Excessive Risk: How to create uninsured debt?

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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

![Bar chart showing interbank assets and liabilities of German banking groups in % of total assets (February 2010). Source: Deutsche Bundesbank](chart.png)
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.“

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

Bank A

Bank B
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

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