

Discussion

Whatever It Takes? Market Maker of Last Resort and its Fragility

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Yale and NBER

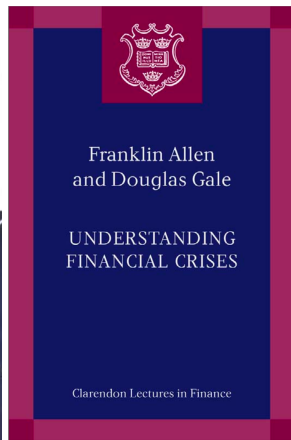
Douglas Gale Festschrift @ NYU
October 13, 2023

Thanks Douglas!

- ▶ For two of my favorite books

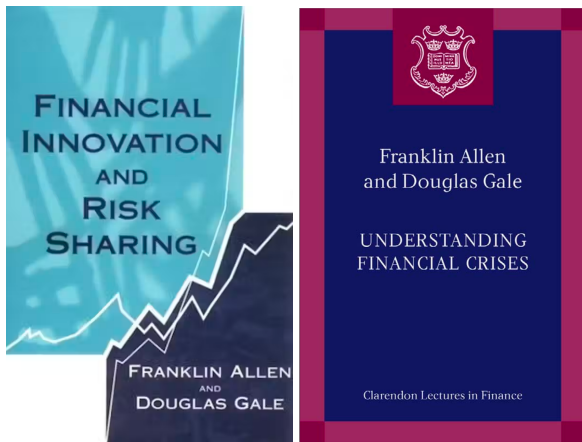
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- ▶ For showing how general equilibrium and welfare economics can be useful

Motivation

- ▶ **Motivation:** increased role of central banks as MMLR
MMLR = Market Maker of Last Resort
 - ▶ Draghi's "whatever it takes" ⇒ Successful
 - ▶ 2022 BoE gilt-buying program ⇒ Not so much

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- ▶ **This paper:** theoretical model of MMLR

Results

▶ Positive Results

1. Announcement effect: $\frac{dP_0}{dL}$

Impact on today's price of future potential purchases

2. Equilibrium intervention: $\frac{dE[\tilde{L}]}{dL}$

Big promises eliminate need to intervene

▶ Optimal Policy

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 - ▶ Insufficient intervention
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▶ Elegant paper \Rightarrow Clear and useful results

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- ▶ Key equation:

$$P_0 = \mathbb{E}[P_1(\alpha(P_0), L)]$$

- ▶ Complementarities + Role of Policy

Positive Results

1. Announcement effect:

$$\frac{dP_0}{dL} = \underbrace{\frac{\partial \mathbb{E}[P_1]}{\partial L}}_{\text{direct effect}} + \underbrace{\frac{\partial \mathbb{E}[P_1]}{\partial \alpha} \frac{\partial \alpha}{\partial P_0}}_{\text{feedback by reducing sales}} \frac{dP_0}{dL}$$

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2. Equilibrium intervention:

$$\frac{d\mathbb{E}[\tilde{L}]}{dL} = \frac{\text{actual intervention}}{\text{promised intervention}} < 0 \quad (\text{in some regions})$$

Normative Results

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- ▶ If $\frac{d\mathcal{L}}{dL} < 0, \forall L \Rightarrow$ “whatever it takes” (non-interior solution!)
 - ▶ **Comment #1:** why a reduced-form welfare objective?
 - ▶ **Comment #2:** I would love to see the plot of $\mathcal{L}(L)$!
 - ▶ Conjecture: $\mathcal{L}(L)$ is *U*-shaped (i.e. higher losses for intermediate L)
- Under reasonable conditions

Broader Comments

1. How are LOLR vs MMLR polices different?

- ▶ Is there a difference between purchasing assets (as in the model) vs. lending to insiders
 - ▶ Either at $t = 0$ (insiders don't sell at $t = 0$)
 - ▶ Or at $t = 1$ (government lends to insiders instead of purchasing directly)

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2. Are market making and asset purchases different?

- ▶ Typically, market making is about buying *and* selling
- ▶ The policy in the paper is about propping up prices
 - ▶ APLR (asset purchaser of last resort) instead of MMLR?
- ▶ There is a role for liquidity in a cash-in-the-market sense, but not in terms of retrading

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3. What can we say in general about the role of policy in environments with complementarities?

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Free exchange

Paulson's bazooka

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Hank Paulson, the Treasury secretary, had hoped that the July announcement would calm nerves sufficiently that he would not have to take out his "bazooka". The opposite happened. The firms' shares collapsed amid fears that investors would be wiped out in a government rescue. This severely curtailed their ability to issue much-needed capital, also infecting their mortgage-backed securities and the \$1.6 trillion of debt they had issued to buy mortgages for themselves. It was only a matter of time before

Broader Comments

3. What can we say in general about the role of policy in environments with complementarities?

- ▶ Before Draghi's **WIT** we had **Paulson's bazooka**

- ▶ Similar insights apply to other setups with strategic complementarities
 - ▶ Deposit insurance
 - ▶ Currency pegs

Conclusion

- ▶ Transparent and elegant exploration of the “whatever it takes” phenomenon
- ▶ Scope to further understand the role optimal policy with complementarities more generally