EUROPEAN CENTRAL BANK

EUROSYSTEM

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CBRT and ECB

Discussion of "From Low to Negative Rates: an Asymmetric Dilemma"

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Overview

1 Objective and contribution

2 Evidence from EA banks

3 General and specific comments

4 Policy implications

Objective and contribution

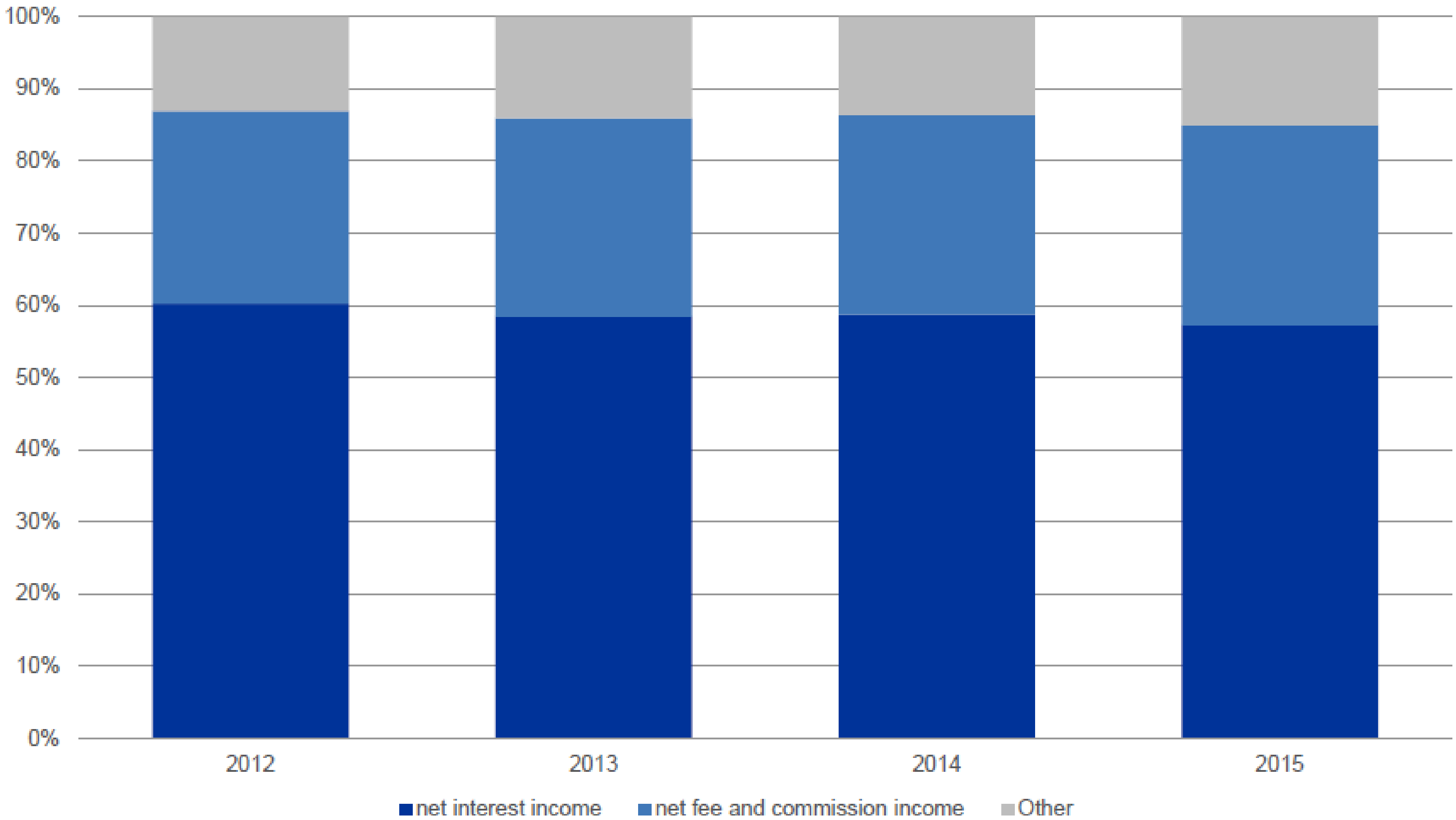
- What is the effect of low and negative interest rates on the profitability of Austrian banks, and its implication for FS?
- The contribution of the paper concerning the low interest rate environment:

  1. Across jurisdictions: Further evidence from Austrian banking sector
  2. Within jurisdiction: New evidence on bank heterogeneity – small & regional banks are affected more by a low interest rate environment

President M. Draghi, Press Conference, 21 April 2016:

" We have no evidence that it [negative interest rates] hampered the transmission of monetary policy, and when we look at bank profitability, we see that 2015, the first full year with negative interest rates has not affected, or has not caused negative interest income, net interest income going down. As a matter of fact, it went up. Now, of course we've got to be cautious here because we talk about the aggregate of the banking system in the euro area, and of course aggregates may actually conceal different realities."

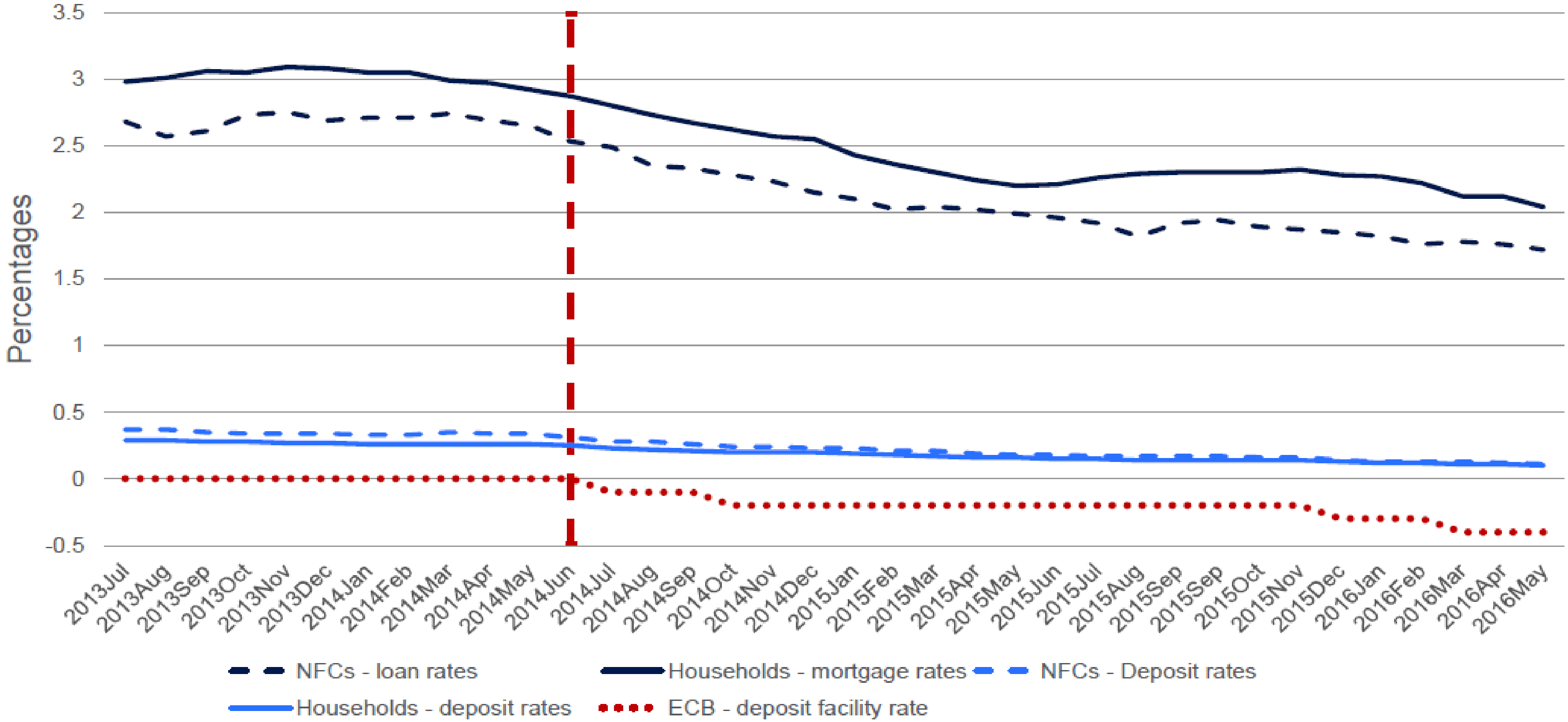
Income Sources for Euro-area banks



Source: ECB Statistical Data Warehouse – Consolidated Banking Data and ECB calculations.

Evidence from EA banks

Euro-area banks: interest rates on new loans and deposits

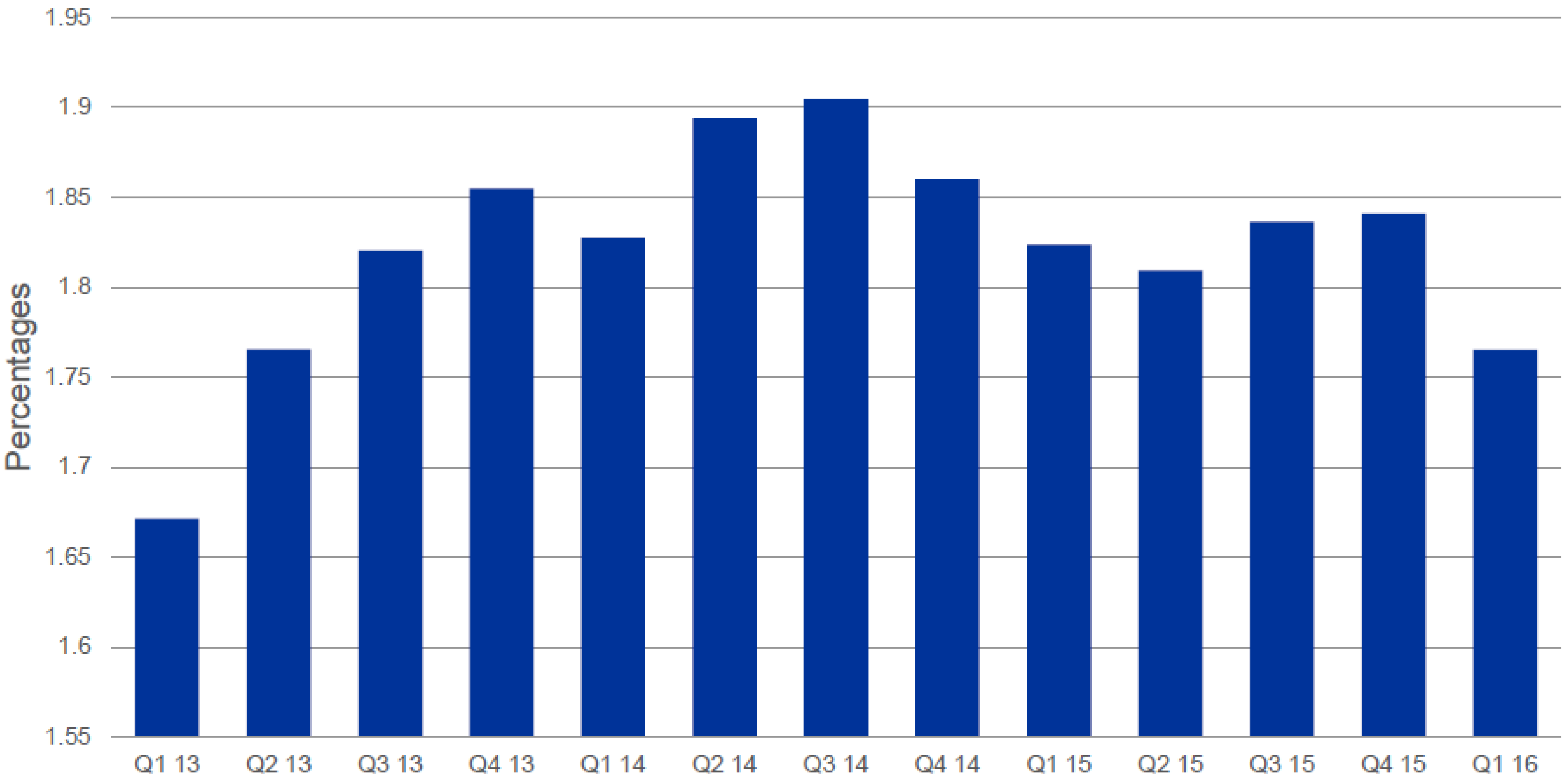


Source: ECB Statistical Data Warehouse - MIR Data

Note: All rates are averages for euro denominated loans and deposits in the euro area. Deposit rates are rates on new overnight deposits. Loan rates for NFCs are rates on new loans other than revolving loans and overdrafts, convenience and extended credit card debt. Loan rates for households are rates on new loans for house purchases excluding revolving loans and overdrafts, convenience and extended credit card debt. The vertical red line indicates June 2014. On June 5, 2014 deposit facility rates were set below zero for the first time. Latest observation: May 2016.

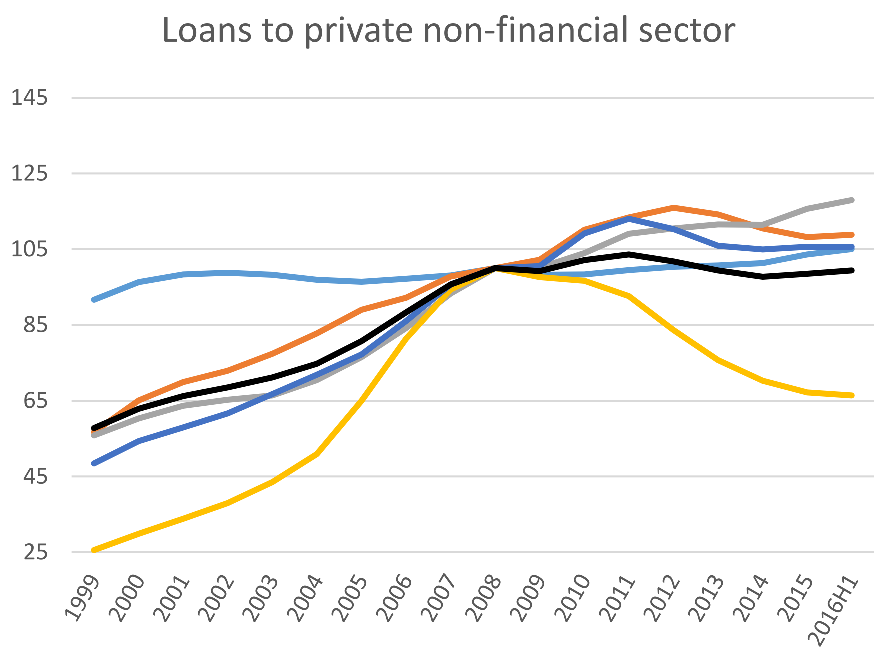
Evidence from EA banks

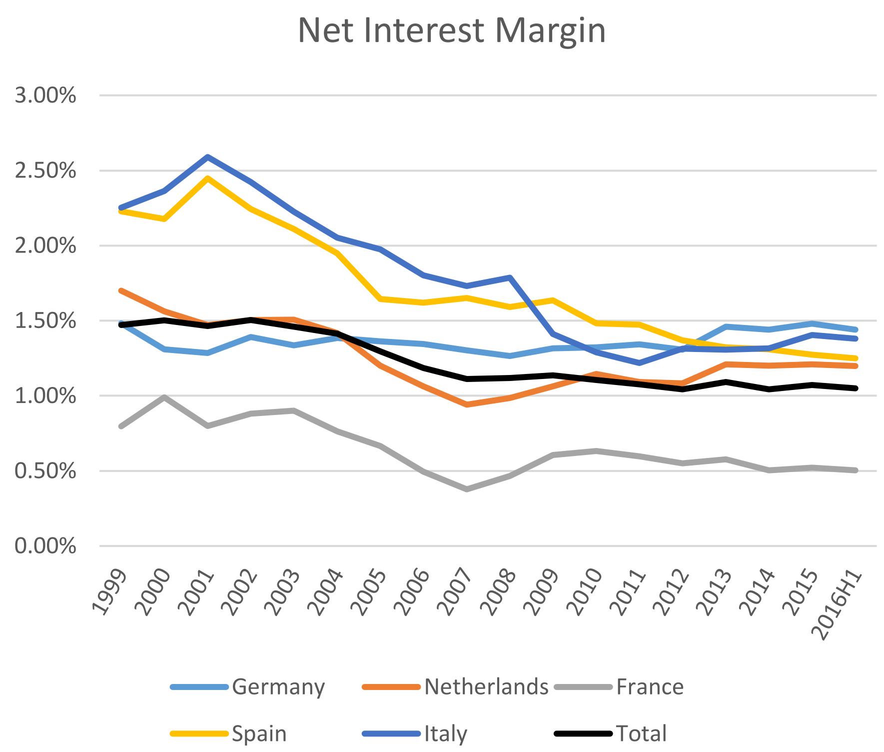
Euro-area large banks: net interest margin



Sources: SNL Financial and ECB calculations
Note: Based on publicly available data for 27 euro area banking groups for which quarterly P&L data is available. Annualised average net interest margins. The net interest margin is calculated as net interest income over total assets.

NIM and bank lending in selected countries





Source: DNB and ECB Statistical Data Warehouse

How to evaluate the net impact of L/N rates?

Factors	Large banks	Small & reginal banks
1. Liability pricing	Flexible and more wholesale funding	Largely deposit funding – binding ZLB
2. Asset pricing	Diversified – fixed and variable loans and securities	Less diversified – fixed/variable loan share is key determinant
3. NIM and profit profile (t-1)	Lower	Larger
4. Ability to generate other income and change business model	Higher	Limited

General comments

- Paper addresses very timely, important and interesting questions
- Uses a unique dataset with large and heterogeneous N and long T -- the best dataset so far!
- Provides a reasonable methodological framework
- Makes significant contribution to the on going debate on the impact of L/N interest rate
- Poses challenging questions to the policy makers!

Specific comments

1. Panel model

- Identification concerns:
  - Some reference to broad literature on NIM and include additional controls for market structure, credit and interest rate risk, cost efficiency, risk aversion and interest rate volatility
- Economic significance of non-linearity? Stronger evidence for RBD?
- Further interactions:
  - The effect of interest rate on margin and profitability also depends on bank size
  - Other profit components (NFI, LLP, expenses) interacted with RDB
- How to address long-run declining trend in NIM?
  - Some tests on stationarity of panel variables
- Sub-sample of pre-and post-crisis & NIR interactions?
- Further analyses on interest income and expenses to identify the sensitivity of different NIM sources

2. ARIMA model for forecasting

$$(1-B)^{d_{i,j}}(y_{t,i,j}-\mu_{i,j}) = \gamma'_{i,j}(Euribor_t\, Exp_{t,i,j}) + \gamma''_{i,j}(Euribor_{t-1}\, Exp_{t,i,j}) + \eta_{t,i,j} \quad (3)$$

$$\phi(B)\eta_{t,i,j} = \theta(B)\epsilon_{t,i,j}. \quad (4)$$

- Impact of L/N rate depends on amount of A & L that have variable rate during the stress period – paper consider all exposures are equally repriced?
  - Upward bias in our NIM forecast?
- Results are presented for median bank?
  - Panel results are for complete sample and average results. Need some model aggregation for each group as we need to draw some sectoral evidence
- Are we modeling linear behavior?
  - Could we extend AR model to allow for non-linear behavior? Any evidence that income and expenditure components behave linearly?
- How to map static panel model results with dynamic time series evidence?

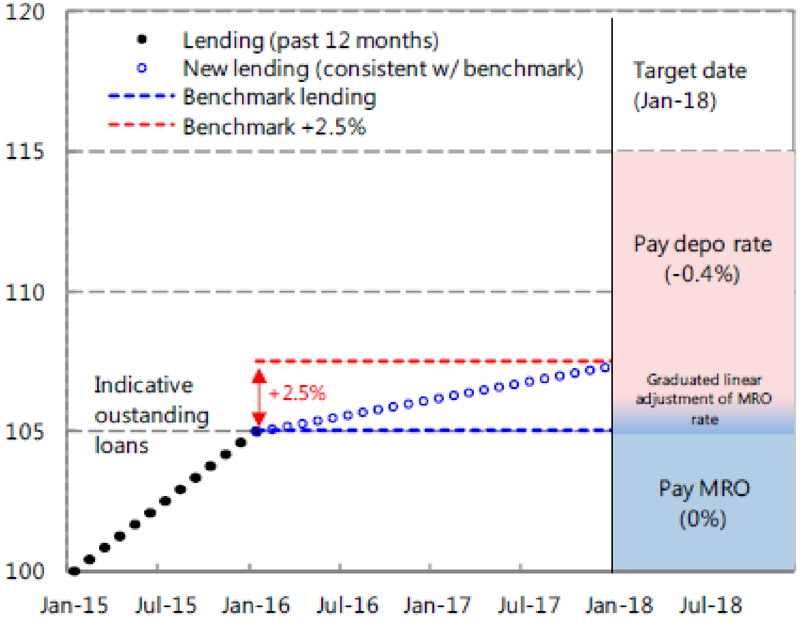
2. ARIMA model for forecasting

- We should incorporate the counterfactual effect of other monetary policy measures such as TLTRO II
- Static vs. dynamic balance sheet and income statement consideration becomes key elements

Other policy tools at work? TLTRO II

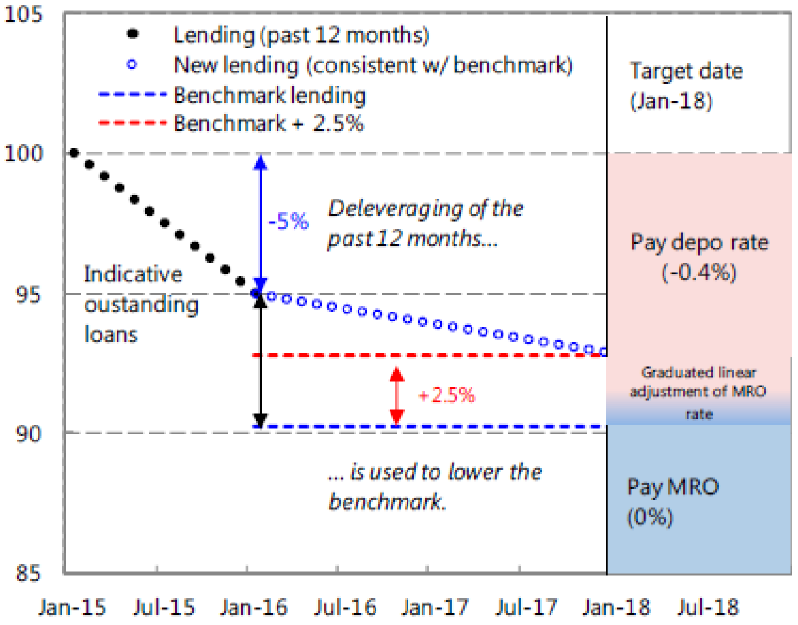
- TLTRO II could mitigate the potentially adverse impact of NIRP on bank profitability.

TLTROII Benchmark for a Bank with *Positive* Credit Growth



Source: Deutsche Bank; ECB; and IMF staff calculations.

TLTRO-II Benchmark for a Bank with *Negative* Credit Growth



Source: Deutsche Bank;; ECB.; and IMF staff calculations.

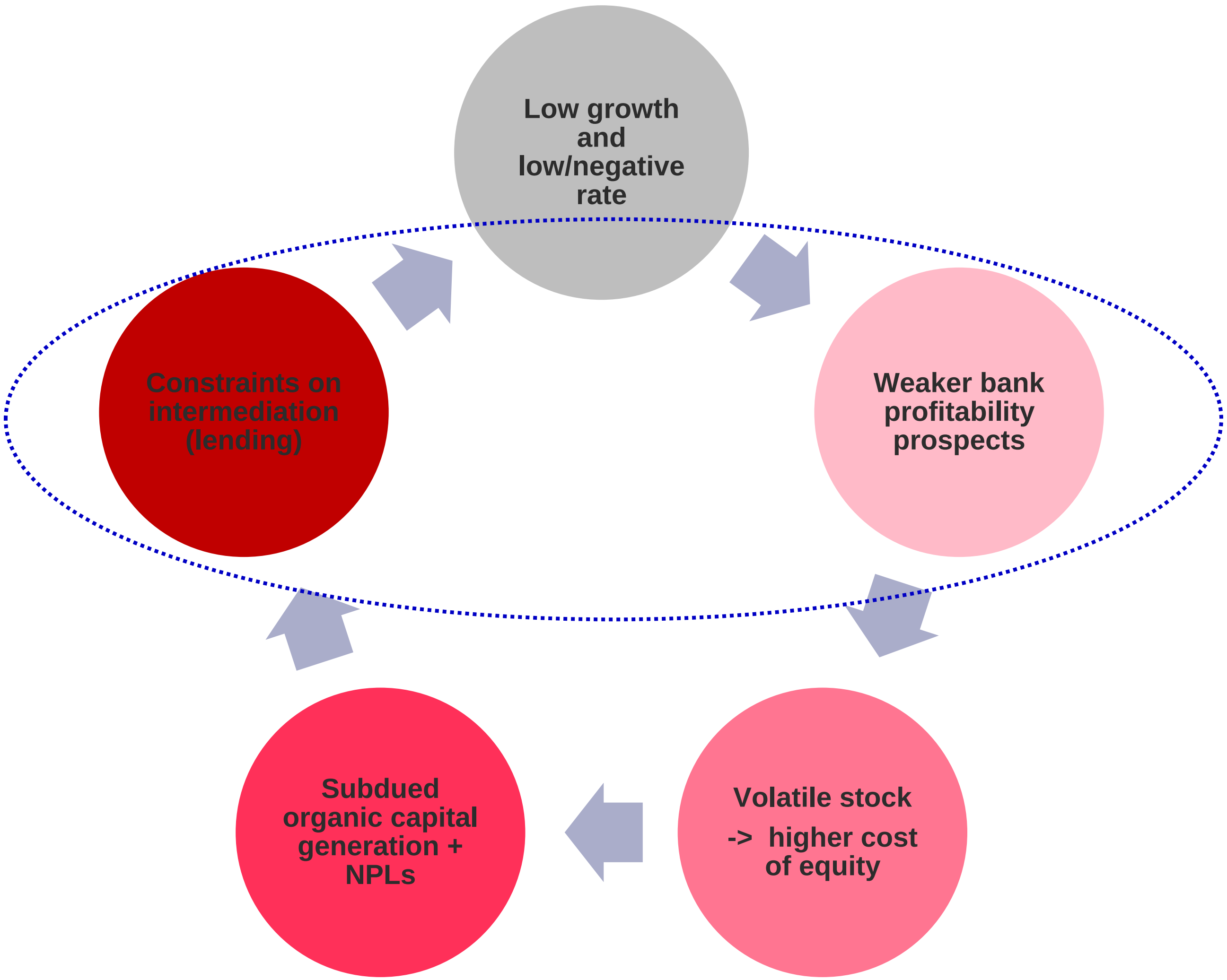
Source: Jobst and Lin (2016)

Policy implications

- What is the economic impact of decline in NIM?
- What is the impact on capital generation, and ultimately the impact on loan supply as banks has to deleverage to meet capital requirement?
- Other sources of profit could partially offset the loss from NIM, while this could be limited for small & regional banks

Policy implications

- With L/N, are we facing permanent adverse feedback loop between weak bank profitability, lending and low nominal growth?



THANK YOU!