF).

The Spanish "Bad bank" solution: Sareb

Although the legal text was still to be released by the time this article was written, the main ingredients of the AMC were presented on October 29th, 2012. As other resolution tools in the management of the banking crisis, the AMC has been the result of a consultation and joint work process between the Spanish authorities and the EC, the ECB and the IMF. As mentioned, the AMC will be called Sareb (*Sociedad de Gestion de Activos Procedentes de la Reestructuración Bancaria* - Asset Management Company for Assets Arising from Bank Restructuring).

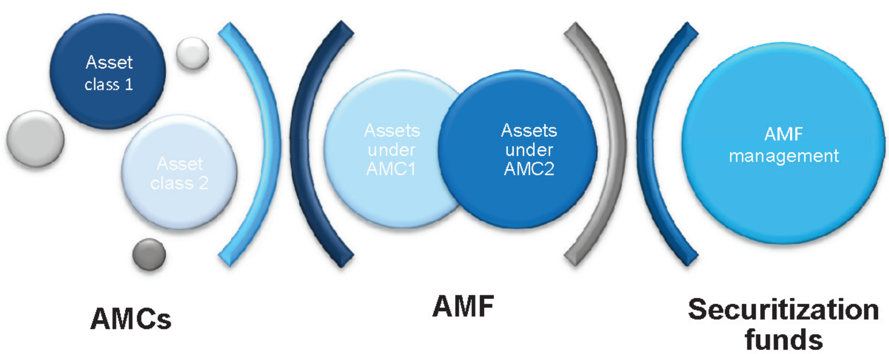
The Sareb will manage the portfolio of assets transferred from those banks that are required to make such transfers in accordance with the criteria of the MoU and the Royal Decree-Law 24/2012. In particular, a maximum time horizon of 15 years is established so that Sareb can sell those assets. The Sareb has been designed by the Fund for Orderly Restructuring of Banks (FROB), supported by advisory services from the private firm Álvarez & Marsal and in collaboration with the Bank of Spain and the Ministry of Economic Affairs.

The main features of the Sareb refer to its structure and governance and asset transfer regime (the scope and the price).

As for the structure and governance, the Sareb is a single company that will have the power to set up specific asset funds that will be managed

Exhibit 1

The classification of assets under the Sareb



Source: *own elaboration.*

as separate securitization funds. As shown in Exhibit 1, the Sareb will classify the assets first and then organize them as asset management funds (AMF) that will be managed by securitization funds.

As for the financial structure, the equity capital of the Sareb will be 8% of the total assets. A non-majority holding will correspond to the FROB, while a majority holding is expected to be subscribed by private investors. Part of the own funds could be subscribed as subordinated bonds.

The governing bodies of Sareb will be those of public limited companies in Spain including a Board of Directors, an Audit Committee and a Remuneration and Appointments Committee. At the same time, the Board of Directors of the Sareb will have an Executive Committee, a Risk/Credit Committee, an Investment/Divestment Committee and an Assets and Liabilities Committee. Additionally, it will have an External Monitoring Committee with representatives of the Ministry of Economic Affairs and Competitiveness, Ministry of Financial Affairs and Public Administration, the Bank of Spain and the Securities Exchange Commission (CNMV).

As for the scope of the asset transferred, there will be two steps. First, the banks classified in Group 1 according to the bank-by-bank stress tests discussed above will transfer all their foreclosed assets with a value larger than 100,000 euros and all their loans to real estate developers larger than 250,000 euros. In a second stage, the banks that will fall under Group 2 will transfer the same categories of assets to Sareb in 2013. According to the FROB estimates, the total assets transferred in the first stage will be around 45 billion euros, while in the second stage, the estimates point to 14 billion euros. The maximum amount of assets to be transferred to the Sareb has been set at 90 billion euros.

One of the most important ingredients of the Sareb, as in any other historical experience of asset management companies, are transfer prices. The criteria to set transfer prices will be mainly two:

i) The economic value of the assets (both for the foreclosed assets and the loans) taking the baseline scenario of the bank-by-bank stress tests as a reference.

ii) An additional adjustment, considering criteria such as “the en bloc acquisition of assets; the consideration of certain expenses borne by the banks’ income statements, which must now be assumed by the company, such as asset management and administration costs, including financial costs; the outlook for the timing of the divestment of the assets transferred to the company; and other factors that affect the viability of and the risks involved in the specific activity of Sareb”.

The FROB projects average transfer prices as shown in Exhibit 2. The average haircut on loans will be 45.6% while the average discount on foreclosed assets will be 63.1%. These haircuts go beyond the estimated discounts that can be inferred from the provisions that the Royal Decree 24/2012 required of Spanish banks.

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As for other aspects of the Sareb, the FROB estimates that the return on equity (ROE) over a 15-year time horizon –in a conservative scenario– will be around 14-15%.

Overall, the Sareb contains the most important ingredients for an asset management company but some of the remaining implementation issues will be very relevant for determining its success in the near future. The establishment of a proper incentive structure between ownership and management will also be particularly significant.

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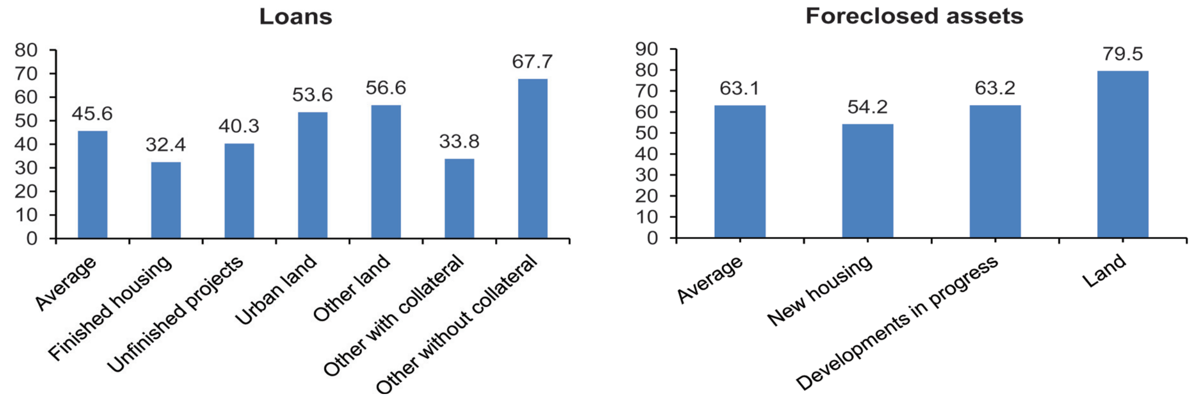
Exhibit 2

Average haircut on loans and foreclosed assets in the Sareb



Source: own elaboration.

Additionally, the participation of foreign investors will be critical, as it may bring both credibility and balance to the management and ownership structure of Sareb.

Additionally, even if it is very difficult to determine to what extent the Sareb will affect housing prices in Spain, it is very likely that the estimated transfer prices will imply a faster adjustment in house prices during 2013. During the presentation of the Sareb, authorities noted that "the transfer price is

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not a reference for the valuation of non-transferred bank assets". This is true as a starting reference, but it is very likely that Sareb prices will push down house market prices in Spain as it is not plausible to expect a market with an average discount of 25-30% and Sareb with discounts of around 40-60%.