

Financial Innovation, Regulation, and Reform

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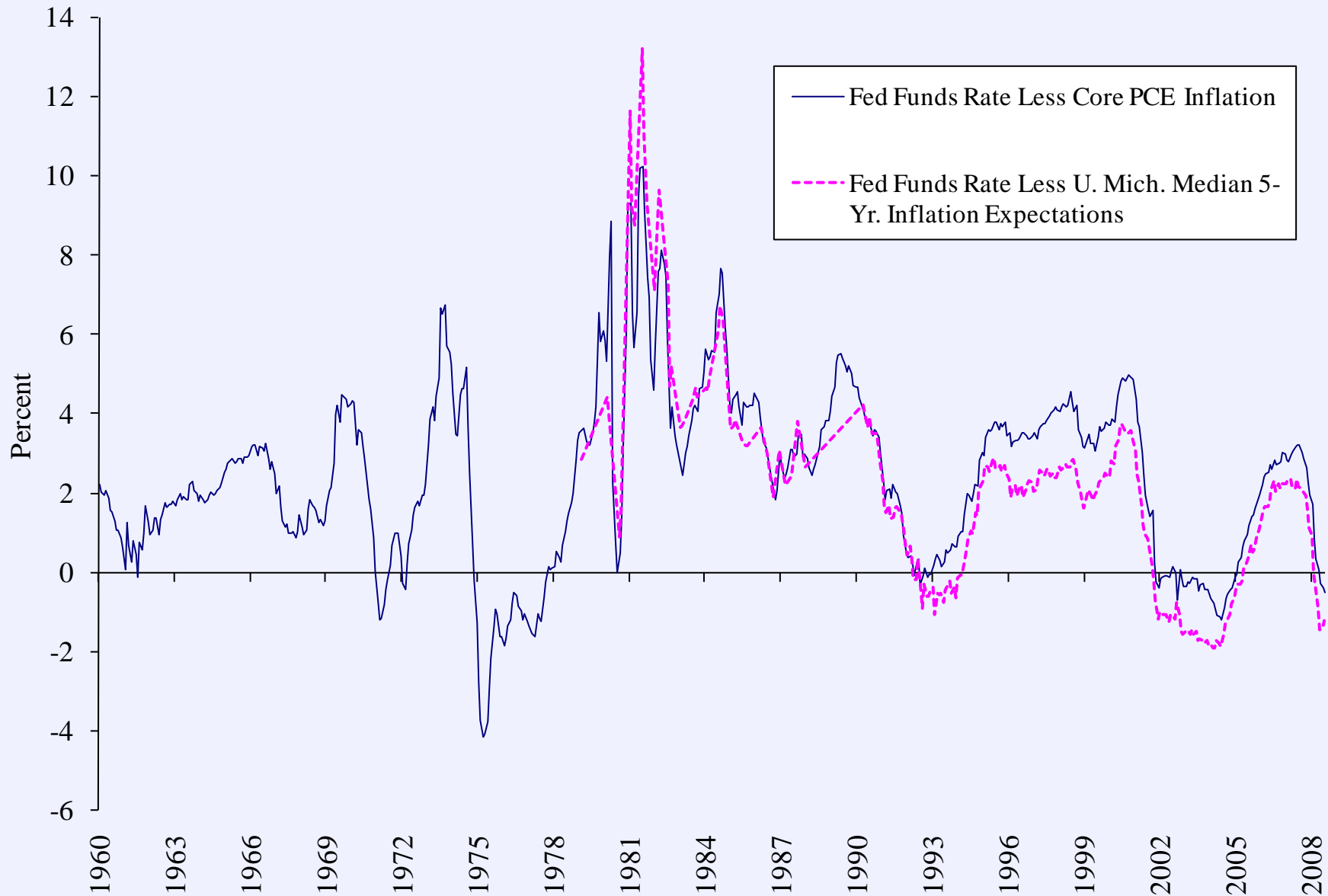
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What We Learned from the Crisis

Origins Reflected Deep Problems

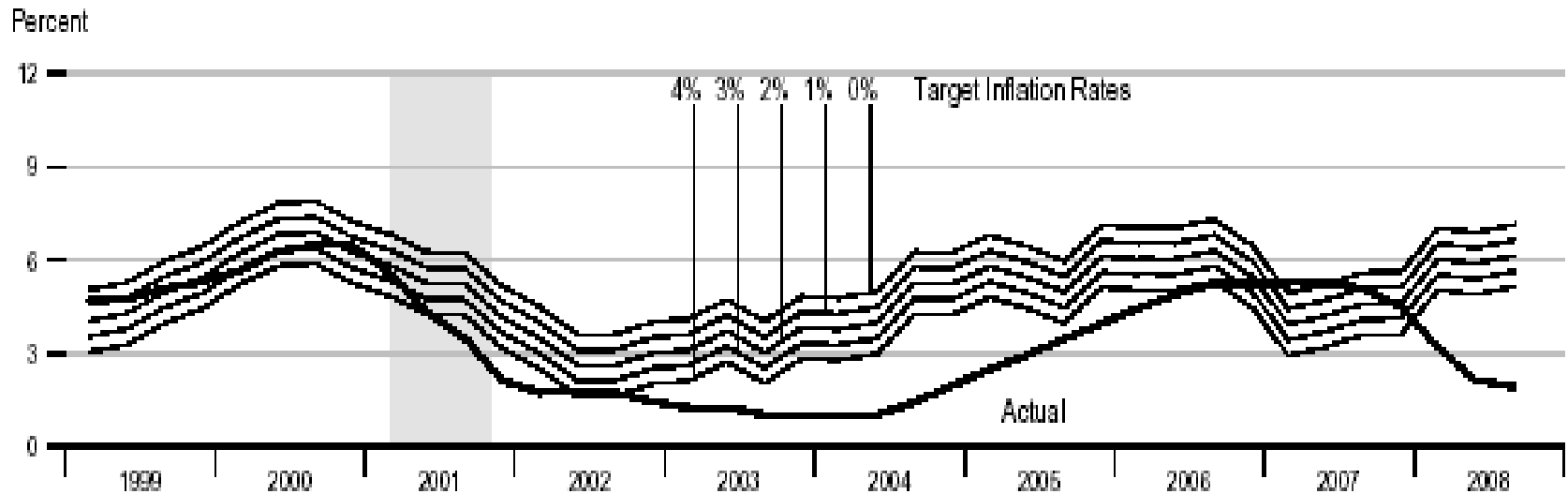
- Loose money, flat yield curve
- Housing subsidies delivered via leverage (F&F, FHA, FHLBs, risk weights for mortgages, 2006 intervention, CRA).
- Huge buy-side agency problems: banks, institutional investors.
- Regulation Failure: Not just a leverage arbitrage story about booking mortgages in MBS and IBs, but a deeper risk mis-measurement story about commercial bank regs.

Real Fed Funds Rate



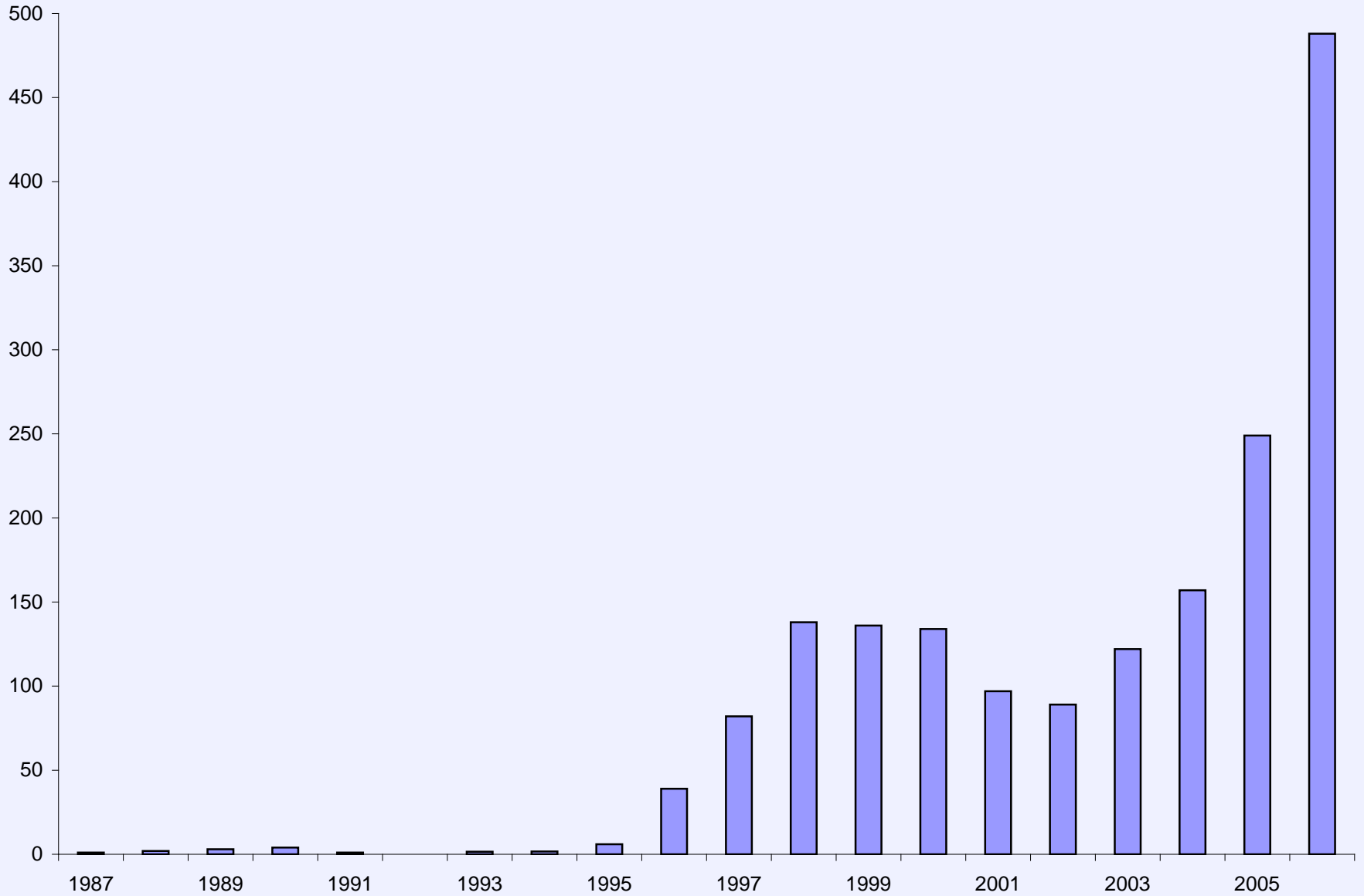
2002-2005 Taylor Rule

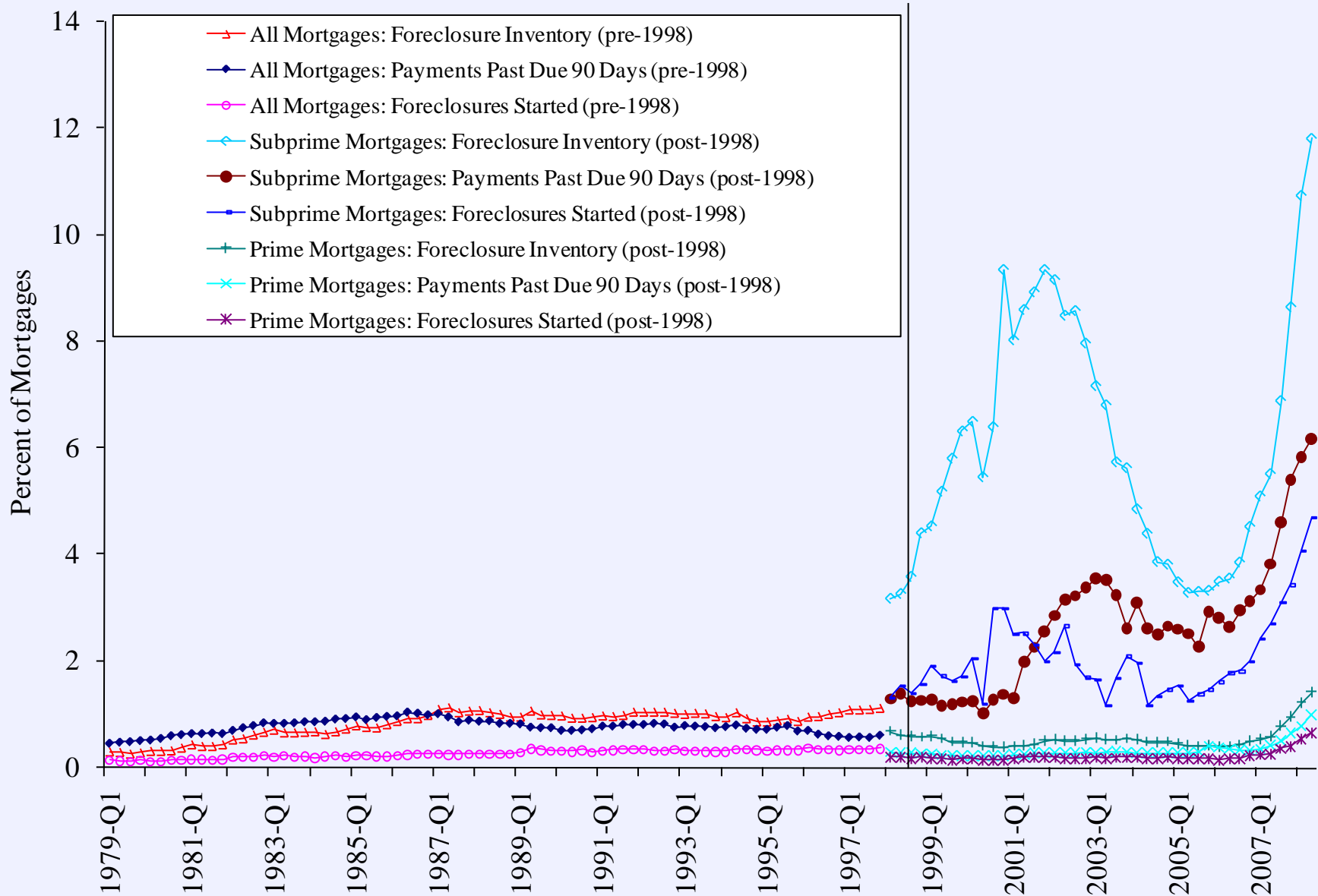
Federal Funds Rate and Inflation Targets



Calculated federal funds rate is based on Taylor's rule. See notes on page 19.

Figure 1: Annual Cash CDO Issuance





Short-Term Responses

Crisis Management

- **Asset purchase plan was flawed:** Pricing problem, mgt. problem, little bang for buck. Aggregator bank unlikely to work much better. Nationalization fraught with problems.
- **Preferred stock injections:** Used in 1930s in US, in Finland in 1990s.
 - Seniority protects taxpayers and crowds in private offerings of common (if implemented properly). It has not been implemented properly (warrants, common stock dividends because of stigma nonsense). Warrants were especially counterproductive to raising stock. Best used on relatively healthy banks (incentive problem).
- **Current plan will not work:** Private-public partnerships, with leverage subsidies, will not affect asset prices and move us to the “good” equilibrium. Participation will not materialize (especially given new accounting rules).
- **Downside insurance of toxic asset values:** Good incentives for risk taking for weak banks, in contrast to preferred. Limiting downside can help raise new private capital, makes toxic assets more liquid. Given underpricing of assets unlikely to cost taxpayers much.

Short-Term Responses (Cont'd)

- **Fed policy:** Appropriate breadth of new activities, involves many new facilities, targeting of money markets, mortgages, other. Quantitative easing is going too slowly.
- **Foreclosure relief:** Makes sense to boost consumption, relieve housing market, and help limit bank losses and uncertainty. Cram down won't work (364 judges) and will raise consumer credit costs going forward.
- **Target mortgage market:** For healthy mortgages, refinance at low rates.
- **Mark-to-Market Accounting Implosion:** Change made sense. Accounting rules aggravated market declines, legal liability allows auditors to run the business, notwithstanding wiggle room in rules.

Current Problem

- There has been some progress (mortgage foreclosure mitigation loss sharing, but limited impact; Fed purchases, as of March 18 may start growing, affecting mortgage rates)
- But in other areas there is a misalignment of political will and economic necessity, which is blocking rational policy.
- AIG bonus hullabaloo is just the most recent example.
- Treasury's current plans for TARP III will probably not work, and there is no appetite for taking the political risk to announce a plan that would absorb private sector risk, which is the sine qua non.

Long-Term Reforms

- Micro prudential reform, need to focus on **measurement of risk** (missing in discussions).
“Capital, capital, capital” not enough.
- Macro prudential regulation to deal with states of world where micro is not working, and to vary requirements over time in a smart way.
- Resolution Policy / TBTF Problems
- Housing subsidy reform
- OTC clearing and disclosure
- Bank corporate governance (don't hold your breath)

Micro Prudential Discipline

- 1. Use loan interest rates in measuring the risk weights applied to loans for purposes of setting minimum capital requirements on those loans.
- 2. Establish a minimum uninsured debt requirement for large banks (a specially designed class of sub debt, CDS issues, or contingent capital).
- 3. Reform the use of credit ratings to either eliminate their use or require NRSROs to predict PD and LGD, rather than give letter grades, and hold them accountable for accuracy.

NYC Banks' Loans/Cash, Equity, Dividends

	Loans/Cash	Equity/Assets	Dividends
1922	2.1	0.18	
1929	3.3	0.33	\$392m
1933	1.0	0.15	
1940	0.3	0.10	\$162m

Source: Calomiris-Wilson JB 2004.

Micro-Prudential Regulation (Cont'd)

Argentine Banks in the 1990s

Dependent Variable: Quarterly Deposit Growth

<u>Regressor</u>	<u>Coefficient</u>	<u>Stand.Error</u>
Eq Ratio (-1)	0.277	0.074
Loan Int. Rate	-0.254	0.121
Loans/Cash	-0.0032	0.0007

Sample period: 1993:3-1999:1

Number of Observations: 1,138

Adjusted R-Squared: 0.31

Micro Prudential Regs Not Enough

- Because of agency problems, pricing of risk was inaccurate.
- This reflected monetary policy looseness and agency problems, which created incentives to ride the bubble.
- Market discipline is not enough under these circumstances; there needs to also be a belt on top of the suspenders, because of agency problems.

Macro Prudential Rules

- 4. Macro prudential regulation that raises capital requirements during normal times in order to lower them during recessions.
- 5. Additional macro prudential regulatory triggers that increase regulatory requirements for capital, liquidity, or provisioning as a function of credit growth, asset price growth, and possibly other macroeconomic risk measures.

Case Study: Colombia 2006-2008

- Financial system loans annual growth rose from 10% in December 2005 to 27% by December 2006.
- Core CPI rose gradually relative to credit (from 3.5% in April 2006 to 4.8% in April 2007).
- Real GDP growth in 2007 was 8%.
- Current account deficit rose from 1.8% GDP in second half of 2006 to 3.6% GDP in first half of 2007.
- Monetary authority reacted directly to credit growth in real time: Interest rates were increased 400 bps from April 2006 to July 2008.
- But central bank saw too small a market response to this, so it
 - increased reserve requirements for banks and
 - convinced superintendency to raise provisioning for credit,
 - imposed measures to raise costs of borrowing short-term from abroad (deposit requirement reactivated), and
 - limited not only currency mismatches of banks and other FX exposure in the system, but also gross currency positions (to avoid counterparty risks).
- Credit growth is now “only” 13%; risk-weighted capital ratio for banks is 13.9%, and first half 2008 is 4.9% above first half of 2007, expected to fall to about 3.5% for 2008 as a whole.

Fix Too Big To Fail

- 6. A regulatory surcharge (which takes the form of higher required capital, higher required liquidity, or more aggressive provisioning) on large, complex banks.
- 7. Detailed regularly updated plans for intervention and resolution of large, complex institutions **prepared by them**, which specify how control the bank's operations when transferred to a prepackaged bridge bank if the bank became severely undercapitalized. Plans specify formulas for loss sharing among international subsidiaries, **and the formulas specifying loss-sharing arrangements would be pre-approved by regulators in the countries where the subsidiaries are located. This resolves concerns about politicized discretion or incompetence of resolution authority.**

Reform Housing Subsidies

- 8. The winding down of Fannie Mae and Freddie Mac, and the phasing out of the FHA and Federal Home Loan Banks, and the replacement of those leverage subsidies with downpayment assistance to low-income first-time homebuyers.

Reform Bank Corporate Governance

- 9. The elimination of bank holding company restrictions on the accumulation of controlling interests in banks.
- 10. The relaxation of Williams Act requirements that require buyers of more than a 5% interest in a company to announce that they are acquiring a significant interest in a company, and the elimination of regulatory limits on the percentage ownership interests that institutional investors can own in public companies.

OTC Counterparty Risk Management and Transparency

- 11. The enactment of regulatory surcharges (via capital, liquidity, or provisioning requirements) that encourage the clearing of OTC transactions through clearing houses. (Not for all products.)
- 12. Requirements for timely disclosure of OTC positions to regulators, and lagged public disclosure of net positions. (Avoid excessive disclosure => illiquidity.)