PIIE Event: *"The Nexus of Interest Rates, Banks, & Politics"*

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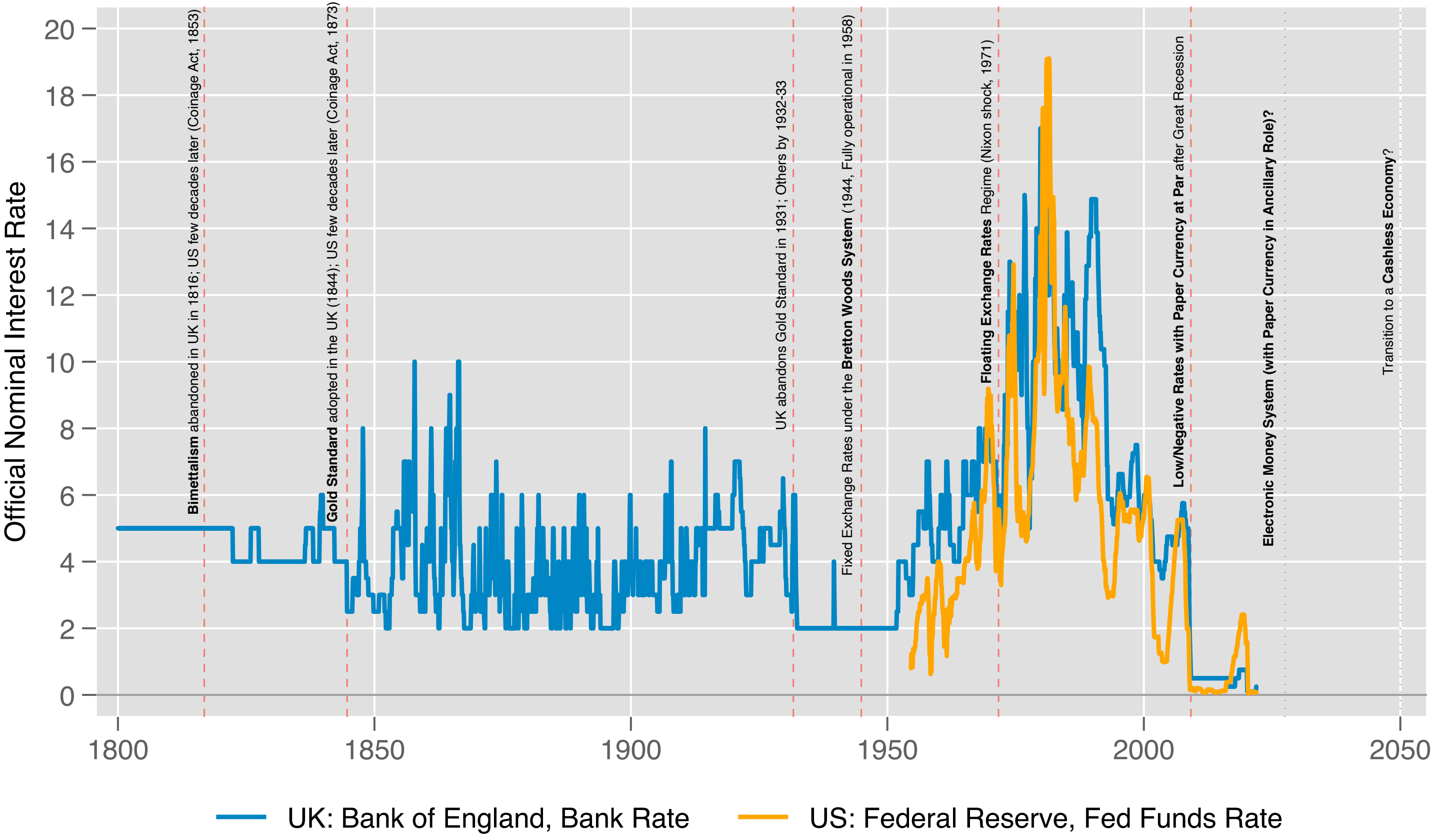
Based on the 2019 IMF Working Paper written with Miles Kimball:

"***Enabling Deep Negative Rates to Fight Recessions***"

Event Host: Nicolas Véron (PIIE)

Event Guests: Ruchir Agarwal (IMF), Markus Brunnermeier (Princeton, PIIE)

Monetary Systems: History & Future



Source: Bank of England, US Federal Reserve, Agarwal and Kimball (2021).

Main Messages

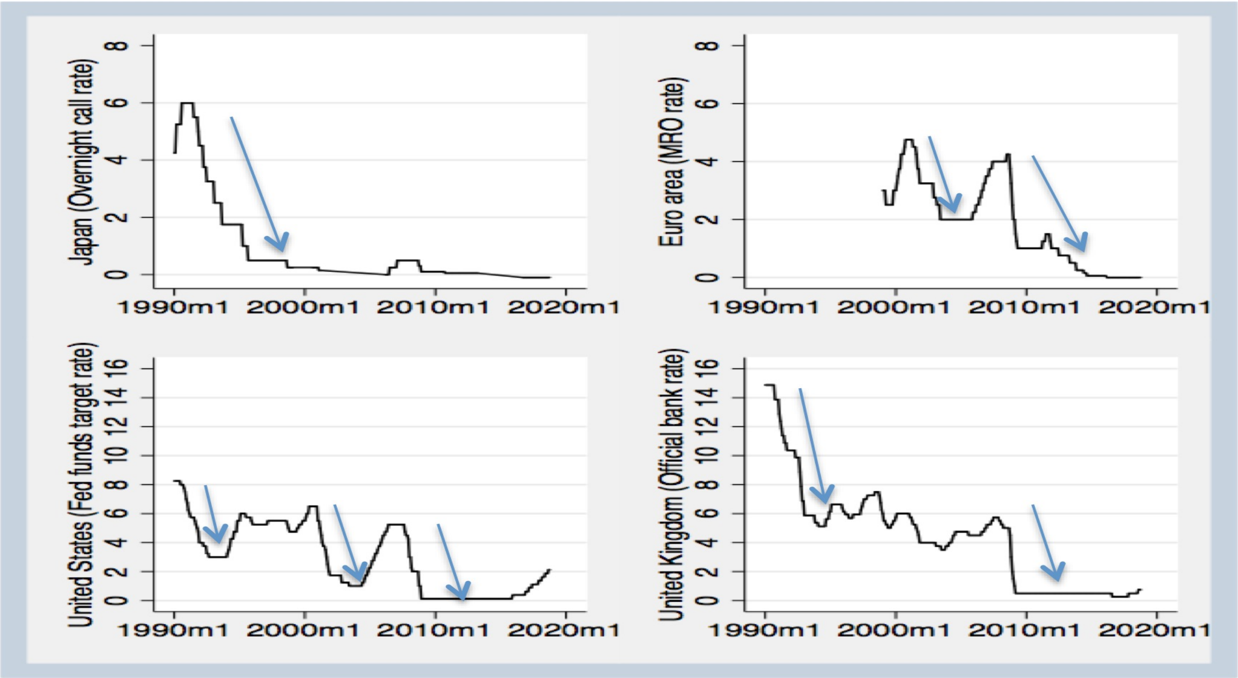
1. To avoid serious crises, it would be desirable if CB frameworks made the Zero Lower Bound (ZLB) mostly a non-issue

2. Despite what central banks (CBs) are doing, shocks are likely to come that we can't foresee and need to be prepared for

3. Inflation is costly—not as costly as recessions perhaps—but still costly. Adding **Negative Interest Rate Policy** to the toolkit could mean that we could responsibly avoid raising the inflation target or possibly even lower the target to zero

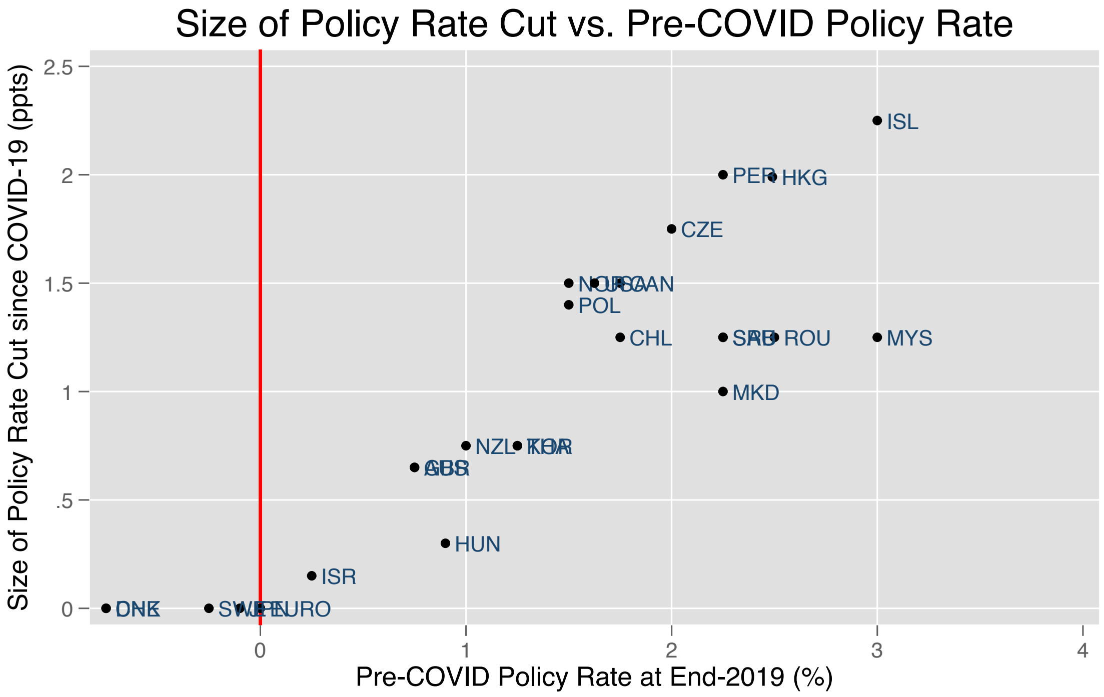
WHY WORRY ABOUT THE ZERO LOWER BOUND

(1) Limited Monetary Policy Firepower



- Policy Rate Cuts in Recent Recessions ~ 500-600bps
- But with low rates no longer possible without cuts into negative territory

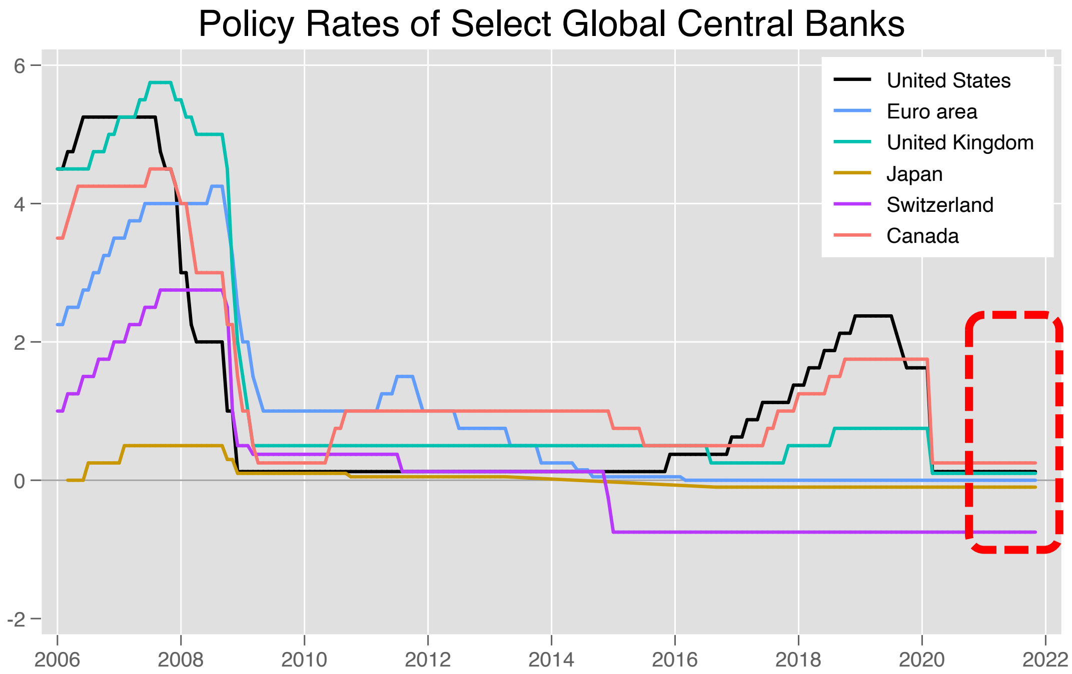
(1b) Rate Cuts in Response to the COVID-19 Shock



Source: Agarwal and Kimball (forthcoming) based on data from BIS. The size of policy rate is measured as pre-COVID policy rate less minimum rate in 2020-2021.

- The COVID-19 shock confirmed that ZLB remains a serious obstacle for monetary policy

(2) More Frequent and Severe ZLB Episodes



Source: Agarwal and Kimball (forthcoming) based on data from BIS.

- Due to decline in the equilibrium r* and the decline in expected inflation, the **ZLB could be binding 30-40 percent of the time** in the future (Kiley & Roberts, 2017)
- The episodes are likely to **persist for several years**—resulting in more severe recessions—when monetary policy is constrained by ZLB
- And despite strong inflationary dynamics, rates are widely expected to not rise substantially

(3) Central Bank Credibility and Trust

- **Persistently low rates** combined with QE—*rather than short-lived deep negative rates*—have also brought CBs under criticism from various corners:
  - ***Conservative view***: for too much balance sheet expansion
  - ***Liberal view***: for too little balance sheet expansion
  - ***Savers (pension funds, etc.)***: who have started to believe that CBs can control the natural interest rate in the medium/long term
  - ***Banks***: who worry about profitability impact from limited pass-through of negative rates to regular household deposits

Monetary Policy Going Forward

- Using only the current monetary policy toolkits may likely lead to ongoing paralysis at the ZLB

- Changing **paper currency policy** opens up new possibilities

- When optimized, these possibilities may be more attractive than many policymakers realize

BREAKING THROUGH THE ZERO LOWER BOUND

‘An Electronic Money System’ & ‘Going off the Paper Standard’

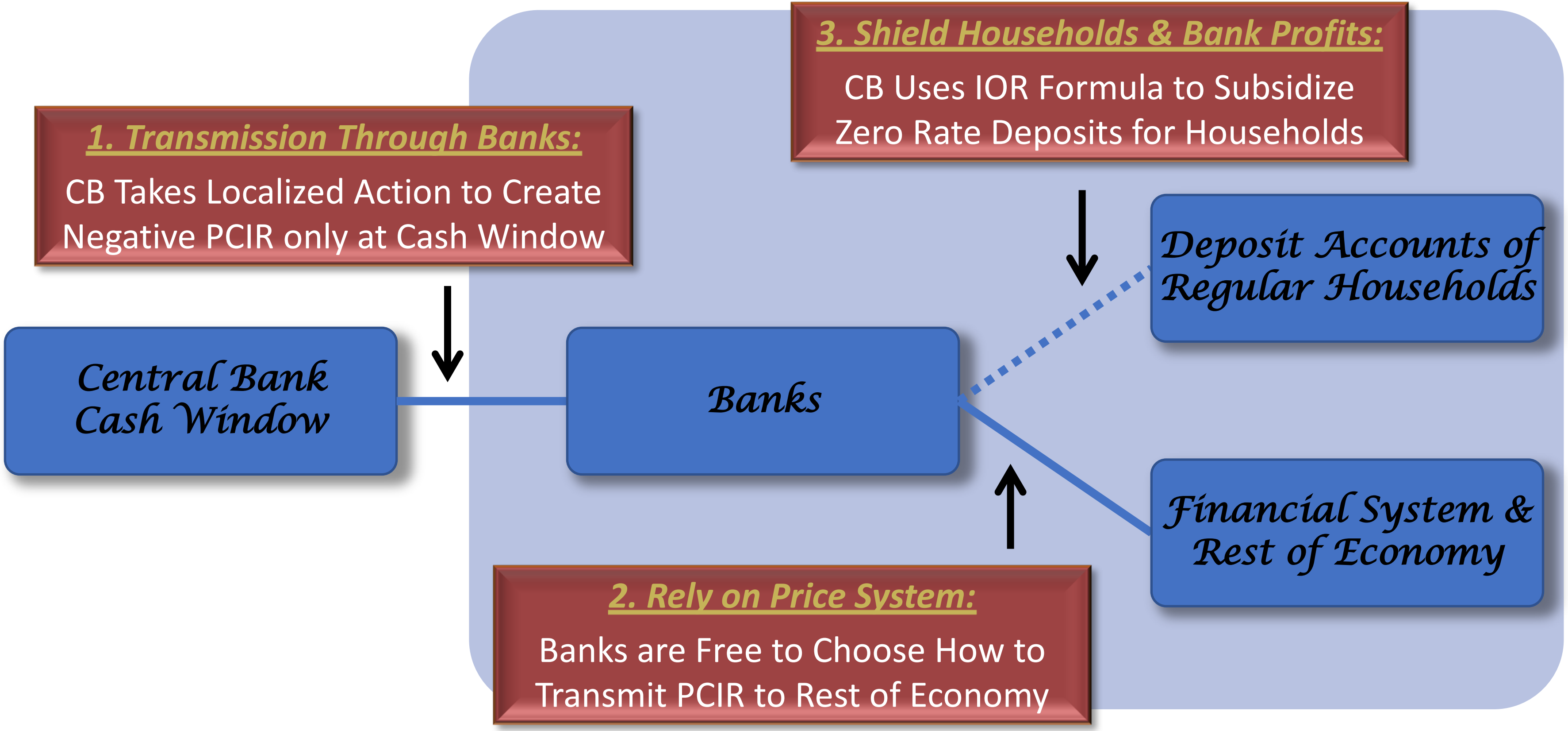
The Zero Lower Bound

- The zero lower bound arises when:
  - *a government issues pieces of paper (or coins)*
  - *guaranteeing a zero nominal interest rate*
  - *over all horizons*
  - *that can be obtained in unlimited quantities in exchange for money in the bank*
- This acts as an interest rate floor, making people unwilling to lend at significantly lower rates

How to Break the Zero Lower Bound?

- Fundamental aspect of all proposals to break the zero lower bound and enable negative rates:
  - **<u>Create a negative paper currency interest rate (PCIR)</u>**
  - This ensures that there is no arbitrage opportunity between electronic currency and paper currency when interest rates become negative

A Minimalist Implementation of PCIR



Actions to Support Bank Profitability is Already Standard Policy in CBs with Negative Rate

Use of Tools to Address Bank Profitability Problem with NIRP

Country / Monetary Area	Current Policy Rate	Interest on Reserves Formula (Tiering)	Negative Lending Rate
Denmark	-0.60	Yes	-
Switzerland	-0.75	Yes	-
Euro area (deposit facility rate)	-0.50	Yes	Yes
Japan	-0.10	Yes	-

- Empirical evidence broadly suggests that NIRP did not have significant negative effect on bank profitability thus far. While the pass-through of negative rates to **retail deposit rates** has been weak, other factors, such as non-interest income and CB measures (e.g., **IOR**) have offset this effect.

Key Takeaways

- The world does not need to suffer through 2008-16 again

- **With readily available tools a central bank can enable deep negative rates whenever needed**—thus <u>restoring monetary policy firepower</u>

- **Some options to enable negative rates in recessions are better than others**, & we focus on two options that:

  A. are at a minimum distance from current framework
  B. mitigate political costs, and
  C. can eliminate concerns about bank profitability