Monetary Policy and Financial Stability

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- Many central bankers strongly believe in the Separation Principle:
  - Monetary policy and financial stability should be addressed by different tools
  - Separate MPC and FSC, even located in different organizations
- What is the role of monetary policy
  - in enhancing risk taking through interest rates?
  - in enhancing risk taking through liquidity intervention?
- Is separation even feasible?
- What happens if central banks assume it holds?
  - The political economy of intervention

Overview
Monetary conditions and credit booms
Interest rate policy and credit
Transmission channels for low rates
Central Bank Liquidity Interventions
CB Activism: Ex ante and ex post effects
What else to do

When Credit Bites Back: Jorda, Schularick, and Taylor (2013)

- Examine 154 business cycles in the 14 countries
- 35 coincide with financial crises
- Examine the effects of excess credit
  - higher credit/gdp growth relative to mean in expansions
- Findings
  - Financial crisis recessions worse
  - Closely related to credit intensity of expansion

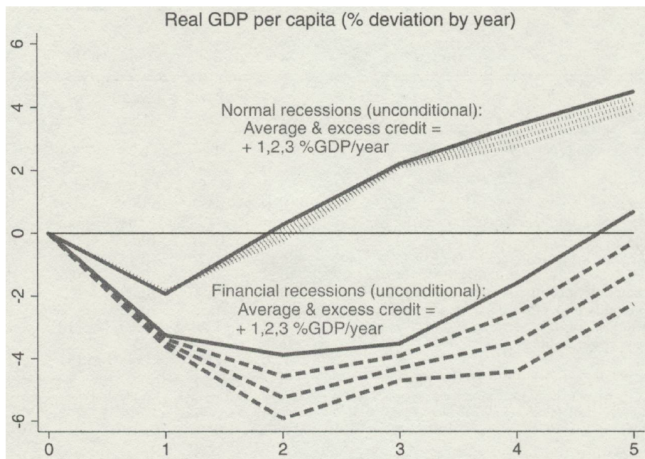CHICAGO BOOTH
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FIG. 1. Unconditional Paths under Continuous Excess Credit Treatment.

NOTES: See text. Solid lines show paths from Table 6, when excess credit ξ is at its mean in each bin. Dotted and dashed lines show paths when ξ is perturbed in three increments of $+1$ percentage points per year in each bin.

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Loose Monetary Policy and Financial Instability: Grimm, et al. (2023)

- Stance of monetary policy $=>$ real policy rate less a measure of real neutral rate

Figure 1: *The stance of monetary policy and credit growth before financial crisis events.*

(a) *stance (pps)*   (b) *Credit-to-GDP ratio (pps)*
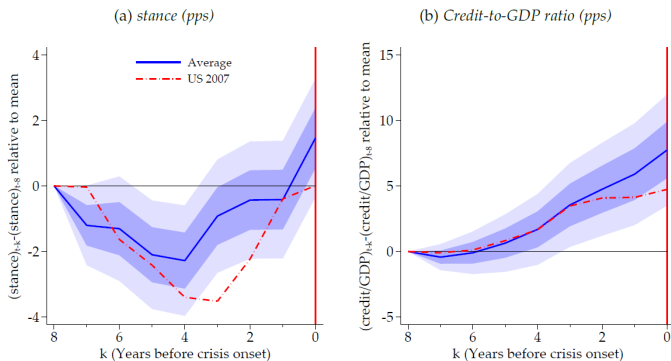
Notes: In this figure, the data, including crisis event definitions, are taken from the JST Macrohistory Database, as described later. The solid blue line shows estimates of β_k of $\left(y_{i,t-k} - y_{i,t-8}\right) = \alpha_k + \beta_k \mathbb{1}\{crisis_{i,t} = 1\} + e_{t-k}$. $crisis_{i,t}$ is a dummy that is equal to 1 if a financial crisis starts in country i in year t and 0 otherwise. y refers to $stance = r - r^*$ (left panel), as defined in the text; or credit-to-GDP ratio (right panel), based on the JST total loans series. The estimation of r^* is described below in section 2. Shaded areas indicate 95% (light) and 68% (dark) confidence intervals. The dashed red line shows demeaned changes in the two variables before the U.S. Great Recession.

▽ Probability of crisis and 5 yr average stance (a) Lower by 1% (b) in lowest 20th percentile


Figure 3: *The connection between loose monetary policy and financial crises.*

(a) $\overline{stance}$

(b) $\mathbb{1}\{\overline{stance} < 20^{th}\ percentile\}$
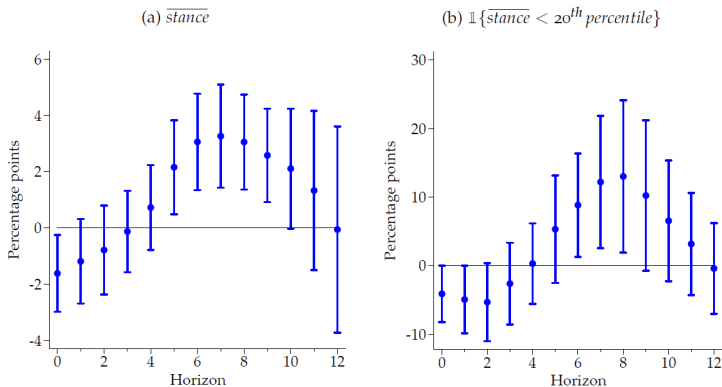
Notes: Define $crisis_{i,t}$ as a dummy that is equal to 1 if a financial crisis starts in country i in year t and zero otherwise. Panel (a) shows estimates of $\{-100\beta^h\}_{h=0}^{12}$ of equation (5) with $B_{i,t} = \max\{crisis_{i,t}, crisis_{i,t+1}, crisis_{i,t+2}\}$ and $b_{i,t} = crisis_{i,t}$. Panel (b) replaces the continuous variable $\overline{stance}_{i,t}$ by the binary variable $\mathbb{1}\{\overline{stance}_{i,t} < 20^{th}\ percentile\}$ and shows estimates of $\{100\beta^h\}_{h=0}^{12}$. Bars indicate 95% confidence intervals based on Driscoll-Kraay (1998) standard errors with h lags.
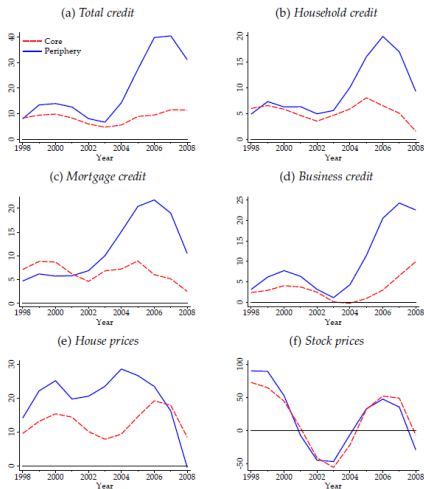
But isn't policy endogenous?

Figure 10: *The stance of monetary policy in the eurozone before the Global Financial Crisis.*
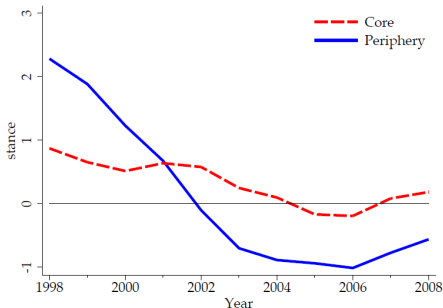
Notes: The figure shows the unweighted average of $\overline{stance}$ as defined in equation (4) for the core countries (Belgium, Denmark, France, Germany, Netherlands) and for the periphery countries (Ireland, Italy, Portugal, Spain) of the eurozone.

Figure 12: *Credit and asset prices in the eurozone before the Global Financial Crisis.*

(a) *Total credit*   (b) *Household credit*

(c) *Mortgage credit*   (d) *Business credit*

(e) *House prices*   (f) *Stock prices*

Notes: Motivated by the definition of R-zones (equation (6)), the figure shows unweighted averages of $\Delta_3(100 Debt/GDP)$ (first four panels) and $\Delta_3(100 \log Price)$ (last two panels) for the core countries (Belgium, Denmark, France, Germany, Netherlands) and for the periphery countr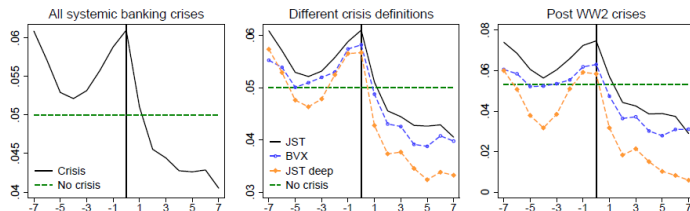ies (Ireland, Italy, Portugal, Spain) of the eurozone. The type of *Debt* and *Price* is specified in the titles of the panels.

Figure 2: *The average level of monetary policy rates around past crises*

Notes: Unweighted averages of the level of the short-term interest rate (monetary rate) in year t (start of the crisis at $t = 0$). Total of 77 crises (24 post-WW2). The left panel uses the narrative crisis definition from Jordà et al. (2016). The middle panel additionally considers the Baron et al. (2021) crisis chronology (BVX crises), and deep crises (JST deep crises) defined as Jordà et al. (2016) banking crises with -3% or less GDP growth in one year, or average -1% or less GDP growth over 3 years in the $t-1$ to $t+3$ crisis window. The right panel limits the sample to crises that started after 1945. Green dashed lines show the mean of the respective variable for non-crisis observations.

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Transmission via bank lending and defaults (Jimenez et al. 2022)

Figure 7: *Monetary policy rates, private credit, and loan defaults in Spain around the 2007–08 crisis*
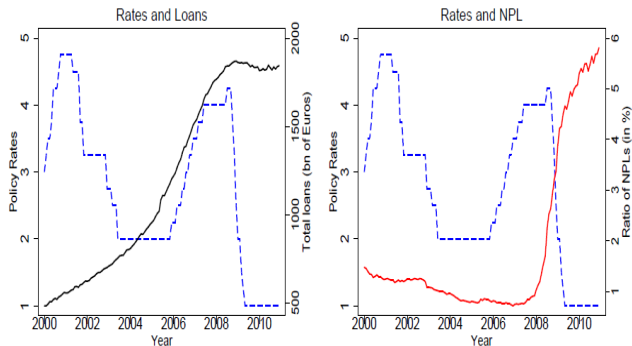
Notes: The left panel shows the interest rate for main refinancing operations (in percent, dashed blue line), and total loans to the private domestic sector (€billions, solid black line) in Spain for years 2000 to 2010. The

- Foreign-owned banks in Mexico (account for 60% of local bank credit)
    - One standard deviation reduction in foreign monetary policy rates increases credit volume by corresponding foreign banks in Mexico by 2.1%, lengthens loan maturity by 6.7%, and increases probability of future loan delinquencies by 9.8%
    - Disproportionately default rate effect in high loan interest rate borrowers
    - Suggest a risk taking local response to easing of monetary conditions/QE in home country

- Many theories as to why risk taking/risk tolerance increases with lower policy rates
  - Don't want to eat into wealth – risk taking increases as real rates decrease
  - Maintain accounting income/profitability to enhance bonus or cover fixed liabilities/fixed costs
    - Drechsler, Savov, and Schnabl (2018), Granja, Leuz, and Rajan (2022), Hanson and Stein (2015), Rajan (1994, 2005)
  - Lower rates distribute wealth to risk tolerant
    - Kekre and Lenel (2022)
- So one reason monetary policy and bank lending interact is because easy monetary conditions induces bank risk taking.
  - But what happens when the easy conditions turn?

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Another tool? Liquidity expansion and contraction

- Central bank balance sheet expansion floods market with central bank reserves
  - Free extra tool?
- Intervention deemed needed
  - To stabilize financial markets
  - As a monetary policy tool when faced with the zero lower bound
- Should flooding the market with liquidity not reduce liquidity shocks?
  - September 2019, Mar 2020, Mar 2023, April 2025
- Unintended consequence
  - Liquidity dependence (Acharya and Rajan (2022), Acharya, Rajan, and Shu (2025))

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Reserves, Deposits, Credit Lines (from Acharya et al (2024))
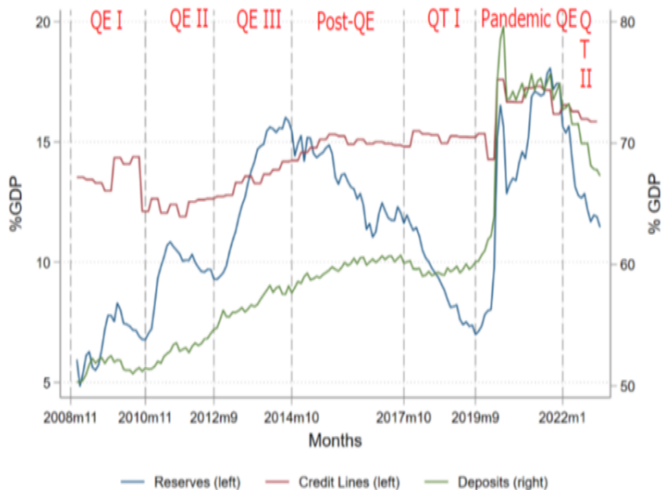
Reserves and Deposits
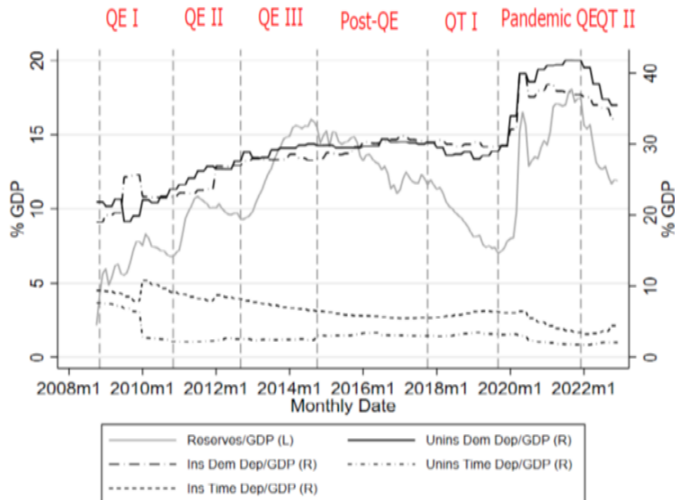
- Sitting on unused liquidity very costly. Therefore
  - Banks funded themselves with uninsured demand deposits
  - Banks wrote lines of credit to all who might need liquidity
    - Corporations
    - Private credit, CLOs
  - Banks funded speculative finance
    - Bond basis swap
- So both low rates and high liquidity induce the financial sector to take risks

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Central bank intervention

- Discussed unintended consequences of easy monetary policy thus far.
- Runs are inefficient ex post.
  - Central bank/Treasury intervention can reduce or eliminate bank runs.
- One policy response might be
  - While the Fed cannot recognize or prevent asset price booms, it can "mitigate the fallout when it occurs and, hopefully, ease the transition to the next expansion." Greenspan (2004)
- Fed put (interest rate, liquidity)

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- But unbridled intervention can undermine disciplinary role of deposit contract.
- It can also exacerbate moral hazard
  - Leveraging, illiquidity seeking
  - Bank of England 1866 "long-term benefits derived from refusing to rescue insolvent institutions may outweigh the temporary fruits of cooperation" (Schneider, 2021).
  - "The provision of large liquidity facilities penalises those financial institutions that sat out the dance, encourages herd behaviour and increases the intensity of future crises" (Mervyn King, 2007).

- Does intervention sow the seeds of the next crisis?
  - Identification problem: Deeper crises require more intervention
- "Exogenous" intervention by classifying central bank governors ex ante as hawks or doves
- Liquidity support during financial crises
  - ensures crises are less severe
  - asset prices recover more quickly
  - deflation is avoided.
  - However, raises the probability of future boom-bust episodes.

- Central bank intervention can help reduce failure.
- But this can reward some for bad behavior ex post.
  - Need to constrain intervention
  - But too many constraints $=>$ costly ex post
- Inability to commit to not intervene means poor ex ante incentives.
- Need for regulation and supervision.

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- Are there other ways than monetary policy of tackling such concerns?
    - Macro-prudential? Capital, contingent capital...
        - Pro-cyclical regulation
    - Pre-positioning liquidity?
        - What price: Acharya, Rajan, and Shu (2025)
    - Political economy of the financial sector
        - of regulation: crypto, bond basis trade
        - of intervention: too costly to allow any to fail
    - Political economy of the macro economy
        - Why them?
- Bottom line: Monetary policy should take into account evidence credit market is overheating (Stein (2021))
    - Credit spreads, issuer quality, lending standards, asset prices (BIS (various), Borio and Lowe (2002))