# Static TLAC vs. Dynamic CoCos

Charles W. Calomiris

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# Incentive Robustness

- The problems of inadequate measurement of risk ex ante and loss ex post reflect two sets of agents incentives to hide information.
- Bankers will pursue regulatory arbitrage (either due to value-maximization or agency)
- Supervisors have their jobs at stake, not their own money. They will forebear and permit evergreening, particularly because political equilibrium favors that.
- **An incentive-robust reform is one that works in spite of these two sets of agents incentive problems.**

# CoCos (Calomiris and Herring)

**Establish a minimum uninsured CoCo requirement for large banks (a specially designed class of contingent capital), which improves risk management and capital raising incentives.** (Calomiris, Herring 2011 based on Flannery)

- If designed properly (with sufficient conversion dilution risk), CoCos would incentivize **timely recapitalization** of bank to avoid dilutive conversion of CoCos.
- **Key point:** A combination of common equity and CoCo requirement can achieve more than a common equity requirement alone, and at a lower social cost.

# Contingent Capital's *Proper* Motives

- Contingent capital can be designed to accomplish several objectives, but these <u>objectives conflict</u> in their implications for CoCo design.
- CoCos cannot be all things to all people; we must choose what we want them to accomplish.
- If you begin with the list of important regulatory challenges listed on the prior slide, that implies the desirability of a particular CoCo design.

# Possible CoCo Motives Conflict

- a. Signalling (debt must be risky).
- b. Loss absorption/bail in (triggered near insolvency point).
- c. Incentivizing prompt replacement of losses via voluntary new issues of equity to avoid triggering dilutive conversion of large amounts of CoCos.
  - Early trigger not a bail in, debt not risky so little signalling, trigger is out of equilibrium event so loss absorption minimal.

# Prompt Issuance Objective Is Key

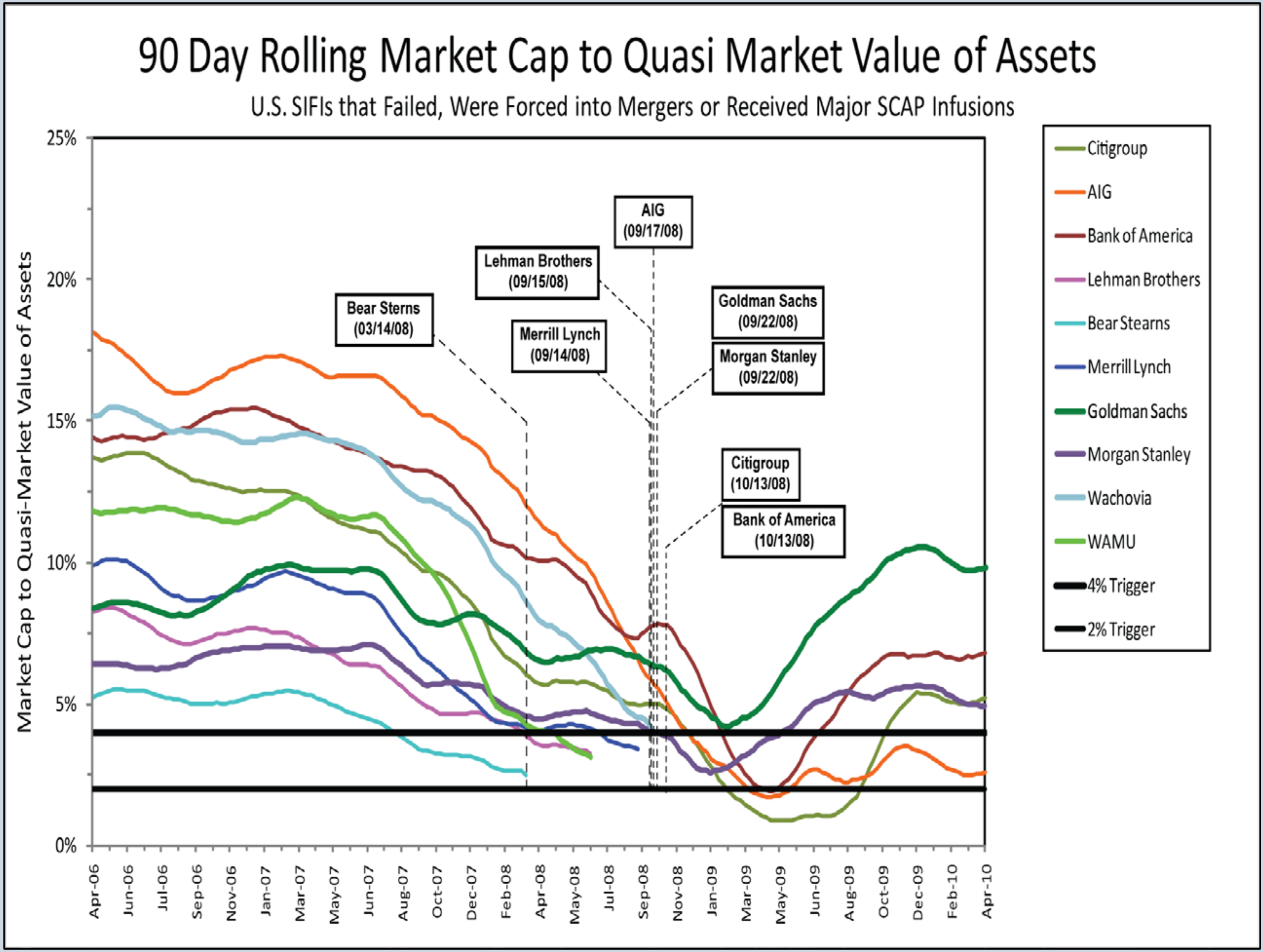
- Set trigger high (issuance is not occurring near failure point)
- Conversion should be dilutive (to encourage alternative of voluntary issuance)
- Make amount of CoCos large (to encourage alternative of voluntary issuance)
- Timely (costly) replacement of lost capital will not only protect against insolvency ex post, it will incentivize good risk management ex ante.

# Details of Our Proposal

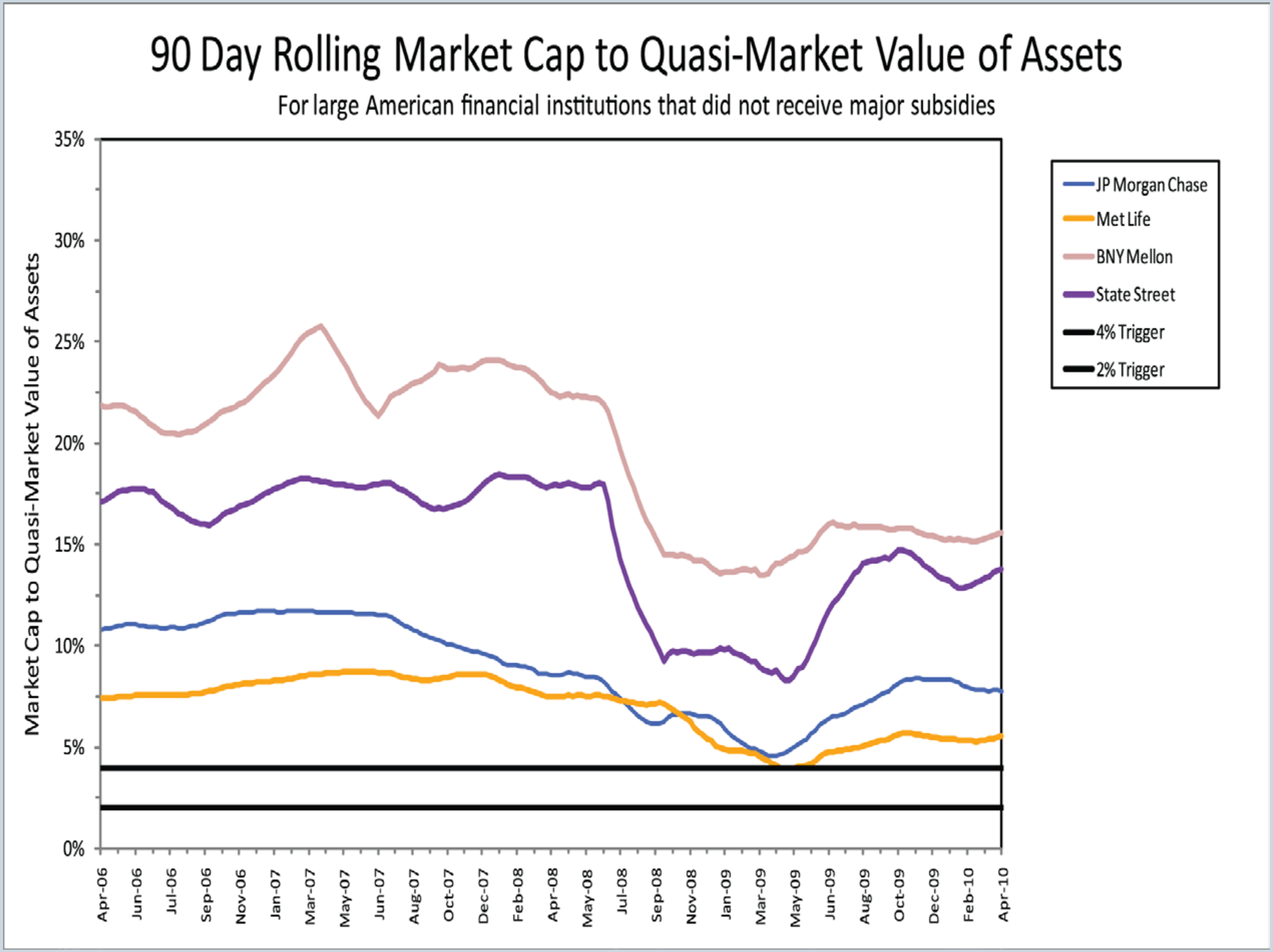
| | |
|---|---|
| Primary Goal | Prompt Recapitalization |
| Min Amt of CoCos | 10 percent of risk-weighted assets |
| Trigger | QMVER of 9%, using 90-day MA |
| Conversion ratio | 5 percent dilutive of stockholders |
| Conversion amt | All CoCos convert on hitting trigger |
| Holders | Qualified institutions, no shorts |
| PCA trigger | If 9 % trigger is breached twice |
| Time to replace | If converted, within one year |

# Would This Have Prevented Crisis?

- Crisis did not occur overnight; losses accumulated over long time and were visible in declining market values of bank equity.
- Lots of moments of calm in which capital could have been raised (fall-winter 2007, April-August 2008).
- Equity market was wide open to banks ($450 billion was raised prior to September 2008).
- Institutions limited offering because of dilution (my breakfast with senior manager).



90 Day Rolling Market Cap to Quasi Market Value of Assets
U.S. SIFIs that Failed, Were Forced into Mergers or Received Major SCAP Infusions
Market Cap to Quasi-Market Value of Assets
25%
20%
15%
10%
5%
0%
Bear Sterns (03/14/08)
Lehman Brothers (09/15/08)
Merrill Lynch (09/14/08)
AIG (09/17/08)
Goldman Sachs (09/22/08)
Morgan Stanley (09/22/08)
Citigroup (10/13/08)
Bank of America (10/13/08)
Apr-06
Jun-06
Jul-06
Sep-06
Nov-06
Jan-07
Mar-07
May-07
Jun-07
Aug-07
Oct-07
Dec-07
Feb-08
Apr-08
May-08
Jul-08
Sep-08
Nov-08
Jan-09
Mar-09
May-09
Jun-09
Aug-09
Oct-09
Dec-09
Feb-10
Apr-10
Citigroup
AIG
Bank of America
Lehman Brothers
Bear Stearns
Merrill Lynch
Goldman Sachs
Morgan Stanley
Wachovia
WAMU
4% Trigger
2% Trigger


90 Day Rolling Market Cap to Quasi-Market Value of Assets
For large American financial institutions that did not receive major subsidies
Market Cap to Quasi-Market Value of Assets
35%
30%
25%
20%
15%
10%
5%
0%
Apr-06
Jun-06
Jul-06
Sep-06
Nov-06
Jan-07
Mar-07
May-07
Jun-07
Aug-07
Oct-07
Dec-07
Feb-08
Apr-08
May-08
Jul-08
Sep-08
Nov-08
Jan-09
Mar-09
May-09
Jun-09
Aug-09
Oct-09
Dec-09
Feb-10
Apr-10
JP Morgan Chase
Met Life
BNY Mellon
State Street
4% Trigger
2% Trigger

# Why Not Just More Equity?

- Equity alone is costlier than equity and CoCos
  - Adverse selection costs (lots of room for signalling costs even with regulation)
  - Agency costs
  - Taxes
  - Huge literature provides evidence of these costs (bank capital crunches associated with equity scarcity; Aiyar, Calomiris and Wieladek 2014, 2015)
- Pure equity is less effective
  - Book equity losses are not recognized timely (Citi's 11.8%)
  - Less incentive timely replacement of lost capital
  - Less incentive for risk management
- Why not just a market equity ratio requirement?
  - Less effective; third party contract cuts forbearance risk.

# Importance of Simplicity

- Avoiding discretion requires constructing simple rules that do not depend on regulators' or supervisors' discretion and can be observed publicly.

- Automatically enforced, transparent rules are incentive robust for regulators.