Research Question
Does the transmission mechanism of conventional monetary policy differ across central banks’ operational frameworks?

Motivation
The Great Financial Crisis forced a switch in the operational framework of the Federal Reserve, from a so-called “corridor” to a “floor” system.

Bank-lending Channel:
(à la Bernanke & Blinder, 1989)

• Key assumption: Binding reserve requirements $Res < \mu Dep$, with $\mu \in (0,1)$.
• Contractionary Monetary Policy via OMOs
  Reserves $\downarrow$ Deposits $\downarrow$ Bank Lending $\downarrow$ Aggregate Demand $\downarrow$

Post-2008 facts:

• Monthly SVAR(1) with 6 variables:
  (à la Bernanke & Blinder, 1992)
  1. Macro variables: unemployment rate, the log of the CPI.
  2. Conventional Policy Shock

Empirical Evidence

Hybrid-VAR

• Data: Fed’s Monthly H.8 dataset
• Appropriate instrument for conventional monetary policy during the ZLB.
  $\rightarrow$ Use Swanson’s (2021) high-frequency identified “Federal Funds Rate Factor”, i.e., shocks from conventional monetary policy.

Impulse responses to contractionary policy shock

Old-Style Sample (1991m7-2008m9)

New-Style Sample (2008m10-2019m6)

Theoretical Model

I develop a regime-switching TANK model with credit-supply frictions à la Gerali et al. (2010) and an interbank market. The central bank implements monetary policy using OMOs, and thus its target rate is determined as an interbank market outcome. The bank’s wholesale branch choose loans ($B_l$), reserves ($TR$) gov. bonds ($\phi_i$) and deposits ($D_i$) to maximize the discounted sum of (real) cash flows

$$\Pi = B_l^{\phi_i} + \frac{1}{\phi(T)m_0} - B_l^{\phi_i} - B_l^{\phi_i} - 4\phi(T)-\phi(D_0)$$

subject to a balance-sheet constraint $b_l + TR = D_l + IB_l$,
and to an occasionally binding reserve-restriction constraint $\mu_{D_i} \leq TR$.

Bank’s liquidity management costs ($\phi_i$) are increasing in the aggregate amount of total reserves capturing the fact that banks have limited balance-sheet capacity due to liquidity-related regulations (e.g., LCR, SLR, Resolution Plans). The first-order conditions are given by

$$\lambda_{\phi} (\mu_{D_i} - TR_i) = 0$$

$$\frac{d_t}{d_{t+1}} - \phi_i = \frac{R}{D}$$

$$D_i + IB_i = b_l + TR_i + b_t$$

Liquidity Management costs introduce a friction

$$\frac{R}{D} = \phi_i - \phi(T) < \frac{d_t}{d_{t+1}} = \phi_i = \phi(T)$$

Results

1) Monetary Contraction: Old-Style vs. New-Style Central Banking

2) Financial Crisis Rerun under the New-Style System?

Run on non-bank institutions (GSEs) that are active in the interbank market

Interbank runs don’t affect the real economy under the New Floor system.

The results support the 2019 decision by the Fed to maintain the new framework.