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

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- current financial crisis only latest in long sequence
- history of financial crises goes back hundreds of years
- 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 could take steps to eliminate crises, not likely to be desirable
- however, can devise mechanisms to reduce *probability* that crises occur and limit *damage* if they do occur

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 current crisis (and others like it) should first eliminate factors that were *not primary* causes

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

Why is credit market different?

(1) credit *lifeblood* of economy

- if crisis in market for potatoes, won't bring down market for automobiles
- if credit market doesn't work
  - enterprises in *all* markets will have trouble meeting payrolls and paying for inputs
  - economy will stagnate - - little innovation

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

- if some potato 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 potato 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 blight wipes out potato crop in Ireland
- What will happen?
  - immediate effect is fall in overall potato output
  - but demand hasn’t changed - - fewer potatoes to go around
  - so price of potatoes *bid up*
  - induces potato farmers in other countries to grow and sell *more*

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

- Credit market 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) may spread to *entire* credit market (systemic risk)
- initial problem *not* self-correcting (as in potato market)
  - gets *aggravated*
  - can end up with *credit crunch* (as in 2008)
  - not due essentially to *panic*, but to *rational* responses by bankers and borrowers

- in economics terminology, bank imposes *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
  - take clean air, for example

- you may think there is no market for clean air
- there *is* such a market
  - but, because of externalities, is quite dysfunctional
- for example, suppose there is
  - steel plant - - puts out a lot of smoke
  - some laundries nearby - - harmed by smoke
  - so steel plant imposes externality on laundries
  - laundries will probably offer to pay steel plant to reduce smoke (so market for smoke reduction exists)
  - but each laundry would prefer that other laundries do the paying- - that way it enjoys the reduction without incurring cost
  - but since *every* laundry thinks this way, none will pay much for smoke reduction
  - end up with too much smoke
- corrective mechanism: government imposes cap or fine on smoke emissions by steel plant

- by same logic, end up with too much leverage and too much risk for credit in markets
- this increases probability of severe crisis
- this is what happened in run-up to current crisis
- Need *two* corrective mechanisms
  – *ex post* : *after* banks get into trouble
  – *ex ante* : to prevent crisis in *first* place

Ex post mechanism:

If some banks get into trouble,

- government can bail them out
  - infuse with capital so can continue to operate
  - or buy up their loans
- but bailout important primarily for *other* banks that would be hurt if bailed-out institutions failed

Bailout policy insufficient by itself

- unless occurs immediately, lending disrupted
  - costly for economy
- so also need *ex ante* mechanism :

  regulation
  - constraints on what banks can do

Reason why regulation needed

- bank ignores externality imposed on other institutions by its risky loans and leverage -- so has incentive to take on too much risk and too much leverage

Principal forms of regulation

- limits on leverage/capital requirements
  - given lending, need minimum capital level
  - given capital, cap on how much lending allowed
- minimum standards for loans
  - borrowers must be sufficiently creditworthy

- restrictions on derivatives/securities
  - derivatives allow risks to be shared with others
  - risk-sharing useful
  - however, encourages riskier lending
  - so, because of externality, argument for regulating derivatives trading

    derivatives market
- regulation of bankers' bonuses
  - many complaints about these bonuses (rich getting richer)
  - however, bonuses *per se* not problem
  - problem : because of externality, bankers not sufficiently "punished" for failure - - encouraged to undertake overly risky lending
  - solution : severer punishment if loans fail

- regulating size of banks
  - problem with big banks *not* too big too 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 all to fail than one big bank, because each does something different (though perhaps not *very* different)

- have argued that can understand financial crises without invoking
  - irrationality
  - panic
  - greed
  - lack of ethics
  - opaqueness of derivatives
  - bonuses
  - too big to fail
- crises brought on by externality created by
  - risk-taking
  - leverage
- corrective mechanisms
  - bailouts
  - regulation

- 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 pretty well 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
- So shouldn't try to eliminate risk of credit crises altogether
- Still, can do a lot better than we've done this time