

Discussion of  
**“Monetary Policy Under Multiple  
Financing Constraints”**

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# What Author Do

1. Examine the effect of monetary policy shock on
  - investment
  - employment
  - borrowingvia financial friction channel.
2. Allow for an asymmetry with respect to the nature of policy shock
  - contractionary vs expansionary
3. Allow for an asymmetry with respect to the existence (and the number of) financing constraints
  - unconstrained vs constrained

# How Authors Do It

## 1. Theoretically

- Simple 2-period partial equilibrium model
  - firm's problem only
  - ad-hoc/agnostic financing constraints
- Larger (but still very stylized) general equilibrium model
  - households with linear utility (only consume)
  - firms with collateral and earnings constraints
  - Cobb-Douglas production function with capital

## 2. Empirically

- Jordà (2015) local projection in panel data
  - dummies to capture sign asymmetry,
  - interaction terms to capture financial constraints,
  - fixed-effects & firm-level clustering

$$\Delta_h \log K_{i,t+h} = \beta_1^h MPshock_t + \beta_2^h MPshock_t \times Prob_{i,t}^{default} + \beta_3^h MPshock_t \times \mathbb{I}_{MP+} + \beta_4^h MPshock_t \times Prob_{i,t}^{default} \times \mathbb{I}_{MP+} + \mathbf{X}'\gamma + \epsilon_{i,t+h}^h$$

- Firm-level data (Compustat), 1990-2021
- HFI monetary shocks from Miranda-Agrippino and Ricco (2021)
- Merton's (1974) distance to default as proxy for severity/number of financial constraints

# What Authors Find

- Financial channel matters for the transmission of monetary policy
- Monetary policy shocks have double asymmetric effects
  - following **contractionary** shocks **more financially constrained** firms react **more** than less constrained
    - reduce investment/employment/borrowing
  - after **expansionary** shocks **more constrained** firms react **less** than less constrained
    - increase investment/employment but not for borrowing
- Effects are qualitatively and quantitatively significant
  - Maximum effects 7-9 quarters after the shock
- Very nice !

# The usual points

- How about (controlling for) different shocks (target, forward guidance, LSAP shocks...)
- How about different controls (lags of shocks, lags of federal funds level...)
- How about different clustering (industry instead of firm...)
- How about using shocks as instruments in IV...
- How about the stability of the results (before / after GFC; ZLB)...

# A little bit more nuanced

- Financial constraints in the data *versus* in the model
  - Theory: # of financial constraints in small model and net worth in larger model
  - Empirics: Merton's (1974) distance from (*probability of*) default
- Unconstrained *versus* less constrained
  - Zero probability of default *versus* 25th percentile of constraint
    - Are there unconstrained, i.e. with probability of default = 0, firms in the sample?
    - Are the results qualitatively similar?
- Sectoral difference
  - durables vs non-durables
  - in the reliance on external finance (and financial constraints)

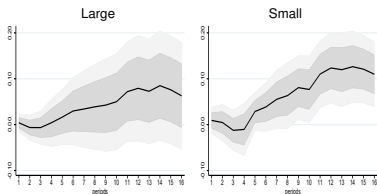
# Are these results general or specific (to Compustat)?

## Humble plug...

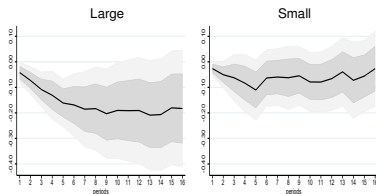
Singh, Suda and Zervou (2023)

- Use QWI dataset: all private employers but not firm-level, no financial data
- Employment growth in **small firms increase more** than in **large firms** following an **expansionary shock**
- but they **decrease less in small** than in large firms following a **contractionary shock**

Response of employment to expansionary shock



Response of employment to contractionary shock



Singh, Suda and Zervou (2022, *AEA P&P*)

- Sectoral difference in labor market responses to contractionary and expansionary shocks.

# Aggregate implications for policy

- The prevalence of financial constraints has changed over last 30 years

Farre-Mensa, Ljungqvist, and Schroth (2022). “How Prevalent Are Financial Constraints in the US?”

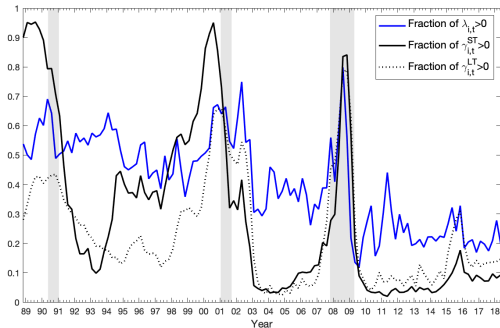


Figure 3: Fractions of Firms With Binding Constraints over Time.

- It should yield aggregate implications for the effectiveness of monetary policy