Discussion of

# Caught between Scylla and Charybdis? Regulating Bank Leverage when there is Rent-Seeking and Risk-shifting

By Acharya, Mehran, and Thakor

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# Basic Model of Bank Capital Structure

- Tension between
  - "...**need** to have enough bank leverage for market discipline."

  and
  - "...**need** to have enough bank capital to attenuate asset-substitution incentives."

# Queries and Observations

- In the model debt holders can, at a private cost to themselves, collect information and then intervene and prevent managers from expropriating rent (but they cannot prevent risk shifting).
  - What if there are numerous debt holders? (Free rider problems.)
  - Is it feasible for short term debt holders have time to collect information and intervene in managerial decisions?
  - Why assume that debt holders can resolve only the rent seeking problem?

# More Queries and Observations

- The model assumes no external equity; managers are "bank owners," so equity has not role in governance; only debt holders can monitor.
  - Assumption not valid for any but the smallest banks.
  - In general, equity holders are more affected by managerial rent seeking than debt holders; and they should have at least as much ability to collect information and intervene.
  - In reality, roll over decisions seem to be based on signals from, e.g., stock markets; when debt is not renewed, its too late; their action do not impose ex ante discipline.

# More Queries and Observations

- *Nothing* makes this a model of banks and not of *any* firm.
  - The “bank” in the model has abstract projects.
  - Debt plays no role that wouldn’t apply in non-financial firms.
- Since many non-financial firms are not highly leveraged, it must be that either
  - these firms do not have a serious enough rent seeking problem that necessitate significant leverage, or
  - they choose not to address such problems in other ways and not through leverage.
- Is rent seeking more serious for banks than non-banks? Is bank debt better at disciplining than the debt of non-banks?
  - Neither is likely to be the case; indeed, it is risk shifting that is more severe in banking, suggesting more equity!

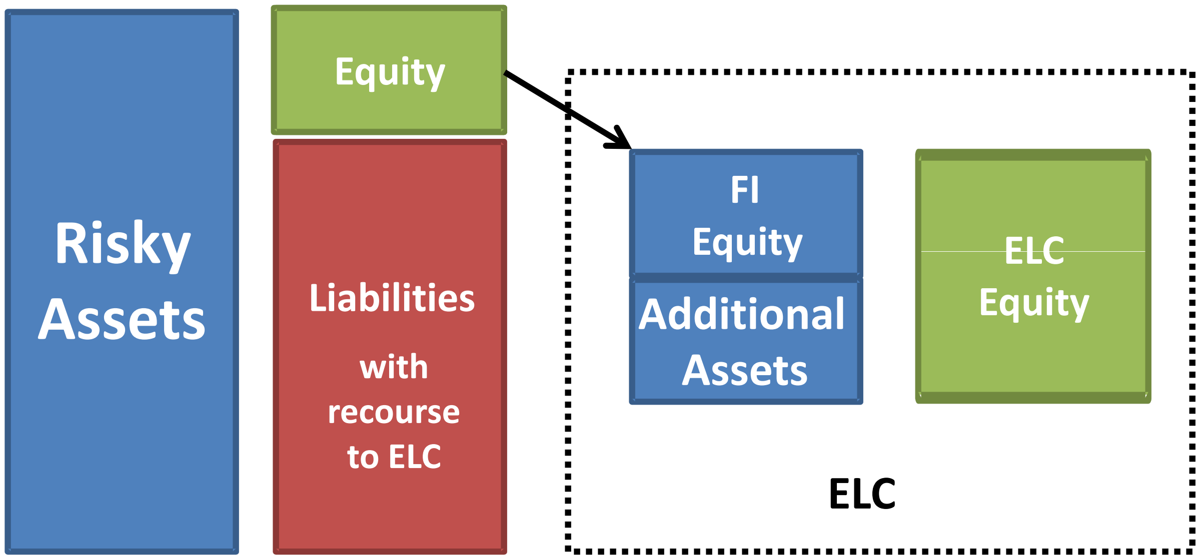
# Externalities and Correlated Defaults

- Add a “systemic failure” state and various assumptions.
  - No individual bank is too-big-to-fail
  - Failure of *all* banks triggers bailouts and social costs.
- Additional equilibrium (sometimes unique) with excessive leverage, excessive risk, looting, no discipline.
- Capital requirements make sense, but disciplining role of debt might be lost.
- Propose additional equity in “special account,” available to regulators in insolvency (will pay debt in bailout), unavailable to management/equity.
  - Retained earnings
  - Payouts restrictions
- This imposes losses on debt holders in non-systemic failure.

# “Special Capital Account” similar to “Equity Liability Carrier” (ELC)

Admati and Pfleiderer (2010)

- Contractual commitments of debt serve as “discipline.”
- ELC separates equity cushion from manager.
- Appropriate governance mechanism created through ELC.
- Debt has recourse to ELC assets.
- Fragility and excessive risk taking reduced.



# Does Bank Debt Provide Discipline?

- Assessment of "disciplining debt" models: **Myth** in context of banks; **inadequate guide to policy**.

  (Admati, DeMarzo, Hellwig and Pfleiderer, Section 5.2).

  – Models lack plausibility and empirical support.

  – Even if mechanism worked, unclear debt is *unique* or *best* in providing discipline relative to alternatives.

  – Discipline breaks down with government guarantees. (Recognized in Acharya, Mehran and Thakor.)

- Implication: Tier 2 capital (and contingent capital) is a flawed concept, no compelling justification.

Scylla

(managerial rent seeking)

Charybdis

(asset substitution **PLUS** systemic risk, global financial crisis )

 ????

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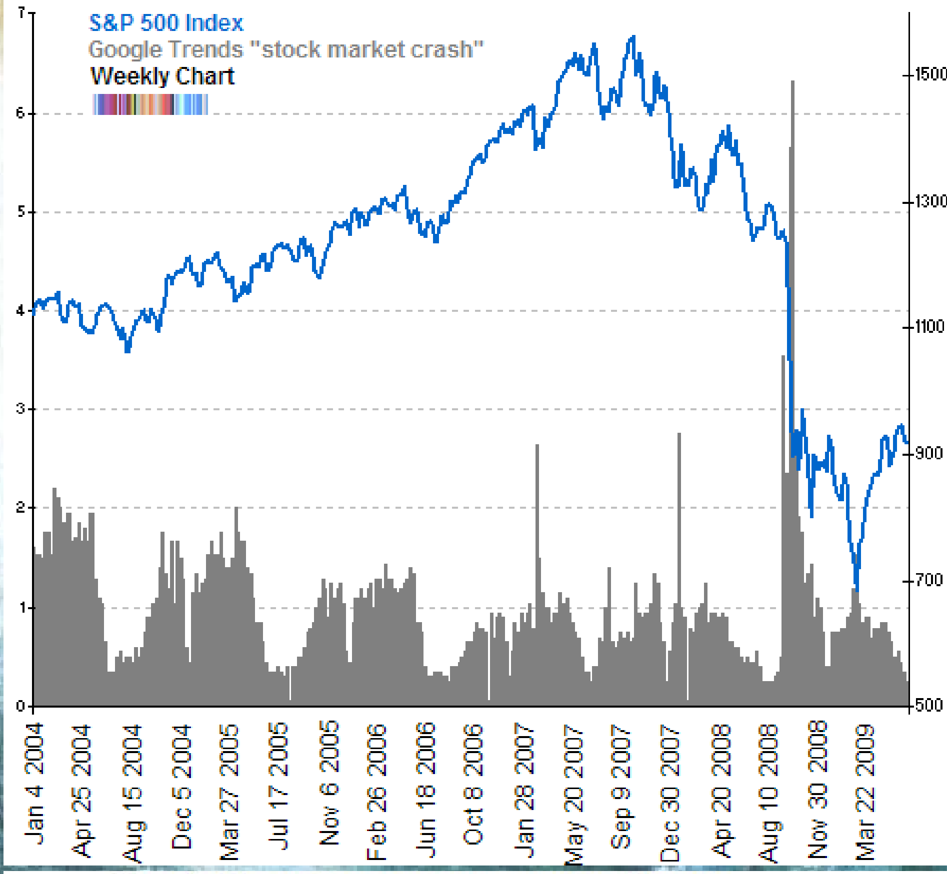
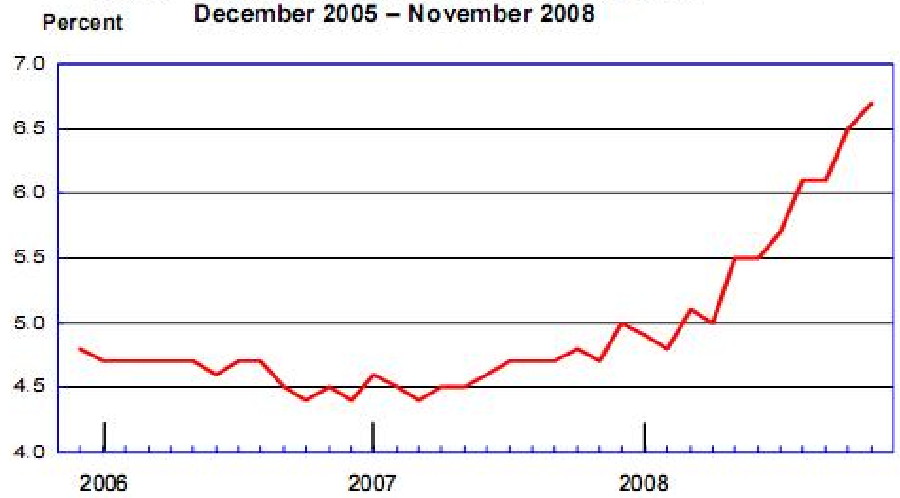
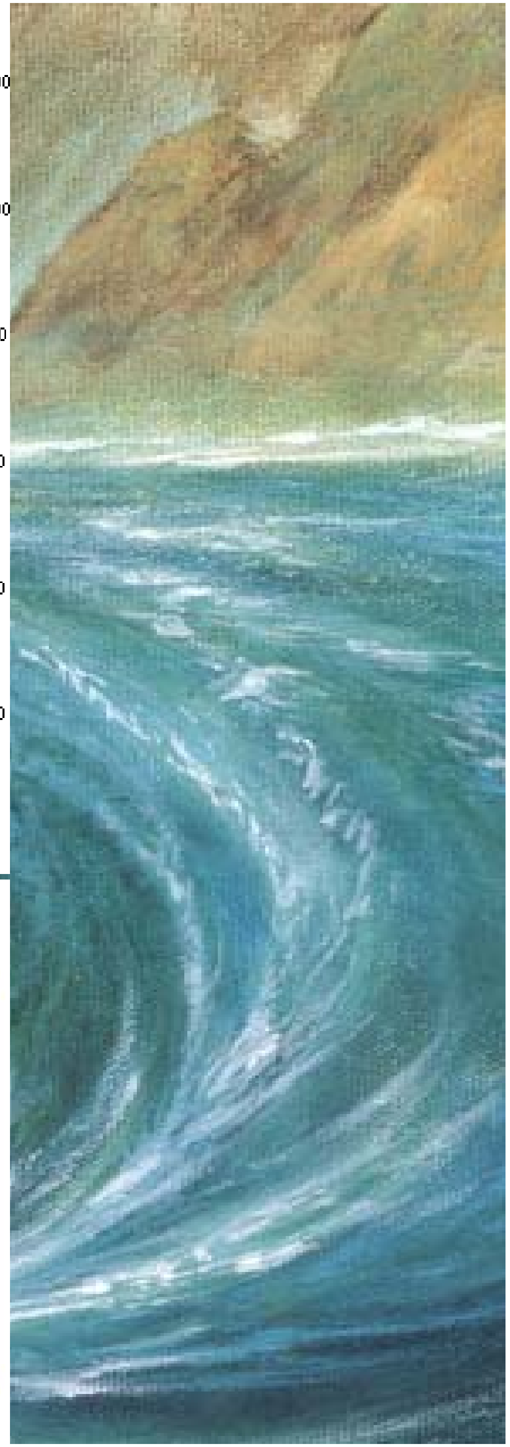



**Chart 1. Unemployment rate, seasonally adjusted, December 2005 – November 2008**



Note that in the
Odyssey of Homer,
Odysseus chose to run the
risk of Scylla
and lose only a few sailors
rather than run  the risk
of all going down
with the ship
in the whirlpool.

# Fallacies, Irrelevant Facts, and Myths in the Discussion of Capital Regulation: Why Bank Equity is *Not* Expensive

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Paper and related writings available at
http://www.gsb.stanford.edu/news/research/admati.etal.html

# Is Bank Equity "Expensive" and are Capital Requirements Costly for the Economy? These are Some Fallacies

- Higher equity requirements would
  - force banks to shrink, thus providing less valuable credit
  - Crowd out valuable deposits.
  - increase funding costs because equity is riskier than debt.
  - reduce (average) Return on Equity, "a key measure of profitability," which is a concern.

# In Fact

- Banks can maintain all valuable activities as they increase equity funding (even through growth).
- *Redistributing risk among funding providers does not by itself affect funding costs*.
  - only requires that market properly evaluates risk.
- Return on Equity is meaningless as a measure of value unless leverage and risk are fixed.
  - Leverage mechanically magnifies risk and average ROE, independent of value creation.

# Is Bank Equity "Expensive?"

- **YES, Privately for bank equity and managers**
  - Tax advantage: the more debt, the lower the tax bill.
  - Underpriced guarantees
    - Underpriced deposit insurance.
    - Implicit guarantees (too big to fail)
    - Imply that borrowing rates do not fully reflect riskiness of assets.
  - Managers compensated based on ROE.

# The Safety Net

- Motivation: stability, prevent inefficient runs, solve pure liquidity problems.
- Composition: (underpriced) deposit insurance, discount window, Implicit guarantees.
- Large and growing.
- **Many distortions**:
  - Incentives/ability to grow inefficiently due to subsidized funding.
  - Incentives to evade capital regulation.
  - Excessive risk taking.
- Even if subsidy is passed to borrowers, **delivering subsidy through leverage is bad policy**.
  - If Goldman invests in Facebook or JPM in Twitter, who is subsidized and why?
  - Systemic risk, excessive risk taking = negative externality.
- Impossible/undesirable for government to commit not to bail out.
- Difficult to price guarantees, moral hazard remains a problem.

# Lost Subsidies are *not* a Social Cost!!

- Analogy: leverage = pollution; creates negative externalities.
  - Bank high leverage generates fragility and systemic risk, may lead to crisis and bailouts.

- Suppose public policy subsidized polluters; the more pollution, the higher the subsidy.
  - The more leverage, the more banks benefit from subsidies.

- Should pollution/leverage be allowed to keep prices low?
  - Taxpayers can save on subsidies and lower pollution.
  - Key: is there a clean and inexpensive alternative?

- **Is high leverage and fragility an essential part of banking that must be tolerated, even subsidized?**

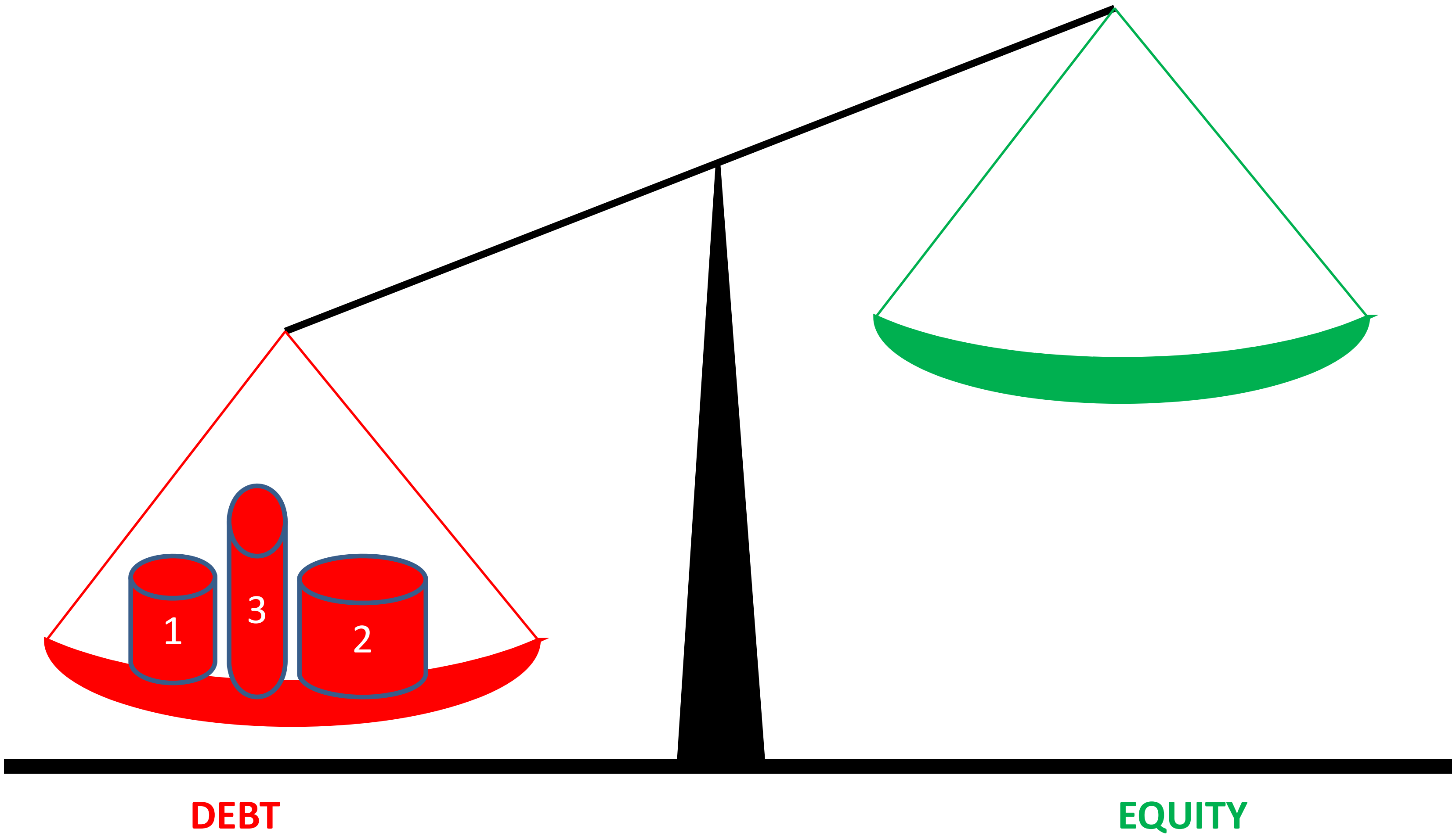
# Answer: *NO*! High bank leverage is an *unnecessary* evil!

- *High leverage is **not** inherent to banking*.
- High bank leverage entails a large social cost and virtually no social benefit.
- While *some* bank debt (e.g., deposits) is part of "the business of banking," this does not imply *high* leverage and fragility is inherent.
- *Adding equity* is *not* socially expensive; actually, it is "a bargain."

# The “Informational Insensitivity” of Debt Does NOT Necessitate High Leverage and

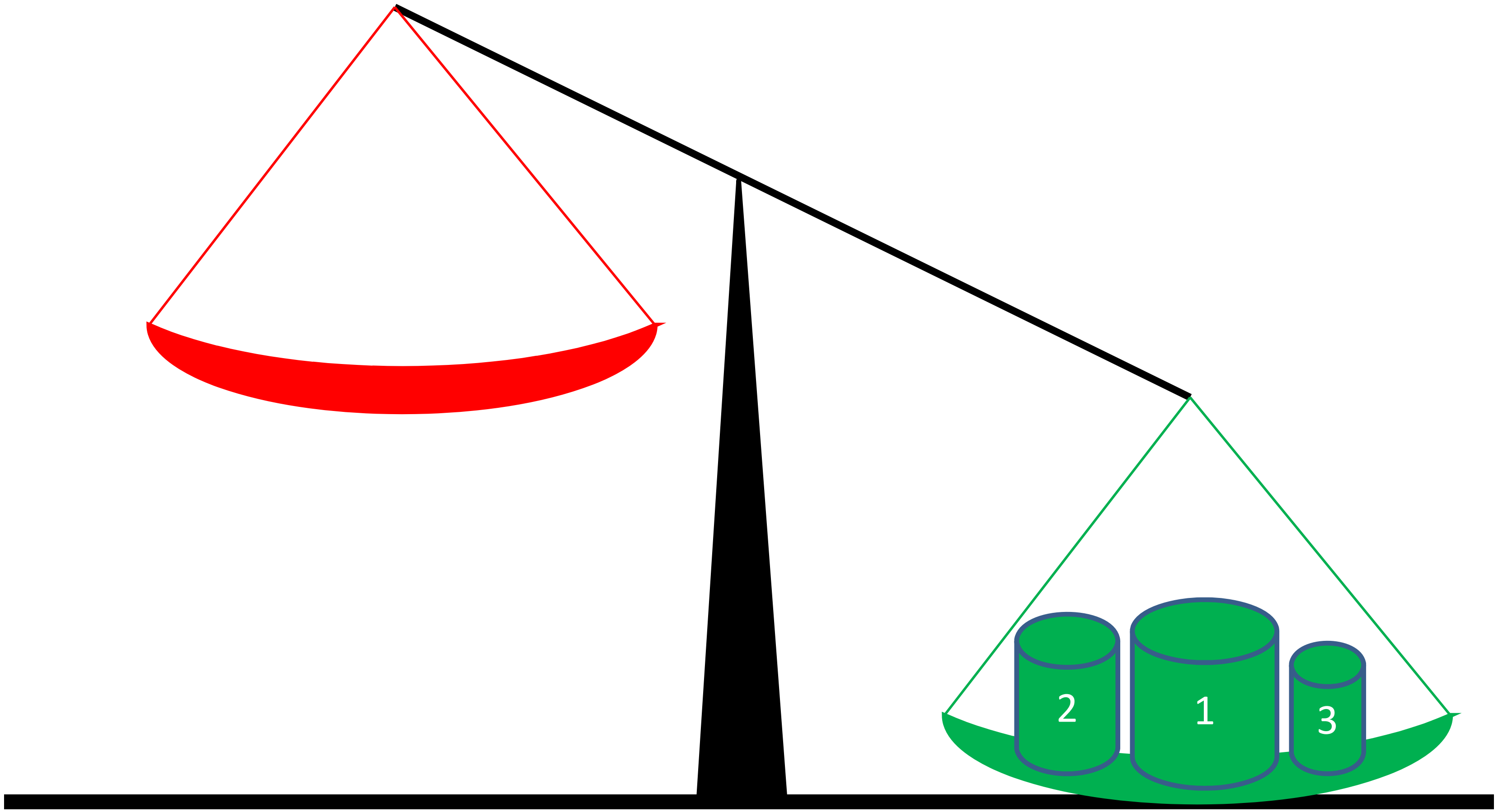
- The more highly leveraged the bank, the less “informationally sensitive” debt is.
- As leverage increases, or in distress, information insensitivity no longer holds, runs can occur.
- The growth of the shadow banking system does not prove that all the manufactured debt was socially valuable.
- Banks can continue providing liquidity, indeed liquidity will be enhanced, if they add equity.
- Additional equity need not crowd out deposits.

# Private "Benefits" of Equity and (non-demand-deposit) Debt




1. Tax advantages make it cheap
2. Implicit guarantees make it cheap
3. ROE fixation

# SOCIAL Benefits of Equity and (non-demand-deposit) Debt




**DEBT**

1. ~~Tax advantages make it cheap~~
2. ~~Implicit guarantees make it cheap~~
3. ~~ROE fixation~~

**EQUITY**

1. Reduces systemic risk
2. Reduces incentives for excessive risk-taking
3. Reduces deadweight costs associated with bailouts

# What about the Unregulated Shadows?

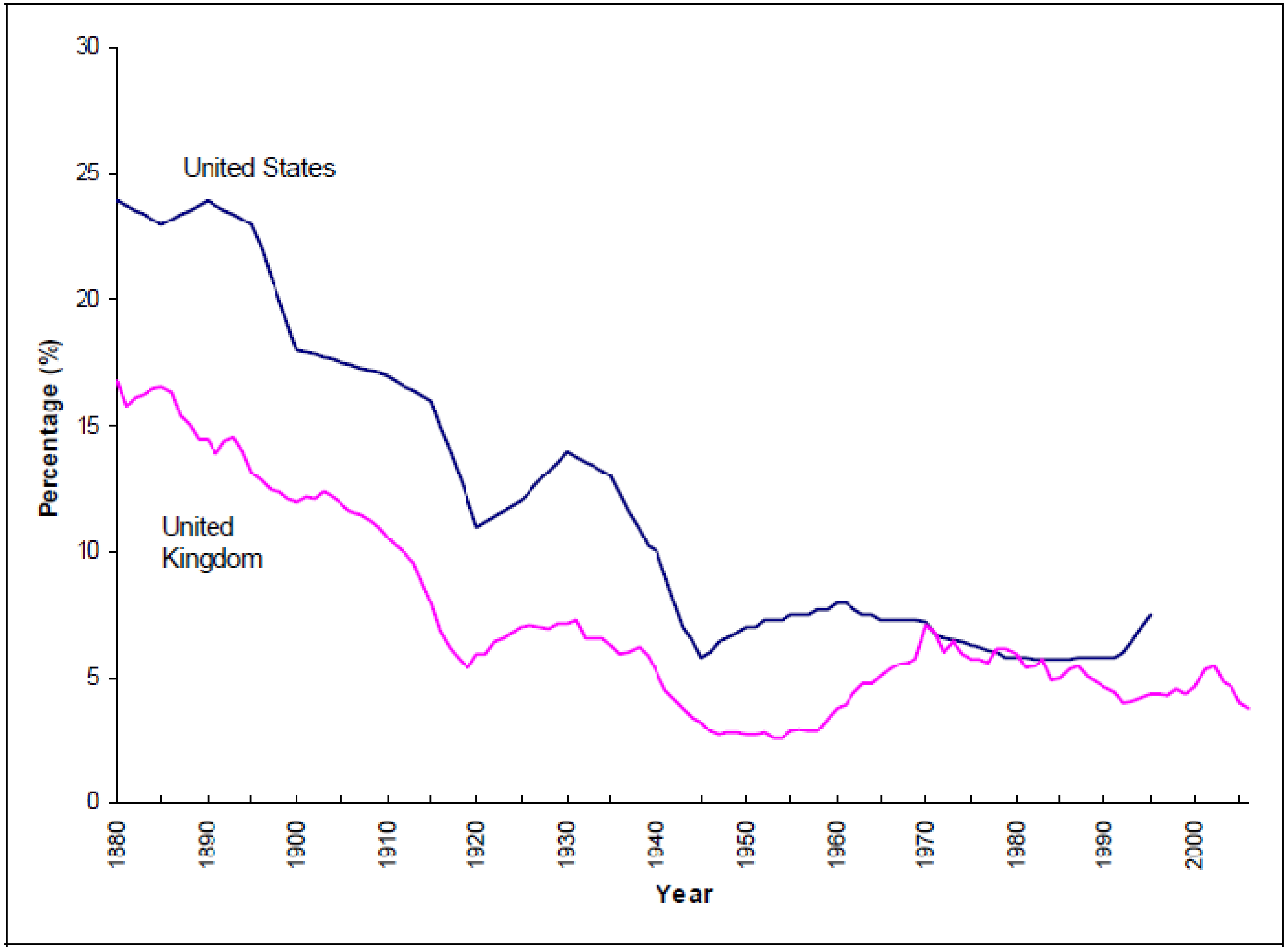
- Many of the shadow banking entities are sponsored by regulated banks, who provide guarantees.
  - Hedge funds are less highly leveraged.
- Much of the "financial innovation" in recent decade was motivated by "regulatory arbitrage," to avoid capital requirements (and deposit insurance fees).
- *Regulators could have intervened and should do so in the future*.
- Determining the set of regulated activities/entities on a continual basis will always be a challenge.

# What about Competitiveness ("Level Playing Field")?

- Implicit identification of national interests with the competitive successes of the country's financial institutions (or any particular industry) is unwarranted if taxpayers are providing subsidies.
- Market Forces cannot allocate resources to the most productive activities in the presence of subsidies.
  - The Irish, German, and Swiss taxpayers would have been better off if their financial institutions were less successful.

# History of Banking Leverage in US and UK

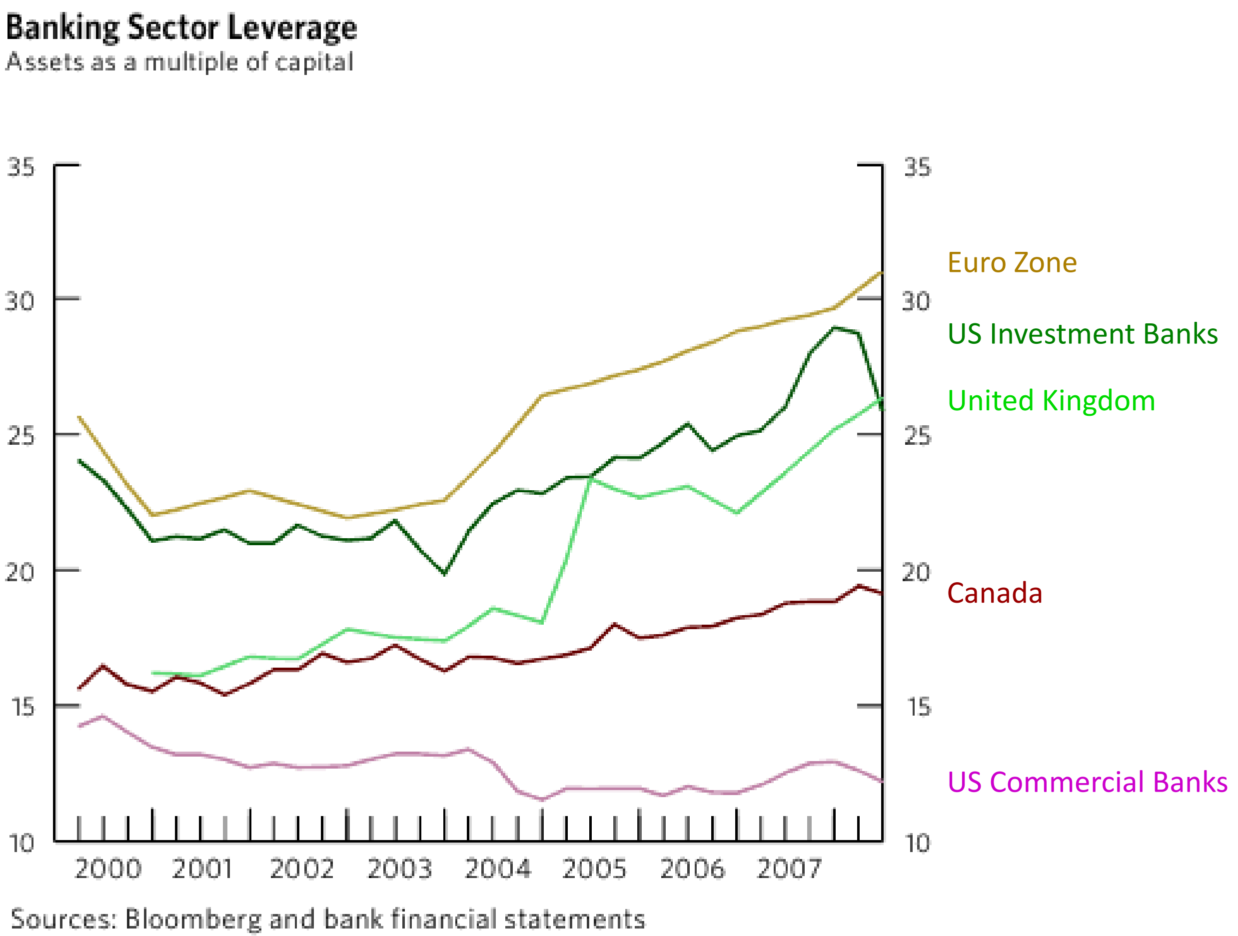
(Alessandri and Haldane, 2009)




*Source: US: Berger, A, Herring, R and Szegö, G (1995). UK: Sheppard, D.K (1971), BBA, published accounts and Bank of England calculations.*

# More Recent Banking Sector Leverage

- Bank Assets approached 30x Capital



# Focus on Significantly More Equity is the Best Approach to Financial Stability

- High leverage generates, in addition to generating fragility and risk many distortions in investment decisions by bank managers, *working on behalf of shareholders*.
  - Excessive risk taking: heads we win, tails debt holders or government loses.
  - Debt overhang: good opportunities are passed up because new funding would benefit existing creditors.
    - Key factor in credit freezes in crisis.
    - A reason highly leveraged banks might respond to higher equity requirement by shrinking.
    - A problem that is alleviated with more equity.
- Lowering leverage through equity has significant benefits and virtually no social cost; amounts to self insurance through private markets at effectively no social cost.

# Policy Recommendations

- Require *significantly* more equity financing *for banking entities.*
- *Ratios significantly higher than 10% of un-weighted assets should be seriously considered*.
  – Benchmark: REIT fund with 30% equity. **WHY NOT?**
- Requirements should *not* be one "number" but a range, or they cannot work as a cushion.
  – *Concept of counter cyclical buffers is sensible*;
- *Risk weights are very problematic and distortive*. Work on alternatives.

# More Policy Recommendations

- Equity payouts and issuance must be controlled (in buffer, as Basel III contemplates).
- For efficient transition: *ban equity payouts until better capitalization is reached* ; possibly mandate equity issuance.
  - Eliminate discretion and thus stigma associated with earning retention or equity issuance.

# Challenges

- Defining the regulatory umbrella.
- Alternatives to risk weights.
  - Measuring risk, particularly systemic risk, requires a lot of information and ability to process.
  - Information sharing between supervisors is critical for dealing with global banks .
- International harmonization
  - Extremely important (but seemingly very difficult) for resolution mechanisms.
  - For capital regulation, key is legal/regulatory reach; require subsidierization (no branches) at least.