The Global Financial Crisis: Lessons for Monetary Economics and Monetary Policy

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General Consensus

• Federal Reserve fell down on the job in
  – Anticipating the downturn
  – Taking actions to prevent the crisis

• Given kudos for bringing the economy back from the brink
  – But measures of have failed to restart lending
  – Shadow banking system remains in shambles
  – Potential fiscal costs (with pass through of profits/losses to Treasury) are huge
  – Policies engendered large redistributions which have called into question institutional frameworks (independence)
There is not a general consensus yet on

- Why it failed so badly
  - Flawed models
  - Flawed judgments
  - Too low interest rate (Taylor)
  - Flawed regulatory policies
- What it should have done in the run up to the crisis
- What is should have done in response to the crisis
- Changes in policy framework
- Changes in governance
  - Though there is a political consensus *against* the Fed
  - Reflected in recent votes in Congress
Flawed policy framework

• Maintaining price stability is necessary and almost sufficient for growth and stability
  – It is not the role of the Fed to ensure stability of asset prices

• Markets, by themselves, are efficient, self-correcting
  – Can therefore rely on self-regulation

• In particular, there cannot be bubbles
  – Just a little froth in the housing market
• Even if there might be a bubble, couldn’t be sure, until after it breaks
• And in any case, the interest rate is a blunt instrument
  – Using it to break bubble will distort economy and have other adverse side effects
• Less expensive to clean up a problem after bubble breaks

IMPLICATION: DO NOTHING
Expected benefit small, expected cost large
EACH OF PROPOSITIONS FLAWED
1. Distortions from relative commodity prices being out of equilibrium as a result of inflation second order relative to losses from financial sector distortions
   – Both before the crisis
   – And even more, after the bubble broke
   – Clear that ensuring low inflation does not suffice to ensure high and stable growth

• Inflation targeting risks shifting attention away from first order concerns
2. Markets are neither efficient nor self-correcting

- General theorem: whenever information is imperfect or risk markets incomplete (that is, always) markets are not constrained Pareto efficient
  - Pervasive externalities
  - Pervasive agency problems
  - Manifest in financial sector (e.g. in their incentive structure)
  - Greenspan should not have been surprised at risks—they had incentive to undertake excessive risk
  - And systemic consequences (which market participants will not take into account) are the reason we have regulation
  - Especially significant when government provides (implicit or explicit) insurance
- Problems of too big to fail banks had grown markedly worse in previous decade as a result of repeal of Glass-Steagall
3. There cannot be bubbles

• Bubbles have marked capitalism since the beginning
• Bubbles are even consistent with models of rational expectations
• Collateral based credit systems are especially prone to bubbles
4. “Can’t be sure...”

- All policy is made in the context of uncertainty
- As housing prices continued to increase—even though real incomes of most Americans were declining—it was increasingly likely that there was a bubble
5. “We had no instruments...”

- False
- Had instruments
- Congress had given them additional authority in 1994
- If needed more authority, could/should have gone to Congress to ask for it
- Could have used regulations (loan to value ratios) to dampen bubble
  - Had been briefly mentioned during tech bubble
- Ideological commitment not to “intervene in the market”
- But setting interest rates is an intervention in the market
  - General consensus on the need for such intervention
  - “Ramsey theorem”: single intervention in general not optimal
6. Less expensive to clean up the mess

- Few would agree with that today
- Loss before the bubble broke in hundreds of billions
- Loss after the bubble in trillions
Flawed models

- Key channel through monetary policy affects the economy is availability of credit (Greenwald-Stiglitz, 2003, *Towards a New Paradigm of Monetary Policy*)
  - And the terms at which it is available (spread between T-bill rate and lending rate is an endogenous variable, which can be affected by conventional policies and regulatory policies)
Insufficient attention to micro-economics of banks

– Banks are critical to the provision of credit to small and medium sized enterprises (source of job creation)
– Especially important in understanding how to recapitalize banks, in order to
– Restart flow of credit
– Determination of spread between T-bill rate and lending rate
– Need to understand both role of incentives and constraints
  • At organizational level (“too big to fail banks”)
  • At individual level
  • And relations (corporate governance)
    – What role did change in organizational form (from partnerships to joint stock companies) play?
Insufficient attention to “architecture of risk”

• Theory was that diversification would lead to lower risk, more stable economy
  – Didn’t happen: where did theory go wrong?
  – Mathematics: Assumed concavity, world marked by convexities
    • In former, spreading risk increases expected utility
    • In latter, it can lead to lower economic performance
  – Two sides reflected in standard debate
    • Before crisis—advantages of globalization
    • After crises—risks of contagion
  – Standard models only reflect former, not latter
    • Should reflect both
    • Optimal electric grids
    • Circuit breakers
– Market incentives both on risk taking and risk sharing distorted
– Can show that there is systematically too much exposure to risk
– Can give risk to bankruptcy cascades
– Giving risk to systemic risk
Can be affected by policy frameworks

• Bankruptcy law (indentured servitude)
  – Lenders may take less care in giving loans
• More competitive banking system lowers franchise value
  – May lead to excessive risk taking
• Capital market liberalization
  – Flows into and out of country can give risk to instability
• Financial market liberalization
  – May have played a role in spreading crisis
  – In many ldc’s, fml has been associated with less lending to SME’s
• Central banks need to pay attention to systemic stability which is affected by
  – Exposure to risk
  – The extent to which shocks are amplified and persist
  – The extent to which there are automatic stabilizers and destabilizers
  – Changes in the structure of the economy can lead to an increase or decrease in systemic stability
    • Movement from defined benefit to defined contribution old age pension system
Insufficient attention to “architecture of information”

– Moving from “banks” to “markets” predictably led to deterioration in quality of information
  • Shadow banking system not a substitute for banking system
  • Leading to deterioration in quality of lending
    – Inherent problems in rating agencies
  • But also increased problems associated with renegotiation of contracts
  • Increasing litigation risk
  • “Improving markets” may lead to lower information content in markets
    – Extension of Grossman-Stiglitz
    – Problems posed by flash-trading (In zero sum game, more information rents appropriated by those looking at behavior of those who gather and process information)
Market equilibrium is not in general efficient:

Derivatives market—an example
Large fraction of market over the counter, non-transparent
Huge exposures—in billions
Undermining ability to have market discipline
  • Market couldn’t assess risks to which firm was exposed
  • Impeded basic notions of decentralizibility
    – Needed to know risk position of counterparties, in an infinite web
Explaining lack of transparency:
  • Ensuring that those who gathered information got information rents?
  • Exploitation of market ignorance?
  • Corruption (as in IPO scandals in US earlier in decade)?
Key controversy in regulatory reform

• Senate Committee: FDIC insured institutions should not be engaged in swaps trading
  – Fire insurance important for mortgages
  – But banks should not be in business of writing fire insurance
  – And if they are, should be sure that they have adequate capital—not underwritten by US taxpayer

• Banks, Bernanke, Administration wanted to continue exposure to risk, implicit subsidy
  – But several regional Presidents supported Senate Committee
Some implications

• Cannot rely on self-regulation
  – And even less so on rating agencies
    • Distorted incentives
    • Competition among rating agencies made matters worse

• Need to focus on shadow banking system as well as on banking system
  – New role for Fed, over $1.2 trillion in mortgages
  – Two are related in complex ways
  – Going back to Glass-Steagall is not enough—a failure of investment banks can put economy in jeopardy
• Need to use full gamut of instruments—conventional instruments as well as regulatory instruments to affect lending
• There are supply side and demand side effects of monetary policy
• Bank behavior may not depend just on amount of capital
  – Bank managers’ interest may differ from that of bondholders and shareholders: have to look at their incentives
  – Private bank owners’ interests may differ from that of other suppliers of capital (including government)
  – Increasing capital adequacy requirements may not lead to less risk taking (reduced franchise value)
• More attention needs to be focused on dealing with failed financial institutions
  – Especially in the presence of systemic failure
  – Miller/Stiglitz argued for a “super-chapter 11” for corporations in event of systemic crisis
    • Need to think about how to handle mortgages
    • Need to think about how to handle banks
      – Failure to restructure mortgages will contribute to slow recovery of America
      – Way banks were bailed out led to less competitive banking system and exacerbated problems of moral hazard
      – Regulatory reform bill did not fix the problem—key issue was not resolution authority
Conclusion

• Models and policy frameworks many Central Banks used contributed to their failures before and after the crisis

• Fortunately, many Central Banks are now developing new models and better policy frameworks
  – Focus not just on price stability but also in financial stability
  – Credit availability/banking behavior
  – Credit interlinkages
    • Gallegati et al, Greenwald-Stiglitz, Haldane, Haldane-May
• Less likely that a single model, a simple (but wrong) paradigm will dominate as it did in the past
  – Trade-offs in modeling
  – Greater realism in modeling banking/shadow banking may necessitate simplifying in other, less important directions