Discussion of
Monetary Policy and Bank Profitability in a Low Interest Rate Environment

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*The opinions expressed in this presentation do not necessarily reflect the opinions of the Bundesbank or its staff.

Overarching Question of the Paper

What is the impact of monetary policy on bank profitability?

Motivation
(And why this question is important)

- Interest rates in many advanced economies have been low for almost a decade, and in many cases are expected to remain low for considerably longer

- Low interest rates can help economies
  - to recover and enhance banks‘ balance sheets and performance by leading to capital gains,
  - supporting asset prices
  - and reducing non-performing loans

(e.g., Bernanke and Gertler, 1995; Bernanke, 2007; Freixas and Jorge, 2008; Allen, Carletti, and Gale, 2009 and 2014; Gertler and Karadi, 2011 and 2013; Kiyotaki and Moore, 2012, Praet, 2016, among many others)

Motivation (cont'd)
(And why this question is important)

- But <u>'low for long'</u> may also **erode the profitability** of banks because **low rates are typically associated with lower net interest margins** (i.e., lower interest income as compared to interest paid out to lenders)

  - banks will often be reluctant to (quickly) lower deposit rates as interest rates decline (especially to retail depositors)

  - But: banks are expected to pass the lower rates on to borrowers (which is more pronounced in competitive markets)

(Rajan, 2005; Taylor, 2008; Allen and Rogoff, 2011; Stein 2012 and 2014; Alessandri and Nelson, 2015; Stiglitz, 2016; Borio et al, 2017)

Motivation (cont‘d)
(And why this question is important)

- **Implications for monetary policy:** pass-through of policy rates may be imperfect →which could impede monetary policy transmission

- **But also for financial stability**: a lower monetary policy rate spurs bank risk taking

→ Very important also for future central banking

(Adrian and Shin, 2009; Fahri and Tirole 2012; Diamon and Rajan, 2012; Krall, 2015; Brunnermeier and Koby, 2017)

Related Literature

- **A growing body of research shows evidence *in support of a strong effect*** of level of prevailing/policy rates on banks‘ profitability, e.g.,
  - Krall, 2015, Busch and Memmel, 2015; Borio et al., 2017; Claessens et al., 2017
  - Central bank polls (e.g., Bundesbank‘s recent low-interest-rate survey)
  - Among many others…

[Only few raise doubts about the argument that a low interest rate is detrimental to bank profitability (English et al., 2008; Correa and Davies, 2014)]

This paper…

- … provides a contrary evidence:

"Monetary policy easing is ***not*** associated with lower bank profits once you control for for endogeneity of the policy measures to expected macroeconomic and financial conditions "

- *More specifically:*

1. **Level of short term rates and the slope of yield curve** do not affect banks' profits
2. There is some bank heterogeneity in bank profits depending on the level of **maturity transformation when the slope rises/decreases**

Data and Methodology

- Use partly proprietary and partly commercial data (i.e., Bankscope, SNL, Bloomberg, and Capital IQ)

- Period 2000:Q1 – 2016:Q16, covering 288 distinct banks

- Results are robust to:
  - Changes to the estimation technique (OLS vs. GMM)
  - Structural breaks (pre/post 2007)
  - Fixed sample of banks
  - Country*time FE (as compared to other studies)

General Assessment

- **Very topical**
- **Highly relevant for policy making**
- **Well written and very polished (also with respect to robustness of results)**

My comments

1. Teasing out the underlying economic channel behind their findings (and thus helping:

There are two results on the role of the expected macroeconomic developements: optimistic projections

a. Stimulate investment (mirrored in **increase of loan demand**)
b. Increase firm and household income and thus decrease credit risk (thereby **increasing credit supply**)

→ Can you disentangle the two?

My comments (cont‘d)

2. Are results contradicting or complementing other studies?

1. Direct impact is based on a **“direct“ (mechanical?) effect** stemming from banks with a more retail-oriented business model

2. Your finding might support an **indirect effect** stemming from changes in the macroeconomic outlook (demand, supply, reduced EDF, less NPLs, etc.)

My comments (cont‘d)

- For instance, your result on maturity transformation is highly supportive of this (maturity transformation could proxy the reliance on retail deposits)

- Also, your sample covers larger banks (which depend less on retail deposits but play a significant role in the economy, as compared to smaller depository institutions)

Table 6: Monetary policy and maturity transformation

	(1)	(2)	(3)	(4)	(5)
ROA_{t-1}	0.180***	0.143***	0.106***	0.0110	0.0894**
	(0.0319)	(0.0326)	(0.0325)	(0.0448)	(0.0403)
Short-term $rate_t$	0.0642***	0.0531***	0.0259*	0.0146	
	(0.0138)	(0.0139)	(0.0150)	(0.0237)	
$Slope_t$	0.00453***	0.00404***	0.000865	0.000820	
	(0.00123)	(0.00124)	(0.00153)	(0.00152)	
Maturity gap_{t-1}				0.00427***	0.00418*
				(0.00150)	(0.00216)
(Short-term $rate_t$) x (Maturity gap_{t-1})					0.000107
					(0.00159)
($Slope_t$) x (Maturity gap_{t-1})					0.000696**
					(0.000273)
Bank FE	Yes	Yes	Yes	Yes	Yes
Country*time FE	No	No	No	No	Yes
Number of observations	2,388	2,271	2,271	845	817
R^2	0.428	0.433	0.476	0.465	0.646

Note: The dependent variable is the return on assets (ROA). Data are at quarterly frequency covering an unbalanced sample of 234 banks for the period Q12007–Q4 2016. Standard errors clustered at bank level in parentheses: * p<.1, ** p<.05, *** p<.01.

In sum

- Very interesting paper and highly relevant for policy making

- I like the overall goal of the paper and its contribution to the literature.

- Raises doubts about the channel through which monetary policy affects bank profitability

- Only minor remarks as regards the economic channels behind their findings

- Thank you