

International Monetary Economics: Modern Banking Crises

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Additional Complications in Modern Banking Crises

- Modern banking systems have a number of additional features that make banking crises more difficult to deal with than in the past.
 - ▶ **Non-Deposit Funding:** While deposit insurance tends to reduce the chance of retail bank runs, many modern banks obtain substantial non-deposit funding via bond markets or inter-bank money markets. These providers of funds are more prone to “run” than depositors, who are often viewed as a “sticky” source of funding.;
 - ▶ **Interbank Linkages:** Funding links between banks can mean that the failure of one bank can directly threaten the failure of other banks.
 - ▶ **Financial Assets and Negative Feedbacks:** Many banks now have very large holdings of financial assets, whose valuations (unlike loans) are set in the market every day. During crises, we can see negative feedback loops involving banks selling assets, which then decline in value, thus making bank solvency problems even worse.
- These additional complications produced a range of new government interventions during the global financial crisis, many of which have been expensive for taxpayers.

Why More Non-Deposit Funding?

- A common feature of the modern financial system is that many banks now rely heavily on non-deposit sources of funding. There are a number of reasons for this.
- **Deepening of Financial Markets:** Modern financial systems contain more options than in the past for people to channel their savings towards. Two that are relevant for banks are *pension funds*, which commonly buy bonds issued by banks and *money market mutual funds*, which commonly make shorter-term loans to banks.
- **Financial Globalisation:** In closed economies, savings must equal investment. Banks that are provided with savings from depositors must make loans within their own country. In an open economy, savings do not need to equal investment. In a country that has high savings but low investment, banks will often lend funds to banks in other countries. In Europe, banks in countries with current account surpluses (like Germany) have generally provided funds for banks in countries with current account deficits (e.g. Ireland, Portugal, Greece).
- **Deregulation:** Regulations about where banks get funds from, and who they can loan these funds to, have generally been loosened over time.

Modern Bank Runs: Non-Deposit Funding

- Problems with failing banks in recent years have rarely involved depositors getting jittery and withdrawing money: Modern bank runs come from those who lend money to banks through interbank markets and bond markets deciding not to continue supply a bank with funds.
- Northern Rock may have looked like an exception but it actually wasn't: The depositor runs happened well after other lenders to the Rock had begun to pull money. Only after the Bank of England announced emergency support did retail depositors realise what was going on.
- Much of Northern Rock's funding was in the form of repurchase agreements ("repo lending"): Short-term loans where the lender was pledged some of the borrower's assets as collateral in case of default.
- Unlike depositors, most of this funding had no government guarantee and came from professional investors who monitored what was going on at troubled banks far more intensely than depositors. When doubts about the quality of collateral emerged, this lending quickly tailed off.
- Non-depositor bank runs may not look as dramatic as people queuing outside the bank branches but they are just as deadly.

Interbank Lending and Systemic Risk

- Interbank markets make it easier for banks to cope with reserve requirements (by lending and borrowing short-term funds) and allowing banks with lots of deposits but without good loan opportunities to lend to banks with good loan opportunities but limited deposits.
- But they can also contribute to making the banking system unstable.
- Consider the following example:
 - ▶ Three banks (A, B and C) all have equity capital of €10 million.
 - ▶ Bank A has borrowed €25 million from Bank B and Bank B has borrowed €15 million from Bank C.
 - ▶ Now suppose Bank A loses €35 million in bad property loans. This wipes out its equity capital. The bank becomes insolvent and is wound up and Bank B does not get its €25 million back.
 - ▶ Bank B is now insolvent and cannot pay back the €15 million it owes Bank C. This means that Bank C also has no equity capital and so is insolvent.
- Bank A going down brings the whole system down. This example describes what is known as *systemic risk*.

Asset Price Fire Sales and Spillovers

- The previous example is not very realistic. It required the first bank to lose an amount that wasn't just greater than its own capital but an amount greater than the capital of the whole system.
- But we have left out another important channel through which one bank getting in trouble affects others.
- When banks get into trouble and start selling liquid assets (stocks, bonds, etc) in a hurry to pay off depositors or lenders—often termed a fire-sale of assets—this places downward pressure on the prices of these assets.
- Modern banking regulations have required banks to “mark their tradable assets to market” as much as possible. So if the failure of one bank leads to the prices for some financial assets falling, then other banks have to mark down the value of their assets also.
- The asset price fire sales reduce the equity capital of other banks and place them under threat. A single bank failure can lead—via contagion and spillovers from asset sales—to the whole system becoming unstable.
- See my European Parliament briefing paper “Containing Systemic Risk” for a discussion of these issues.

Bernanke on Fire Sales

- Fed Chairman Ben Bernanke gave a speech last year titled “Implications of the Financial Crisis for Economics.” It is linked to on the website.
- He discusses fire sales: “The notion that financial assets can always be sold at prices close to their fundamental values is built into most economic analysis, and before the crisis, the liquidity of major markets was often taken for granted by financial market participants and regulators alike. The crisis showed, however, that risk aversion, imperfect information, and market dynamics can scare away buyers and badly impair price discovery. Market illiquidity also interacted with financial panic in dangerous ways. Notably, a vicious circle sometimes developed in which investor concerns about the solvency of financial firms led to runs: To obtain critically needed liquidity, firms were forced to sell assets quickly, but these “fire sales” drove down asset prices and reinforced investor concerns about the solvency of the firms. Importantly, this dynamic contributed to the profound blurring of the distinction between illiquidity and insolvency during the crisis.”

How Should Governments Respond?

- The problems discussed here—unstable uninsured non-deposit funding, large holdings of financial market assets, and the inter-connected nature of the financial system—have posed serious questions for policy makers responding to the financial crises of recent years.
- One of the first question governments need to ask about whether a bank should be let fail (i.e. introduce bank resolution and see that uninsured creditors lose money) is whether this institution is of *systemic* importance. Would the bank's failure lead to the whole financial system becoming unstable? Is the bank "*too big to fail*"?
- On the other hand, governments need to be careful about insuring banks simply because they are big:
 - ▶ Large banks may turn out to be "too big to save". For example, the Irish state was unable to rescue its banks without ruining the government's credit rating and requiring an EU-IMF bailout.
 - ▶ Bailing out large banks that are too big to fail presents another kind of moral hazard problem: Will large banks take more risks knowing the government can pay off their creditors if the risks don't pay off?

Recap: Key Points from Part 9

Things you need to understand and remember from these notes:

- 1 Reasons for growth in non-deposit funding.
- 2 Modern bank runs.
- 3 Interbank lending as a source of systemic risk.
- 4 Asset fire sales and how they worsen banking crises.
- 5 Concerns about policy towards “too big to fail” institutions.