

Excessive Risk: The Too-Big-to-Fail Problem

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The first commandment

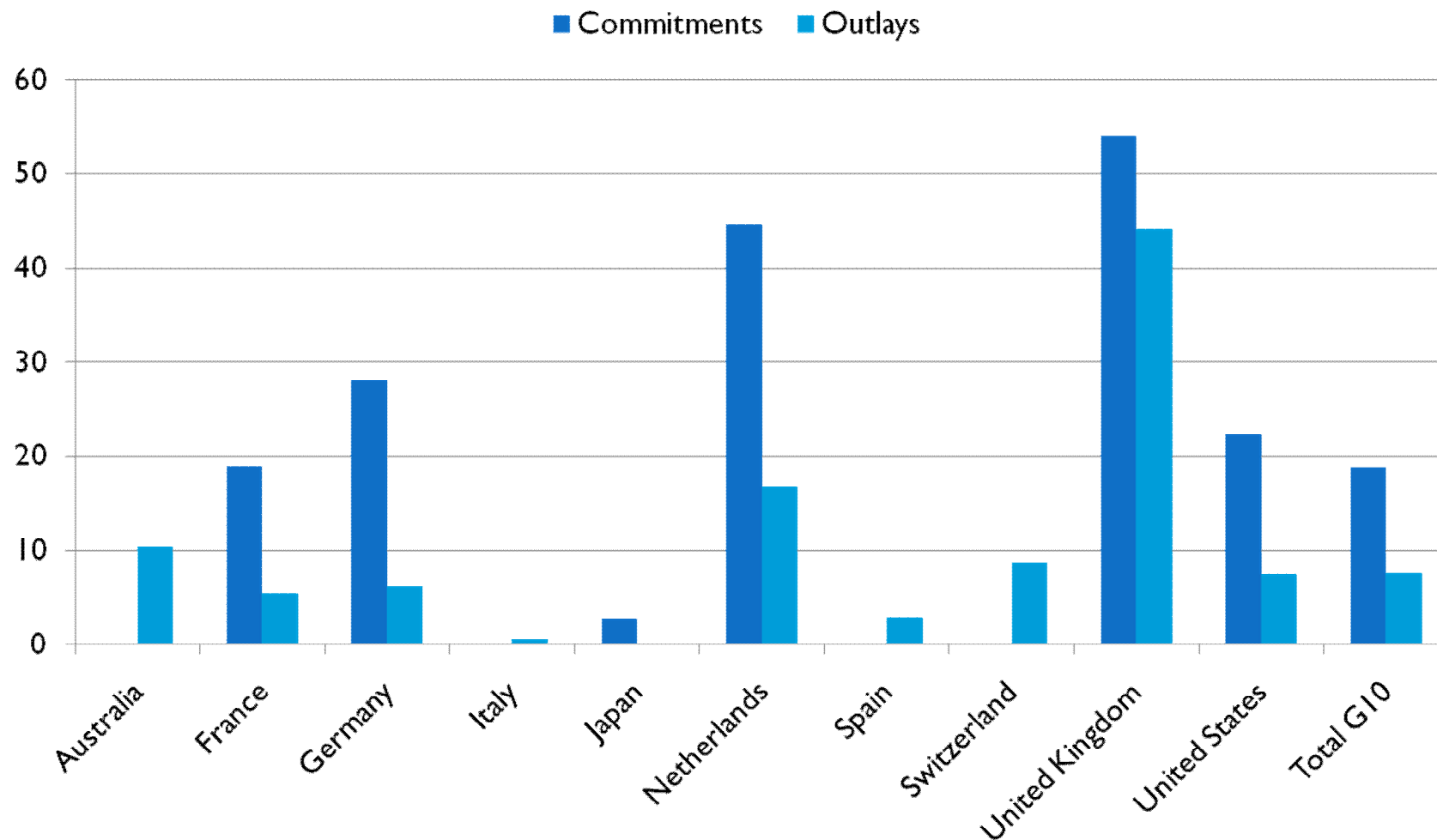
- ▶ No firm should be considered "too big to fail".

It should be possible for all firms to exit the market in an orderly manner without causing systemic damage.

- ▶ Institute for International Finance: Systemic risk and systemically important Firms (May 2010)

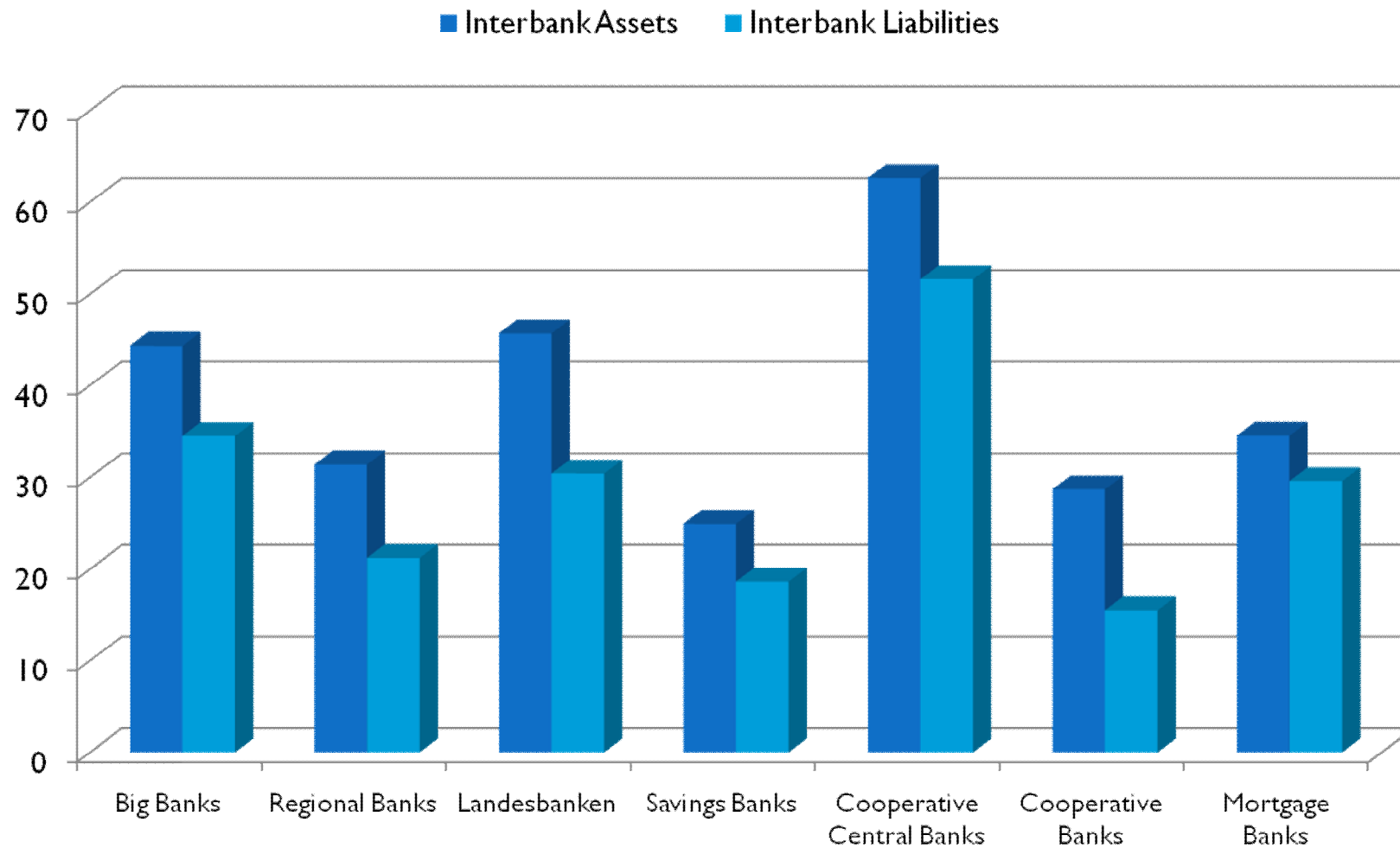


But rescue programs have increased the implicit government guarantee for large banks



▶ In % of GDP. Source: BIS Papers No. 48. June 2009

... and the interconnectedness between banks is still very high



► Interbank assets and liabilities of German banking groups in % of total assets (February 2010). Source: Deutsche Bundesbank

The incentive problem of TBTF

- ▶ „The too-big-to-fail-problem increases the moral hazard problem for big banks.
- ▶ (...) once large depositors know that a bank is too-big-to-fail, they have no incentive to monitor the bank because no matter what the bank does, large depositors will not suffer any losses.
- ▶ The result of the too-big-to fail problem is that large banks are likely to take on greater risks, thereby making bank failures more likely.“

Frederik Mishkin (2006), How Big a Problem is Too Big to Fail? A Review of Gary Stein and Ron Feldman's TooBig to Fail: The Hazards of Bank Bailout, Journal of Economic Literature, Vol. XLIV, December 2006, pp. 988-1004



Possible solutions for TBTF

- ▶ US Congress and Senate: Size limitations
- ▶ Volcker Rule: Narrow banking
- ▶ German Government: Pigovian Tax reflecting the systemic risk of banks
- ▶ IMF: Higher capital requirements (systemic risk based surcharge)
- ▶ Diversification rule



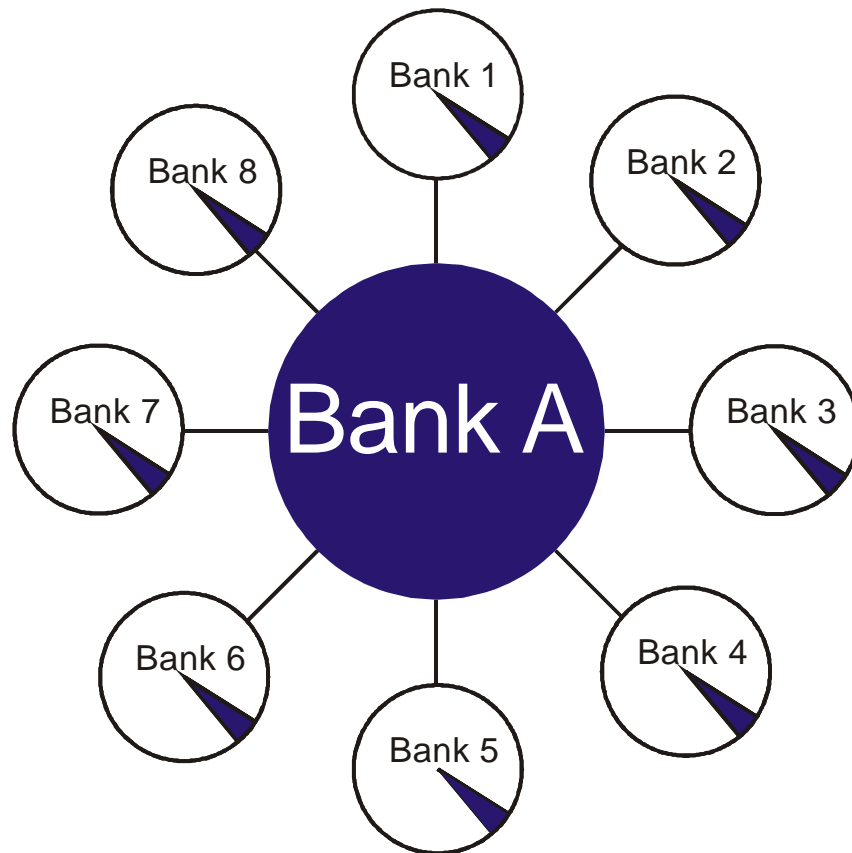
The „too big to fail problem“ in the recent crisis

- ▶ The insolvency of an individual bank (A) causes the insolvency of other banks (1, 2, 3....)
- ▶ The exposure of 1, 2, 3, .. vis-a-vis A reduces the capital of these banks below a critical level.
- ▶ The real problem: „Too connected to fail“
 - ▶ Size of A can be a necessary condition, but it is not a sufficient condition
 - ▶ Sufficient condition is a lack of diversification of the asset side of banks 1, 2, 3... so that the insolvency of bank A has a substantial impact on their capital
- ▶ Examples: IKB, AIG, Hypo Real Estate, Commerzbank

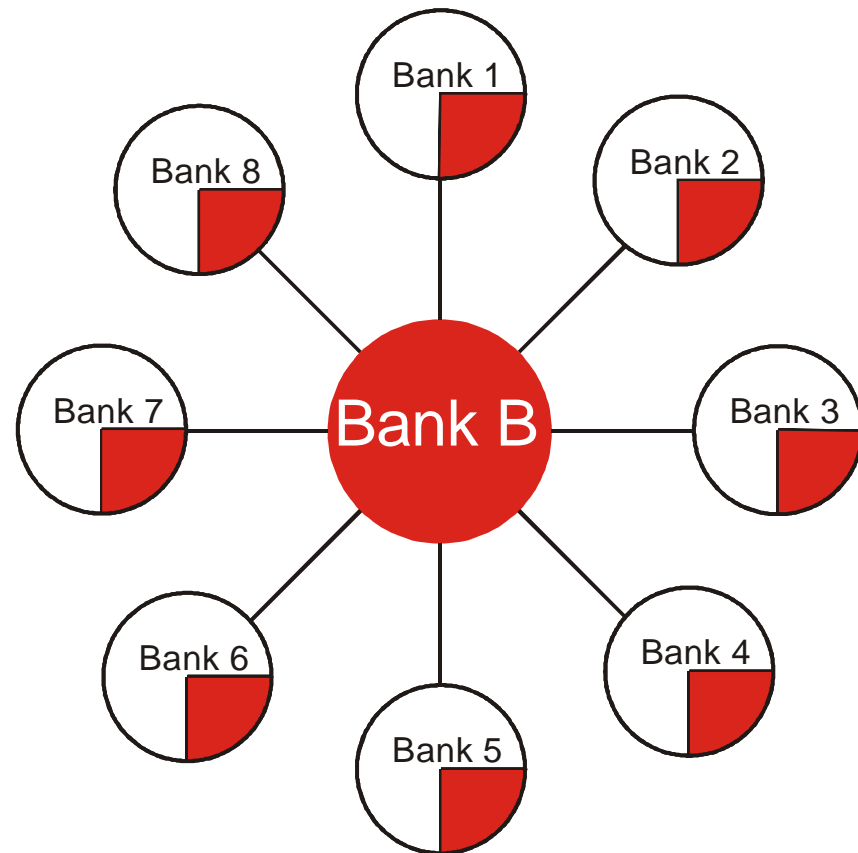


A smaller bank can be more systemic

Large bank
with diversified investors



Smaller bank with non-
diversified investors



Size limitations

- ▶ Disadvantages:

- It is difficult to determine an optimum maximum size.
- There are many economic advantages of large banks due to economies of size and economies of scope

- ▶ Contribution to TCTF:

Even a middle-sized bank can cause a domino effect if its investors are insufficiently diversified smaller-sized banks



Narrow banking/Volcker rule

- ▶ Disadvantages:

- Lack of diversification between different fields of operation
- In the era of securitization the dividing line between commercial banks and investment banks is difficult to draw

- ▶ Contribution to TCTF:

The interconnectedness problem remains if an investment bank becomes insolvent and its investors are commercial banks with an insufficiently diversified portfolio



Pigovian Tax

- ▶ Disadvantages:
 - Banks need more capital as a risk buffer
 - Tax can be regarded as an implicit insurance which increases the moral hazard problem
- ▶ Contribution to TCTF:
 - Analogy with pollution: Polluter has to pay a tax which reflects the social costs of his private action
 - But who is the polluter? Bank A which receives funds from other banks? Or banks 1, 2, 3 ... which do not diversify sufficiently?
 - Thus, a tax on bank A cannot adequately reflect the systemic externalities which are created by other banks



Systemic risk based surcharge

- ▶ Disadvantages:

 - Surcharge can be regarded as an implicit guarantee

- ▶ Contribution to TCTF:

 - Very complex framework, the surcharge for Bank A has to reflect the lack of diversification of Banks B, C, D



A simple rule as a solution to the TCTF problem

- ▶ General approach: Simple rules make it possible to overcome time-inconsistency problems
- ▶ A general limit for interbank exposures to 10 % of a bank's capital
 - The insolvency of one or two individual big banks can no longer threaten the stability of other banks
 - Analytically much more simple and robust than systemic risk charges, thus more effective in limiting systemic risk
 - Basis for a credible commitment not to bail-out insolvent banks
- ▶ No direct interference in the structure of the banking industry
- ▶ No additional taxation of banks
- ▶ No panacea, especially
 - if many banks make the same mistakes („too many to fail“ problem)
 - If there are only very few banks in a country



Diversification rules in practice

- ▶ EU Capital Requirements Directive Article 111:

“ A credit institution may not incur an exposure to a client or group of connected clients the value of which exceed 25 % of its own funds.”

But important exceptions for lending between financial groups

- ▶ United States Regulation F (§ 206.4) : Limits on credit exposure.

“The policies and procedures on exposure established by a bank under §206.3(c) of this part shall limit a bank's interday credit exposure to an individual correspondent to not more than 25 percent of the bank's total capital, *unless* the bank can demonstrate that its correspondent is at least adequately capitalized, as defined in §206.5(a) of this part.”



Reduction of interbank connectedness would lead to a new financial landscape

- ▶ Diversification rule would have also applied to pension funds and insurance companies
- ▶ Reduction of speculative transactions between banks
- ▶ Diminished role of wholesale banks
- ▶ Increasing importance of mutual funds for the investments of pension funds and smaller banks (Kotlikoff's limited purpose banking proposal)

