Capital Controversies: The Benefits and Costs of Bank Capital Requirements

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Higher Capital Requirements: A Case of Huge Benefits with Negligible Costs

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Higher Capital Requirements

- Benefits are <u>LARGE!</u> This is not controversial.
- Costs? This is very controversial because of:
  - Pervasive confusions based on not distinguishing private from social costs;
  - Pervasive fallacies based on not understanding what equity capital is;
  - Pervasive fallacies based on not understanding the relationship between risk and funding costs; and
  - Silly and misleading fixation on ROE (return on equity).

Benefits of Requiring Much More Equity (e.g. 15% to 25%)

1. Systemic Risk is greatly reduced.
   - Less chance of financial crisis and deadweight losses.
2. Risk is privatized; not borne by the government and citizens.
   - Pricing is not distorted.
3. Incentives to take socially unproductive risks are reduced.
4. Debt overhang: With too much debt good opportunities may not get funded by shareholders because new funding would benefit existing creditors at the expense of shareholders.

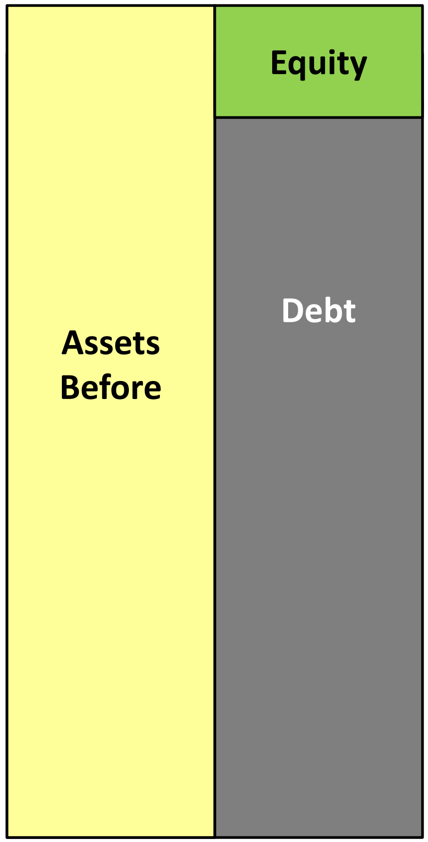
Benefits

- "Had the share of financial assets funded by equity been significantly higher in September 2008, it seems unlikely that the deflation of asset prices would have fostered a default contagion much, if any, beyond that of the dotcom boom."

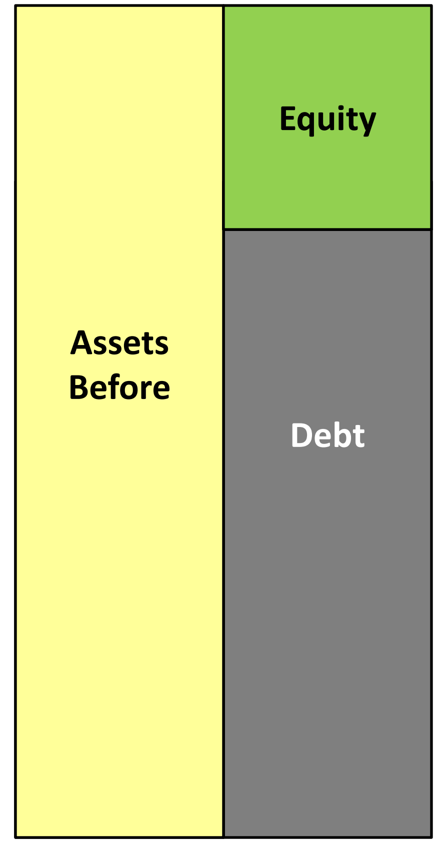
  Alan Greenspan, "The Crisis," *Brookings Papers*, April 15, 2010.

- ".. if capital and collateral are adequate...losses will be restricted to equity shareholders who seek abnormal returns; Taxpayers will not be at risk. Financial institutions will no longer be capable of privatizing profit and socializing losses."

  Alan Greenspan, (quoted in "Greenspan Defends Legacy, Urges Higher Capital, Collateral Standards," *WSJ*, April 7, 2010).



Too Much Leverage



More Equity

Private Versus Social Costs of Equity

Private Costs

- Equity does not produce tax shield; debt does.
- The government makes debt cheap through implicit guarantees.
- Increasing equity mechanically reduces ROE (but reduces risk as well). If compensation is for some reason rigidly tied to ROE, this will reduce some people's pay.

Social Costs

?

The Too-Big-To-Fail Subsidy

- If creditors of a bank believe that there is a chance they will be bailed-out by the government in situations of systemic distress, they will accept lower yields.

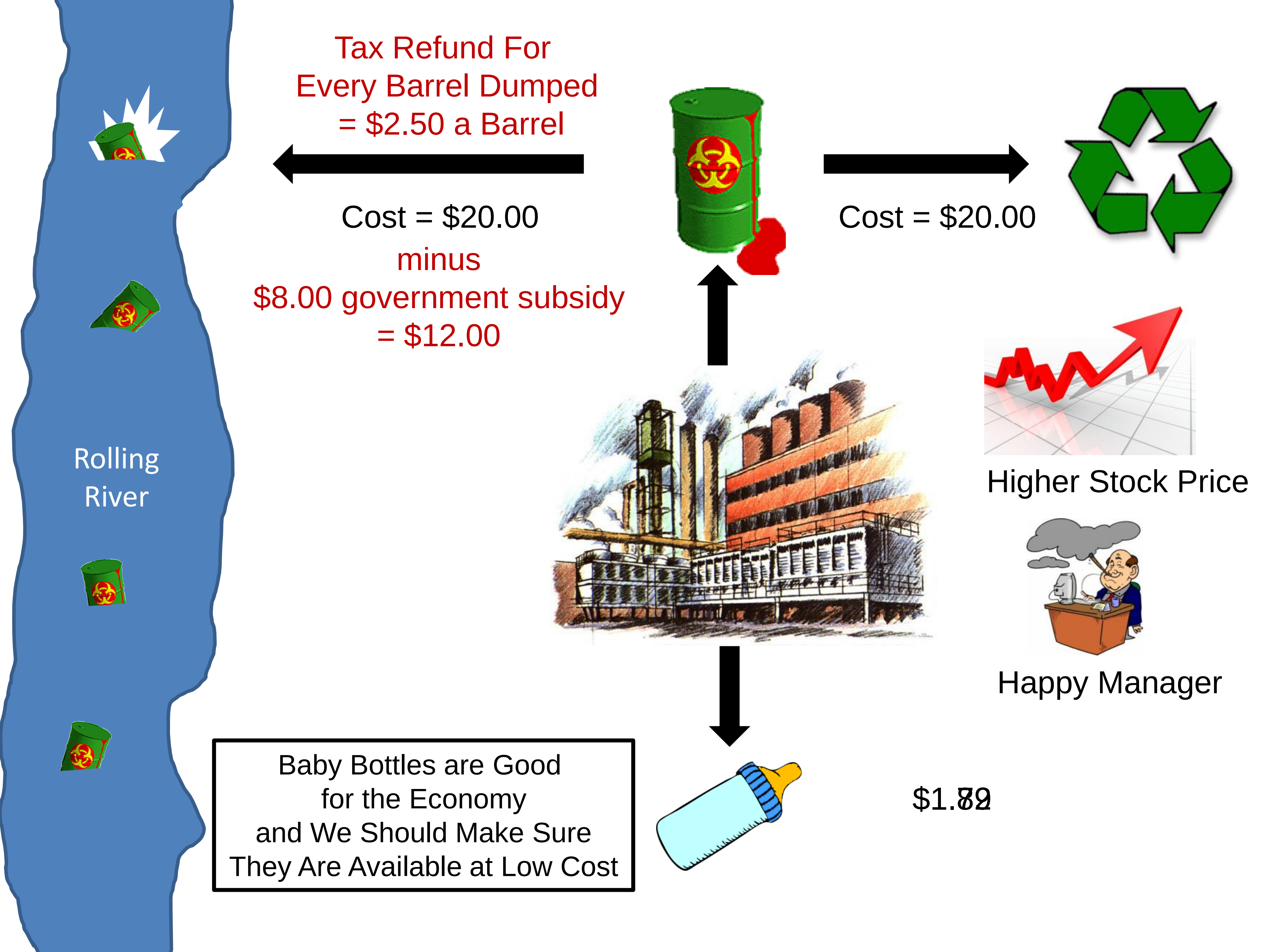
Reduced Cost in Basis Points	Extra Return on Equity (with 3% equity)
2.50	0.81%
5.00	1.62%
7.50	2.43%
10.00	3.23%

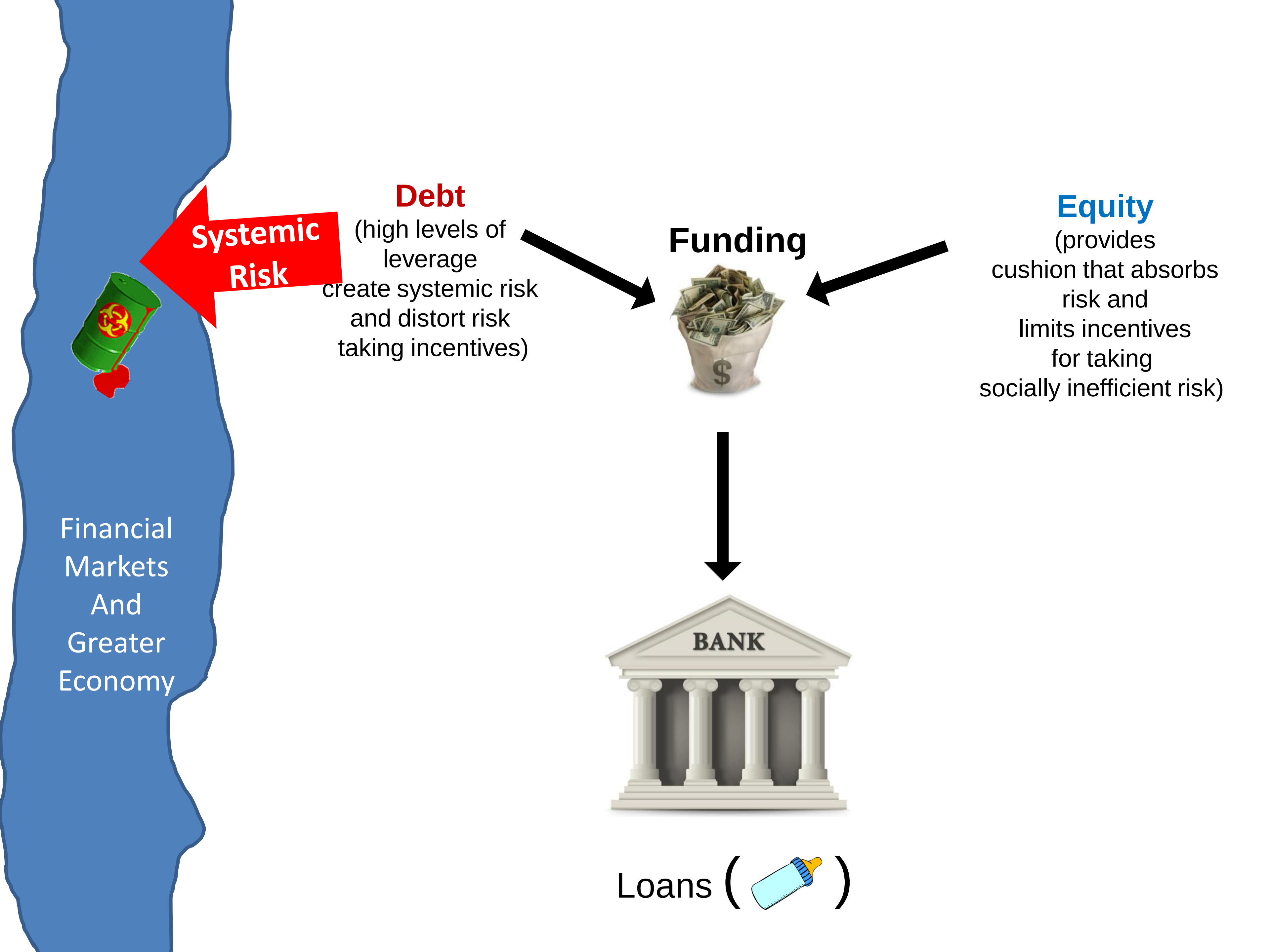
Moody's Announcement: June 2, 2011

- SUPPORT FOR BOFA, CITI, AND WELLS FARGO EXCEEDS PRE-CRISIS LEVELS
- **Moody's government support assumptions for Bank of America, Citigroup, and Wells Fargo are higher than what similarly rated institutions would have received prior to the crisis.** For example, Bank of America N.A.'s and Citibank N.A.'s C- (C minus) unsupported BFSRs translate to a Baa2 rating on Moody's long-term debt scale; prior to the crisis a similarly rated, systemically important bank would typically have benefited from no more than three notches of uplift, meaning its ratings would be no higher than A2. **Currently, Bank of America receives five and Citibank four notches of uplift from government support assumptions,** bringing their senior ratings to Aa3 and A1, respectively. Wells Fargo's unsupported BFSR of C+ (C plus) translates to an A2 rating on Moody's long-term debt scale; prior to the crisis a similarly rated, systemically important bank would typically have received no more than two notches of uplift, to Aa3. Currently, Wells Fargo's Aa2 senior rating benefits from three notches of uplift.

Subsidizing Banks

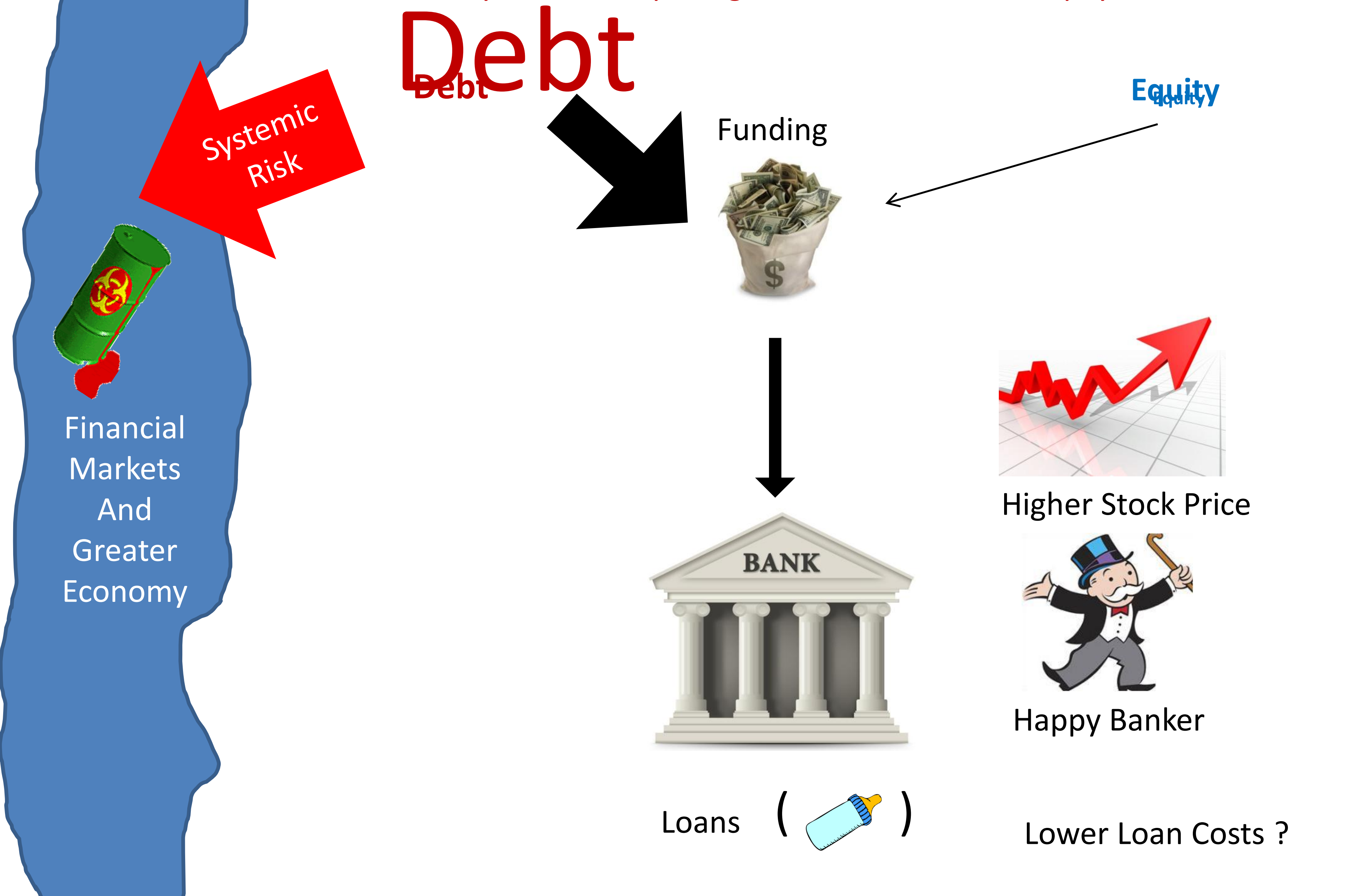
- It might be asserted that, although the tax code and implicit guarantees create subsidies, this is good because:
  - Banks pass these on to borrowers in the form of lower borrowing costs.
  - Lower borrowing costs stimulate growth.


Tax Refund For
Every Barrel Dumped
= $2.50 a Barrel
Cost = $20.00
minus
$8.00 government subsidy
= $12.00
Cost = $20.00
Rolling
River
Higher Stock Price
Happy Manager
Baby Bottles are Good
for the Economy
and We Should Make Sure
They Are Available at Low Cost
$1.79
$1.82


Financial
Markets
And
Greater
Economy
Systemic
Risk
Debt
(high levels of
leverage
create systemic risk
and distort risk
taking incentives)
Funding
Equity
(provides
cushion that absorbs
risk and
limits incentives
for taking
socially inefficient risk)
BANK
Loans ( )

Government Subsidies to Debt:

1. Tax shield (interest paid is a deductible expense but not dividends)
2. Safety net and implicit guarantees mean banks pay lower rates



Balance Sheet Fallacy

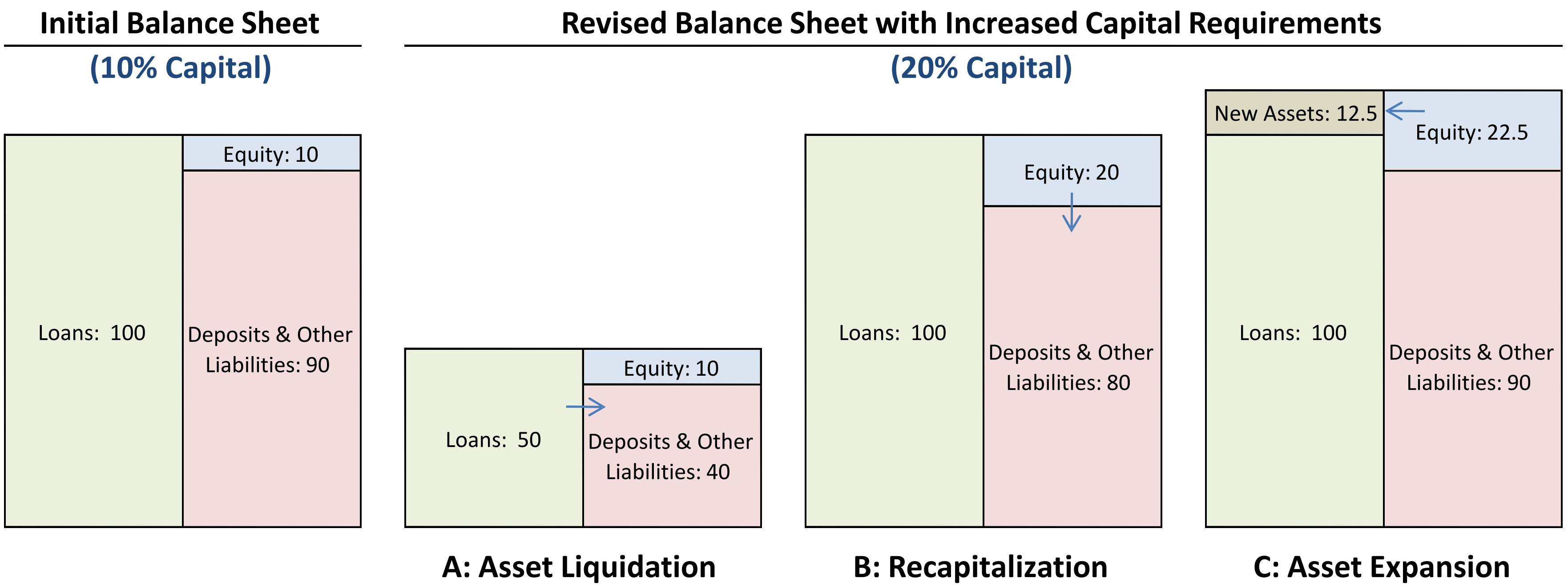
- "Capital is the stable money banks sit on... Think of it as an expanded rainy day fund." (*AP* July 21, 2010).
- "Every dollar of capital is one less dollar working in the economy" (Steve Bartlett, Financial Services Roundtable, Sep. 17, 2010.)
- "The British Bankers' Association … calculated that demands that they bolster their capital will require the UK's banking industry to hold an extra £600bn of capital that might otherwise have been deployed as loans to businesses or households." (*The Observer*, July 11, 2010).

Confusing Language

- “Hold” or “set aside” misleadingly suggests idle funds, passivity, cost.
- Liquidity/reserve requirements concern *asset* side of balance sheet, restrict holdings.
- Capital requirements concern *funding side* only.
  - A firm does not “hold” the securities it issues, investors do!
- Ultimately we are just talking about the labels and the contractual terms associated with the claims banks issue to raise funds.

Three Ways to Increase Capital

- Increased Capital Requirements need NOT force banks to reduce lending:



Risk Fallacies

- If a bank's assts decline in value by $60B, there is a $60B loss that must be borne by someone.

- You can "hide" the loss with clever accounting, but you can't make it disappear.

- The only question is who bears the loss:
  - The bank's creditors
  - The bank's shareholders
  - The government and its taxpayers

Risk

- **First principle:** The market should be used to allocate and price risk.
  - Risk should not be borne by government and taxpayers since, among other things, this circumvents the market and causes distortions.

- **Second principle:** If the government is out of the picture (subsidies related to taxes and guarantees are removed) and the market is working, changing capital (leverage) does not change the total pricing of risk.
  - Changes in capital requirements and leverage just change how risk is allocated across shareholders and creditors.

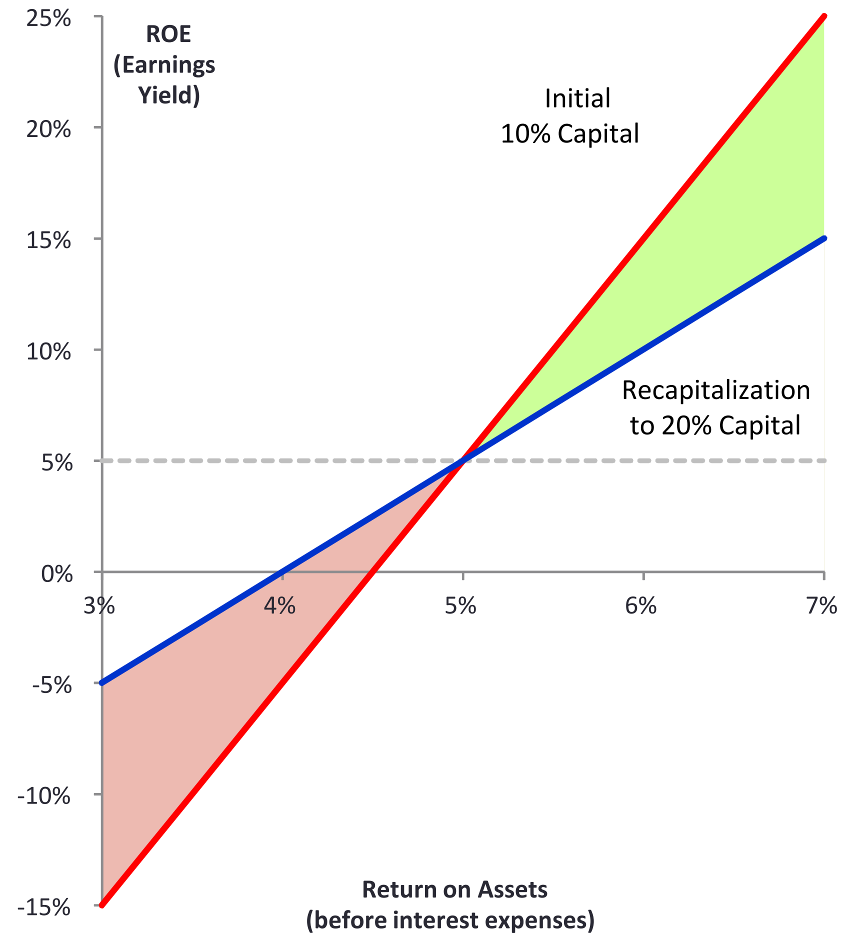
“Target” ROE

- Shareholders do not have a “target” ROE that is independent of the risk they must bear.
- As the risk they are exposed to decreases, so does the required expected rate of return.
- Higher capital decreases risk and decreases the required expected rate of return.
- If this is not true, then the market is not working and we have bigger problems.

ROE and Capital

- Higher capital
  - Reduces ROE in good times
  - Raises ROE in bad times
  - $\Rightarrow$ Value is preserved
  - $\Rightarrow$ Risk is reduced

- Lower risk reduces equity holders' required return



Fixation on ROE is Silly and Misleading

- Does a higher ROE mean that the manager has performed well?

	"Normal" ROA (before interest exp.)	Extra ROA*	Waste**	Total Realized ROA	Interest Rate on Debt	% Equity	ROE
Good Bank Manager	3.00%	0.25%	0.00%	3.25%	2.0%	10.0%	14.500%
Bad Bank Manager	3.00%	0.00%	0.25%	2.75%	2.2%	3.0%	20.533%
Bad Bank Manager ***	3.00%	0.00%	0.25%	2.75%	2.0%	3.0%	27.000%

*Because of Skillful Management

**Because of Bad Management

*** With government debt subsidy

Where Will All This Equity Come From?

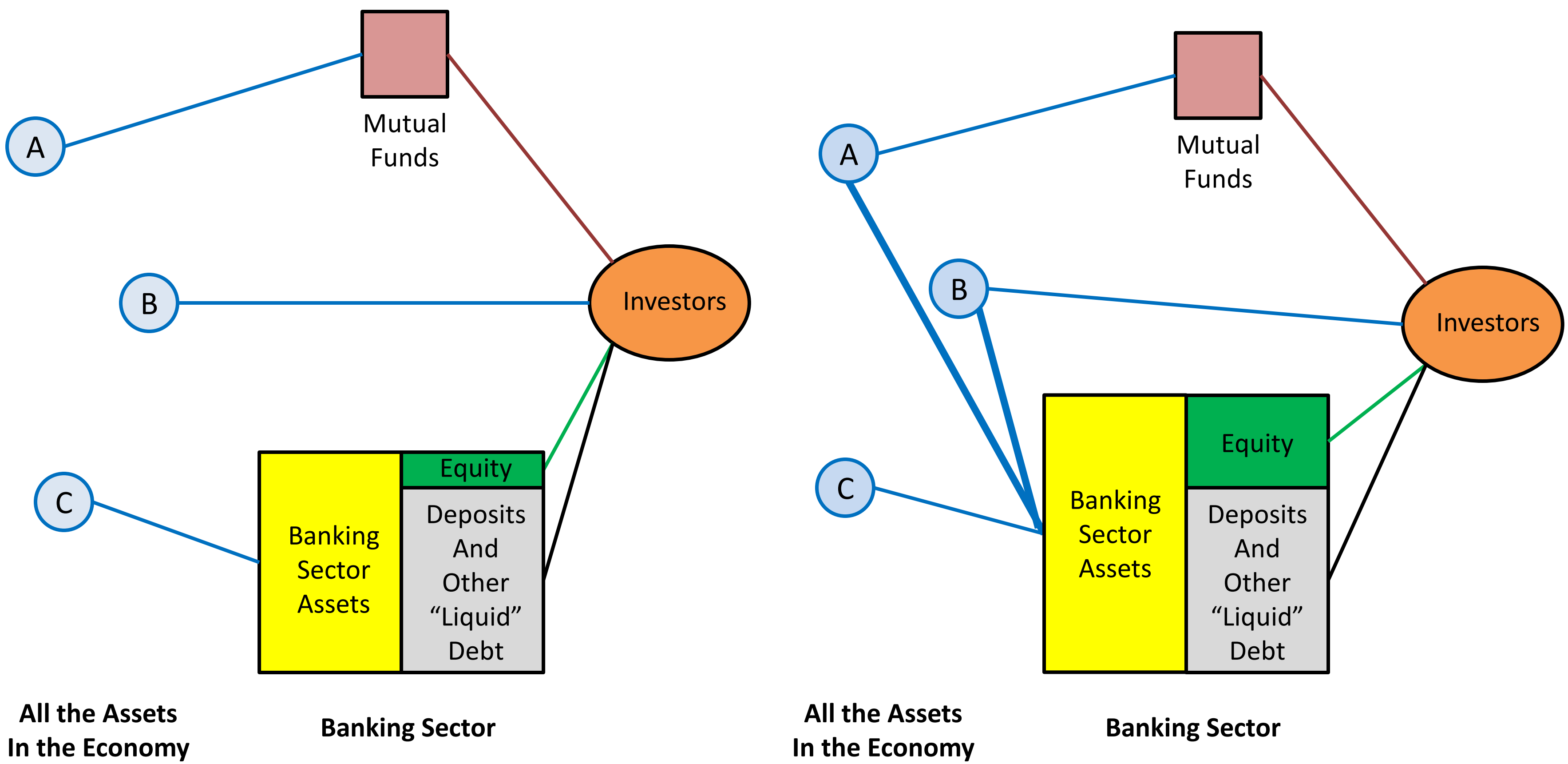
- Answer: Much of it is already there.
  - Non-deposit debt (e.g. long term debt) can be swapped for equity.
  - In this case additional funds are not being raised; only the mix of financing is being changed.
- Payout restrictions can augment equity capital rather quickly.

What about "Issuance Costs?"

- Less leverage $\Rightarrow$
  - Greater ability to rely on retained earnings, less need for issuance
  - Less price impact of any under-pricing
- "Stigma" can be mitigated by regulators.
  - Equity payouts (dividend) restrictions
  - Rights offerings

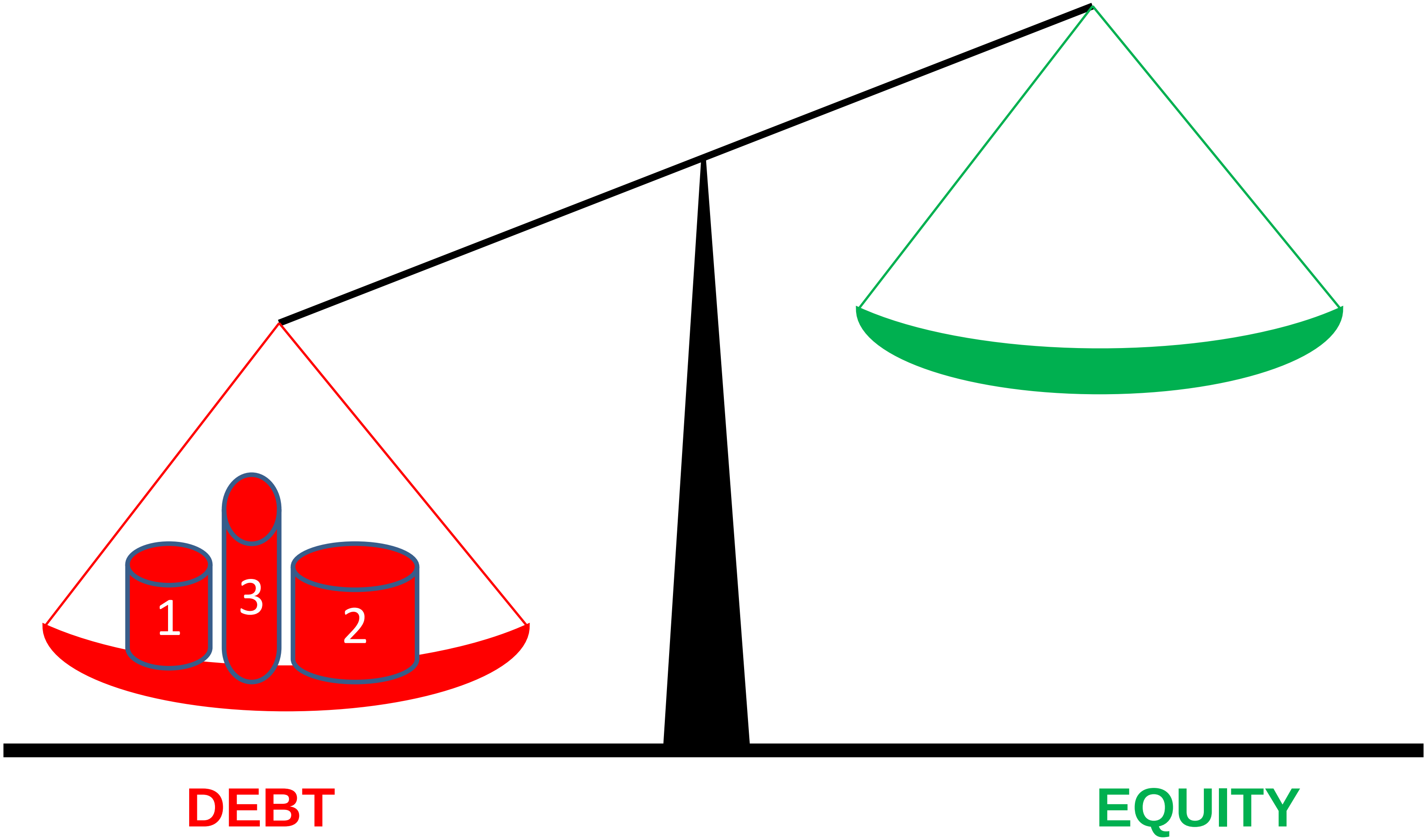
– "Dilution" due to removal of subsidy not a social cost.

“Balance Sheet Expansion” and End Investors



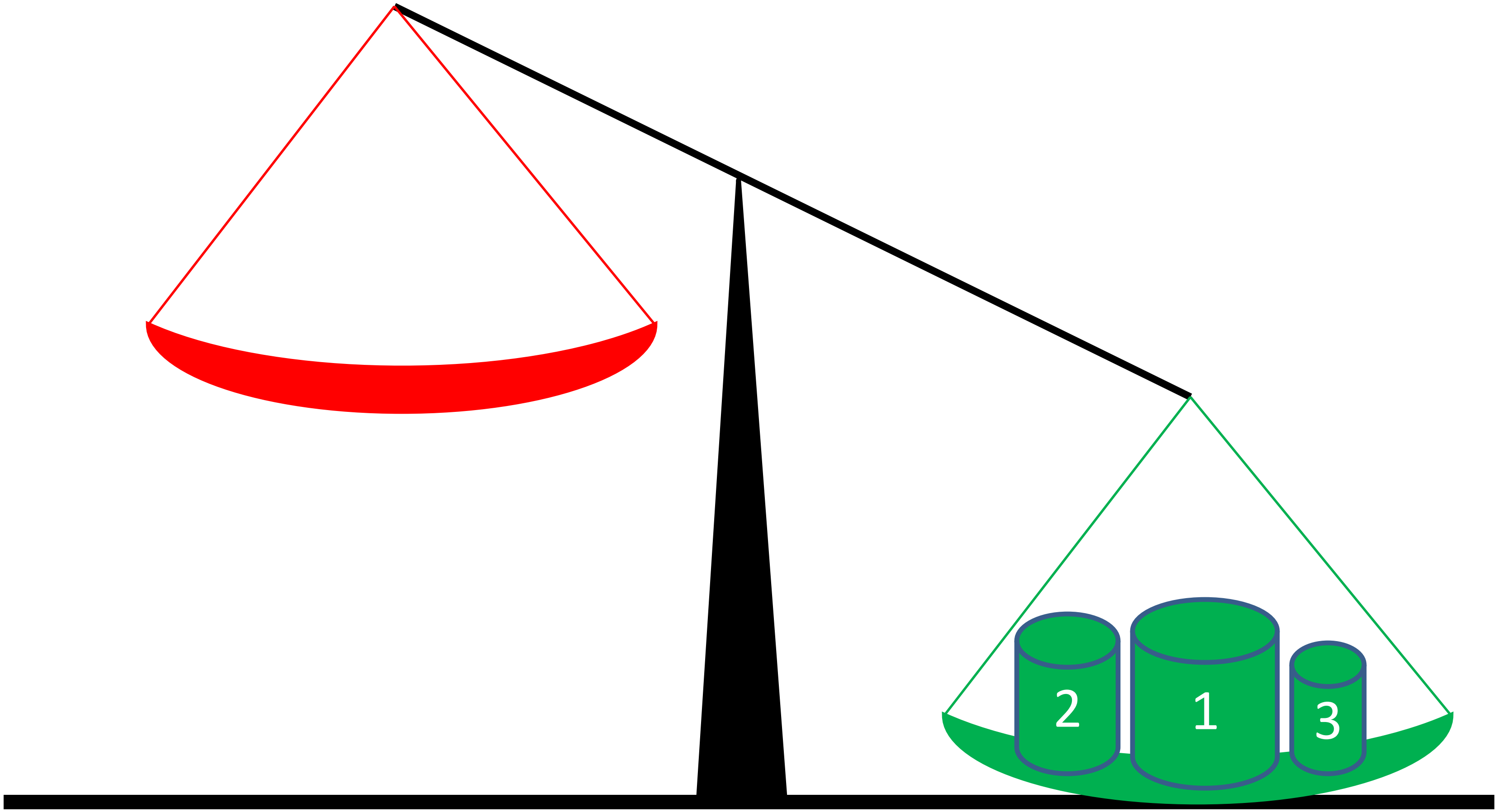
- Productive opportunities and portfolios need not change.
- Eventual size of balance sheets to be determined “naturally.”

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



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

<u>SOCIAL</u> 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

Equity as a Percent of Assets for US Commercial Bank

(From: Berger, Herring and Szegö, "The Role of Capital in Financial Institutions," *Journal of Banking and Finance*, 1995)