Quantitative easing: Entrance and exit strategies

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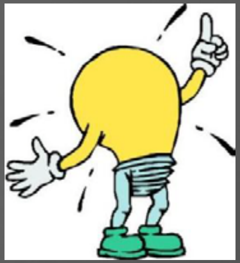
Outline

1. The conceptual basis for quantitative easing
2. The Fed's entrance strategy
3. The Fed's exit strategy
4. Implications for central bank independence
5. Wrapping up

1. The conceptual basis for quantitative easing

The problem and a possible solution

- The zero lower bound on nominal interest rate
  - "liquidity trap"
  - $r = i - \pi$ can't get negative enough.
- Friedman's warning about fixing i: dynamic instability
- Idea: Shrink term and/or risk premiums
  - $R_j = r + \rho_j$
  - Requires imperfect substitutes or "frictions"

Specific strategies

To shrink term premiums

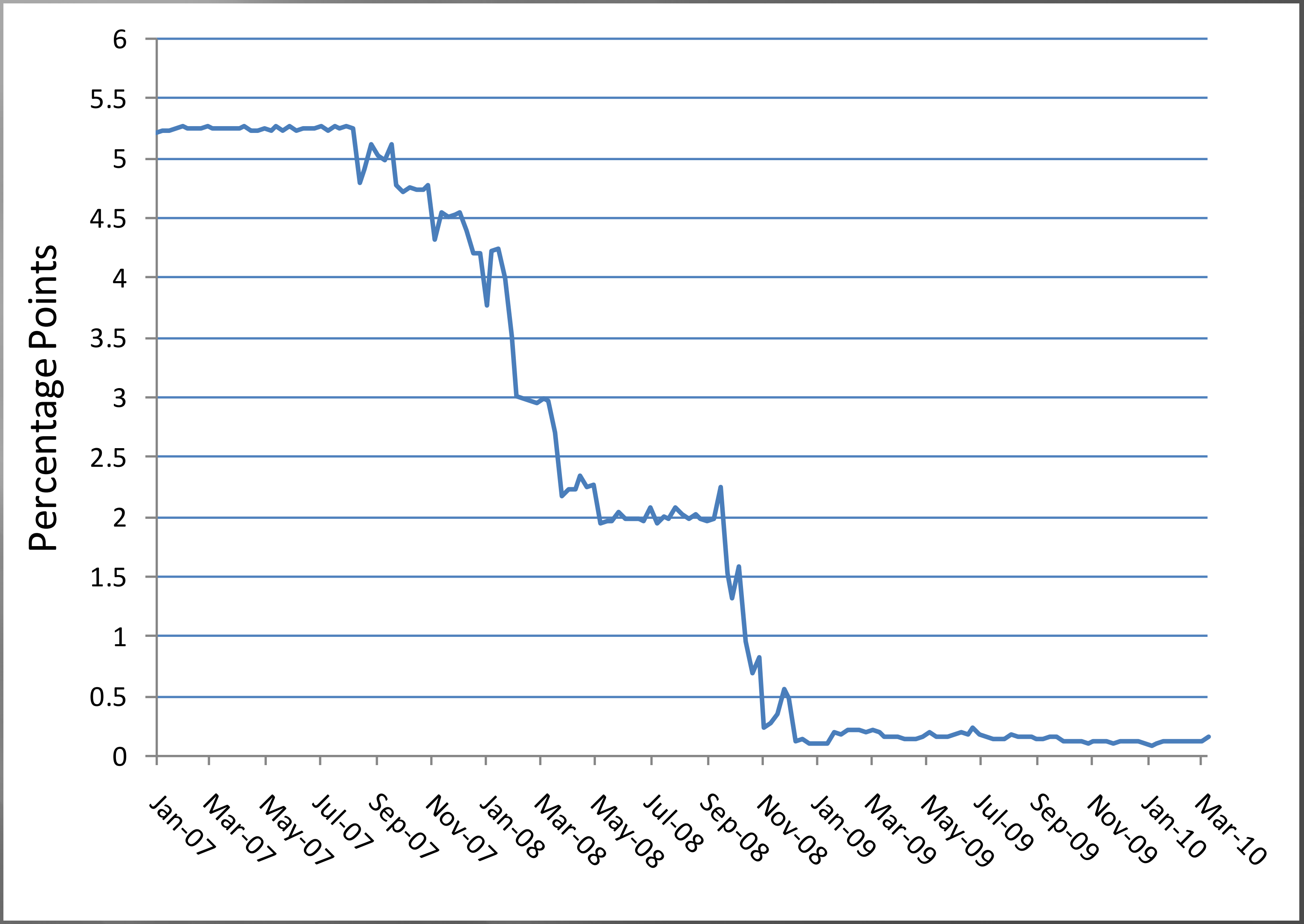
- Buy long-term government bonds…
    - -- and sell T-bills
    - -- by creating new bank reserves
- Relies on imperfect arbitrage across yield curve
- Another option: commit to keeping the overnight rate low for a long time

To shrink risk premiums

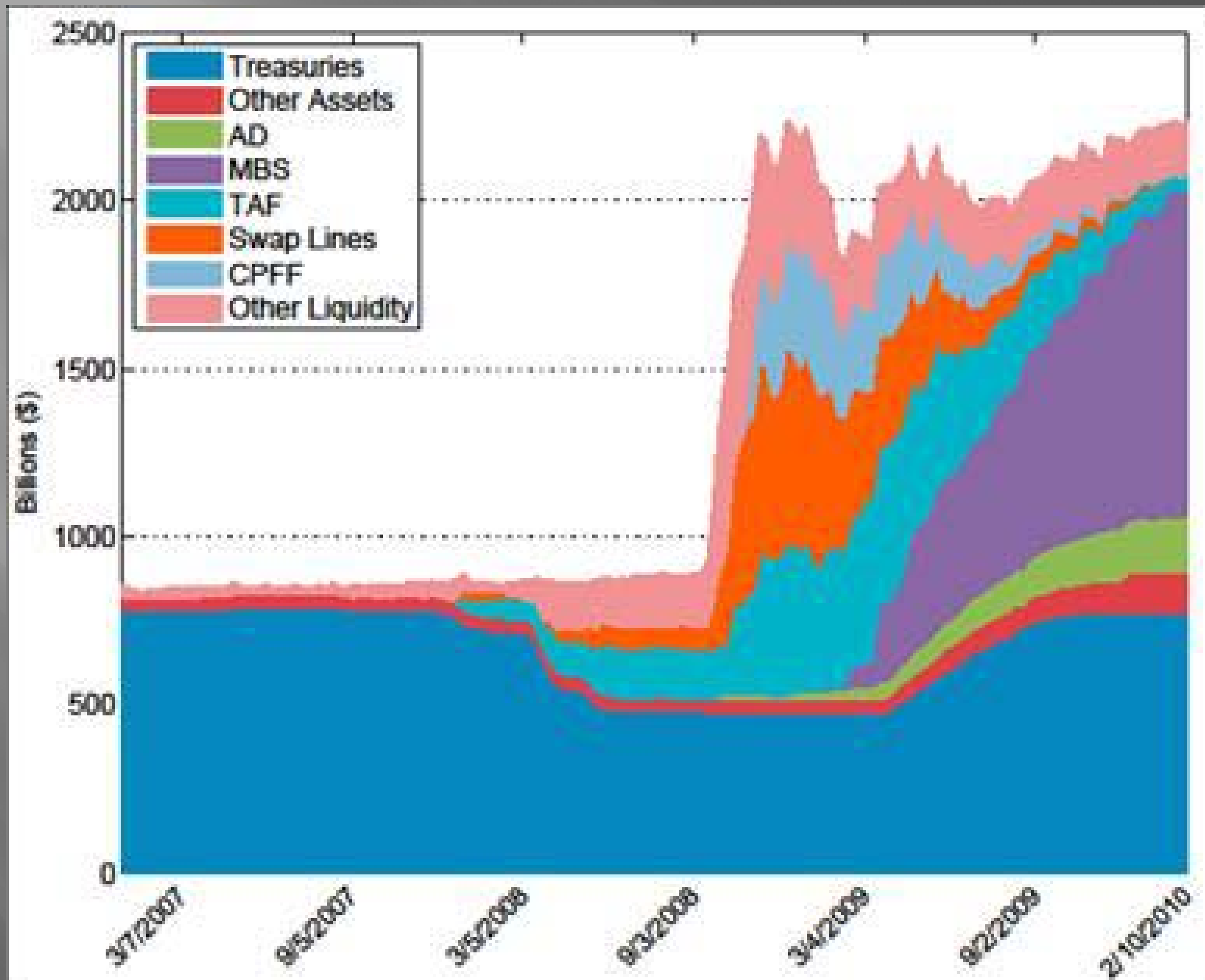
- Buy the risky asset…
    - -- and sell the safe asset
    - -- by creating new bank reserves

2. The Fed's entrance strategy

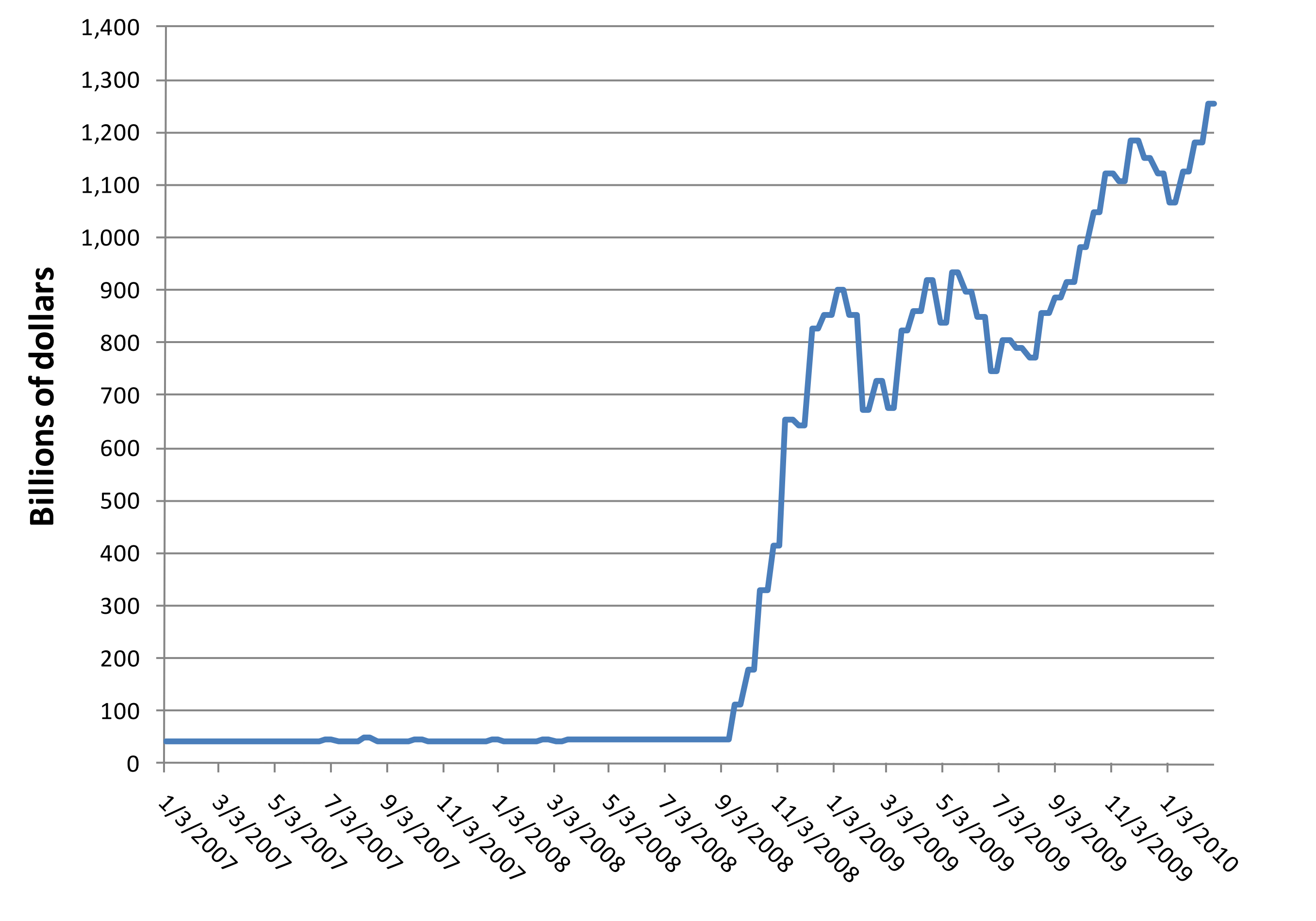
The funds rate first



Early QE did *not* blow up Fed's balance sheet…



…nor increase bank reserves much



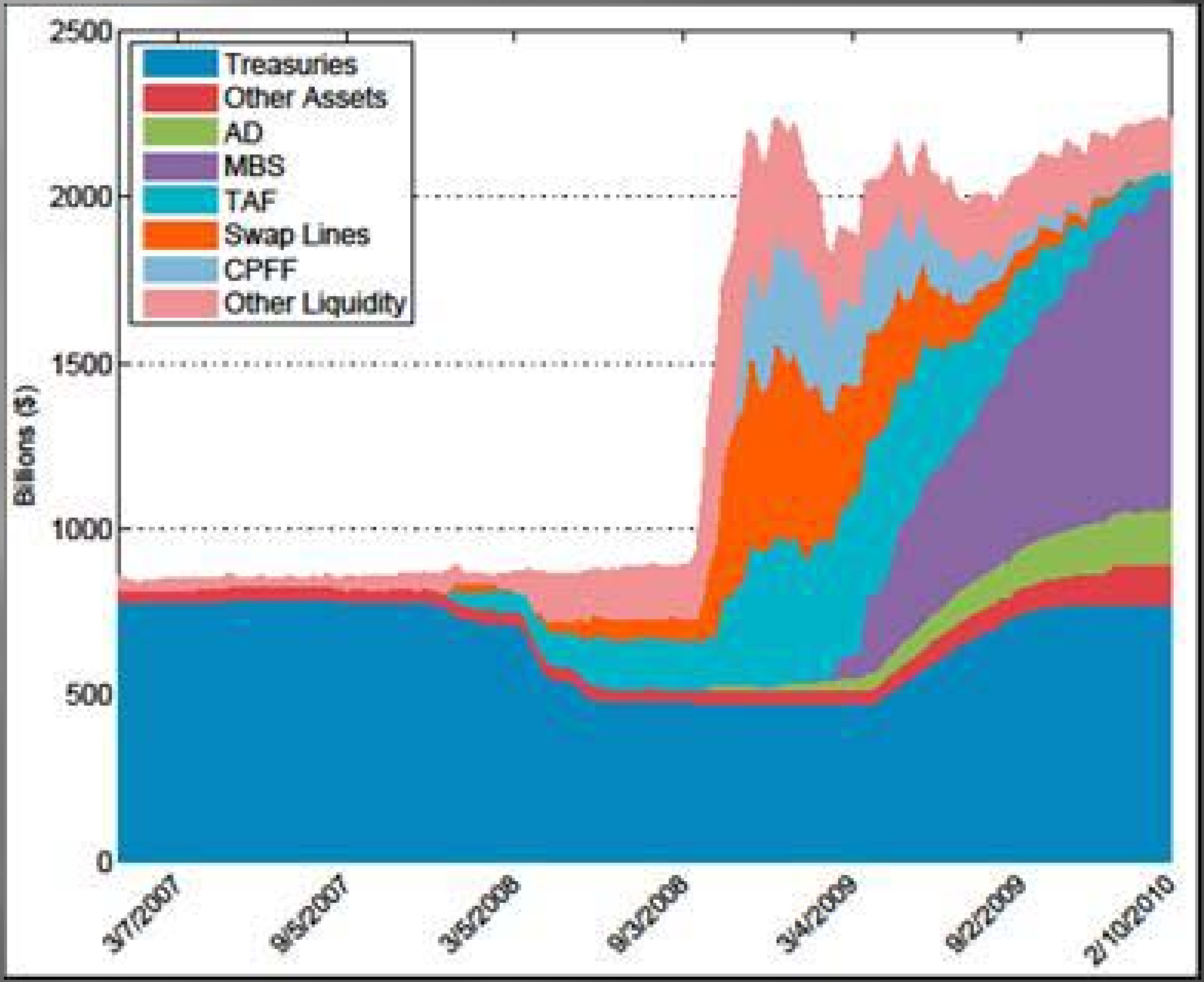
Simplified Fed balance sheet

ASSETS	LIABILITIES AND NET WORTH
Treasury securities	Currency
Less liquid assets	Bank Reserves
Loans	Treasury deposits
	Capital

Swapping assets

ASSETS	LIABILITIES AND NET WORTH
Treasury securities↓	Currency
Less liquid assets ↑	Bank Reserves
Loans	Treasury deposits
	Capital

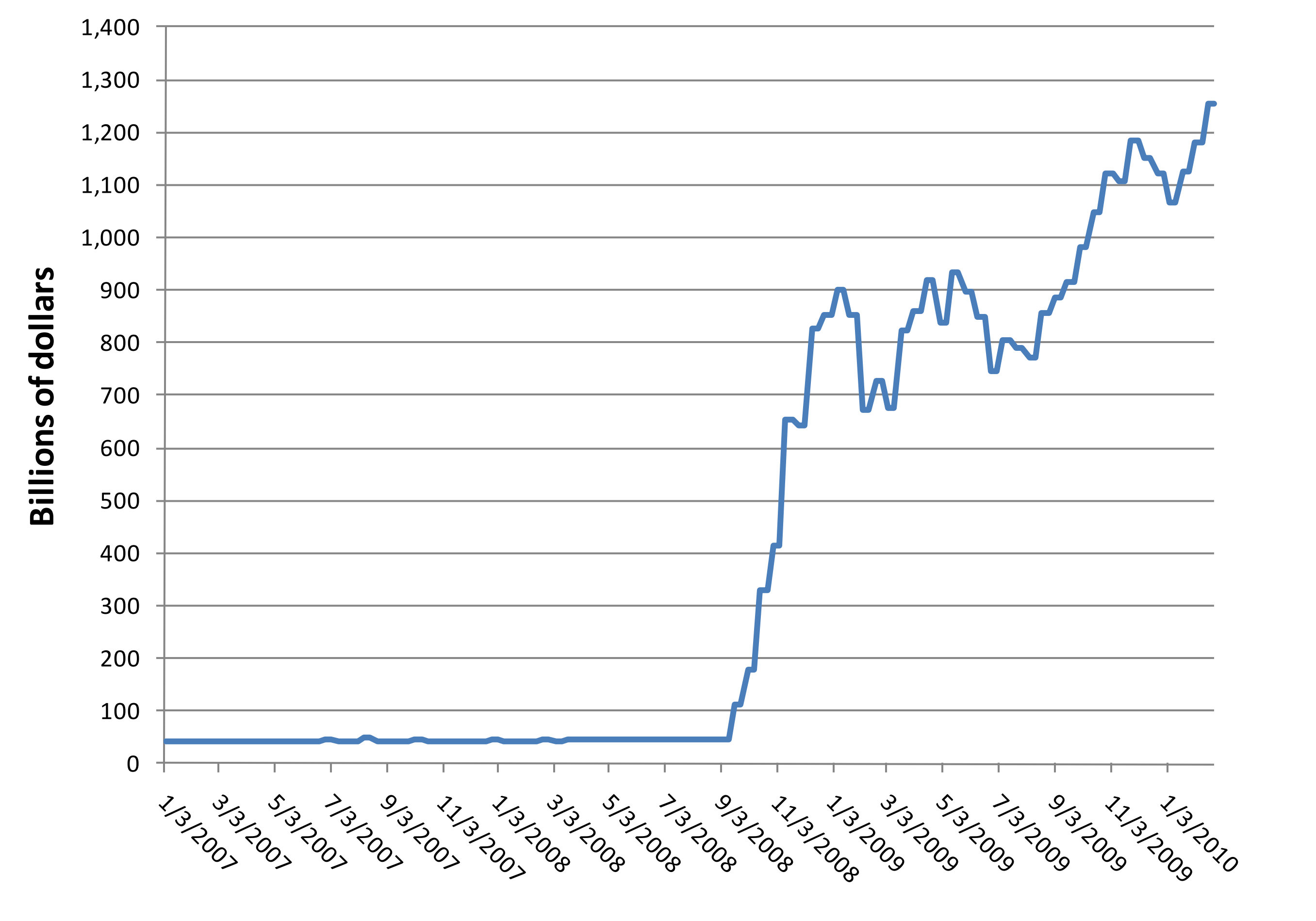
2008: Composition of the Fed's balance sheet starts to change



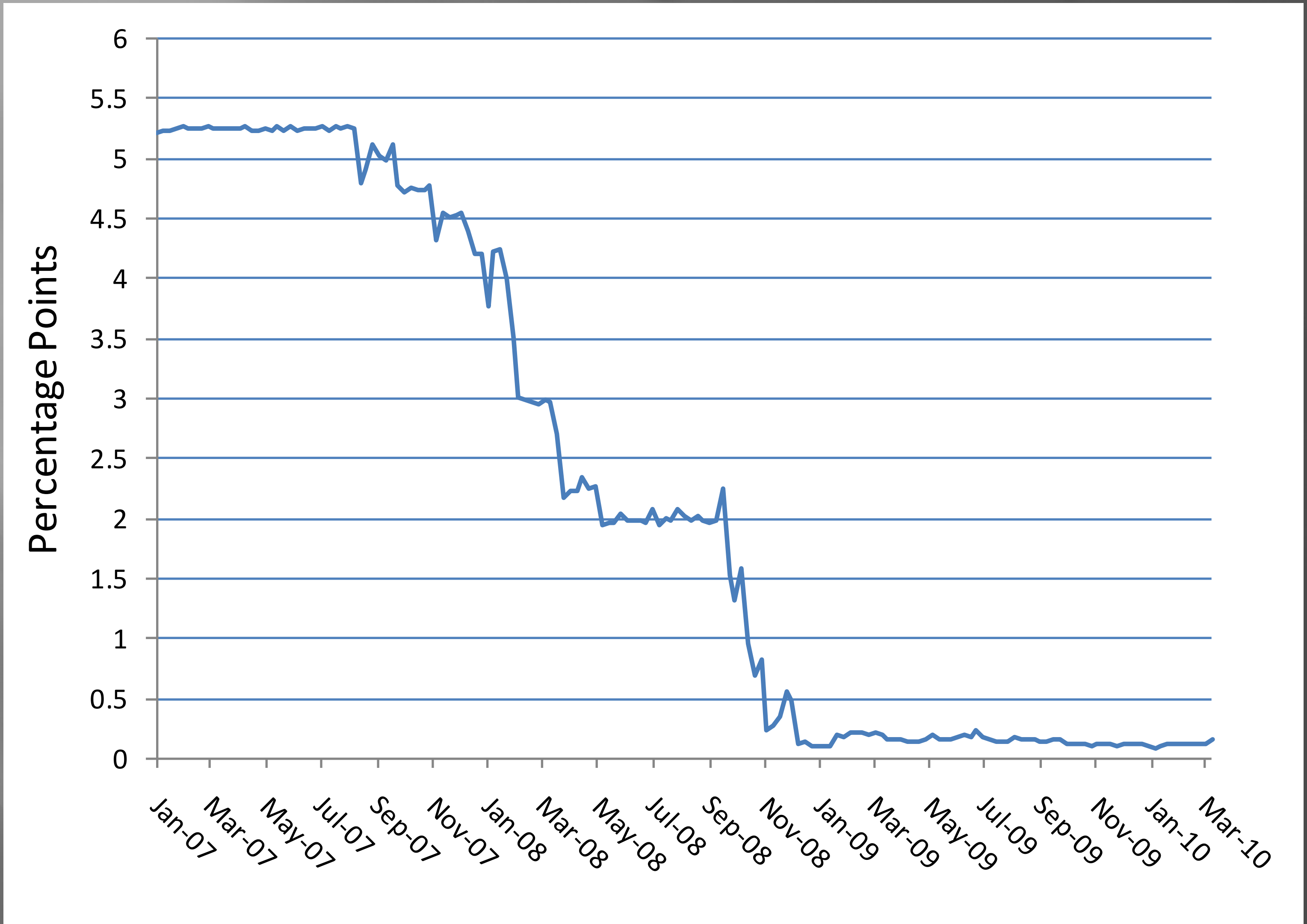
Adding Treasury deposits

ASSETS	LIABILITIES AND NET WORTH
Treasury securities	Currency
Less liquid assets ↑	Bank Reserves
Loans ↑	Treasury deposits↑
	Capital

So bank reserves hardly budged



Lehman changed everything



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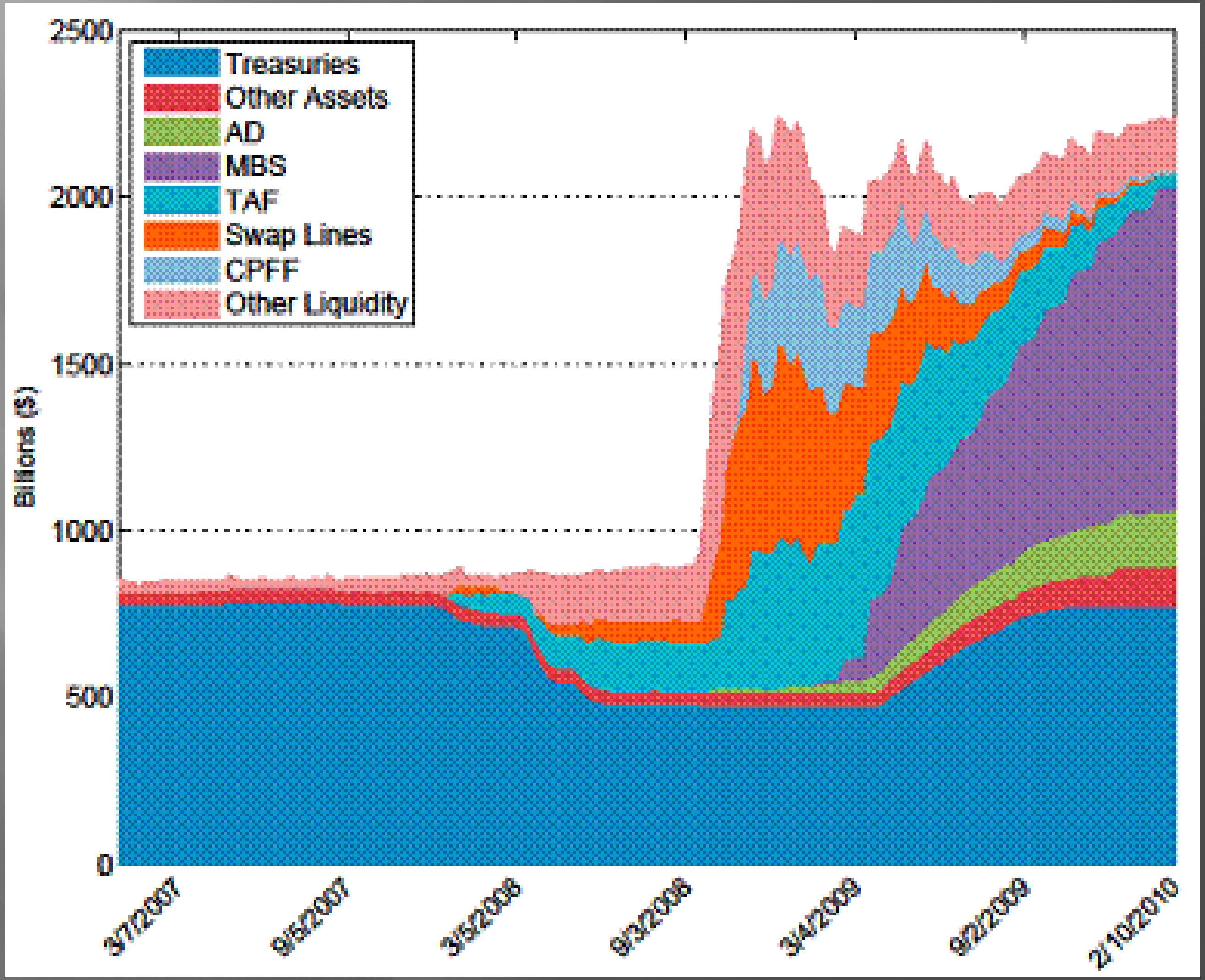

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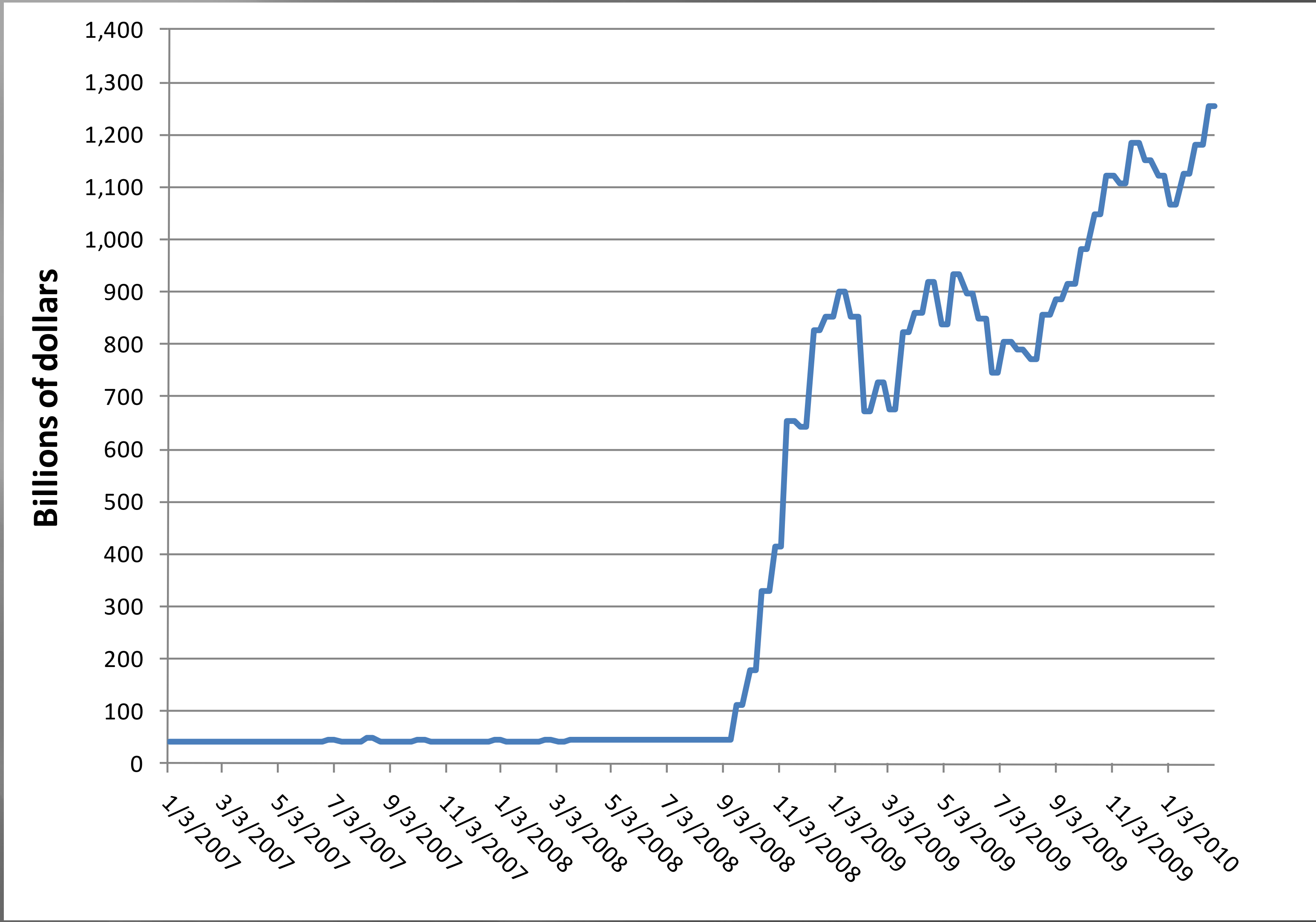


Two-stages in QE entrance

<u>*Stage I*</u>

Ad hoc, reactive, institution-based

Ex: Bear, AIG,…

<u>*Stage II*</u>

Systematic, thoughtful, market-based

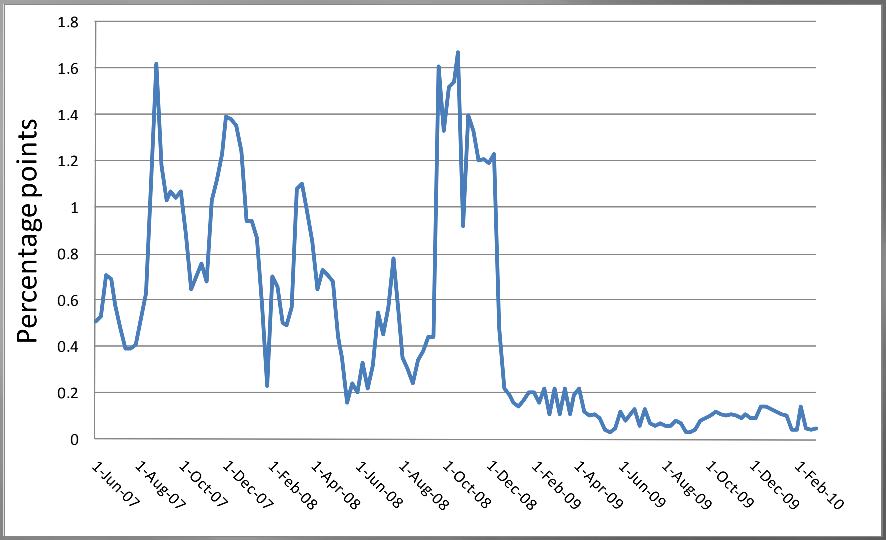
Ex: CPFF, MBS,…

Working on risk premiums

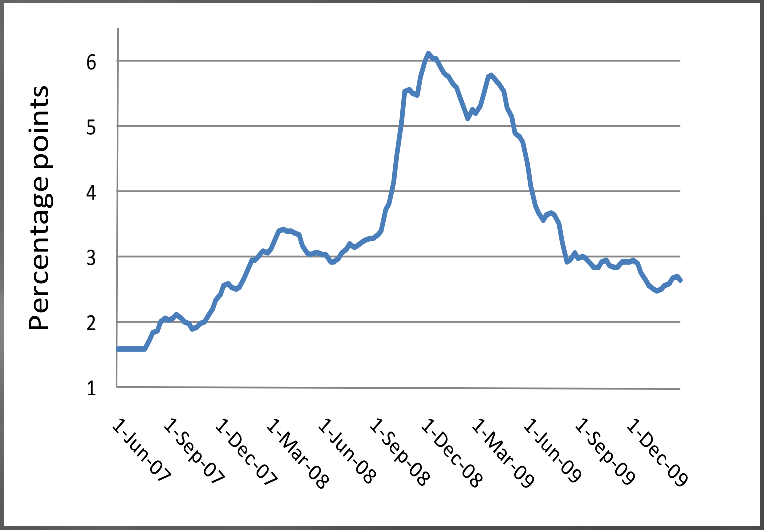
$$R_i = \underset{\substack{\uparrow \\ \text{riskless rate}}}{r} + \rho_i$$

Did it work?

CP vs. T-Bill risk spread

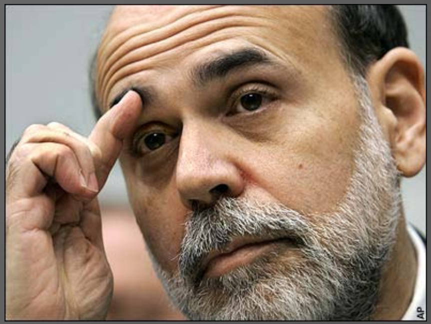


Corporate bond vs. T-note risk spread



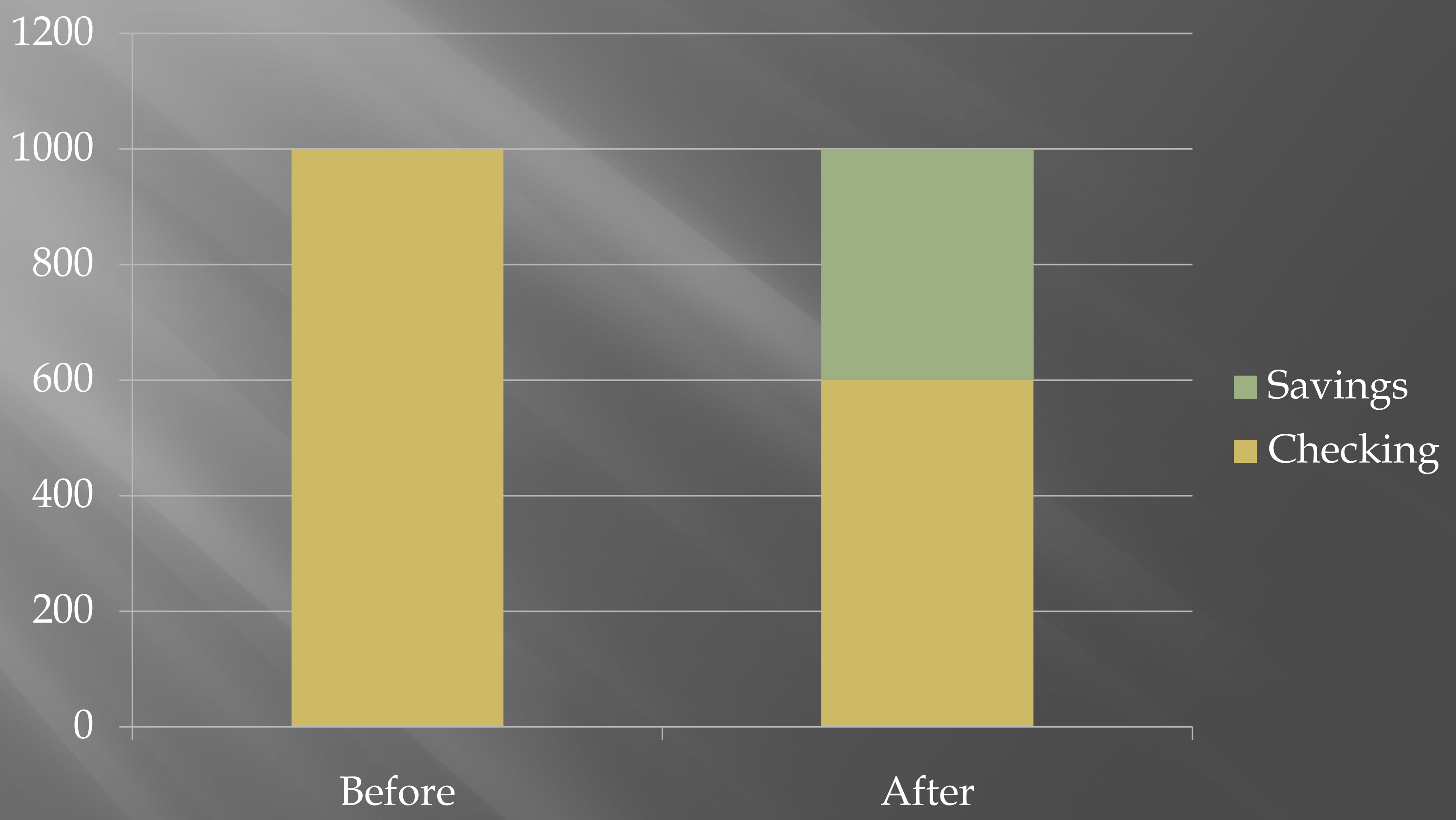
3. The Fed’s exit strategy

Bernanke's list

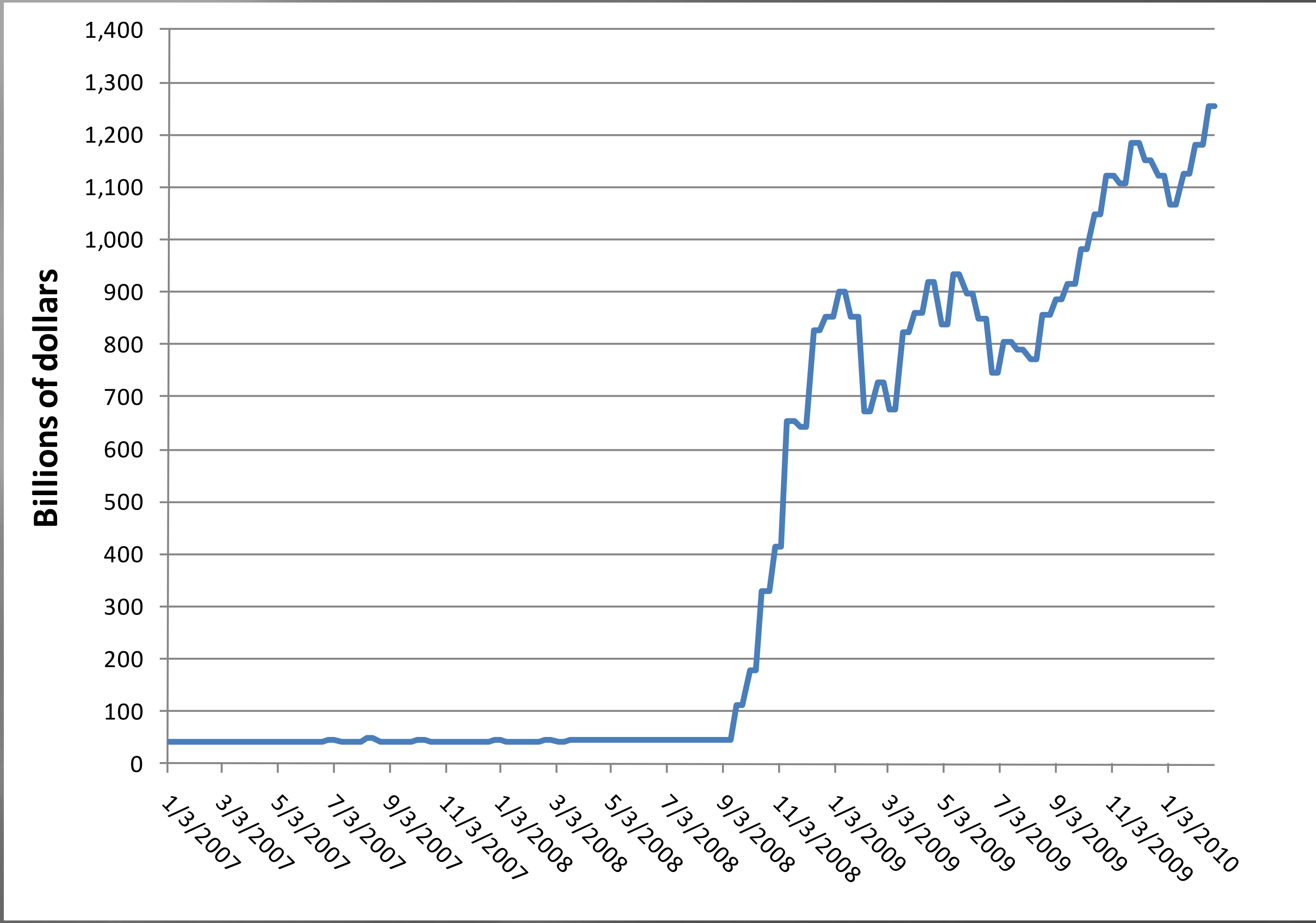


1. Phase out liquidity facilities ← gets for free
2. Normalize discount lending ← supplements 1
3. Passively shrink MBS/GSE debt ← gets for free
4. Increase interest rate on reserves ← novel
5. Offer banks "CDs" ← novel
6. Reverse repos ← conventional OMO, discretionary
7. Outright asset sales ← conventional OMO, discretionary

Offering banks CDs



The mountain of reserves



Simplified Fed balance sheet

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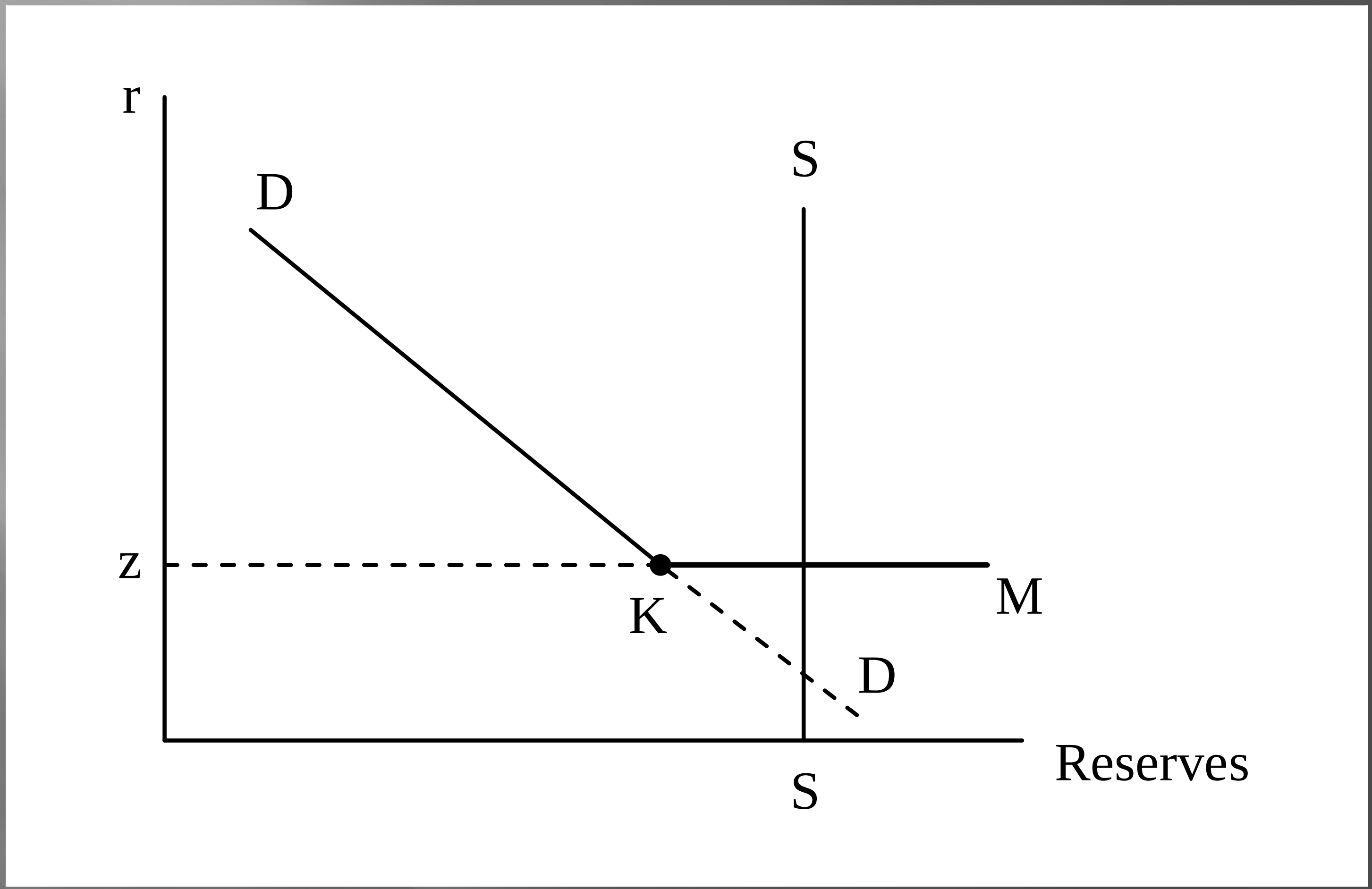
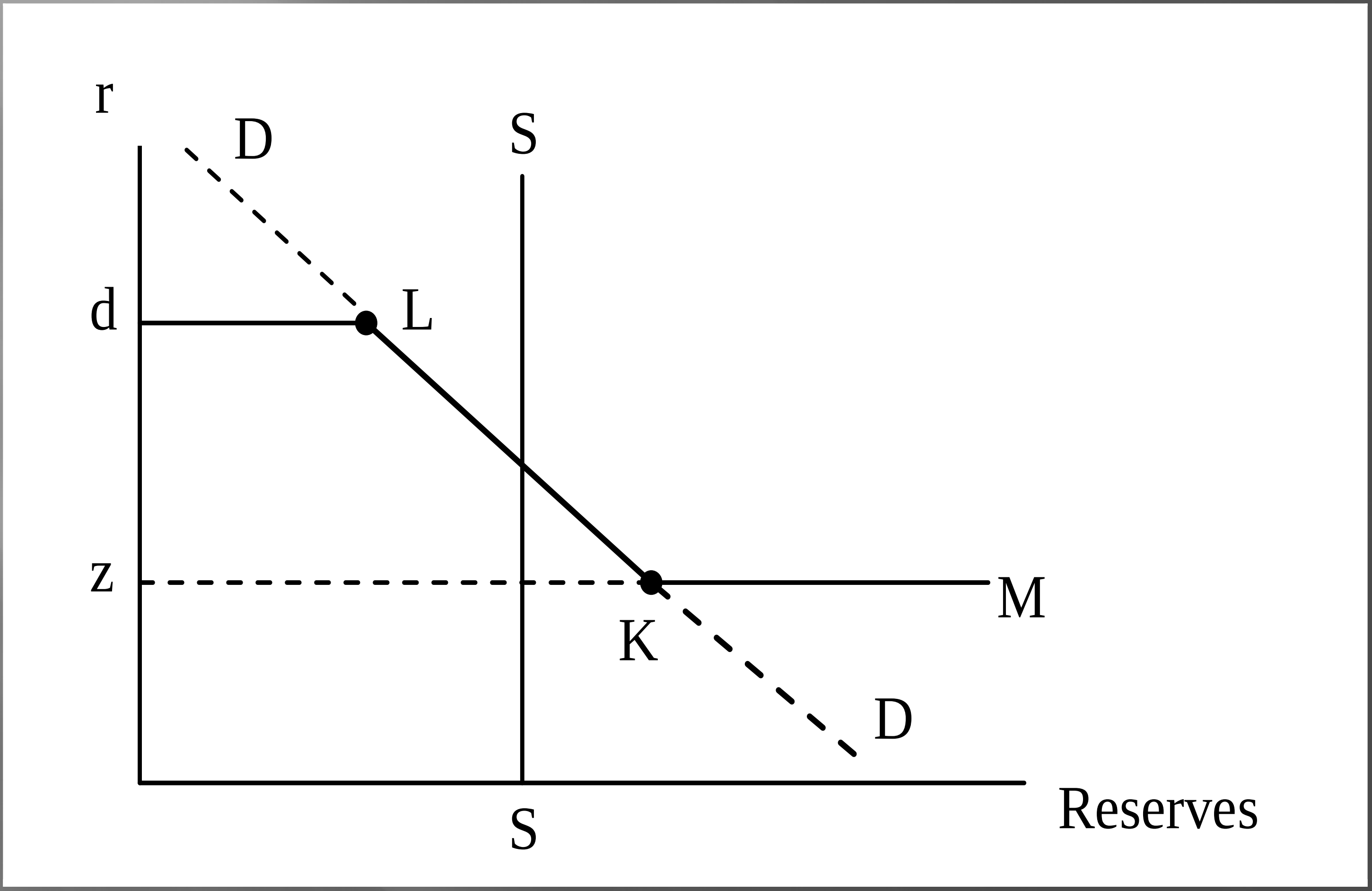
The market for bank reserves with a floor

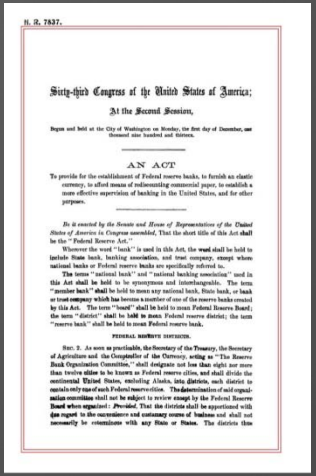


The market for bank reserves with a corridor



4. Quantitative easing and central bank independence

Quasi-fiscal operations


H. R. 7837.

Sixty-third Congress of the United States of America;

At the Second Session,

Begun and held at the City of Washington on Monday, the first day of December, one thousand nine hundred and thirteen.

AN ACT

To provide for the establishment of Federal reserve banks, to furnish an elastic currency, to afford means of rediscounting commercial paper, to establish a more effective supervision of banking in the United States, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the short title of this Act shall be the "Federal Reserve Act."

Wherever the word "bank" is used in this Act, the word shall be held to include State bank, banking association, and trust company, except where national banks or Federal reserve banks are specifically referred to.

The terms "national bank" and "national banking association" used in this Act shall be held to be synonymous and interchangeable. The term "member bank" shall be held to mean any national bank, State bank, or bank or trust company which has become a member of one of the reserve banks created by this Act. The term "board" shall be held to mean Federal Reserve Board; the term "district" shall be held to mean Federal reserve district; the term "reserve bank" shall be held to mean Federal reserve bank.

FEDERAL RESERVE DISTRICTS.

Sec. 2. As soon as practicable, the Secretary of the Treasury, the Secretary of Agriculture and the Comptroller of the Currency, acting as "The Reserve Bank Organization Committee," shall designate not less than eight nor more than twelve cities to be known as Federal reserve cities, and shall divide the continental United States, excluding Alaska, into districts, each district to contain only one of such Federal reserve cities. The determination of said organization committee shall not be subject to review except by the Federal Reserve Board when organized: *Provided*, That the districts shall be apportioned with due regard to the convenience and customary course of business and shall not necessarily be coterminous with any State or States. The districts thus

Section 13(3) of FRA:

In ***unusual and exigent circumstances****, the Board of Governors of the Federal Reserve System, by the affirmative vote of not less than five members, may authorize any Federal reserve bank, during such periods as the said board may determine, … to discount* ***for any individual, partnership, or corporation,*** *notes, drafts, and bills of exchange when such notes, drafts, and bills of exchange are indorsed or otherwise secured* ***to the satisfaction of the Federal Reserve bank****.* (emphasis added)

Fixing Section 13(3)

- Require permission of the Secretary of the Treasury (or the FSOC)
- Require prompt reporting to the two banking committees (confidential for a while)
- These ideas are in both bills.

An important note—and a question

- The Fed has *never* had as much independence in the regulatory sphere as it has in monetary policy.
- What happens when Section 13(3) actions *are* the Fed's monetary policy?

5. Summing up