SIX YEARS ON: IS THERE AN ALTERNATIVE TO BAIL-OUT?

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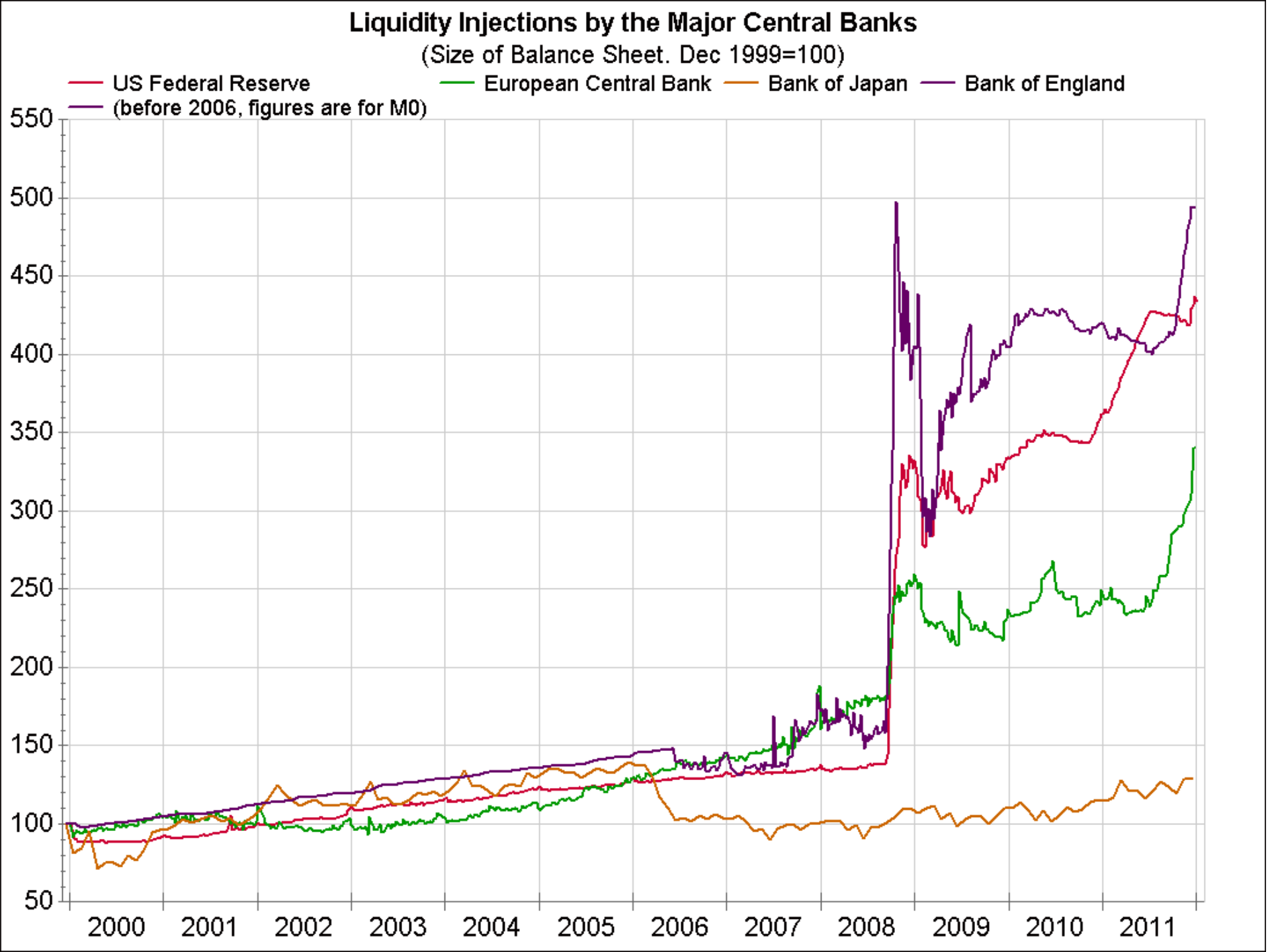
Causes of the Collapse

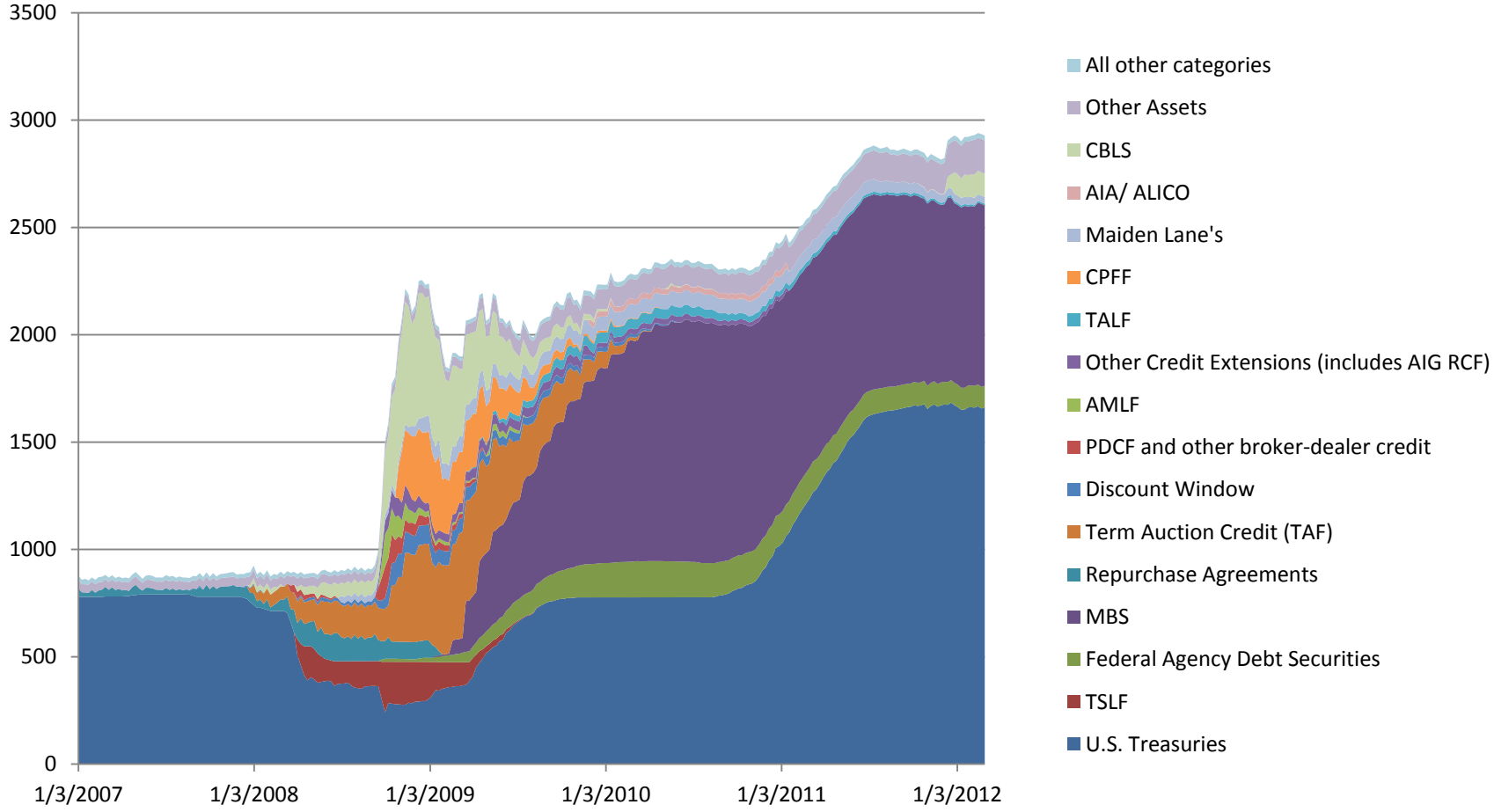
- The Minsky Moment
- Minsky's Stages
  - Money Manager Capitalism
- Financialization, Layering, Liquidity
- Shredding of New Deal Reforms
- Goldilocks, Bubbles, and the Great Moderation: The Radical Suspension of Disbelief

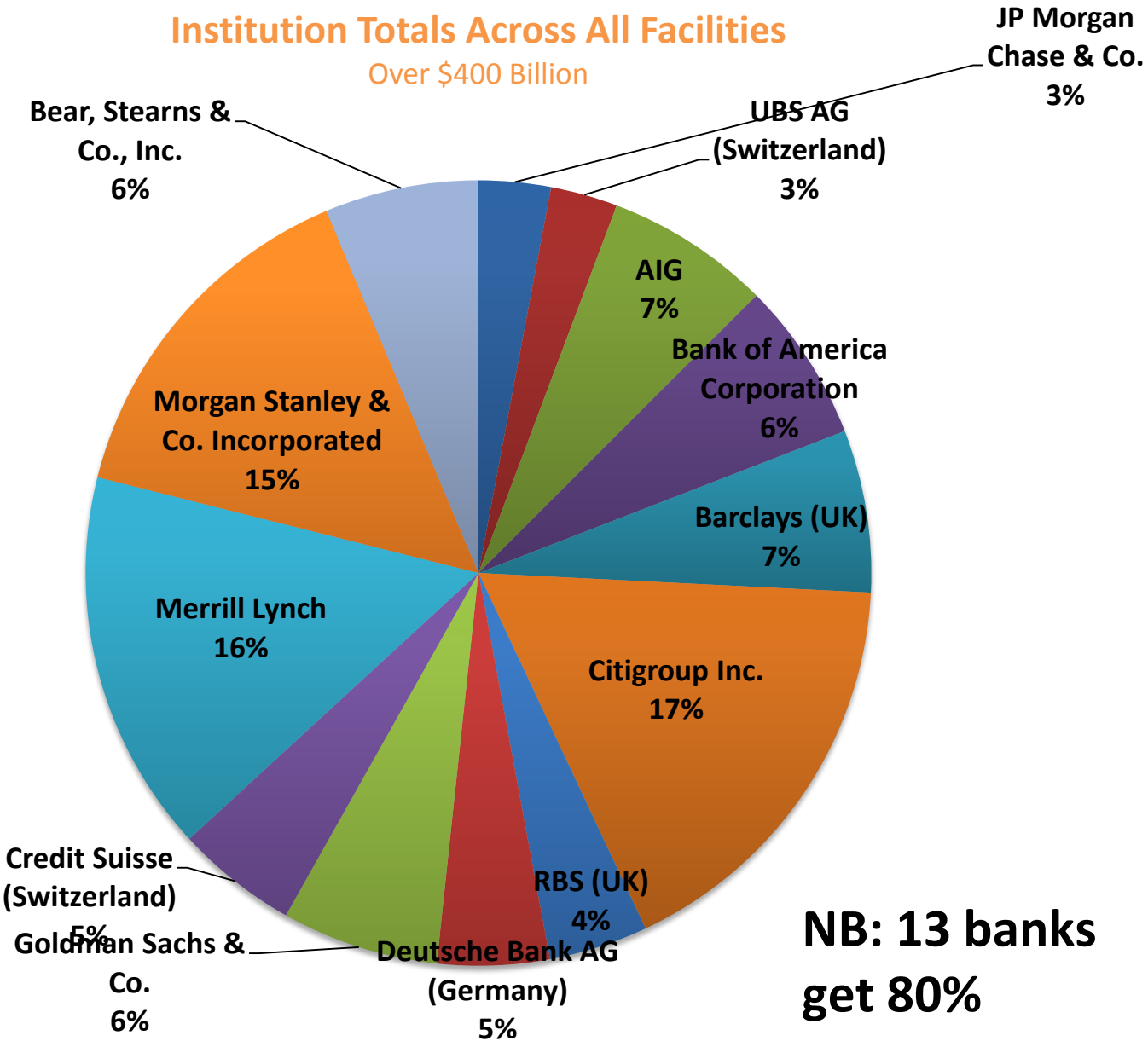
Fed and Treas Crisis Response

- Hank Paulson $800B. Don’t ask, don’t tell.
  - Toxic asset purchases, capital injections
- Fiscal Stimulus $800B. Little, late, and unsustained.
- Fed: Unprecedented effort
  - Peak $1.7 Trillion
  - $29+ TRILLION loan originations, cumulatively
  - Subsidized lending
  - Trying to prop-up Money Manager Capitalism


Liquidity Injections by the Major Central Banks
(Size of Balance Sheet. Dec 1999=100)
US Federal Reserve
(before 2006, figures are for M0)
European Central Bank
Bank of Japan
Bank of England
550
500
450
400
350
300
250
200
150
100
50
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011

Fed Assets, in billions 1/3/2007—3/1/2012





NB: 13 banks get 80%

Subsidies to Biggest Banks

- **Bloomberg**: top 10 banks get $83 billion due to TBTF status

- **Congressional Research Service** analysis conducted for Sen. Bernie Sanders, direct subsidies from Fed:

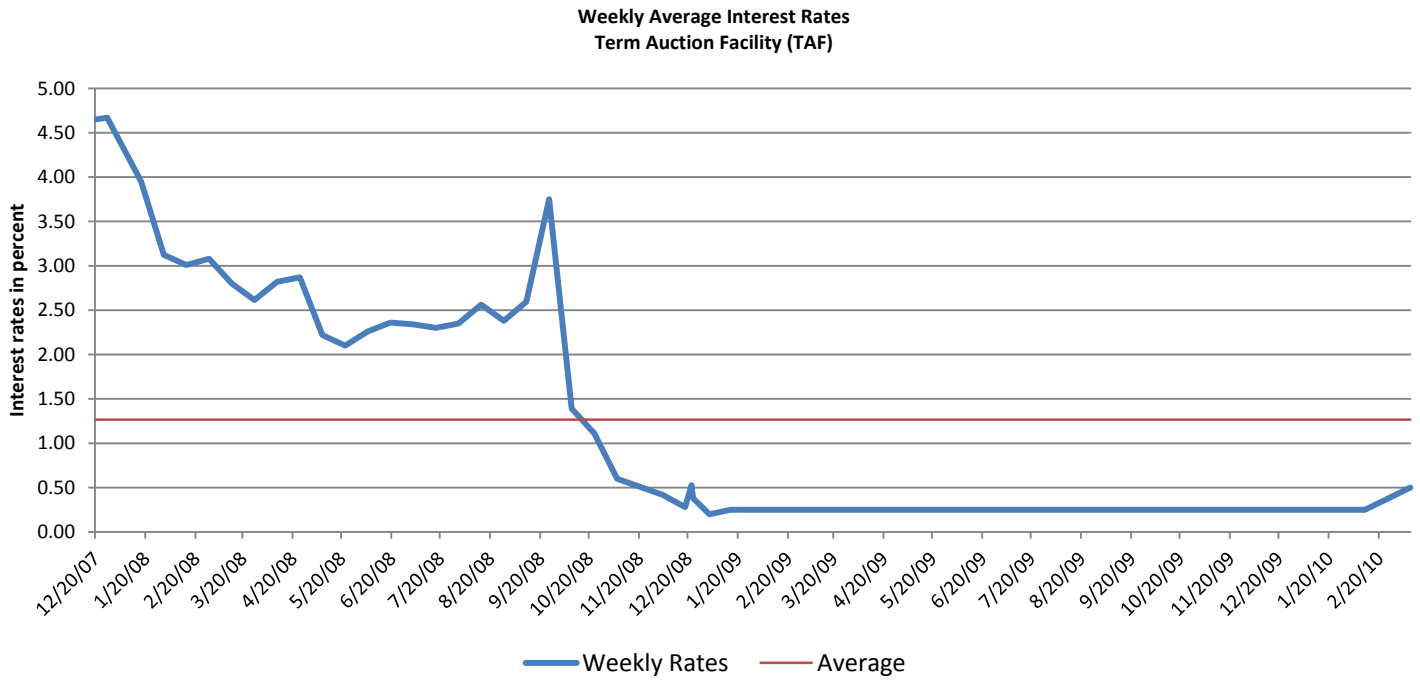
  - **JPMorgan**: 2008.1: average of $1.2 billion in outstanding Fed loans with a 2.1 percent interest rate while it held $2.2 billion in U.S. government securities with an average yield of 4.6 percent.
    - 2008.4, $10.1 billion in outstanding Fed loans with a 0.6 percent interest rate while it held $10.3 billion in U.S. government securities with an average yield of 1.7 percent.
    - 2009.1, JPMorgan Chase had an average of $29.2 billion in outstanding Fed loans with a 0.3 percent interest rate and held $34.6 billion in U.S. government securities with an average yield of 2.1 percent.
  - **Citigroup**: 2008.1, over $5.2 billion in Fed loans with a 3.3 percent interest rate and held $7.9 billion in U.S. Treasury Securities with an average yield of 4.4 percent.
    - 2008.4 received $15.8 billion in Fed loans through the Fed's PDCF with a 1.2 percent interest rate; $11.6 billion in TAF loans with a 1.1 percent interest rate; and $4.9 billion in CPFF loans with a 2.7 percent interest rate. It simultaneously held $24 billion in U.S. government securities with an average yield of 3.1 percent.
    - 2009.1 over $12.1 billion in Fed loans with an interest rate of 0.5 percent while holding $14.3 billion in U.S. government securities with an average yield of 3.9 percent.
    - 2009.2 received over $23 billion in Fed loans with an interest rate of 0.5 percent while holding $24.3 billion in U.S. government securities with an average yield of 2.3 percent.
  - **Bank of America:** 2009.1 $2.9 billion in outstanding Fed loans with an interest rate of 0.25 percent while purchasing $23.5 billion in Treasury Securities with an average yield of 3.2 percent.

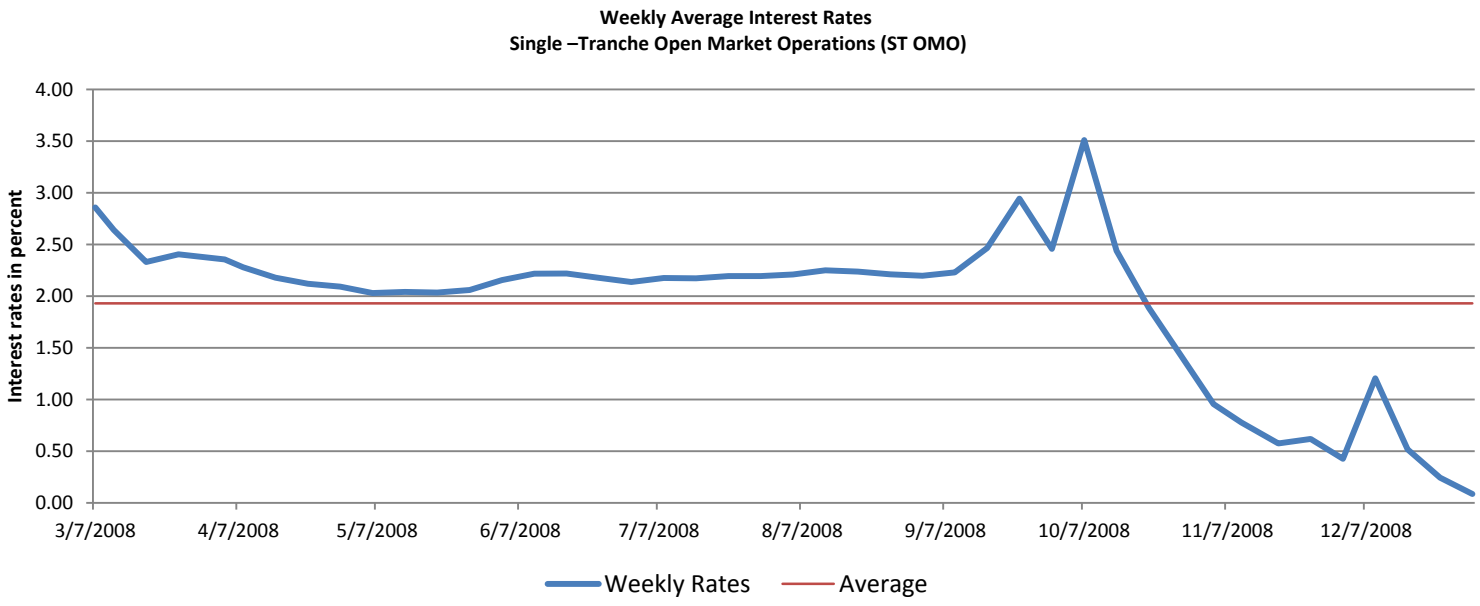
Low Rates Provided through Fed's Special Facilities

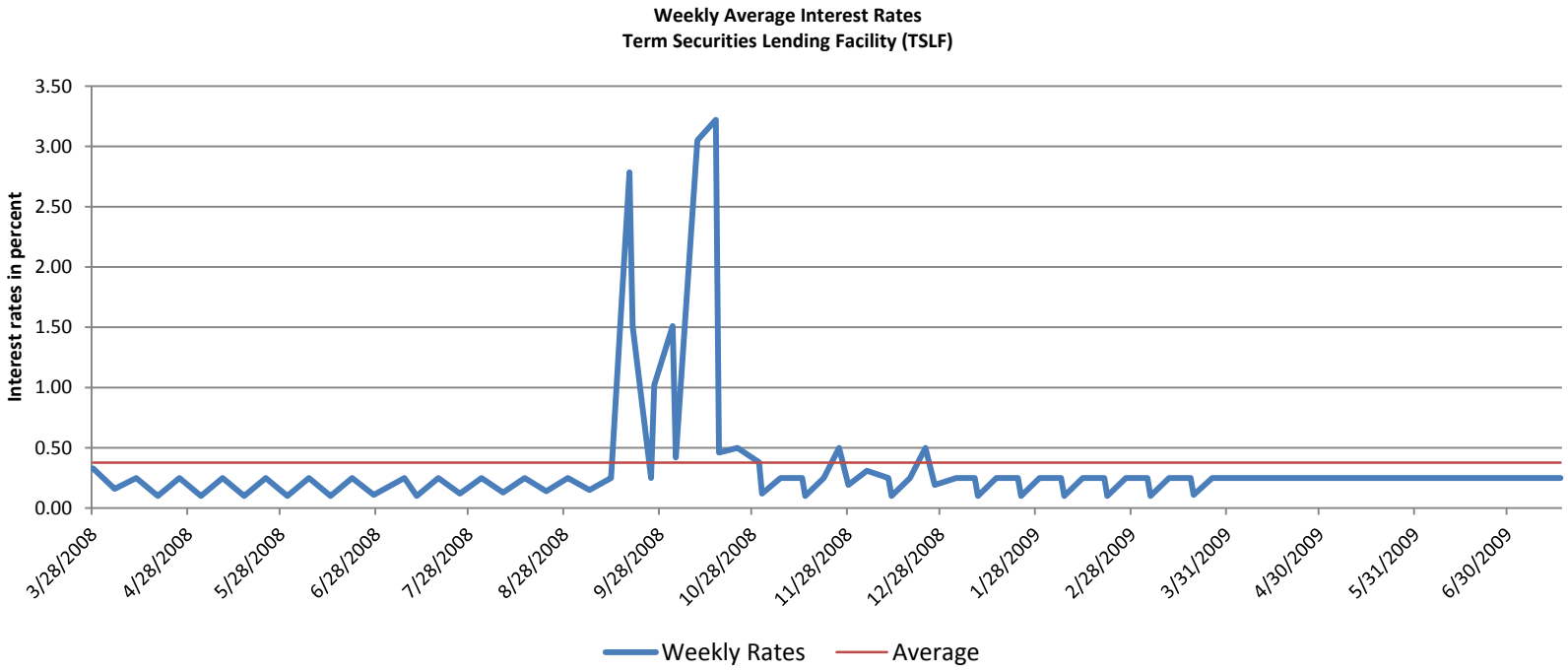
- Detailed examination of 21,000+ transactions providing funding to banks; most of this to biggest banks; top 3 cumulative borrowers (Citigroup, Merrill Lynch & Morgan Stanley) borrowed close to 40% of all funds
- Much of the funding through "auctions"
- Rates as low as 0.01%
- Loans made over period as long as 4.5 years
- Provided to "markets" not just to individual banks facing liquidity problems.
- Example: Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF): lent at rate as low as 0.05% to support money market mutual funds.
  - JP Morgan would borrow from the FRBB 144 times at this rate, while State Street borrowed 35 times and Citigroup 11 times

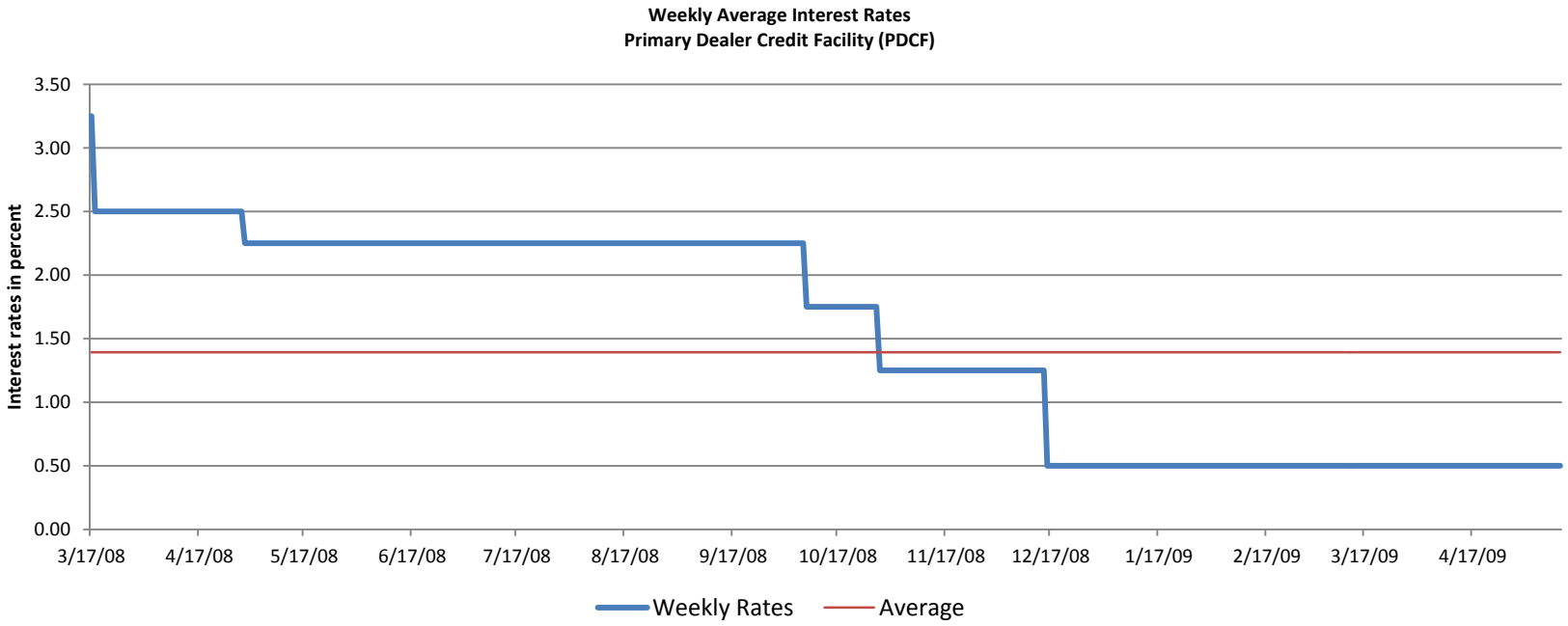
More Examples of “Subsidized” Rates

- Term Auction Facility (TAF): Bank of America cumulatively borrowed $260B at 0.45%
- Single-Tranche OMO (ST OMO): both Morgan Stanley and Goldman Sachs received loans with a rate of 0.01% for $50M & $200M respectively
- Primary Dealer Credit Facility (PDCF):
  - Citigroup, Merrill Lynch and Morgan Stanley combined, cumulatively borrowed $6T at 1.06%
  - Citigroup would cumulatively borrow $2T at 0.88%

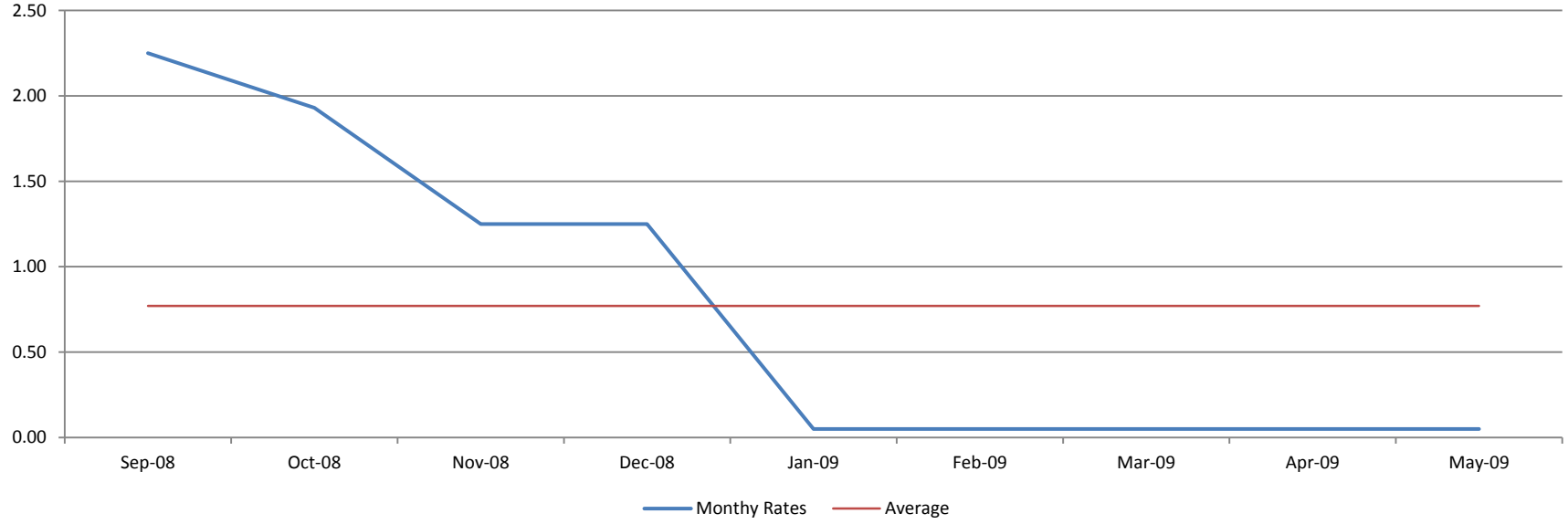

Weekly Average Interest Rates
Term Auction Facility (TAF)
Interest rates in percent
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
12/20/07
1/20/08
2/20/08
3/20/08
4/20/08
5/20/08
6/20/08
7/20/08
8/20/08
9/20/08
10/20/08
11/20/08
12/20/08
1/20/09
2/20/09
3/20/09
4/20/09
5/20/09
6/20/09
7/20/09
8/20/09
9/20/09
10/20/09
11/20/09
12/20/09
1/20/10
2/20/10
Weekly Rates
Average


Weekly Average Interest Rates
Single –Tranche Open Market Operations (ST OMO)
Interest rates in percent
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
3/7/2008
4/7/2008
5/7/2008
6/7/2008
7/7/2008
8/7/2008
9/7/2008
10/7/2008
11/7/2008
12/7/2008
Weekly Rates
Average

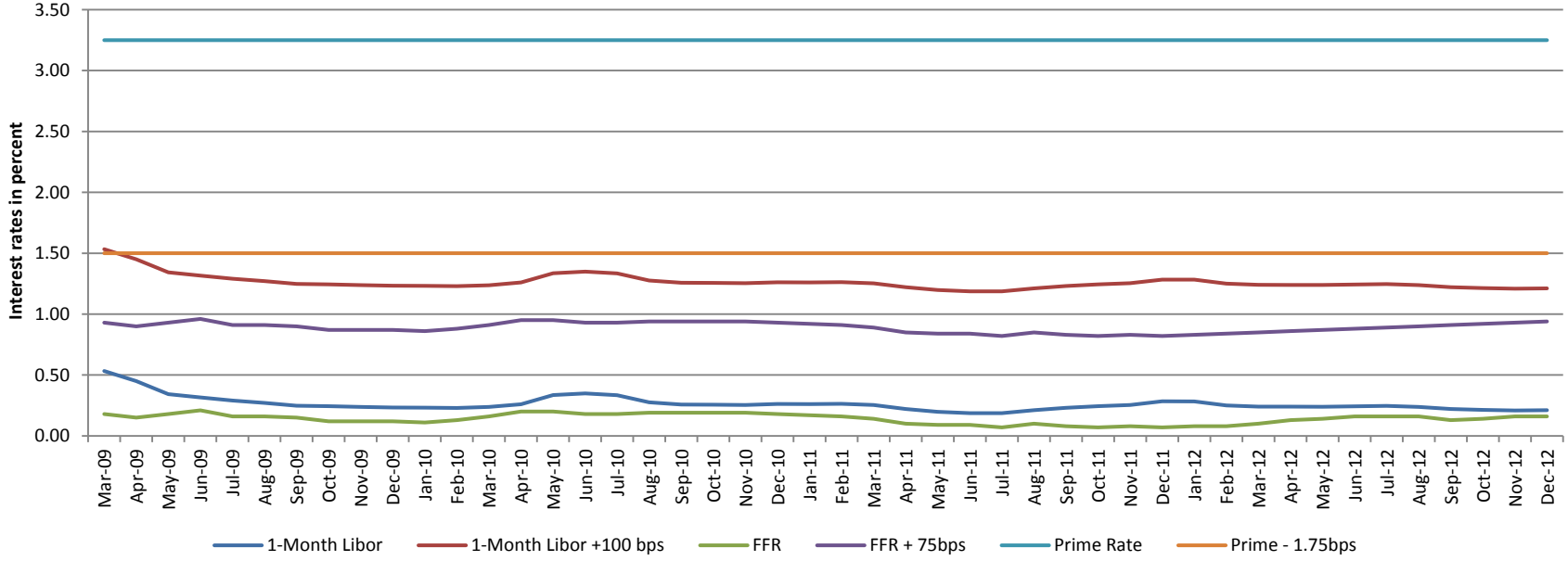

Weekly Average Interest Rates
Term Securities Lending Facility (TSLF)
Interest rates in percent
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
3/28/2008
4/28/2008
5/28/2008
6/28/2008
7/28/2008
8/28/2008
9/28/2008
10/28/2008
11/28/2008
12/28/2008
1/28/2009
2/28/2009
3/31/2009
4/30/2009
5/31/2009
6/30/2009
Weekly Rates
Average


Weekly Average Interest Rates
Primary Dealer Credit Facility (PDCF)
Interest rates in percent
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
3/17/08
4/17/08
5/17/08
6/17/08
7/17/08
8/17/08
9/17/08
10/17/08
11/17/08
12/17/08
1/17/09
2/17/09
3/17/09
4/17/09
Weekly Rates
Average

Monthly Average Interest Rates
Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF)



***Floating* Rates Plus Margin**
Term Asset-Backed Securities Loan Facility (TALF)



Average Interest Rates of Top Eight Cumulative Borrowers Across All Facilities

Facilities	Citigroup Inc.	Merrill Lynch	Morgan Stanley	AIG	BofA	Bear Stearns	Barclays	Goldman Sachs
TAF	1.931	2.870	n/a	n/a	0.451	n/a	0.630	n/a
ST OMO	1.427	1.873	1.875	n/a	1.804	2.650	1.748	1.248
TSLF	0.321	0.574	0.591	n/a	0.253	0.290	0.387	0.332
PDCF	0.885	1.120	1.190	n/a	0.949	2.373	2.291	1.781
CPFF	2.711	1.865	1.588	2.619	1.822	n/a	2.320	1.890
AMLF	1.763	n/a	n/a	n/a	2.118	n/a	n/a	n/a
TALF	n/a	n/a	2.698	n/a	n/a	n/a	n/a	n/a
Maiden Lane I	n/a	n/a	n/a	n/a	n/a	0.810	n/a	n/a
Maiden Lane II & III	n/a	n/a	n/a	1.335	n/a	n/a	n/a	n/a
RCF	n/a	n/a	n/a	4.950	n/a	n/a	n/a	n/a
SBF	n/a	n/a	n/a	2.362	n/a	n/a	n/a	n/a
Cumulative Borrowing*	$2,469	$2,256	$2,069	$1,047	$1,018	$976	$907	$836
Weighted Average	.890	1.090	1.182	2.681	.7999	2.348	1.493	1.412

Nature of the Crisis

- Liquidity or Solvency Crisis?
  - Bagehot: lend w/o limit, against good collateral, at penalty rate
  - Banks relied on extremely short-term finance, questionable assets→ refusal to roll-over: solvency problems→ liquidity crisis
- "Liquidity provisions" through alphabet soup facilities, and then through QE

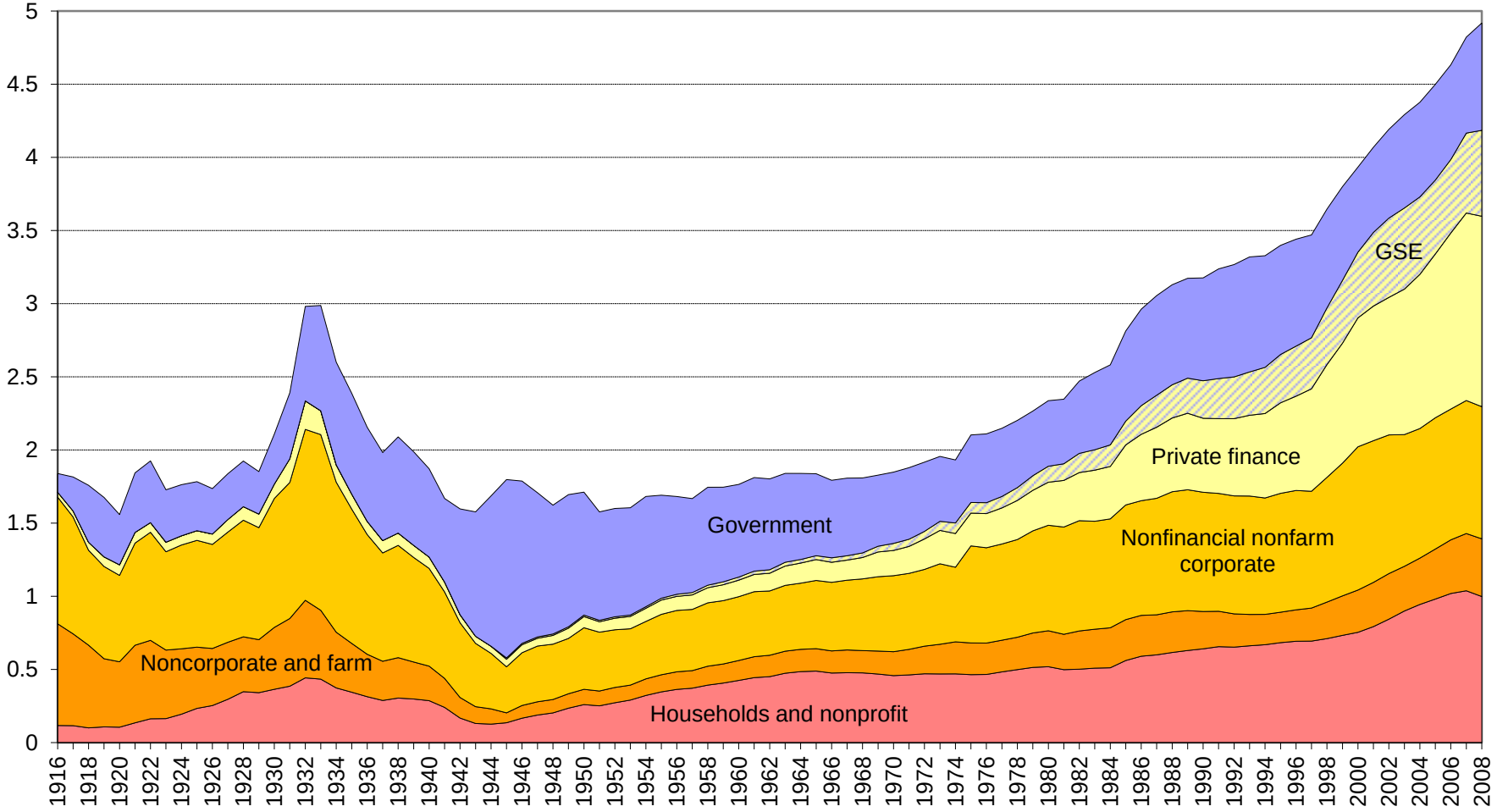
From LLR via MMLR to QE

- The ambiguous Bagehot rule: What collateral? What rate? How long? To whom? For what purpose?
- The "stigma" problem
- "Exigent and extraordinary circumstances"
- QE as a permanent stimulus

The growth of shadow banking

- Complex, layered, interconnected
- The liquidity illusion
- Securitization driven by banks' ROE targets, compensation policies, and "cash pool investors" demand for "safe" assets
- Rehypothecation
- During the crisis CBs replaced collapsing markets almost 1:1

Total Financial Liabilities Relative to GDP



Sources: *Historical Statistics of the United States: Millennium Edition* (Tables Cj870-889, Ca9-19, Ce42-68, Cj787-796, Cj748-750, Cj389-397, Cj437-447, and Cj362-374), *Historical Statistics of the United States: Colonial Times to 1970* (Series X 689-697), NIPA, Flow of Funds (from 1945).

Note: The government sector excludes all financial activities of the government (retirement funds, GNMA, etc.). GSE sector includes government-sponsored enterprises and agency- and GSE-backed mortgage pools (includes, among others, GNMA and FHA pools). "Private finance" excludes the GSE sector and monetary authorities (which are both part of the financial sector in the Flow of Funds accounts). Before 1945, data for financial institutions is computed from data of the Census Bureau by taking all the liabilities (excluding equity) of commercial banks, credit unions, savings institutions, life insurance stock companies, and property and life insurance companies, and by removing private banks notes, all deposits, and life insurance reserves. From 1945, the total financial liabilities of the financial sector excludes, net interbank liabilities of commercial banks, liabilities of monetary authorities, private and public pension fund reserves, money market mutual funds shares, mutual funds shares and the items previously cited. The liabilities of monetary authorities are not included anywhere. Data for the households and noncorporate sectors is deduced from Census Bureau data about net increase in liabilities and by computing backward from the 1945 level.

The collateral squeeze

- Central bank credit should be collateralized
- What is "good" collateral?

  -Widely different collateral policies

  -Banks post worst collateral with central banks
- CBs have a time inconsistency problem:

  -Central banks will relax policy to save big banks

Lesson Learned (?)

- Central banks should <u>not</u> provide unlimited *official* liquidity support to a financial system that has been growing too fast
- Stronger regulations will be required to limit private liquidity growth
- We need a paradigm shift in our view of banking

What should central banks do?
A *Minskian approach*

- Face up to the problem of TBTF banks:
  - "Call their bluff"
  - Allow them to fail and wipe out the shareholders
- Open the discount window to "money market position takers" (dealers)
- Legislate against "speculative finance"
- Restore real growth and profits by public spending (govt-led growth is stabilizing)

Minskian view of banking

- Banks “create money” lending own IOUs
  - Extending loans creates deposits
- Banks are <u>not</u> primarily intermediaries
  - They don’t move “savings” around
- Private liquidity is highly <u>endogenous</u>
  - Grows in booms, “disappears” in busts

    => Bank credit can be highly destabilizing
- This is the core of Minsky's instability theory!

Reconstituting the Financial System

- Minsky Project: Reconstituting Finance to Promote Capital Development of the Economy
- Requires Proper Framework
  - 1. a capitalist economy is a financial system;
  - 2. neoclassical economics is not useful because it denies that the financial system matters;
  - 3. the financial structure has become much more fragile;
  - 4. this fragility makes it likely that stagnation or even a deep depression is possible;
  - 5.a stagnant capitalist economy will not promote capital development;
  - 6.however, this can be avoided by apt reform of the financial structure in conjunction with apt use of fiscal powers of the government.

Outlook

- Private endogenous liquidity is growing without effective control
- Central banks should not backstop this system
- Liquidity support should be conditional on structural reforms
- Encouraging signs among key policy makers of "change of heart" represent opportunity for change
- Challenge ahead: "To control and guide the evolution of finance" (Minsky, 1982)

Policy proposals

- Basel III + will help, but is not enough
- More radical measures:
  - Global (BHC) leverage ratio
  - Divorce the payment system from banking
  - Limit central banks' MMLR role
  - Tougher collateral rules
  - Stop the "too-big-to-fail" policy

What *Should* Financial System Do?: Key Elements to Promote Capital Development

- 1. safe and sound payments system;
- 2. short term loans to households and firms, and, possibly, to state and local government;
- 3. safe and sound housing finance system;
- 4. a range of financial services including insurance, brokerage, and retirement savings services; and
- 5. long term funding of positions in expensive capital assets.

NB: there is no reason why these should be consolidated, nor why all should be privately supplied

Conclusions for Reform

- Reducing concentration plus retaining risk can reorient banks back to relationship banking
- Role for gov't to play in re-regulating and re-supervising
  - There are no magic formulas (capital ratios, living wills, skin in the game)
- Role for gov't in direct provision of financial services
  - Payments system
  - Direct lending to serve public purpose
  - Guarantees for public-private partnerships