Banking

Ana Lacerda

Fall Semester 2024

Course: Banking [2206]

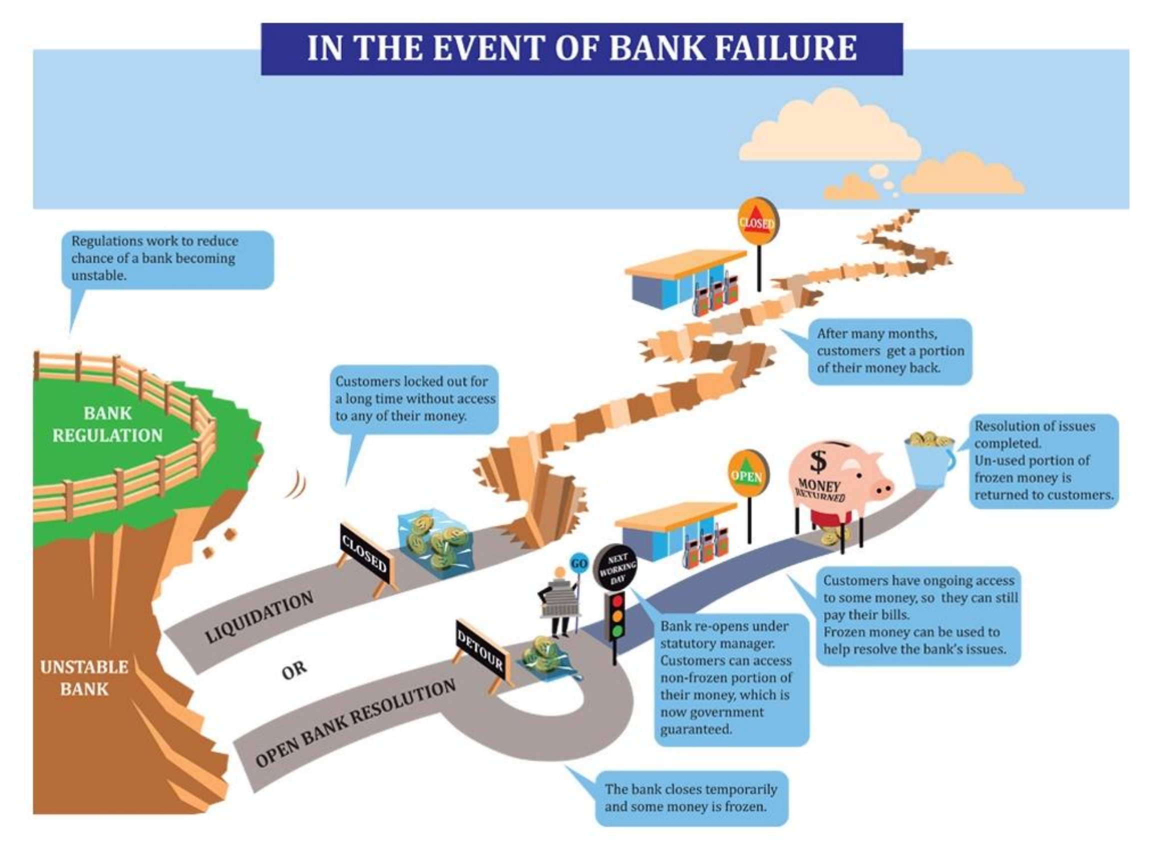
Resolution

Disclaimer: The views expressed are my own and do not necessarily represent the views of Banco de Portugal.

To be covered today

- Resolution

You spot any errors here?



KUNGL. VETENSKAPS-AKADEMIEN
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THE NOBEL PRIZE

Nobel Prize for research on banks and financial crisis

10 October 2022

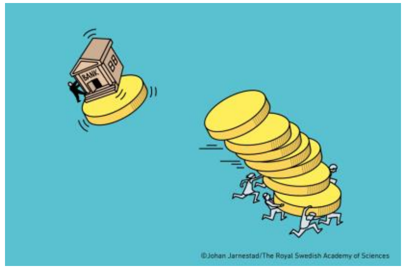
The Royal Swedish Academy of Sciences has decided to award the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2022 to

Ben S. Bernanke
The Brookings Institution, Washington DC, USA

Douglas W. Diamond
University of Chicago, IL, USA

Philip H. Dybvig
Washington University in St. Louis, MO, USA

"for research on banks and financial crises"



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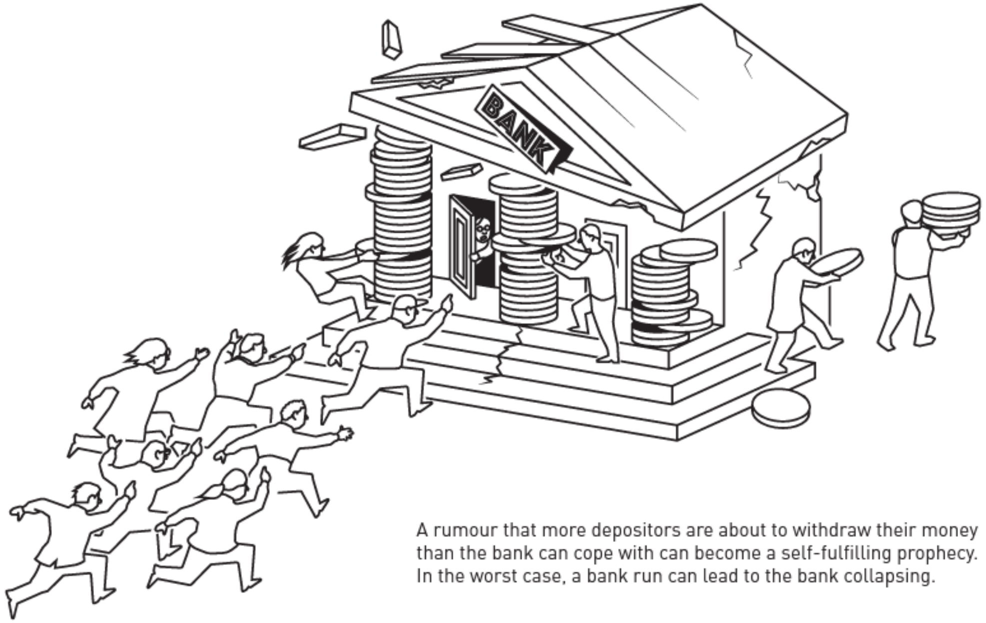
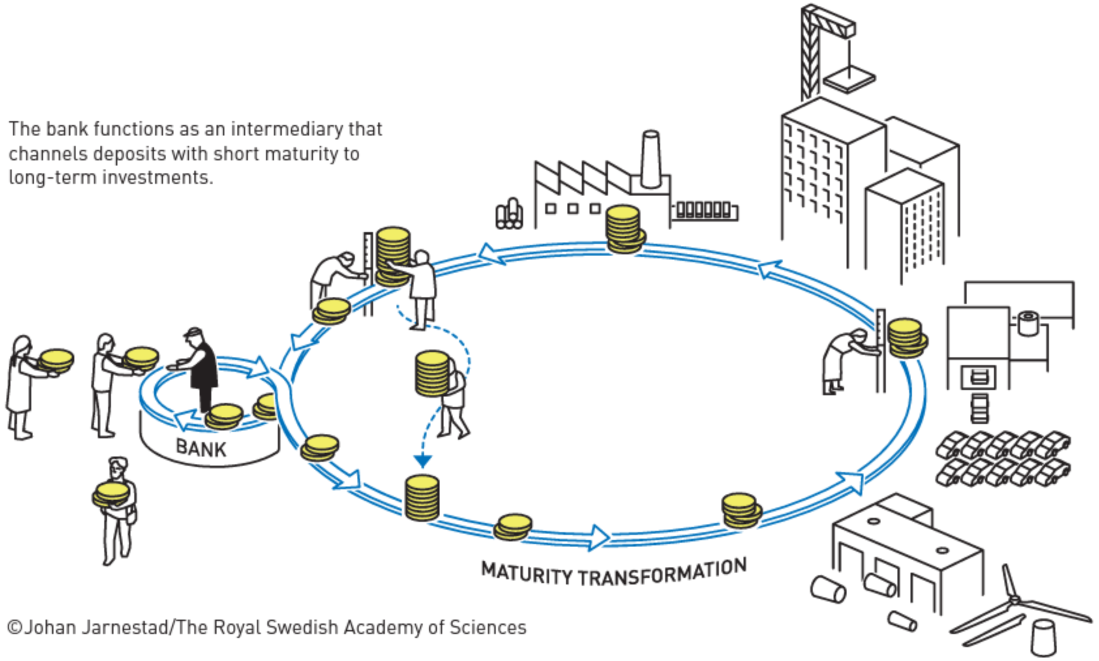
THE NOBEL PRIZE

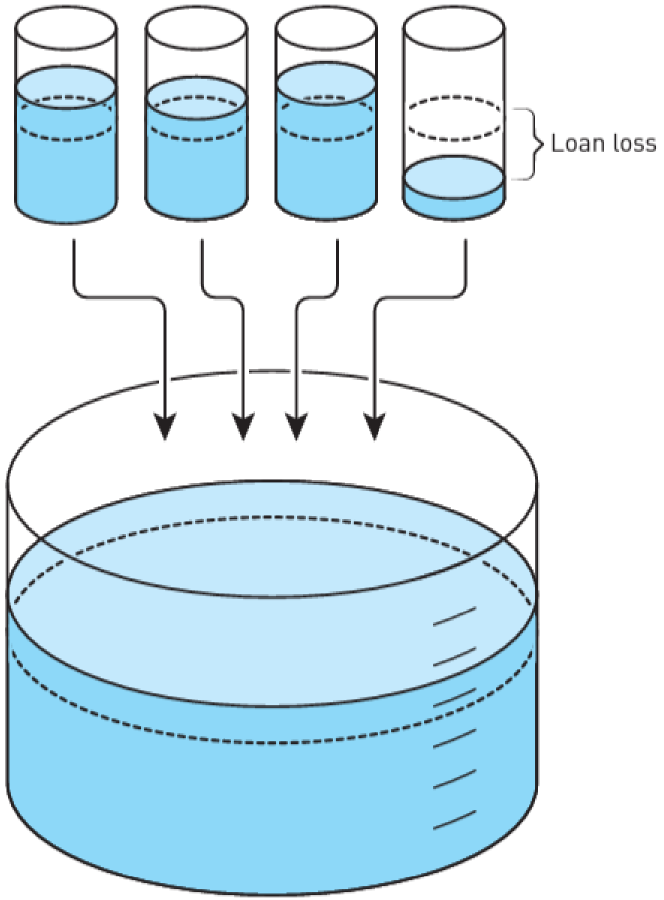


A rumour that more depositors are about to withdraw their money than the bank can cope with can become a self-fulfilling prophecy. In the worst case, a bank run can lead to the bank collapsing.

The bank functions as an intermediary that channels deposits with short maturity to long-term investments.



THE NOBEL PRIZE



A bank will always incur losses on a few of its loans. But as long as the bank lends responsibly, the losses across all loans will be small and predictable.

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Price of a crisis

Table 4: The high cost of banking crises			
Country	Period	Fiscal cost as % of GDP	Output dip as % of GDP
Australia	1989-92	1.9%	-
Finland	1991-94	11.0%	23.1%
France	1994-95	0.7%	-
Japan	1992-	20.0%	27.7%
New Zealand	1987-90	1.0%	18.5%
Norway	1987-93	8.0%	19.6%
South Korea	1997-	26.5%	16.5%
Sweden	1991-94	4.0%	6.5%
United States	1981-91	3.2%	5.4%

Source: Patrick Honohan and Daniela Klingebiel, 'The Fiscal Cost Implications of an Accommodating Approach to Banking Crises', *Journal of Banking & Finance* 27, 2003, pp. 1539-1560 (www.sciencedirect.com).

https://www.bruegel.org/sites/default/files/wp_attachments/pbf_030807_banking.pdf

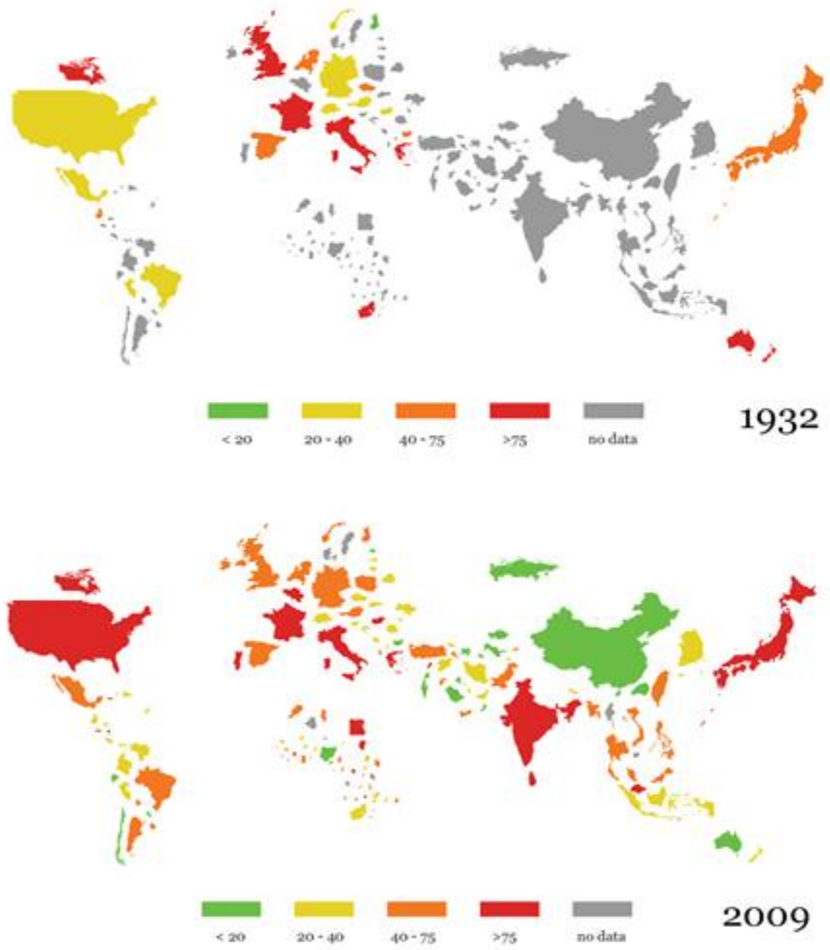
Price of a crisis

Source: IMF, Historical Public Debt Database; IMF, World Economic Outlook Database; Maddison Database Project; and IMF staff calculations.

Price of a crisis

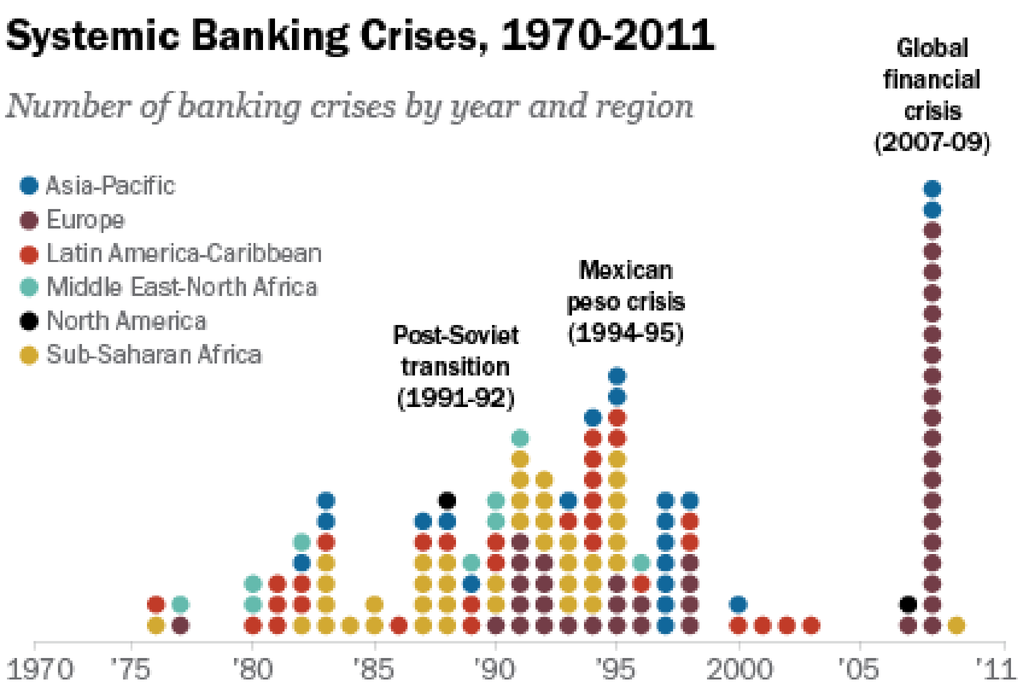
- The implications of the GFCs for public debt appear to be graver as compared with the Great Depression.
- This reflects—at least in part—a much weaker starting point at the outset of the current episode.
- Also, a more significant impact of crisis related factors that were broadly similar across the two periods, namely a sharp drop in revenues and the provision of stimulus and financial sector support

Figure 3. A Tale of Two Crises: The Great Depression (1932) and the Global Financial Crisis (2009)
(color-coding represents debt-to-GDP ratios) [11]



Source: HPDD; country sizes are proportional to their 2009 GDP level (in PPP terms).

Price of a crisis



Note: Subsequent banking crises in Cyprus (2013) and Greece (2015) not shown.
Source: "Systemic Banking Crises Database: An Update," by Luc Laeven and Fabian Valencia. IMF Working Paper WP/12/163

PEW RESEARCH CENTER

From the Great Financial Crisis to the Sovereign Debt Crisis –

The Euro Under Pressure: Responses to the Debt Crisis

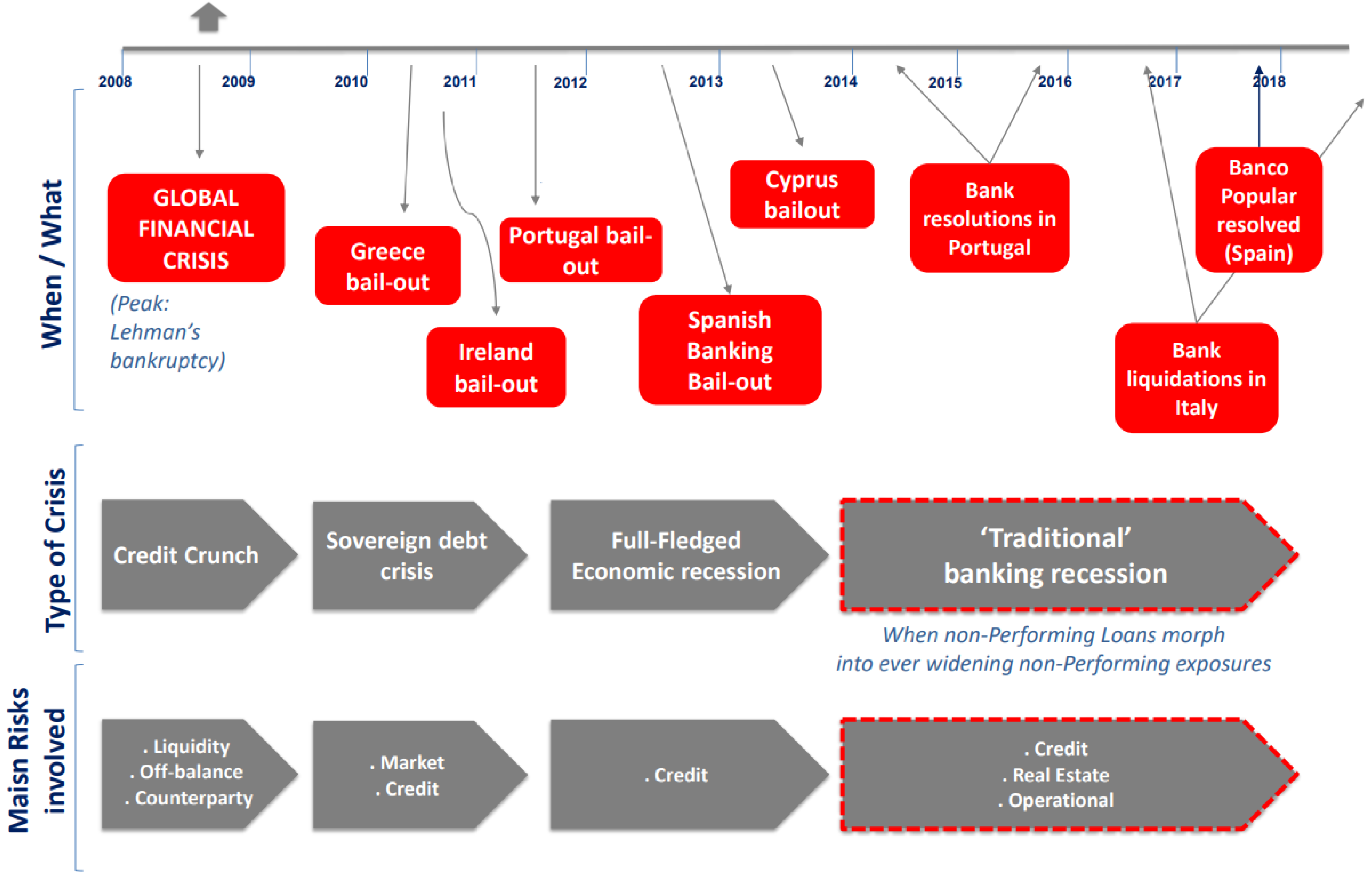
- By 2010, the crisis that erupted in the United States had triggered a sovereign debt crisis in Europe.
- Investors began to wonder if the Euro could withstand the rising debts and troubled banks that were plaguing several of its countries and threatening the rest.
- As doubts spread, conservative bond investors grew increasingly nervous and pressed ever lower the prices at which they were willing to buy the sovereign debt of some euro countries.
- This forced up the interest rates on that debt to levels that crippled national budgets.
- To meet this challenge, the euro area erected a firewall. Beginning with the European Financial Stability Facility (EFSF) and continuing with its permanent successor, the European Stability Mechanism (ESM), the countries that joined forces to build the euro made it clear that they would stand together.

@ESM

Price of a crisis

Economic policy response
Increased fiscal spending;
Heavy liquidity injections

+ bail outs



Some theory on bank failure

- There are some fundamental reasons for a bank to fail:
  - For example, bad investment (loans or securities) or bad luck produces losses, reducing capital.

- Consider that capital is negative (the bank is insolvent).
  - the usual device is to declare bankruptcy, distributing the assets by all creditors. An orderly liquidation would have a higher present value than a fire sale.
  - however, for the creditor, the "first come, first served" rule grants a superior strategy: do not call for bankruptcy but only for your money back.
  - this is the known "prisoners dilemma" from game theory:
    - *a situation in which two people have competing incentives that lead them to choose a suboptimal outcome*

A bad Nash equilibrium

- Our claims are both 50.
- Bank assets are valued at 90.
- If the bank has to get 50 immediately, it will have assets of 30 after the fire sale (so value would be 30 + 50 = 80).
- If the bank has to sell immediately all assets, total proceeds are 70

		Me	
		Run	Don't run
You	Run	35 ; 35	30 ; 50
	Don't run	50 ; 30	45 ; 45

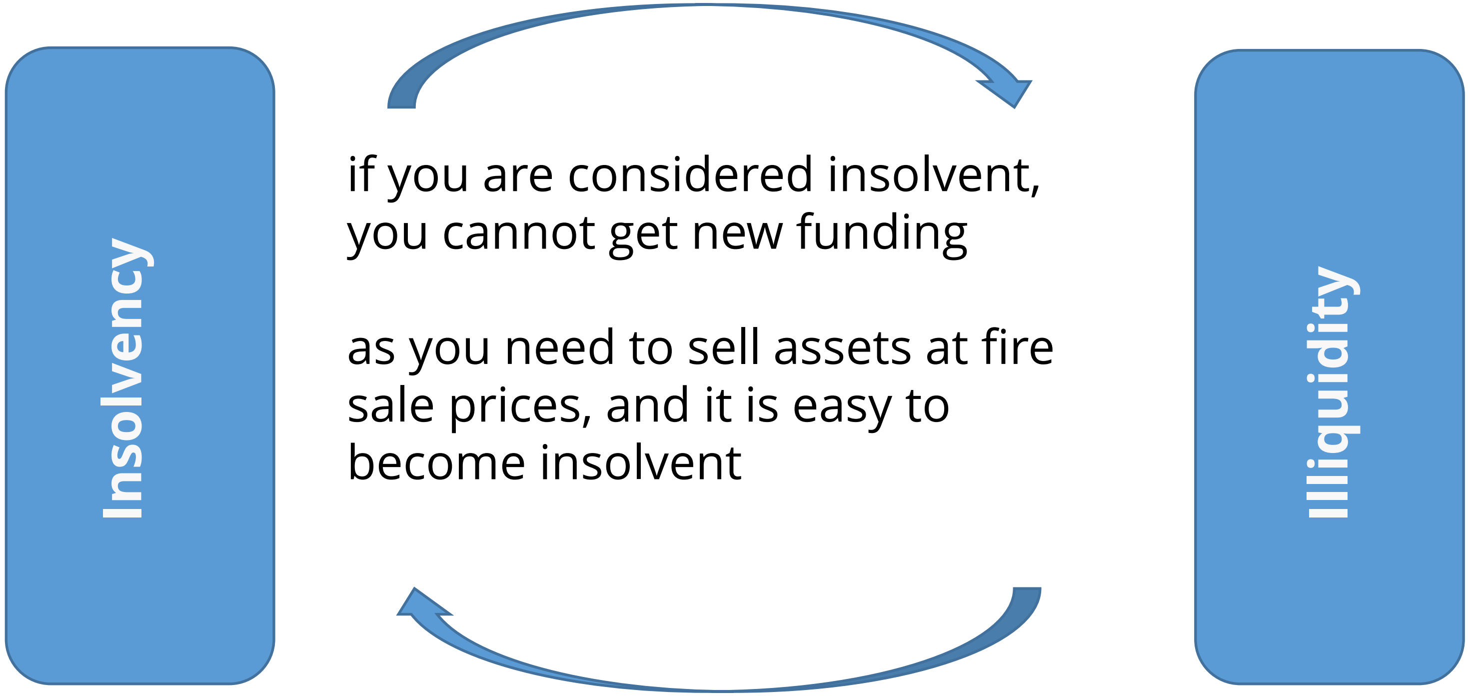
Usual practices that lead to bank failure

- Poor lending practices
- Excessive concentrations (by geography or industry, funding concentration, investment portfolio concentration, products containing the same type of risk under different labels - structured products, off-balance, etc.)
- Structural imbalances in bank's liquidity position (high loan-to-deposits ratio, low share of stable funding) • Excess risk taking and speculative trading
- Overrides of constraints in existing policies and procedures
- Excessive balance sheet growth
- Fraud, criminal activities and self dealing
- Others…

Crisis spreading mechanisms

- Flight to quality - if you fear times ahead, you sell risky assets and buy tbills. This triggers a market downturn.
- The lower value of assets reduces their capability to act as collateral, and financial institutions that lent against that collateral will ask for margin calls.
- You can either put more money, or you have to sell your investment at fire sale prices - pressuring the market further down.
- That fire sale reduces capital of banks below minimum: you can ask for more capital or default. Given the flight to quality, there are no investors to put capital.
- The collapse of one bank triggers the collapse of others, due to interbank connections and customers distrust.

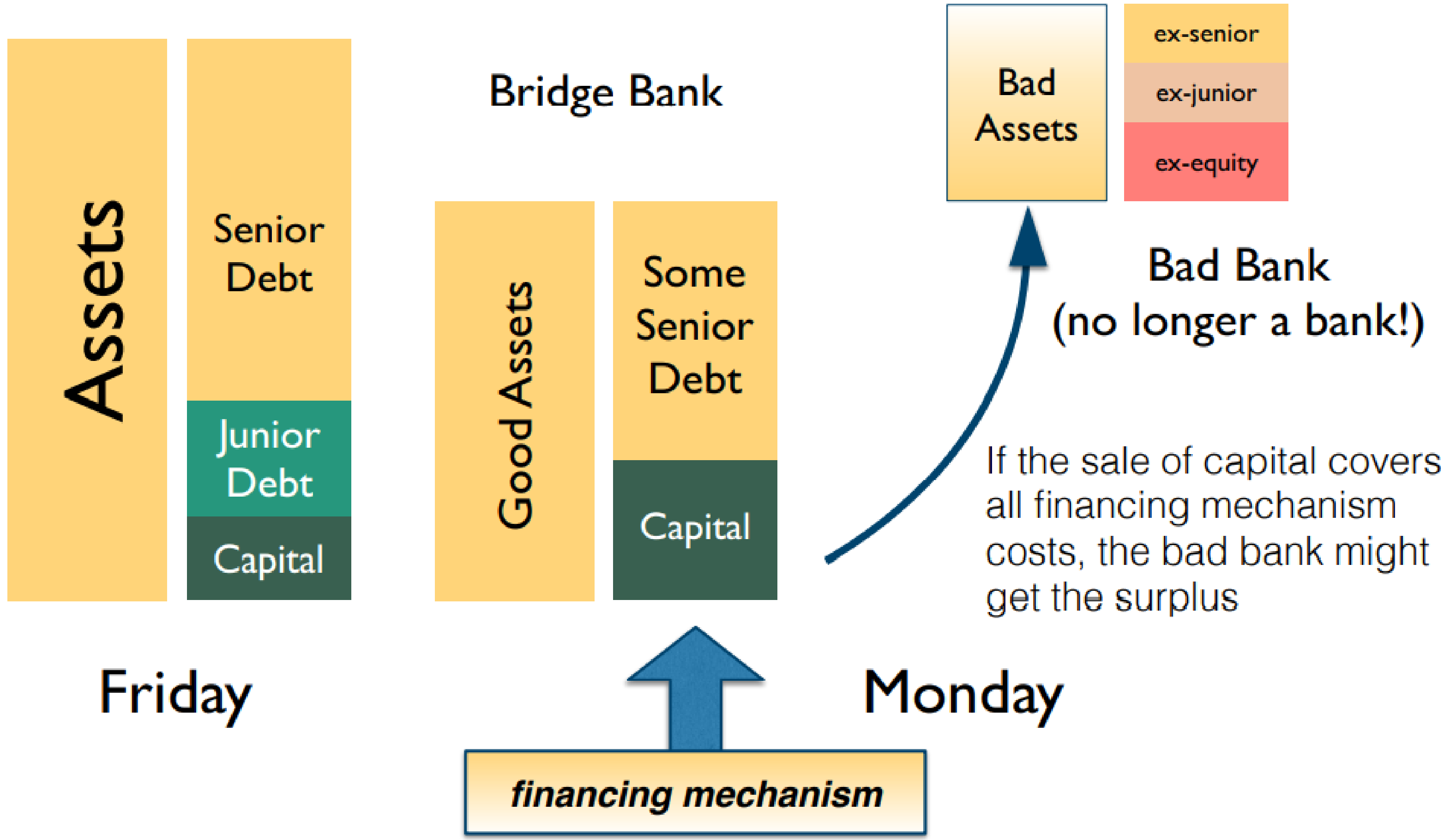
Recap: liquidity or solvency problem



- *When this auto-destruction system starts, it is irrelevant which started first. You can discuss egg and chicken, but it is irrelevant: you go under anyway.*

- *As it was found in the Lehman case: "on the left side, there is nothing right; and on the right side, there is nothing left".*

Recap: How a bridge bank works



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Regulation