Five Key Questions in the Design of Macroprudential Policy

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The five questions

1) The **macro** question: What forms of financial amplification are quantitatively/empirically relevant?

2) The **prudential** question: What class of market failures justifies *ex-ante* policy intervention?

3) The **regulatory** question: What are the tradeoffs in considering rules v. discretion, ex ante v. ex post?

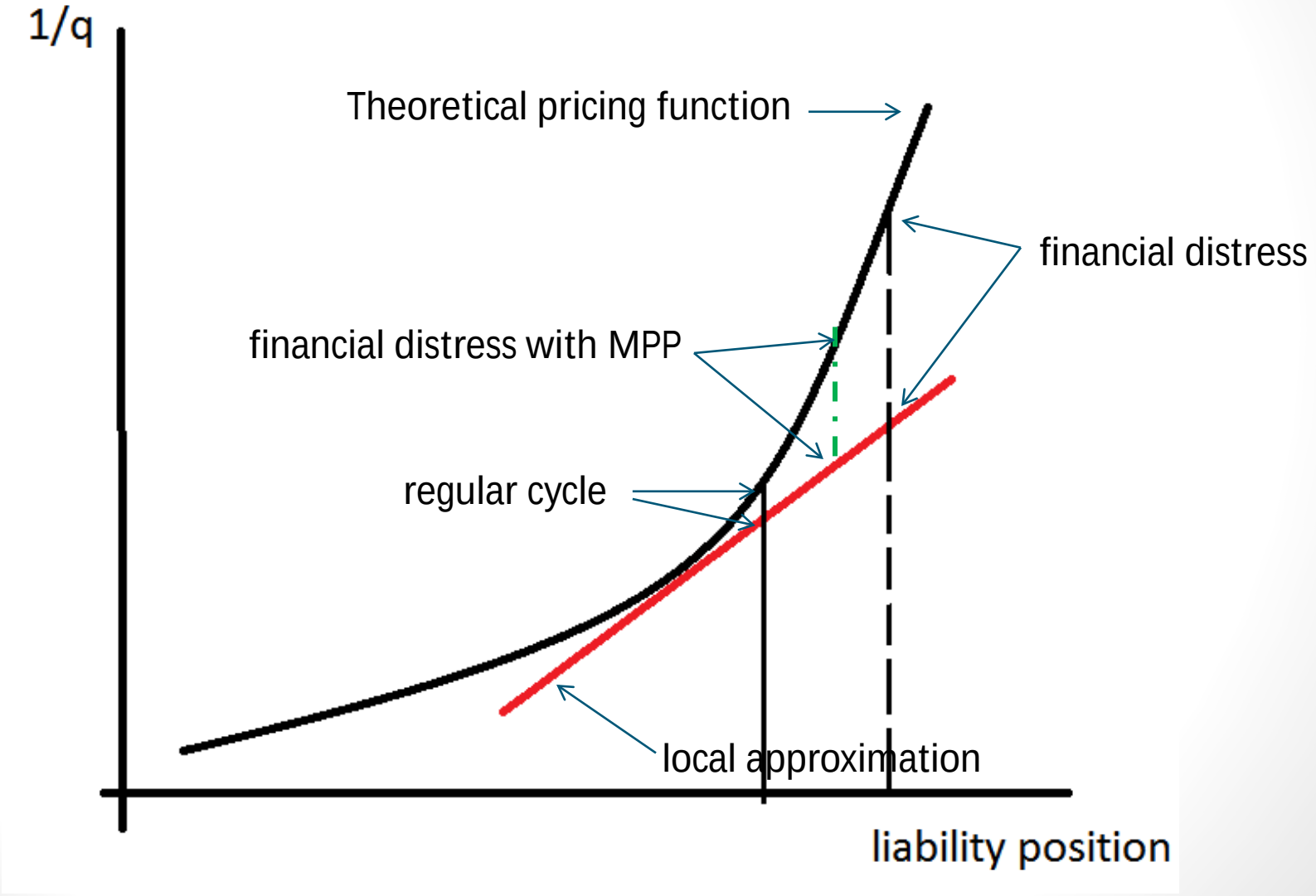
4) The **innovation** question: How to meet the challenges imposed by continuing financial innovation?

5) The **coordination** question: What is the best way to coordinate macroprudential policy and monetary policy?

The macro question

- Financial amplification: Standard shocks trigger larger responses & spillovers under conditions of fin. distress
- FA is due to macro/finance links (e.g. financial accelerators, balance sheet effects, liquidity constraints, etc).
- (Inverse of) asset/collateral prices are convex functions of debt in several FA models:
  1. External financing premium of BG financial accelerator
  2. Default risk premium of EG sovereign default models
  3. Nontradables price in liability dollarization model
  4. Price of collateral in Fisherian deflation models
  5. Option price of default insurance in general
- Relevant FA models should account for realistic crises nested within regular cycles (good laboratory to explore MPP implications)

The macro question: Amplification and nonlinearities



The macro question

- Merton (09): *"If people are acting using a linear model, what looks like a 10-sigma event can actually be a 2-sigma event…Most of the models in credit, in trading desks, in macro models do quite well locally, the problem is when you stop being locally nonlinearities are really quite large,…If you want to see what happened in AIG…they wrote a whole lot of credit default swaps…the assets underlying them went down not one shock, not two shocks, not three shocks, but over and over. Each time* ***the same size shock is going to create something even larger****…"*

The prudential question

- Ex-ante intervention: MPP seeks to prevent credit booms or "overborrowing" in good times to reduce vulnerability
- Generally needs models in which FA has two features:
  1. FA reflects the outcome of ex ante borrowing incentives
  2. FA embodies a form of market failure (e.g. externalities, inefficiencies) distorting ex ante market incentives
- Literature emphasizes role of pecuniary (fire sale, credit, etc.) externalities, because agents fail to internalize effect of individual choices on collateral prices (e.g. Korinek (12), Bianchi (12))
- Optimal policy problems can be written down and solved to characterize policies that induce agents to internalize externality (e.g. Pigouvian taxes, capital req. LTV ratios)

The regulatory question

- Optimal MPP is a complex state-contingent schedule varying with exogenous states and endogenous real and financial variables
- MPP under commitment suffers from familiar time inconsistency problem: pledge low future consumption to prop up asset prices and relax borrowing constraints
- Time-consistent MPP still taxes debt & leverage procyclically, but mitigating price changes to manage incentives of future regulators (Bianchi & Mendoza (13))
- Simpler time-invariant rules can still deliver important gains, but can also make matters worse if set incorrectly
- MPP sets aside issue of desirability of ex post policy (Benigno et al. (12))

The innovation question

- Financial innovation is as real as financial crises (in fact credit booms are often preceded by financial innovation)
- Hard to disentangle inefficient from efficient components of credit booms
- Risk of financial instability is higher because of natural tendency to overborrow under optimistic expectations of new financial regimes (Boz & Mendoza (13))
- If regulators are at least as informed as private agents, MPP can still use ex ante incentives to tackle market failure and “do better” (Bianchi, Boz & Mendoza (13))
- If private agents are better informed, MPP can “do worse”

The coordination question

- Classic Tinbergen targets-instruments problem
- Complex interactions between instruments and targets in the MP side and the MPP side (e.g. interest rates v. capital requirements, credit/GDP v. inflation)
- Conflicts with other instruments/targets (e.g. capital controls, exchange rate policy)
- Problems of domestic institutional design: centralized in the central bank or decentralized into two entities
- Problems of international coordination: some FA mechanisms and market failures operate globally, need global approach to be managed optimally (Bengui (12))