The primary yield determinants of the Spanish asset backed securities and the relevance of multitranch structure

Miguel Á. Peña-Cerezo1, Arturo Rodríguez-Castellanos2 and Francisco J. Ibáñez-Hernández1

1Universidad del País Vasco / University of the Basque Country- UPV/EHU
2Association para el Progreso de la Dirección (APPOD)/Association for the Management Progress - SPAN

Corresponding author’s email: miguel.angel.penacerezo@ehu.es URL: www.uc.edu/miguelpena

ABSTRACT:
We analyze the primary yield determinants of the Spanish mortgage backed securities (MBS) and asset backed securities (ABS) issuances between 1993 and 2011, when the Spanish market took over as the leading one in mainland Europe. The results of the analysis of 2,186 different tranches originated using 650 issuances show that the multi-tranche structure of the MBS helped to reduce the global risk of the issuances. This was achieved by generating more comprehensive markets and reducing the problems arising from the asymmetric information. The credit institutions, in general, retained the primary issuance tranches, which contributed to the yield offered by the ABS bonds being held at very low levels (under the sovereign debt yield).

JEL Classification: G12; G21; O32 Keywords: securitization; asset backed securities; spreads; primary yield; tranche; subordination; asymmetric information

PURPOSES
1.- To analyze the factors explaining the yield offered by senior securities (AAA).
2.- To analyze the efficiency of multi-tranche structures in determining the yield of the senior issues.
3.- To determine the mechanisms that enable the multi-tranche structure to lower the risk premium set for Triple-A issues.

Why do we focus on triple-A issues?
• Because they account for the majority traded on the markets (and therefore their yield premium provide greater information value).
• Because they are the most representative tranches (they account for 90% of the total issues).

HYPOTHESES
H1 (efficiency of the multi-tranche structures): There is a significant and negative relationship between the number of tranches [Ntranches] and the yield provided by the triple-A securitization issuances [Yield AAA].

H2.1 (complete markets): There is a significant and positive relationship between the total size of the issue [Size] and the number of tranches [Ntranches].

H2.2 (moral hazard): There is a significant and negative relationship between the quality of the assigned assets [QAS] and the number of tranches [Ntranches].

H2.3 (adverse selection): There is a significant and positive relationship between the quality of the assigned assets [QAS] and the number of tranches [Ntranches].

SAMPLE
The population being studied is the series of MBS/ABS issued by the SPV constituted in Spain in Q1-1993/Q3-2007 (286 SPVs), 1,147 tranches, 42.60 billion, when the triple-A tranches were taken up by investors on the primary markets (N.B.: From 2008 onwards, the issues were not traded on the market, but were lent out by their issuers to obtain funding on the Euro-market in fact, the pattern observed in this second period (2008-2011) differs from the one observed in 1993-2007).

DEVELOPMENT
A system of structural equations without latent variables (Path Analysis) was presented and which describes: (i) the multi-tranche structure of the MBS helped to reduce the global risk of the issuances. This was achieved by generating more comprehensive markets and reducing the problems arising from the asymmetric information. The credit institutions, in general, retained the primary issuance tranches, which contributed to the yield offered by the ABS bonds being held at very low levels (under the sovereign debt yield).

MAIN LITERATURE REVIEW

Study | Sample | Database | Model | Explanatory variables |
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<td>Vink and Thibaudeau (2006b)</td>
<td>Non-US ABS (761), MBS (190) and CDO (914) issues: 1999-2005</td>
<td>Structured Finance International Magazine</td>
<td>OLS regression</td>
<td>Yield AAA</td>
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MAIN RESULTS AND CONCLUSIONS

- Until the 2007 subprime crisis, there was an increase in asset securitization on the international markets, in general, and in Spain in particular, and a greater degree of sophistication was progressively reached.
- Reasons for the rapid expansion of the MBS/ABS include those indicated herein:
  - First, the MBS enjoyed high ratings, which meant that they were warmly welcomed among the international and national institutional investors.
  - Thus, the investors demanded a minimal risk premium for this type of financial assets, the majority of which had a maximum credit rating (triple-A). In fact, the yield offered by the benchmark fixed income assets (10-year government bonds) was higher than that required by the MBS.
  - Conversely, the structure of the SPV has allowed small credit institutions to enjoy economies of scale due to the possibility of participating in securitization operations by means of grouping the assets assigned by different entities, by sharing the fixed costs arising from this funding and by offering a portfolio of more diversified assets as collateral.
  - Finally, there exists the possibility that the SPV offer to establish a series of MBS/ABS tranches with differential yield and risk profiles has allowed access to a wider type of investors, thus completing the capital market.

- To assess the effect of the constitution of multi-tranche securitization structures on the perceived quality of the MBS/ABS issued in Spain (1993-2007), measured by means of its primary yield, we focus on the information value provided by the most characteristic aspects of the designs of the securitization operations, that is, the number of tranches [Ntranches] within which the issues are divided.
- It is evident that [Ntranches] has a negative and relevant relationship with the spread premium offered [Yield AAA]. These results, in keeping with those presented by Firla-Cuchra and Jenkinson (2006), Vink and Fabozzi (2009), further support the theoretical forecast that greater a sophistication of investors and a progressive market development should be associated with further trancheing.
- The significant and positive relationship existing between the generation of a greater number of tranches and both the size and the risk of the issuer enables us to deduce that the underlying reasons for the MBS/ABS tranche stratification are:
  - On the one hand, that it meets the needs of a greater diversity of investors (completes the market, which is consistent with what was obtained by Firla-Cuchra and Jenkinson (2006) or Schaber (2008)).
  - On the other hand, it reduces the moral hazard inherent to this type of assets.
- In contrast, the cost reduction arising from the adverse selection seem not to be a priority in the tranche generation.
- Thus, the investors can discriminate the good from the bad MBS/ABS, with the signals generated by the issuers being sufficient (quality indicators such as the weight of the subordinate tranches issued). On the other hand, the MBS/ABS issuers with poor quality assets as collateral are those that most sacrifice the liquidity of their issues in the secondary market for a safer senior tranches by means of generating a greater number of tranches. In short, we find evidence that the generation of multiple tranches reduces the information asymmetries by means of reducing the moral hazard, not by means of adverse selection, contrary to what is argued by Schaber (2006).

REFERENCES