EBA Policy Research Workshop

Discussion of
"Modelling the duration of retail bank deposits"
(authors: P. Hoffman, S. Frontczak and F. Pierobon)

Discussant:

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Outline of the paper: structure

- The paper raises an important question: ‘How do deposit(or)s behave when interest rates change?’

- To do so, the paper makes use of a model linking the value of deposits to the risk-free rate, the deposit rate and alternative roll-over strategies of short-term risk-free bonds.

- Then, based on the estimates the authors conduct simulations to compute the duration of retail sight deposits.

Empirical model

- The paper follows the seminal paper of Jarrow and van Deventer (JBF 1998), for associating the value deposit liabilities to the margin between market and deposit rates and alternative strategies (e.g. money-market funds).

- Explanatory variables of the deposit rates are market rates and lagged margin between deposit and market rates; this last parameter works as an error-correction mechanism.

- Changes in deposit volumes are a function of the margin between deposit and market rates and a dummy variable, marking a high bank risk (θ=1 if sovereign CDS spreads>200 bps).

Data

- Period: July 2007 to January 2023.
- The model is estimated based on data from 132 (out of total of 318 banks) EA banks for sight deposits
- Data from 67 EA banks are used for RAN (redeemable at notice) deposits.

Empirical results

- The empirical analysis shows that the pass-through of market rates' moves to rates of sight deposits rates is partial: in the short run only 9% of the rate changes is reflected to deposit rates and in the long-run 29%.

- Deposit volumes increase by 5% annually for every 100 bps of higher spread between deposit and market rates.

- An increase of the sovereign CDS spreads, beyond 200 bps, explains a decrease of deposit volumes by 5%.

Simulations

- Simulations are based on two different scenarios:
  - Sudden increase of market rates by 200 bps

  and
  - An increased pass-through from market to deposit rates (2 x std.dev.)

- Increasing interest rates, shortens durations of deposits by 2.05 and 2.55 years, for sight deposits and deposits redeemable-at-notice.

- A higher pass through, lowers deposit volumes in the future.

Comment 1: how bank risk is captured

- Sovereign CDS spreads are introduced to capture bank risk. The argument here is drawn from previous literature, arguing for the bank-sovereign loop.

- The literature, however, examines for effects running from the sovereign to bank risks (and, in some cases, vice versa). Thus, allows for a distinction between risks originating in the macro and in the bank-specific levels.

- The paper at hand, reflects only the former (country-wide risks).

- I would suggest to orthogonalize bank-specific CDS spreads to the country's sovereign CDS, so that economy-wide risks are decomposed from bank-specific ones.

Comment 2: sovereign CDS variable

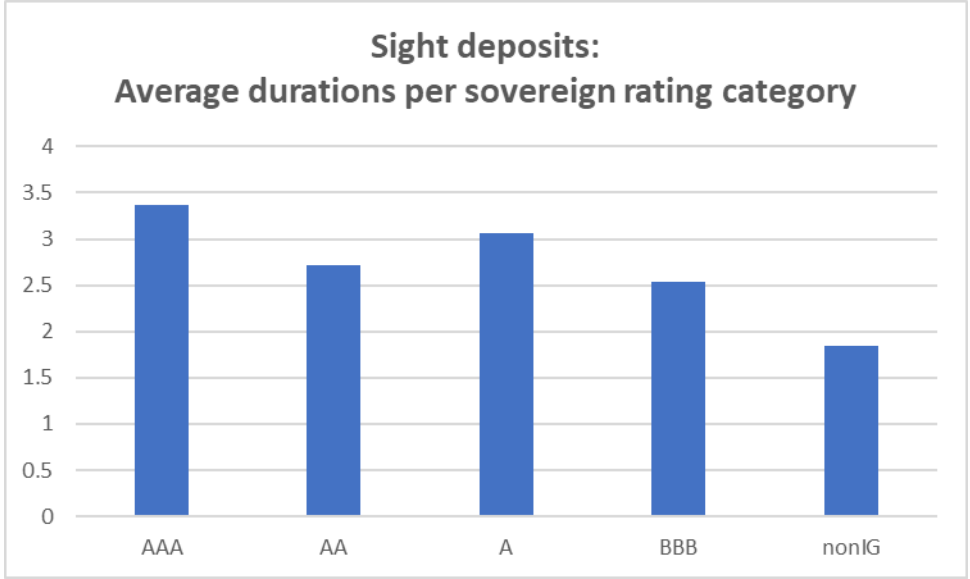
- I found the introduction of sov-CDSs quite an interesting idea, but the results are quite muted:
  - A rise of CDS spreads by (say) 200 bps) reduces deposit volumes, on a monthly basis, by 1.7%.

- Is this a one-off effect?
  - According to statistics presented in table 7.3 CDS premia are near-unit-root processes (AR(1) coefficients vary from 0.933 to 0.991).
  - But, the way they are introduced in the deposit volumes equation (dummy taking the value of 1, when CDS>200 bps) seems to not reflect the true DGP.

- I would suggest that the change in CDS spreads is also examined alternative to the dummy variable: this will have more information.
  - For example, a country may have had a short-lived spike (e.g. due to 'market sentiments') while another may have had more structural problems.
  - This will be captured by the time series, but not the dummy.
  - Also the threshold (200 bps) seems quite arbitrary. Why not 400 bps or (even better) 400 bps for more than 1 year?

Comment 3: alternative measures of sovereign risks

- Sovereign ratings offer a possible avenue for exploring economy-wide effects.
- It seems that higher-rated sovereigns are also the ones that have longer durations in their deposits (see chart on the right).
- More credible guarantee? Better institutions? Stronger depositor confidence?
- To my point of view this is worth exploring further.



Source: Figures of Table 7.6 classified per rating category (discussant's calculations).

Overall

- I have found this paper very interesting and its results highly relevant, especially in the present changing interest rate environment.

- The paper's focus is on interest rate effects and it is well founded for its objectives.

- I believe, however, that it may benefit from widening its scope: its argument that it is the bank-specific risk that reduces deposit volumes, needs to be disentangled from economy/system-wide effects.