Discussion of Faia
"Optimal Monetary Policy with Credit Augmented Liquidity Cycles"

Ander Perez (U Pompeu Fabra)

November 2008
Can financial frictions exacerbate MP’s supply-side effects?

↓

Do financial frictions influence MP trade-off?

↓

Should MP respond to financial indicators?
Can financial frictions exacerbate MP’s supply-side effects?

- Yes. Affect cost of financing working capital.

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  • Yes. Affect cost of financing working capital.

Do financial frictions influence MP trade-off?
  • Yes. By influencing the cost channel.

Should MP respond to financial indicators?
Can financial frictions exacerbate MP’s supply-side effects?
- Yes. Affect cost of financing working capital.

Do financial frictions influence MP trade-off?
- Yes. By influencing the cost channel.

Should MP respond to financial indicators?
- Yes. MP should target asset prices in addition to inflation.
The Paper

- Introduces DSGE model with
- Cost channel (working capital)
- Credit channel (asymmetric information - CSV a'la Gale and Hellwig (1985))
- Price stickiness (monopolistic c. and adjustment costs a'la Rotemberg 1982)

Behavior of competitive equilibrium under standard Taylor rules

Optimal Monetary Policy

Constrained Ramsey policies

Global Ramsey policies

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Cost Channel of MP
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Identification of a supply-side transmission mechanism for monetary policy.
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Literature

- **Cost Channel of MP**
  - Identification of a supply-side transmission mechanism for monetary policy.

- **Credit Channel of Shock Transmission**
Literature

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Modelling Financial Frictions (I)

MICRO-FOUNDATION OF FINANCIAL FRICTION

- Asymmetric information between Firms and External Financiers
  - Firms can costlessly observe idiosyncratic output
  - Households cannot observe firms’ output
    - reason for no direct lending
  - Banks can observe output at a cost
    - Standard Costly State Verification
    - Justification for existence of financial intermediaries

\[
efp_t \equiv \frac{G'(l_t)}{(1 + r^d_t)} = \rho \left( \frac{l_t}{G(l_t)} \right)
\]  

(1)
Financial frictions on financing fixed investment
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Financial frictions on financing working capital:
Financial frictions on financing fixed investment

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- exacerbate demand-driven fluctuations.

Financial frictions on financing working capital:

- exacerbate cost-channel \Rightarrow supply-driven fluctuations.
Phillips curve relationship:

\[ 0 = a_t \omega_t n_t^{1-\alpha} k_t^\alpha \left( (1 - \varepsilon) + \varepsilon \left[ -\frac{u_{n,t}}{u_{c,t}} \frac{(1 + (1 + r_t^l))}{a_t \omega_t (1 - \alpha)} \left( \frac{n_t}{k_t} \right)^\alpha \right] \right) \\
- \theta_p (\pi_t - 1) \pi_t + \beta \theta_p (\pi_{t+1} - 1) \pi_{t+1} \]

(2)
Optimal Monetary Policy

MP Rule:

$$\ln \left( \frac{1 + r^n_t}{1 + r^n} \right) = (1 - \phi_r) \left( \phi_\pi \ln \left( \frac{\pi_t}{\pi} \right) + \phi_y \ln \left( \frac{y_t}{y} \right) \right)$$

$$+ (1 - \phi_r) \left( \phi_q \ln \left( \frac{q_t}{q} \right) + \phi_{lk} \ln \left( \frac{l_t/k_t}{l/k} \right) \right)$$

$$+ \phi_r \ln \left( \frac{1 + r^n_{t-1}}{1 + r^n} \right)$$

\( (3) \)
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Corporate liquidity management done mostly through banks.
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Heterogeneity and balance sheet effects

- No net worth dynamics in firms
Comments

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    - would preclude analyzing nominal rigidity AND financial frictions in one same agent.
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