

# Financial Crises: Why They Occur and What to Do about Them

E. Maskin

Institute for Advanced Study

- current financial crisis only latest in long sequence
- history of financial crisis in U.S. goes back to 19<sup>th</sup> century
- probably crises will continue in future
  - each crisis somewhat different from predecessors
  - even if we fix mortgage loan market in U.S.(where current crisis started), something new will happen
  - even if anticipated, not all crisis may be preventable
- however, can do much better at *limiting* crises

## Today's topics

- Why does credit market have repeated crises and other markets do not?
- Why does credit market require substantial *ex post* intervention (and others do not)?
- What can be done *ex ante* to prevent/limit crises?

To understand what caused this crisis (and other crises) should first eliminate factors that were *not* causes

- irrationality
  - on part of bankers
  - on part of borrowers
- panic
- greed
- lack of ethics
- overconsumption in U.S./ oversaving in China
- opaqueness of derivatives
- bankers' bonuses
- banks too big to fail

## Why is credit market different?

### (1) credit *lifeblood* for rest of economy

- if crisis in market for rice, won't bring down market for automobiles
- if credit market doesn't work, enterprises in *all* markets will have trouble investing and meeting payrolls

### (2) small shock to credit market often *magnified*

- if some rice growers fail, won't cause other growers to fail
- if some banks fail, may well cause other banks to go under

### (3) credit market not *self-correcting*

- if some rice growers fail, others will step into breach  
no outside intervention needed
- if some banks fail, credit market can get “stuck” - - no banks willing to lend

## Elaboration on points 2 and 3

- Suppose flood wipes out rice crop in Yunan
- What will happen?
  - immediate effect is fall in overall rice output
  - but demand hasn't changed - - less rice to go around
  - so price of rice will be *bid up*
  - induces other rice suppliers in Yangtze River Valley to grow and sell *more*

- So rice market “self-correcting”
  - crop failure hurts consumers in short run - - higher prices
  - but high prices induce suppliers to expand output
  - so effect of drought *mitigated* in long run
- Government intervention not needed
- Government interference in rice market likely to make things worse
- Suppose puts cap on rice price or taxes “windfall” profits
  - discourages expansion of output that can make up for crop failure
  - this creates rice shortage or black market in rice

- Credit market is just the *opposite*
- Suppose a few banks get into trouble
  - made risky subprime mortgage loans
  - borrowers can't repay loans
  - banks highly leveraged – don't have enough capital to maintain other operations
- these banks have *other* borrowers
  - have to call loans in on these borrowers
  - so borrowers have to scale back activities that depended on these loans
  - thus will have harder time repaying loans from other *banks*
- so these other banks now get into trouble
  - have to call in loans from *their* borrowers
  - refuse to make new loans
- what started as *local* problem (subprime mortgage lending) spreads to *entire* credit market (systemic risk)
- initial problem *not* self-correcting (as in rice market)
  - gets *aggravated*
  - end up with *credit crunch*
  - not due to *panic*, but to *rational* responses by bankers and borrowers

- in economics terminology, bank exerts an *externality* on other banks by being highly leveraged and making risky loans
  - externality: effect your actions have on others that you don't take into account
  - when bank highly leveraged and makes risky loans, puts other banks in jeopardy
  - but doesn't factor this effect in when leverages itself and makes loans (not harmed by it)
  - not *irrational* or *unethical* or *overly greedy*
- markets with significant externalities often don't work well on own
  - take clean air, for example

- Why isn't there a market for clean air?
- in fact, there *is* such a market, but so limited we hardly see it
- suppose laundry next door to steel plant
  - smoke from steel plant interferes with laundry
  - laundry may offer to pay steel plant to reduce smoke (so market for smoke reduction exists)
  - but smoke doesn't just affect laundry - - affects many other enterprises
  - by paying for reduction, laundry confers benefit on other enterprises (externality)
  - laundry doesn't take this into account
  - so likely to *underpay* for reduction - - smoke not reduced as much as should be
- solution: government imposes cap or fine on smoke emissions by steel plant

Need *two* solutions for credit market

- *ex post* : *after* banks get into trouble
- *ex ante* : to prevent crisis in *first* place

*Ex post* solution for credit market:

If some banks get into trouble,

- government can bail them out
  - infuse with capital so can continue to lend
- but bailout important primarily for *other* banks that would be hurt if bailed-out banks failed

## Bailout policy comes at cost:

- if banks anticipate being bailed out when get in trouble
  - have incentive to take on highly risky loans, e.g., subprime mortgage loans (moral hazard)
- so *ex post* solution to financial crisis actually makes crisis more likely!
- so also need *ex ante* solution :
  - regulation
    - constraints on what banks can do

Actually, *two* reasons why regulation needed

- prospect of bailouts induces banks to make too-risky loans (moral hazard)
- bank ignores externality imposed on other banks by too-risky loans and leverage - - undervalues cost of these loans and leverage

# Principal forms of regulation

- minimum standards for loans
  - borrowers must be sufficiently credit worthy
- limits on leverage / capital requirements
  - given lending, need minimum capital level
  - limiting leverage limits bank's liquidity
  - another way of accomplishing same thing :  
    increasing interest rate
  - leverage limitations ↔ monetary policy

- restrictions on derivatives
  - derivatives allow risks to be shared with others
  - risk-sharing useful
  - however, encourages riskier lending
  - so, because of externality, should restrict derivative trading
- regulation of bankers' bonuses
  - many complaints about these bonuses
  - however, bonuses *per se* not problem
  - problem : rewarding bankers for success without punishing failure – encourages risky lending
  - solution : bankers must return bonuses (or other punishment) if loans fail

- regulating size of banks
  - problem with big banks *not* too big to fail
  - several small banks failing has same effect as one big bank failing
- problem with big banks : because of externality
  - bank takes too much risk
  - in particular, doesn't *diversify* sufficiently
  - so too likely to fail
  - small banks also too likely to fail
  - but several small banks less likely to fail than one big bank, because each does something different

- Have argued that can understand current financial crisis without appealing to
  - irrationality
  - panic
  - greed
  - lack of ethics
  - opaqueness of derivatives
  - bonuses
  - too big to fail
- Crisis brought on by
  - externality (one bank's risk-taking affects other banks )
  - moral hazard (prospect of bailouts)
- Solution
  - bailouts
  - regulation
    - needed to correct
      - externality
      - moral hazard created by bailouts

- Well-designed regulation/bailout package
  - can prevent many crises from getting started - - rules against subprime loans would have prevented this one
  - can resolve them if do occur
  - historically, regulation worked from 1940~1980
- Can't hope to prevent credit crises completely and still allow for creativity
  - can't anticipate all possible innovations by banks
  - so can't have rules that prevent only harmful innovations
- But can do a lot better than we've done this time