Macroprudential Policy in a Low Interest-Rate Environment

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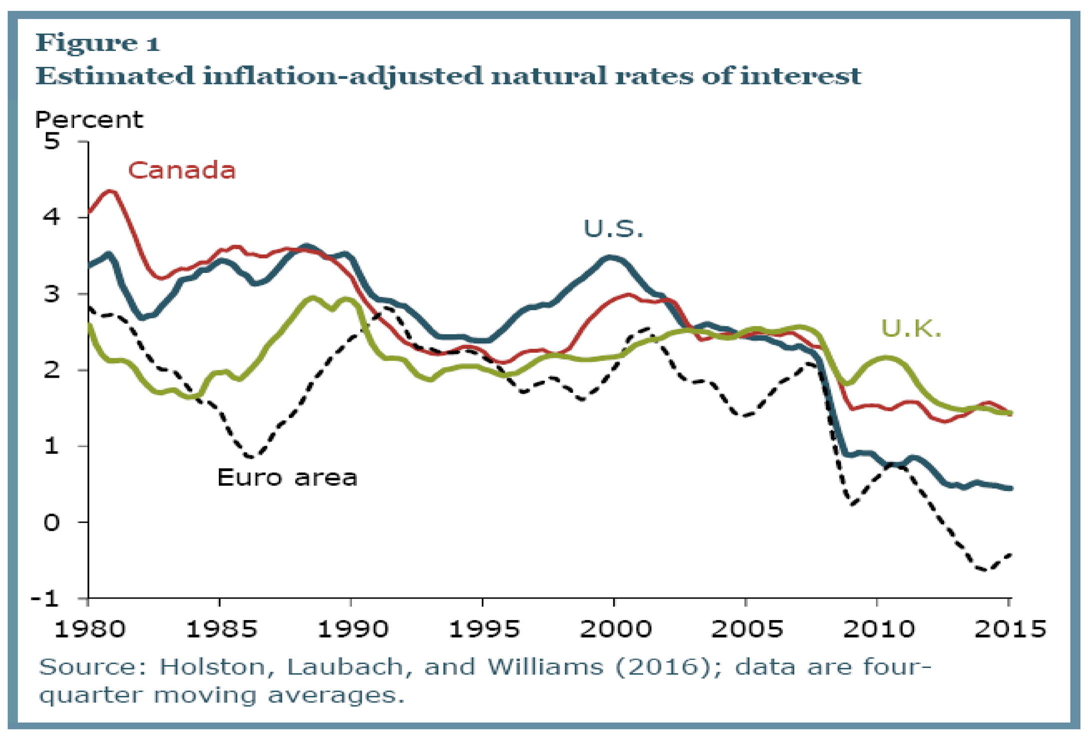
Introduction

- One of the major challenges in the post GFC is a **significant decline in the neutral interest rate**:



- Low neutral rates limit the scope of conventional monetary policy in stabilizing the economy, especially when it hits **the zero lower bound (ZLB)**

- Low interest rates raise concerns about **financial stability**

Research Questions

- What are the consequences of low interest rates for **business and financial cycles**?
- Can **macroprudential policy** contribute to both financial and macroeconomic stability in a low interest-rate environment?

Model Overview

- **DSGE** with **collateral constraints** on borrowers
- Taylor rule subject to an **occasionally binding ZLB**
- **Macroprudential policy** => Countercyclical rule on the loan-to-value ratio (LTV)
- Low interest-rate environment => steady-state interest rate equal to 2%
- Solve the model with "**occbin**" toolkit (Guerrieri and Iacoviello, 2015)

Simulations

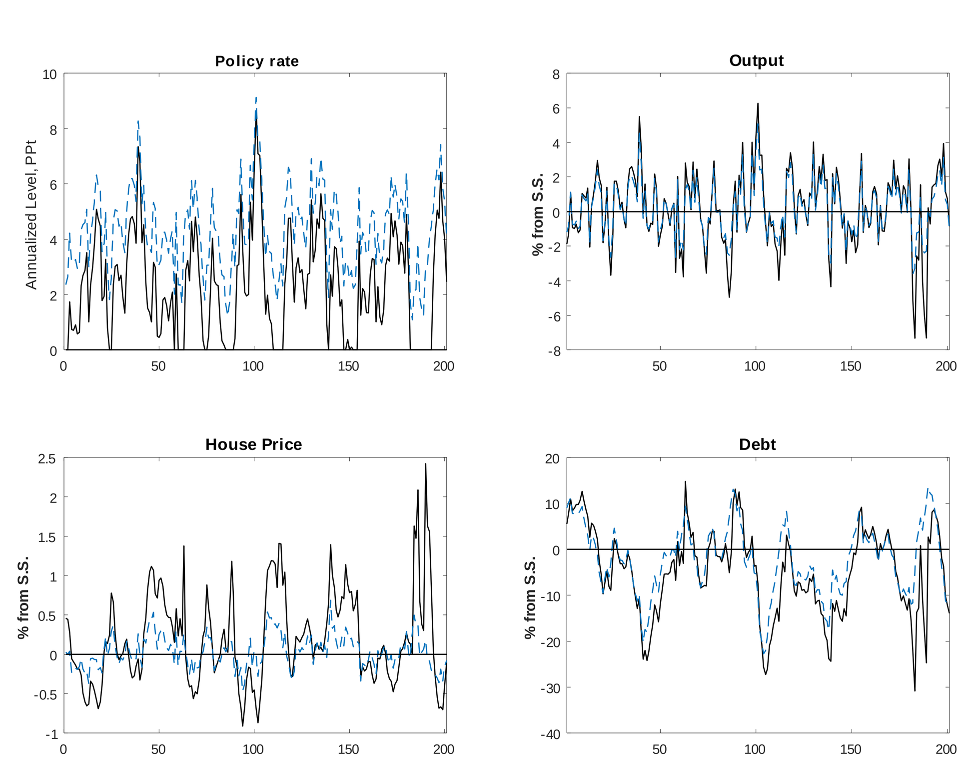


Figure: Simulated economy. High vs. low interest rates. Supply and demand shocks

Macroprudential Policy

- **In the low interest-rate world the economy hits the ZLB** several times and for extensive periods:
  - **Amplified financial cycles**
  - **More volatile macroeconomy**

Candidate to help monetary policy in this situation: **MACROPRUDENTIAL POLICY**

LTV = LTV_SS - phi_b* (credit) - phi_y * (outputdev)

Optimal Policy

Optimal combination of the parameters in the LTV rules, which **minimizes a welfare-based loss function:**

Optimal LTV Rule

	phi_b	phi_y
High interest rate	0.43	0.24
Low interest rate	0.76	0.35

- **In the low interest-rate** situation, the optimized rule responds strongly both to credit and to output
  - **Macroprudential policy helps monetary policy** to improve social welfare containing macroeconomic volatility and economic inequality

Macropru and Monetary Policy

- **When the interest rate is high**, the optimal policy prescription behaves as if they were independent => There are **no conflicts** between them
- The **low interest rate** calls for more policy **coordination**

Conclusions

- This paper investigates **stabilization policies in a low interest-rate environment**
- We use a **DSGE model with financial frictions**, in which interest rates are permanently low and monetary policy is constrained by the **ZLB**
- Macroprudential policies, represented by an **LTV rule**
- We find that, if **macroprudential policy** is available, it can serve as an **alternative stabilizing mechanism** to monetary policy
- **Optimal coordination** between monetary and macroprudential policies is welfare enhancing, especially in the low interest-rate environment

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