

MARKET SIGNALS REVIEW

Capital Markets Research Group

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Little Market Reaction to Capital Plan for Spanish Banks

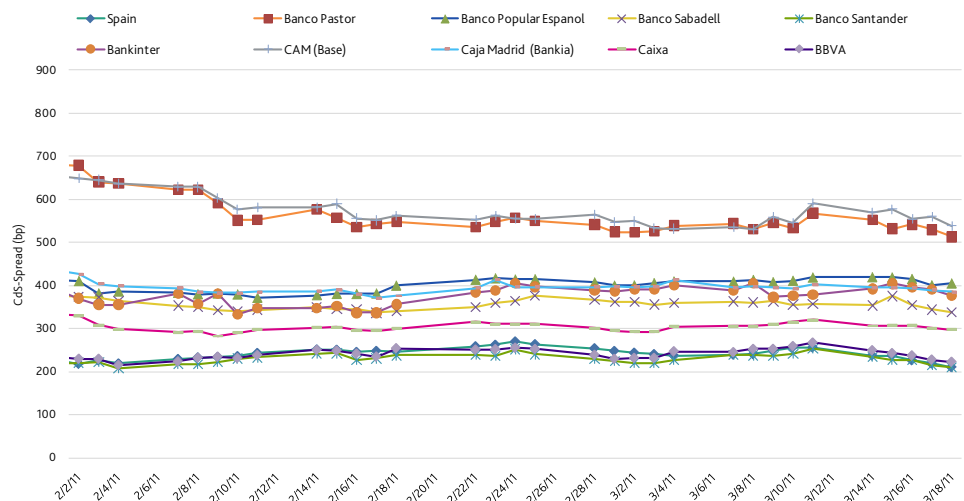
Equity and CDS Market Signals Unchanged

On March 10 the Bank of Spain announced capital raising measures for twelve Spanish financial institutions, steps designed to help restore them to financial health. The market's response has been muted so far, suggesting that the sums proposed did not add new information to the capital markets. Crucially, most Spanish institutions are trading at very depressed levels in the CDS market, some as low as B3, reflecting their well-known difficulties. The absence of spread tightening following the announcement suggests to us that market participants are not confident that the authorities' proposed capital contributions will be sufficient.

The announcement itself had the small effect that two of the twelve institutions required to raise capital are Spanish subsidiaries of Barclays and Deutsche Bank externalizes, at least optically, some of the pressures on the Spanish financial system.

Another point is that among the eight savings banks, or cajas, on the list, half would pass the capital test without raising new capital if they were organized as public companies (with 8% core capital levels). This is not to say they don't need capital, but it does highlight the fiat nature of regulatory guidelines.

Figure 1: 5-Year CDS-Spreads for Spain and Selected Spanish Financial Institutions



Opinions vary: direction needed

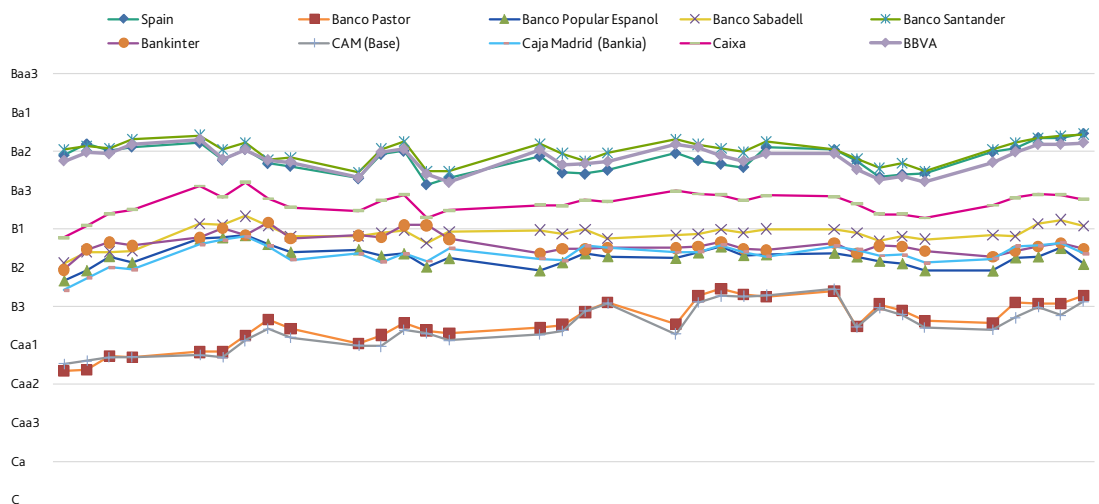
Even in the best of times there are many variables difficult to quantify that affect the health of a banking system. So it's not surprising that there are a range of opinions on what's needed in the case of the Spanish banks. For example, Moody's Investors Service's base case capital requirement of €40-50 billion for Spanish banks¹ is double that of the government, showing how different models and different assumptions can generate different outputs. Moody's stressed-case scenario for financial sector recapitalization requirements calls for €110-120 billion in new funds².

Nonetheless, with CDS-implied ratings for the Spanish banks ranging from Ba2 to B3, the market is already projecting large estimates for losses among the banks³.

Most interesting to us about the news was how little the market reacted to it, with respect to both general direction of spreads and institution-specific movements. We expected that specific capital commitments on twelve institutions would have led to at least some movement. But almost nothing happened.

The sector appears in suspended animation pending more visibility on questions such as asset quality and the confidence around institution-specific capital needs. We believe spread movements are unlikely to be driven in the near term by either legal structure (i.e., whether an institution is a caja or commercial banks) or the regulator's assessment of capital adequacy. There is clear differentiation among issuers. At the "narrow" end, CDS of Santander and BBVA trade at 210 bp and 223 bp, the former in line with the 210 bp level of the Spanish government which is the guarantor of the FROB⁴. At the "wide" end, both Banco Pastor and CAM trade wider than 500 bp, or roughly a B3 CDS-implied rating (Figures 1 and 2). Since Banco Pastor is regulated as a commercial bank and CAM as a savings bank, it seems the regulatory distinction is not the important one to the market. These trading levels map to CDS-implied ratings of Ba2 to B3. By contrast, the average implied rating for European banks is Ba1.

Figure 2: CDS-Implied Ratings for Spain and Selected Spanish Financial Institutions



¹ For simplicity, unless otherwise noted, we include "savings banks" or cajas when we refer to "banks".

² "Moody's downgrades Spain's rating to Aa2 with a negative outlook"

http://www.moodys.com/viewresearchdoc.aspx?docid=PR_215493, and "Key Drivers Behind Moody's Decision to Downgrade Spain's Rating" http://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC_131638.

³ For simplicity, unless otherwise noted, we include "savings banks" or cajas when we refer to "bank" here.

⁴ Fondo de Reestructuración Ordenada Bancario is a specific-purpose fund established by the Spanish government to acquire capital in banks, with a view to facilitating the restructuring of (parts of) the Spanish banking system.

Issues unresolved

There are many issues which remain to be dealt with as the banks seek to recapitalize. In some cases it's simply a matter of waiting for the necessary information to be published. Other key drivers, such as the level of ultimate losses and the trajectory of the Spanish economy, will only resolve themselves with time.

Given the lack of market movement, there was no vote of confidence that the Bank of Spain requested capital from the right banks, enough banks, and whether the level was correct on a per bank basis⁵. A further question is the quality of assets which will either contribute to or reduce that capital over time, and the degree to which assets are unencumbered given how many have been used for secured funding. Crucially, there is clear tiering among banks, yet the information published by the Bank of Spain for most banks only indicated that they met their minimum requirement, or by how much they missed the minimum.

Market signals as a partial guide where much uncertainty still exists

With new lending and net interest margins constrained, competition for capital is getting keen. But there have been few transactions in either the lending or the capital markets against which to benchmark prices for Spanish bank regulatory capital. And yet, because capital must be raised, questions about which institutions need it, how much they need, and what relative price they will pay are critical. To the extent that capital structure information is available and provides clues to this, it is useful, and obviously particularly relevant in this case.

Estimated Default Frequency (EDFTM) metrics offer guidance in this connection. EDF metrics are derived from information about a firm's capital structure and its stock price and stock price volatility⁶. EDF metrics are Moody's Analytics' brand name for physical probabilities of default. If a firm has a one-year EDF of 1%, it has a 1 in 100 chance of defaulting over the next year. Equity-implied ratings are EDF metrics mapped onto Moody's rating scale. Because the metric depends on traded equity prices, only those banks which have publicly traded equity can be measured this way. This excludes much of Spain's banking sector.

Figure 3: 1-Year EDF and Equity-Implied Rating for Spanish Commercial Banks

| Bank | EDF-Metric | Equity-IR |
|-----------------------|------------|-----------|
| BBVA | 0.15% | Baa1 |
| Banco Santander | 0.24% | Baa3 |
| Banco Sabadell | 0.95% | B2 |
| Banco Popular Espanol | 1.20% | B2 |
| Bankinter | 2.08% | B3 |
| Banco Pastor | 3.67% | Caa1 |
| CAM (Base) | 8.16% | Caa3 |

As of 3/18/2011

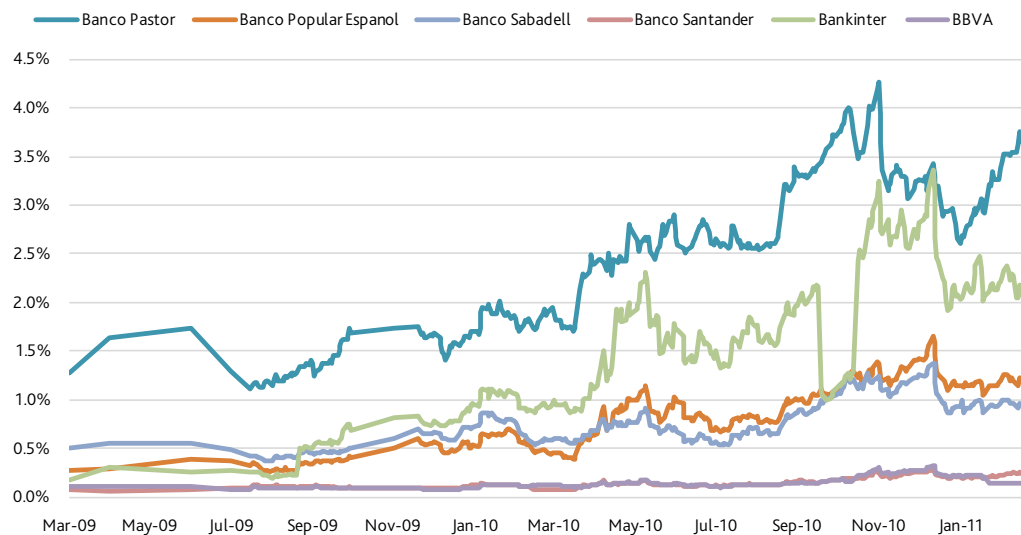
Interpreting EDF metrics for financial institutions can be challenging due to issues such as the classification of their liabilities, vagaries in government support, and different regulatory regimes⁷. But especially within the same regulatory market EDFs provide an instructive yardstick for comparison. In the case of Spanish institutions, the disparity in their EDF metrics is as wide as it is among the CDS spreads (Figures 3 and 4). And interesting feature from the figure shows that Banco Pastor "passed" the Bank of Spain's stress test, yet its one-year EDF metric of 3.67% is 76% higher than the 2.08% metric of Bankinter. The latter was told to add an additional 1.1% to core capital.

⁵ For details, see http://www.bde.es/webbde/en/secciones/prensa/Notas_Informativ/anoactual/presbe2011_9e.pdf.

⁶ For further details, please see our publication *Moody's Market Implied Ratings: Description, Methodology, and Analytical Applications* (Munves et al, December 2007).

⁷ For a full discussion of this, please see "Banks and their EDF Measures Now and Through the Credit Crisis: Too High, Too Low, or Just About Right?" at http://www.moody.com/researchdocumentcontentpage.aspx?docid=PBC_129462.

Figure 4: 1-year Estimated Default Frequency Metric -- Spanish Commercial Banks



EDFs have proven to provide a good rank ordering of default risk. On aggregate, they are also correct when it comes to their levels — entities with EDFs of 1% tend to default at a 1% rate. Thus, the disparities in EDF levels and rankings for Spanish banks show how difficult it can be to get a handle on their true risk levels.

While EDF metrics do not exist for the unlisted cajas, the “tiering” for those which do have it is more or less consistent with CDS spreads and CDS-implied ratings, and thus provides a good check. If the market is in disagreement with the Bank of Spain on the 8% core capital number for Banco Pastor versus Bankinter on both a CDS- and an equity-implied basis, it seems reasonable to us that the CDS market could be expressing an informed opinion of the level of capital needed by the unlisted financial institutions. Thus looking at the level of CDS spreads and the CDS-implied ratings, rather than at the March 10 announcement of levels needed, could be a guide to the true need for capital.

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