DISCUSSION

STRESS TESTING AND BANK LENDING

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MODEL INGREDIENTS

- Regulator conducts **stress tests** for a bank over two periods
- Prior to the test, in each period, bank can make **risky or safe loans**
- Risky loans turn out to be **good or bad**, which is revealed in the course of the stress test
- Following the stress test, regulator can **fail the bank**, requiring costly recapitalization, **or pass it**
- Regulator has an objective to **either encourage or discourage risky loans**, which is not internalized by the bank
- Regulator can be one of three types: **Strategic** (acts to maximize objective function), **lenient** (always passes), **or strict** (always fails)

KEY RESULTS

- In the first period, strategic regulator may **deviate from static optimal behavior** (**informative equilibrium**) to affect bank's choice in second period
  - E.g., regulator who wants to encourage risky lending will pass a bank with bad loans with some probability: **Soft equilibrium**
  - This is a **signaling mechanism:** passing the bank increases the perceived probability of being lenient and decreases the perceived probability of being strict; increasing incentive for the bank to engage in risky lending
  - Similarly, a **tough equilibrium** may exist for other parameters
- **Multiple equilibria** may exist:
  - Playing a tough strategy (when trying to discourage risky loans) implies that, if the bank passes, the regulator is very likely to be lenient
  - This encourages the bank to make risky loans, and so the regulator is even more justified in his tough strategy
  - This reinforcing mechanism means that informative and tough equilibria can co-exist

SOME TAKEAWAYS

- Stress test results can deviate from informative ones for **external regulatory considerations**
  - E.g., in Europe, soft tests were designed to encourage lending when credit markets froze
- **Efficiency loss** in case there are multiple equilibria and tough or soft equilibria are played instead of the informative one
- **Capital availability** makes informative equilibrium more likely
  - If recapitalization is not feasible, then deviating from static optimal behavior is less costly

OVERALL ASSESSMENT

- Do signaling and reputation considerations play an important role in regulators' behavior around stress tests?
  - **PROBABLY**
- Do stress tests have an important role in affecting bank lending?
  - **POSSIBLY**
- Does the model feature plausible ingredients?
  - **SOMETIMES**
- Does the paper generate implications of first-order importance?
  - **NOT ALWAYS**
- **Overall**, I like the paper's general message, and I think there is a lot of potential, but I would recommend some improvements…

COMMENTS (1): CLARIFYING SOME KEY MODEL INGREDIENTS

- **Reputation building mechanism:**
  - Why would a regulator be **lenient or strict**?
  - Why is this regulator type **independent** of the desirability of risky lending?
  - If stress tests are **happening annually**, can we think about the regulator trying to signal type for next year? Wouldn't type change by then?
  - Given that stress tests are happening across different banks, shouldn't updating occur based on **multiple banks**?
- **Recapitalization mechanism:**
  - Is it reasonable that equity holders are better off when **recapitalization fails than when it succeeds?**
- **Overall:**
  - The model has many **ingredients and restricting assumptions**; it seems that key intuition can come out of a simpler environment

COMMENTS (2): TAKEAWAYS FROM REPUTATION-BUILDING MECHANISM

- While the reputation channel is theoretically interesting, it is not clear **what it helps explaining** about stress tests that could not be explained otherwise
  - The result that regulators who want to encourage risky lending would be softer in equilibrium can be obtained in a **simpler static model without reputation motives**
  - The result on **social cost of bank lending** can also come out of a static model
  - The result on **capital availability** seems to depend on the way recapitalization is modelled, as explained above
- **Overall**, takeaways should clearly differentiate from those obtained in static reputation-free models

COMMENTS (3): FOCUS ON EQUILIBRIUM MULTIPLICITY

- Equilibrium **multiplicity is quite generic** in models of signaling and reputation; why emphasize them here?
- Questions of **efficiency** are interesting regardless of whether we have multiple equilibria or not; ask a more general question: how does reputation concern affect efficiency?
- Other implications drawn from multiplicity regarding difficulty in **coordination** are not well motivated and lack clear foundations

COMMENTS (4): CONNECTION TO STRESS TESTS

- As authors note, most of the theoretical literature dealt with disclosure of stress test results, while here it is about **regulatory action being tough or soft**
- One issue to think about is whether this model is unique to stress tests or **more generally about bank regulation**
- Another point to consider is that regulatory policy being tough or soft and disclosure policy are **inherently linked**
  - See point made in Goldstein-Leitner (forthcoming Stress-Tests-Handbook chapter): a policy of full disclosure can be equivalent to a policy of running very weak tests