EUROPEAN CENTRAL BANK

EUROSYSTEM

Discussion of "*Negative interest rates and the impact of monetary policy*" by McLeay, Tenreyro, von dem Berge

JEEA-FBBVA Lecture, Madrid

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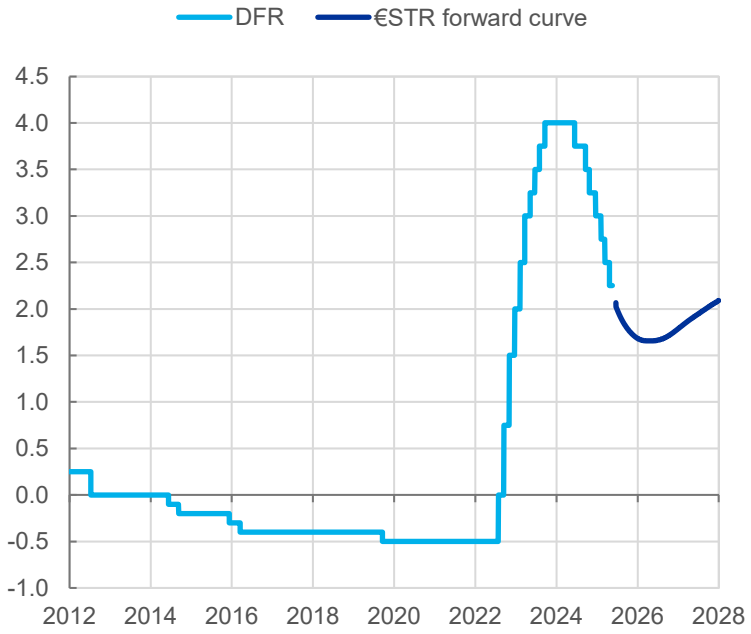
Overview

- Adds to excellent reputation of JEEA-FBBVA Lecture Series
- Original new research; theory and empirics; embedded in a comprehensive survey of the topic
- Monetary policy a primary topic in JEEA-FBBVA series: importance of academic research on monetary policy
- Main focus: banking channel of monetary policy
- Elegant integration of heterogeneous banking sector into a general equilibrium macroeconomic model
- Matches empirical evidence

Decade of zero or negative rates (2012-2022)

Deposit facility rate and €STR forward rate

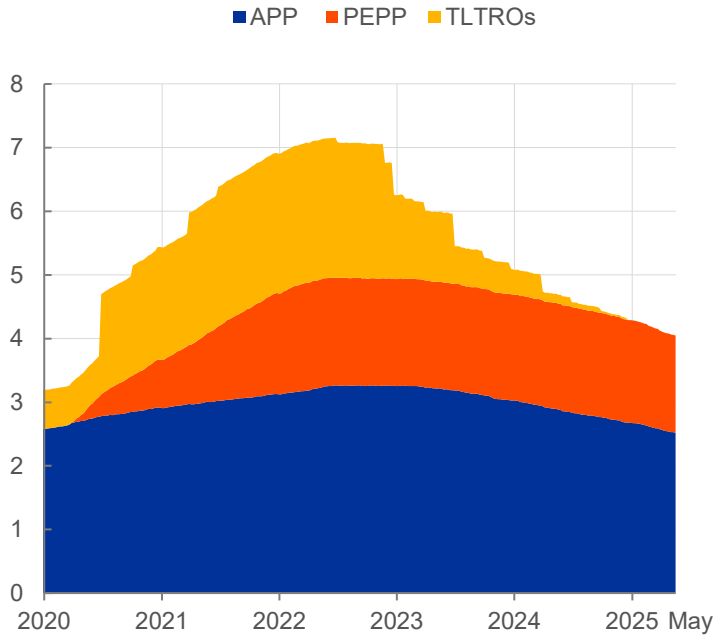
(percentages per annum)



Sources: LSEG, Bloomberg, and ECB calculations.
Latest observation: 19 May 2025.

Eurosystem monetary policy assets

(EUR billion)



Source: ECB.
Latest observation: 16 May 2025.

Negative interest rate policy (NIRP) transmission

- Physical lower bound (PLB); zero lower bound (ZLB); conditional lower bound (CLB); effective lower bound (ELB); global effective lower bond (GELB)
- Non-banking channels: money market; bond market; exchange rate; asset prices
- Banking channel: special role of zero in retail deposits
- Bank heterogeneity: low-deposit banks versus high-deposit banks

Oligopoly in banking sector

- Marginal funding cost: weighted average of the deposit rate and the policy rate
- Business models differ in reliance on deposit funding; Cournot competition in loan volumes
- High-deposit banks might suffer: but aggregate lending will always increase in response to a policy rate cut in negative territory
- [Transition dynamics: back book]
- Net positive impact reinforced by general equilibrium dynamics: growing economy means higher credit volumes; lower loan losses; higher asset values
- [Risk-taking channel turned off]

Bank heterogeneity: other dimensions

- Differential customer base
- Differential loan books
- Differential exposure via bond holdings
- Differential profitability/capital/solvency
- Differential liquidity
- Panel data: insights; limitations
- Dynamic adjustment: business models adapt

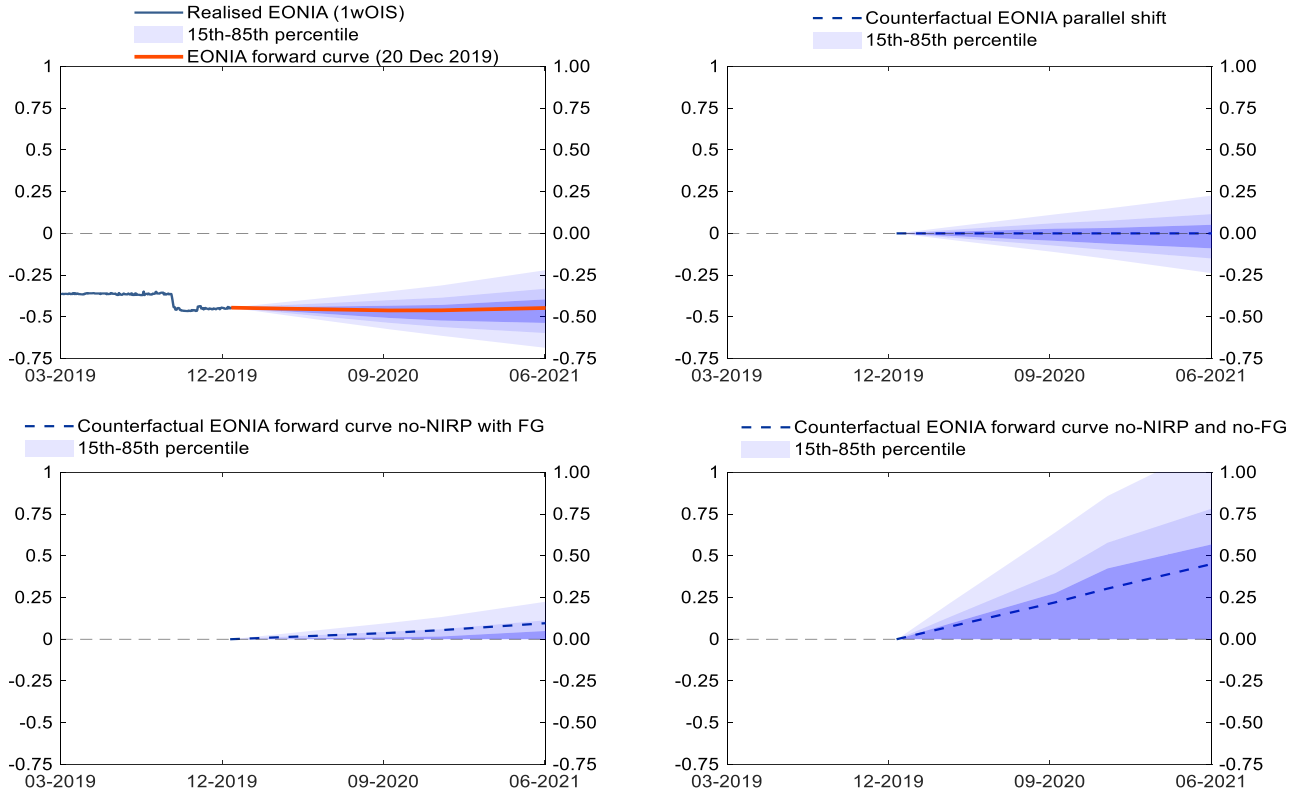
Unconventional monetary policy: interactions

- NIRP and RFG: mutually reinforcing
- NIRP and QE: offsets curve flattening
- NIRP and TLTROs: lower share of deposit funding
- QE and TLTROs: higher central bank reserves
- NIRP: negative DFR – negative income on reserves (tiering: trade-off)
- Under NIRP, higher excess liquidity maps into higher lending: Demiralp et al. (2021); Hot potato effect (Ryan and Whelan 2021); collateral effect (Rogers 2023)
- (General question: interaction of rate policy and excess liquidity)

The effect of Negative Interest Rate Policy (NIRP): estimates from the euro area

Constructing the no-NIRP counterfactual forward curve

(from actual to "no-NIRP with forward guidance", to "no-NIRP & no-forward guidance", % p.a.)

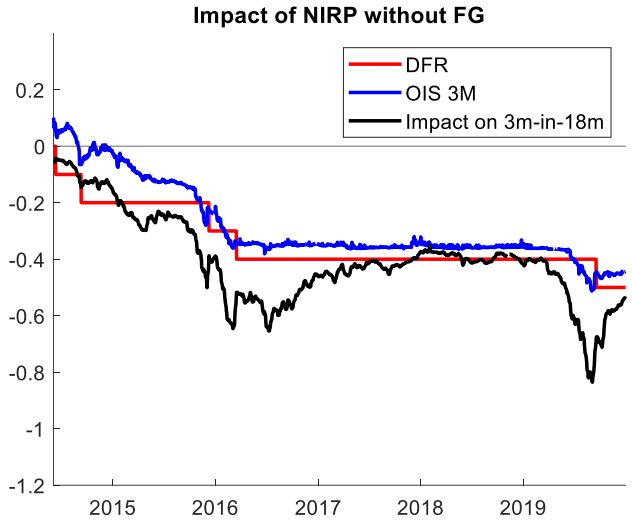


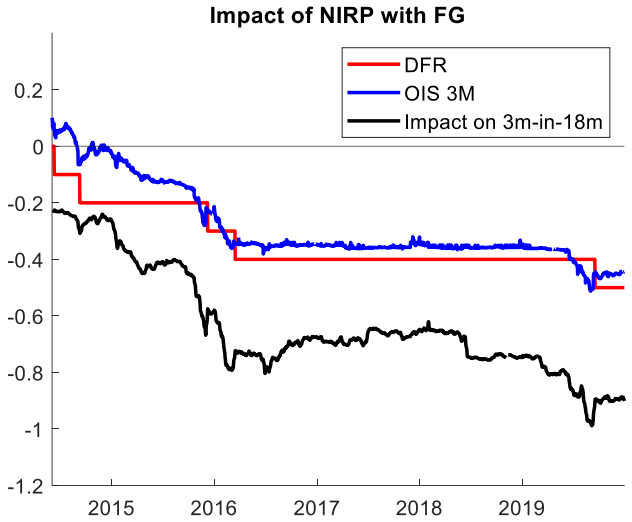
Sources: Rostagno et al. (2025), "An options-based impact study of the negative interest rate policy and forward guidance", Journal of Monetary Economics, Vol. 53, June 2025.
Notes: The chart illustrates the approach used to quantify the impact of NIRP and FG on the forward curve for a specific date (December 20, 2019). This is achieved through a counterfactual exercise based on option-implied densities. The chart sequence illustrates the approach going from top-left (actual curve) via top-right (parallel shift), bottom-left (censoring of negative-rate probability), to bottom-right (removing FG impact)

The effect of Negative Interest Rate Policy (NIRP): estimates from the euro area

Effects of NIRP as a standalone instrument (left panel), and NIRP combined with forward guidance (right panel)

(in p.p.)





Sources: Rostagno et al. (2025), "An options-based impact study of the negative interest rate policy and forward guidance", Journal of Monetary Economics, Vol. 53, June 2025.
Notes: The left panel shows the deposit facility rate (DFR), the 3-month OIS spot rate, and the estimated impact of negative interest rate policy (NIRP) on the 3-month OIS forward rate at an 18-month horizon. The black line represents the difference between the actual forward rate and the counterfactual forward rate in a hypothetical no-NIRP scenario. The right panel illustrates the combined effect of NIRP and forward guidance (FG) on the 3-month OIS forward rate at the same horizon.