Monetary Policy and Corporate Investment: The Equity Financing Channel

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Summary

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- **Empirical analysis** compares the responses of public as well as private firms to monetary policy shocks
- **Quantitative model** to rationalize the findings
- Main empirical findings:
  - **Public firms**: ↓ debt, ↑ equity, no effect on real assets
  - **Private firms**: ↓ debt and equity, ↓ real assets

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- Model with capital adjustment cost, equity issuance cost, and collateral constraint that determines the amount of debt funding
- When interest rates go up, lower benefit from higher capital levels in the future
- Optimal investment would depend capital adjustment costs
- **Public firms**: higher capital adjustment cost, little impact on investment, debt financing goes down, equity financing increases (low issuance cost)
- **Private firms:** low capital adjustment cost, investment goes down more, debt financing goes down, equity financing goes down by a kot (high equity issuance cost)

Comments

- Topical question given the recent interest rate hike cycle and the increasing presence of private firms in the US economy
- Use of confidential Y-14 data allows to provide novel evidence on the investment and financing of private firms
- Model allows studying firms' investment and financing joint responses to monetary policy shocks
  - Most papers focus on debt financing. This paper shifts the attention to equity financing
- **Suggestions:**
  - Tighten the connection between the model and empirical analysis
  - Definition of key variables, interpretation of results

Comment 1: Capital Adjustment Cost vs Equity Issuance Cost

- **Empirical analysis:** seems to suggest that not having access to equity financing leads to lower investment of private firms
- **Model:** seems to suggest that lower capital adjustment cost of private firms results in lower optimal investment following MP shocks, resulting in lower financing needs (lower debt and equity)
- Section 6.3 mentions that
  - Equity issuance cost is a key determinant of the financing responses, but it does not affect the investment response
  - Capital adjustment cost is a key determinant of investment responses to the shock
- Is it a story about capital adjustment cost or financing frictions? Relative importance of the two?
- If private and public firms have the same capital adjustment cost, would investment response would be similar? No role for the equity financing channel?

Comment 2: Identifying the Equity Financing Channel

- In order to isolate the effect of access to equity financing, useful to shut down the capital adjustment cost channel
- Create a sample of private firms that have similar capital adjustment costs as public firms
- This will allow us to understand for the same *desired* increase in investment, how much does access to external equity matter

Comment 3: Definition of Investment

- Investment in measured using growth of real assets: total assets excluding cash and securities
- This includes receivables and inventory: working capital
- Adjustment costs in the model seem to be more relevant for physical capital
- Average share of current assets in total assets around 50% over the period 2011-2019 for the sample of public firms in Compustat
- **Suggestion:** show results separately for investment in physical capital and working capital

Comment 4: External vs Internal Equity of Private Firms

	Equity Components	
	$\Delta \ln(E_{Int.})$	$\Delta \ln(E_{Ext.})$
	(1)	(2)
(a) Public firms		
MPS_t	0.014	0.048***
	(0.95)	(4.99)
Firm Controls	Yes	Yes
Macro Controls	Yes	Yes
Firm & Bank FEs	Yes	Yes
N	15,710	15,707
adj. R^2	0.285	0.318
(b) Private firms		
MPS_t	-0.022***	-0.008***
	(-4.55)	(-3.99)
Firm Controls	Yes	Yes
Macro Controls	Yes	Yes
Firm & Bank FEs	Yes	Yes

- For private firms, fall in internal equity more than twice as large as fall in external equity. Consistent with presence of financial frictions?
- What does a fall in external equity look like in practice? Is it withdrawal of VC funding or private firms timing the market to buy back equity? Financial friction or optimal capital structure change?
- Institutional details on the composition of external equity of private firms would be useful

Comment 5: Monetary Policy and Supply of Equity Financing

- Bank lending channel of monetary policy: monetary policy is a negative credit supply shock as it negatively affects banks' ability to provide credit
- Should we similarly think about how an increase in interest rates affects supply of equity financing in the economy?
- What would be the prediction for supply of equity financing to private vs public firms?
- Since it's a financial constraint story, need to show that the supply to private firms goes down

Other Comments

- Asymmetric effects?
- Endogenous choice of firms to become public vs private
- Monetary policy should be a function of the state of the economy

Conclusion

- Important to understand differential responses of private and public firms to monetary policy shocks
- Paper can be improved by
  - better connecting the empirical analysis with the theory
  - providing more empirical evidence on what the constraints on equity financing for private firms look like