

Discussion of Altavilla, Boucinha and Peydró

“Monetary Policy and Bank Profitability in a Low Interest Rate Environment”

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International Research Forum on Monetary Policy / FRB
March 23, 2018

DISCLAIMER: The views expressed are solely the responsibility of the author and should not be interpreted as reflecting the views of the Board of Governors of the Federal Reserve System or of anyone else associated with the Federal Reserve System.

Hardly a day goes by...

...without hearing someone complaining about low interest rates

Life in a Low Interest Rate Environment

[◀ Back to results](#) 1 of 9 ▶

Savings Penalty Low Interest Rates Hit Savers, Help Borrowers: [L5 Edition]

Jim Gallagher Of the Post-Dispatch Staff. **St. Louis Post - Dispatch (pre-1997 Fulltext); St. Louis, Mo.** [St. Louis, Mo]12 July 1992: 1E.

"You work hard all your life, and they take that little bit you have stashed away and start chopping away at it," complained **Jim Cooper**, a 75-year-old retired engineer from Mehlville.

Jim Cooper (a retired saver)...

Life in a Low Interest Rate Environment

< Back to results < 11 of 785 >

Traditional pensions on last legs: Low interest rates might be last straw for firms struggling to keep plans alive

Fletcher, Michael A. **Chicago Tribune**; Chicago, Ill. [Chicago, Ill]30 May 2013: 2.

Full text

Abstract/Details

Companies' pension plans...

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[← Back to results](#) [← 5 of 1,645 >](#)

Indian Central Banker Raghuram Rajan Criticizes Fed; Bank Chief Says Fed Ignores Impact of Its Low Interest Rates on Emerging Markets

McGrane, Victoria. [Wall Street Journal \(Online\)](#); New York, N.Y. [New York, N.Y.]10 Apr n/a.

Emerging Economies' Central Banks...

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[← Back to results](#) [← 3 of 173 →](#)

Long-term low interest rates are harming growth, OECD warns

Wallace, Tim. **The Daily Telegraph**; London (UK) [London (UK)]10 June 2016: 4.

OECD...

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[◀ Back to results](#) [◀ 7 of 785 ▶](#)

German Banks Told They Must Reconsider What They Offer For Free; German banks warned as low interest rates continue to eat into their earnings

Buell, Todd; Nissen, Madeleine; Bentzien, Hans. [Wall Street Journal \(Online\)](#); New York, N.Y. [New York, N.Y.]
Sep 2016: n/a.

...and banks, of course

Monetary Policy and Bank Profitability: A Short Summary

“Easier” monetary conditions:

- 1 do not affect banks' total ROA
- 2 reduce net interest income
- 3 reduce loan loss provisions
- 4 increase non-interest income
- 5 benefit more cost-efficient banks
- 6 benefit more banks with better assets
- 7 benefit more banks with large maturity mismatch (especially slope)
- 8 may hurt bank profitability if they persist for too long
- 9 increase banks' stock returns using event study
- 10 reduce banks' CDS spreads using event study

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Monetary Policy and Bank Profits: Panel Analysis

- This paper uses banks' (i) balance-sheet data for euro area countries (j) from 2000 through 2016 (t).
- It compares two regressions of bank profitability on level ($rshort$) and country-specific slope ($rlong$) of the yield curve:

- ▶ Regression 1: Mis-specified

$$profit_{i,j,t} = 0.034^{***} \times rshort_t + 0.004^{***} \times rlong_{j,t}$$

Reduce R by 100bpts \rightarrow profitability down by 3.4 bpts

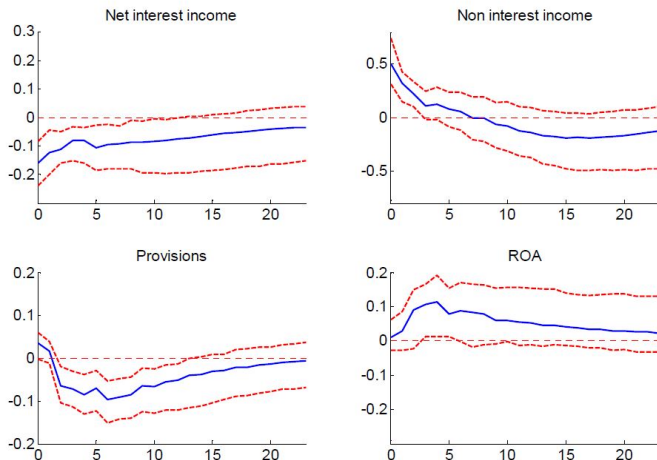
- ▶ Regression 2: Preferred

$$profit_{i,j,t} = 0.003 \times rshort_t + 0.001 \times rlong_{j,t} + 0.11^{***} \times Expgrowth_{j,t}$$

- Easier monetary conditions do not decrease bank profits after controlling for expected GDP.
(Incidentally, s.e. are only clustered by bank. They should be clustered by time too since banks are subject to common shock)

Monetary Policy and Bank Profits: VAR Analysis

Figure 5: Impact of a QE-type policy shock on bank profitability



- Reduce rlong by 100bpts → profitability increases, even if NII falls.

Main Comments

- The paper has many interesting results, perhaps too many
- It has panel regressions, panel regressions with interaction effects, VARs, high-frequency regressions, all in the same paper
- In the baseline regressions, more effort should go in controlling for the endogeneity of monetary policy and of country-specific risk factors to macroeconomic conditions.

If a bad shock in 2011 simultaneously lowers GDP, lowers r_{short} , increases r_{long} for some countries, reduces r_{long} for others, and lowers bank Profits, what do we learn from a reduced-form regression of *Profits* on *GDP*, *r_{short}* and *r_{long}*?

Identification of causal effects does not come from proprietary data. It comes from right-hand side variables that are orthogonal to the error term.

Suggestions 1: Clarify Identification

- Can the authors better control for what drives interest rates?



$$\text{If: } profit_{i,j,t} = \alpha R_t \quad (1)$$

$$\text{then: } profit_t = \alpha R_t \quad (2)$$

In principle, it should not matter much if one estimates equation (1) with a panel of banks, or equation (2) with aggregated data, unless one digs deeper on the determinants of α at the i and j level.

- Perhaps the most interesting part comes towards the end, with the event-study analysis (8 events).
But then why wait until the end?
Is the cross-section helping there? Which banks benefited the most?

Suggestions 2: What do we Learn from the Cross-Section

- Most regressions in the paper are of the form:

$$profit_{i,j,t} = (\alpha + \beta Z_{i,j,t})R_t$$

An alternative would be a two-stage regression approach as in Flannery and James (1984) or Kashyap and Stein (2000)

$$profit_{i,j,t} = \alpha_{i,j}R_t,$$

$$\alpha_{i,j} = \gamma Z_{i,j}$$

- Do a more comprehensive analysis of what drives $\alpha_{i,j}$
 - ▶ Is it the bank's i part?
 - ▶ Is it the bank's country's j part?
 - ▶ Can one look at other controls in $Z_{i,j,t}$? Bank size, holdings of sovereign bonds...

Suggestion 3: Scaling and Interpretation

- Magnitudes are very hard to interpret throughout.
Are scaling and transformation of variables uniform across specifications?
- Are results comparable across models?

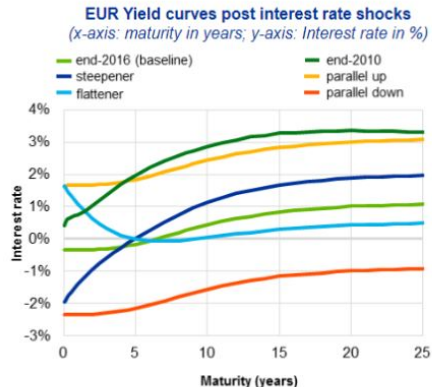
Consider $\Delta r_{\text{long}} = -100$ and $\Delta r_{\text{short}} = -5$

- ▶ From the regressions of Table 4 \rightarrow
NII $-0.06 = 0.00689 \times (-5) + 0.000269 \times (-100)$
NNI $+0.14 = -0.00817 \times (-5) - 0.00101 \times (-100)$
ROA $-0.17 = 0.00374 \times (-5) + 0.00161 \times (-100)$
- ▶ From the impulse responses of the VAR \rightarrow
NII -0.15
NNI $+0.50$
ROA $+0.05$

- If I want to get a sense of the magnitudes, where do I look?

Suggestion 4: Compare with bank stress tests

What were the interest rate shocks employed in the 2017 Sensitivity Analysis?



The interest rate shocks are heuristic and purely hypothetical. They do not reflect monetary policy considerations

Six total interest rate shocks

- The "end-2016" curve → 'Low-rates-for-l'
- The two regulatory shocks → *parallel up/parallel down* shocks
- Two additional shocks calibrated as per the 2016 BCBS methodology
 - *Steepener* → lower short term rates, higher long term rates
 - *Flattener* → a shock similar to the 2008 post-Lehman episode, e.g. inverted yield curve
- An "end-2010" shock → the interest rate environment before the acute phase of the Euro Area crisis

All shocks calibrated for EUR and relevant non-EUR currencies (USD, GBP, CZK)

Suggestion 4: Compare with bank stress tests

- ECB stress tests contemplate similar hypothetical scenarios
- Looking at banks' own responses to such scenarios could be a useful sanity check
- In the ECB stress tests, banks NII rise with a “parallel up” of the yield curve (but equity values drops)
- Can we reconcile the results here with the banks' own estimates?
 - ▶ If not, is it because banks' own stress-testing exercises are asked to ignore feedback effects from interest rates to GDP?
 - ▶ Do banks' results look more like the mis-specified regression of Table 2 in the paper?

Final Comments on “Monetary Policy and Bank Profitability in a Low Interest Rate Environment”

- Highly topical paper!
- No doubt that the paper talks about *Bank Profitability*
- The *Low Interest Rate Environment* seems too small a part of the paper to deserve space in the title.
- The *Monetary Policy* part belongs to the title, but you have to clarify if it is the endogenous or the exogenous part.

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