International Banking Standards and Financial Sector Regulation

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Paris. Views expressed are my own and do not necessarily reflect those of the Federal Reserve System.
“Panics do not destroy capital; they merely reveal the extent to which it has been previously destroyed by its betrayal into hopelessly unproductive works.”

John Stuart Mill, 1867
Outline

I. Role of Banks in Finance
II. Sources of Banking Crises
III. Bank Regulatory Problems
IV. Example: Korea 1992-1997
I. Role of Banks in Finance
Primary Function of Banks is Asset Conversion

- Transform Short-term Liquid Assets of Households into Long-Term Illiquid Investments by Firms
- Diversify Risk by Pooling Assets of a Large Number of Households
- Reduce Transactions Costs by Screening and Monitoring Borrowers
Asymmetric Information

- Information is “asymmetric” when one party has more than another

- Example: Banks vs Borrowers
  - Borrowers know more about potential quality of loan
  - Borrowers know more about “effort” put into making investment successful
Adverse Selection

- Borrowers whose projects are particularly risky will have greatest demand for loans.
- Reason is that they are most likely to default.
- Interest terms which are fair for “average” projects are good deals for bad projects and bad deals for good projects.
Moral Hazard

- When Borrowers default, part of loss is borne by the bank.
- This gives Borrowers an incentive to make less than the optimal level of effort for project success.
- Borrowers also have an incentive to choose as risky a project as possible.
Banks are Designed to Partially Address These Problems

- Banks enter into long-term relationships which mitigate information problems
- Banks invest in monitoring activities which mitigate moral hazard
- In developing countries where information problems are worse, role of banks is even greater
However, Banking Panics are Still Relatively Common

- Lindgren (1996): Two-thirds of IMF member countries experienced significant banking difficulties
- Frequency of banking crises appears to have increased in last two decades
II. Sources of Banking Crises
A. Crises From Bad Fundamentals
Maturity Mismatches

- Conversion of short-term claims to long-term assets implies possibility of illiquidity
  - Asset side of bank balance sheet is illiquid
  - Liability side is very liquid

- Maturity mismatch implies that a bank can suffer a severe balance sheet downturn in an environment of rising interest rates
Currency Mismatches

- Many developing nations are said to be victims of “original sin”
- These nations are often unable to borrow in their own currency
- If these nations abandon their exchange rate peg, many firms and households will see domestic currency values of their debt obligations rise
- Ex: Argentina
Lending Distortions

- Government policies can leave banks more susceptible to runs by actively deteriorating their asset quality
- Directed lending
  - East Asia: Banks pressured to loan to particular sectors
  - China: Banks forced to keep State-owned enterprises afloat
  - Japan: Banks forced to maintain large holdings of equity in client firms
Weak Regulatory Conditions

- Rapid changes in banking environment may place banks in unfamiliar activities.
- Rapid growth in banking activity may reduce relative power of regulatory institutions (Ex: US S&L crisis).
- Poor regulatory conditions can lead to:
  - Poor assessment of credit quality
  - Excessive concentration of risk
  - Outright fraud
Lack of Transparency

- Poor accounting practices
  - Bad assets incorrectly classified as performing
  - Classification often based on loan payment status rather than accurate assessment of borrower’s financial condition
  - Collateral values not marked to market

- Can exacerbate financial crisis
  - Difficult to distinguish between healthy and unhealthy banks [Vishwanath and Kaufman (2001)]

- BCL (2004): Transparency even more important than quality of regulatory regime in determining fragility of banking sector
Weak Legal Institutions

- Bankruptcy procedures
  - Difficult to seize assets in event of default
  - Even collateralized loans are risky
  - Ex: Eastern Europe

- BCL (2004):
  - Protection of shareholder rights and active market for corporate control very important to health of banking sector
B. Crises From Self-Fulfilling Poor Expectations
Liquidity vs Solvency

- **Solvency:** Value of assets exceeds value of liabilities

- **Liquidity:** Value of *currently available* assets exceeds value of current liabilities

- Banks can therefore be solvent, but not liquid
“Sequential Service” Constraint

- Sequential service implies that those who remove funds from bank first receive all of their assets.
- Implication is that solvent, but illiquid banks may be subject to runs.
- Herding effect: If you believe that others are going to pull their money out of bank, you should too.
C. Third-Generation Crises
3rd Generation Models of Banking Crises

- Synthesis of Fundamentals-based and Self-fulfilling crises
- Range of exposure to self-fulfilling crisis
- However, uncertain within that range whether or not crisis will occur
- Role for contagion effects, panics
- Still, quality of regulatory regime matters
Factors behind Twenty-Nine Bank Insolvencies

**Macroeconomic factors**
- Capital Flight: 2
- Dutch Disease: 4
- Asset Bubble: 7
- Recession: 16
- Terms of Trade Drop: 20

**Microeconomic factors**
- Weak Judiciary: 2
- Bank Runs: 2
- Fraud: 6
- Lending to State Enterprises: 6
- Connected Lending: 9
- Political Interference: 11
- Deficient Bank Management: 20
- Poor Supervision and Regulation: 26

*Note:* Shows the number of times each factor was cited in twenty-nine country cases; twenty-nine is the maximum number of citations possible.

*Source:* Caprio and Klingebiel 1996
III. Bank Regulatory Issues
A. Deposit Insurance
Deposit Insurance

- Deposit Insurance commonly considered important Policy to eliminate banking panics
- However, if depositors’ funds are guaranteed, they need not worry about bank soundness
- Monitoring role of depositors is diminished
Empirical Evidence

Demirgüç-Kunt and Detragiache (2002):

- Explicit deposit insurance tends to increase the likelihood of banking crises.
- Effect is stronger in countries with weak regulatory regimes.
- Suggests that moral hazard implications of deposit insurance are important.
B. Other Regulatory Policies
Lender of last resort

- Government, usually central bank, supports insolvent or illiquid bank
- Government supports a merger in which deposit values are carried at par
- Moral hazard issues arise if bailout is anticipated
“Too Big to Fail”

- Some banks are so large that their failure would lead to “systemic” problems, i.e. threaten the entire banking system.
- Regulators may rationally choose to “bail out” these types of insolvent banks.
- These banks therefore enjoy even greater government guarantees, and have greater incentives to take on risky loans.
- Moral hazard again pervasive.
“Forbearance”

- Leaving an insolvent bank in operation (zombies)
- Regulation is effective only if regulators respond to compliance failures with “prompt corrective action”
- Problems with forbearance
  - Moral hazard among insolvent banks severe
  - Bad example for other banks
  - May decrease willingness of banks to foreclose on problem borrowers
Agency Problems

- Interests of regulators may not coincide directly with those of taxpayers.
- Regulators may pursue forbearance policies in hopes that banks will recover “bureaucratic gambling” [Kane (1989)].
- Regulators may face pressure to resist closure of insolvent banks.
Quality of Administration and Recent Crises

Source: Caprio and Honohan
Role of Implicit Government Guarantees

- Governments implicitly backed investments made by financial intermediaries.
- The capacity of governments to finance these guarantees is limited.
- “Cronyism” (or in some cases outright corruption) may play a role.
Changing role of International Financial Institutions

- Argentine default has altered perception of role of IMF in international workouts
  - Argentina successfully resisted efforts to encourage it to negotiate with holdouts
  - Unclear what the current regime is

- “If we do not reach an agreement soon with the IMF, we are going to stop considering it as a preferred creditor.”

  - President Kirchner
IV. Example: Korea 1992-1997

(Dooley and Shin)
In early 1990s, capital account liberalization became an important Korean policy goal.

- 1991: Domestic firms allowed to issue offshore debt.
- 1992: Korean stock market open to foreign investors.
- Banks allowed to open and expand overseas branches.
Korea received about $120 billion in capital inflows from 1992 through mid-1997.

1994-1996: Capital inflows at 3.5 percent of GDP.

Because of quantitative controls on other forms of finance, bulk of capital inflows channeled through banks.
Composition of Portfolio Investment in Korea 1992-1998

- Equity
- Debt

57% 36% 47% 66% 65% 85%
From 1992 through 1996, banks’ assets more than doubled.

Over same period, stock market performance was poor, and relatively little new equity was issued.

Result was decline in capital-asset ratio.

Dooley and Shin also provide evidence that loans to banks had little correlation with bank asset quality.
Capital Asset and Equity Ratios of Korean Banks 1987-1998

- Capital Stock to Total Assets
- Shareholders' Equity to Total Asset
Foreign “run” on Korea

- Foreigners started taking assets out of Korea in November of 1997.
- Bank of Korea provided foreign currency to Korean banks equal to $15 billion
  - Bailout exhausted BOK foreign reserves
  - $9 billion went straight to foreign branches of Korean banks
- Foreign investors removed $30 billion from Korean Banks in 1998
Lessons from Korea

- Korea’s experience shows pervasive influence of even implicit government guarantees
- Foreign run triggered Korea’s financial crisis, but foreign investors were left whole
- As this preferential treatment was anticipated, it led to moral hazard during capital inflow era
  - Imprudent lending practices
  - Distortions in forms of financing
Cross-sectional evidence that fiscal outlays increase costs of resolution

  - Explicit deposit insurance
  - forbearance
- No apparent tradeoff between high fiscal outlays and output loss
- However, good institutions, such as judicial efficiency and political stability measurably reduce cost of crises
Conclusion

- Because of the information-gathering service they provide, financial activity is prone to crises.
- Policies which limit severity of crises, such as financial safety nets, can give agents bad incentives ex ante.
- Policy challenge is therefore to mitigate these crises without stifling the valuable service that banks provide.
- Evidence suggests that our success so far has been mixed.