The Current Financial Crisis

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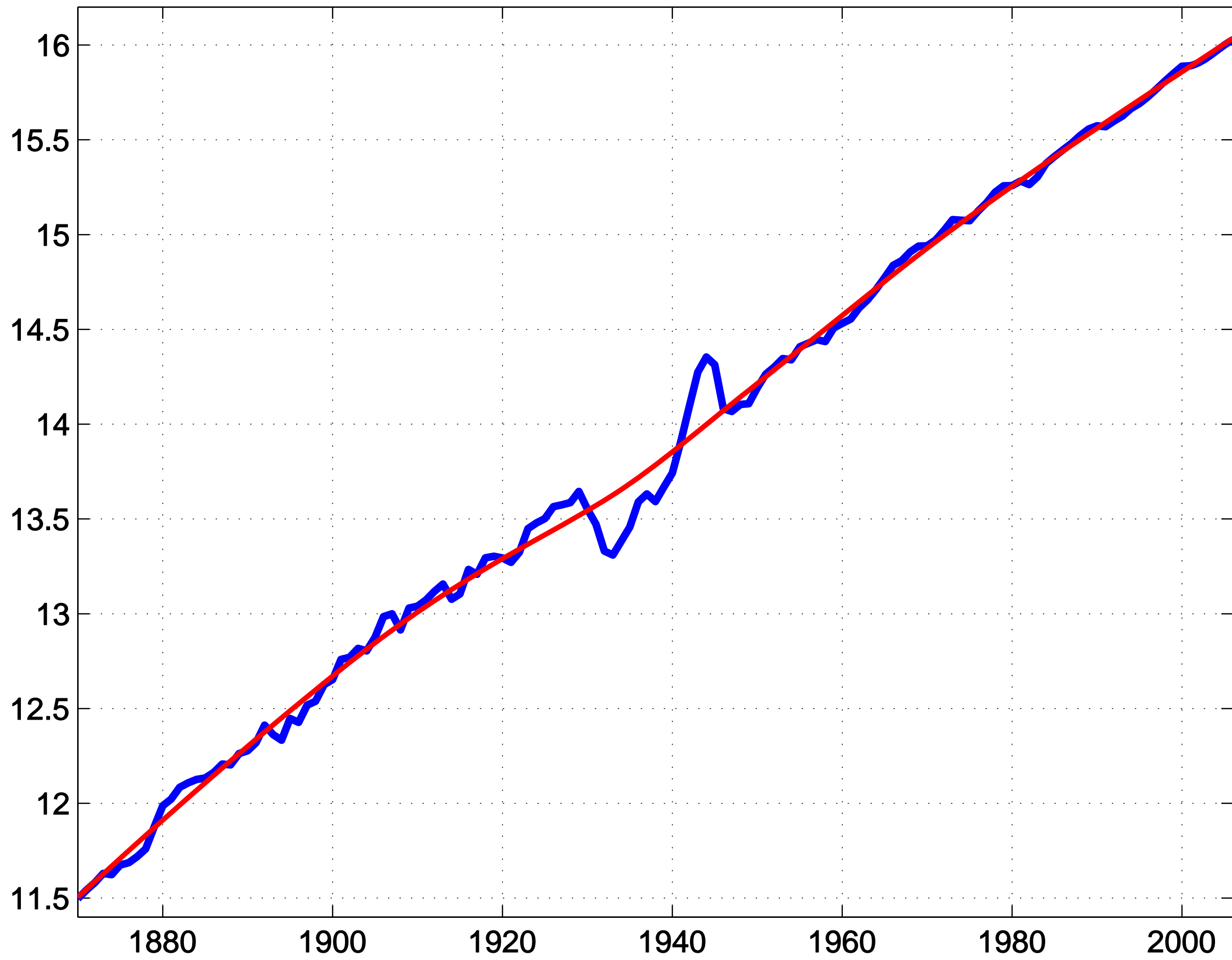
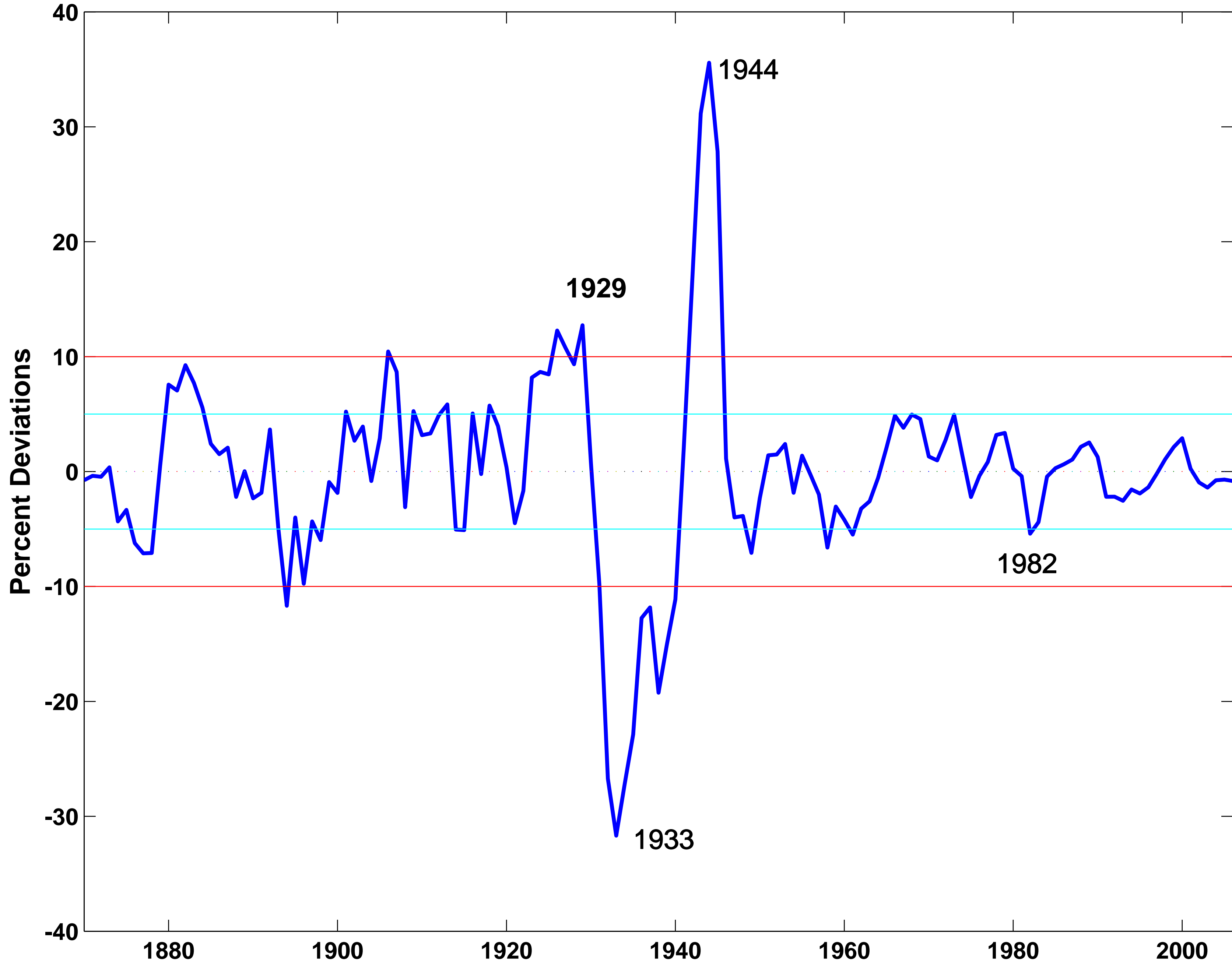
- Had planned to speak about long term economic growth but events of last few months on everyone's mind

- Use this occasion think out loud about the current situation in the U.S.
  - What has happened so far?
  - What are the dangers inherent in these events?
  - What are the economic principles that can be applied to avert these dangers?
  - What is being done, and what should be done?

- Talk will be non-technical, notation free
- No pretense of a new scientific contribution
- But sometimes useful to try to say what we think we know as economists in plain English
- Will be interested in your reactions to my attempt to do this
- First, some familiar, essential background

- In long run, U.S. production grows at about 3% per year. Per person, 2%
- Maintained for for than a century
- Occasional displacements—wars, depressions—then return to trend
- Remove trend, define depression/recession as deviation from trend


U.S. REAL GDP, 1870-2006, LOG SCALE
16
15.5
15
14.5
14
13.5
13
12.5
12
11.5
1880
1900
1920
1940
1960
1980
2000



U.S. GDP, DEVIATIONS FROM TREND, 1870-2006
Percent Deviations
40
30
20
10
0
-10
-20
-30
-40
1880
1900
1920
1940
1960
1980
2000
1944
1929
1933
1982

- Post WW II recessions? Minor ripples. Who remembers them?
- Depression of 1930s? Disaster. No one will forget 1929
- Recession of 2008-09: Which will it be?
- At this point, we just don't know

- According to *Economist* poll of forecasters (December 6 issue), 2008 GDP growth will be 1.3%, 2009 will be -1.0% (both numbers revised downward twice last month)

- At end of 2007, economy was about 2% below trend

- 3 - 1.3 = 1.7% added to this shortfall in 08: now 2 + 1.7 = 3.7% below trend

- 3 + 1 = 4% added to shortfall in 09, then 3.7 + 4 = 7.7% below trend 14 months from now

- Compare to 5% below trend in 1982. But compared to 1929-1933, not even close—yet

- To sum up—we are concerned not so much by what has already happened, but because of fears about what will happen next

- Why these fears?

- Because current situation resembles the situation in early 1930s

- In that situation, a modest recession slid into the deepest depression in history

- Want to spell out these parallels in more detail, consider implications

PLAN OF TALK

1. Events of 1929 - 1933
2. New Deal regulatory response
3. Events of 2007 - 2008
4. New financial reforms ?

1 Contraction of 1929 - 1933

- Following account and interpretation of contraction, most data, taken from Chapter 7 of

- Milton Friedman and Anna J. Schwartz, *A Monetary History of the United States, 1857-1960*

- Begin with a selection of facts

Year-to-year Percent Changes

Year ending	Real GDP	Price level	Bank deposits	Reserves
1929	5.9	2	-1.4	-3.1
1930	-9.3	-4	-4.7	4.3
1931	-8.0	-8.8	-20.6	-5.9
1932	-14.1	-9	-11.3	2.2
1933	-2.1	-2.6	-11.6	7.8
1934	7.4	7.7	16	35.8

- Cumulating these changes, real output fell 34% from 29 peak to 33 trough
- Price level fell 24%
- Add these to get a 58% decline in dollar value of spending on goods and services in this 4 year period
- These events are frightening precisely because they are so mysterious: Why did we, collectively, **choose** to reduce production by 1/3, with no change in available resources ?

- What **did** change dramatically was bank deposits: see Table
- Cumulative decrease over 1929-33 was 48.2%. Why?
- Not because reserves fell: They rose by 8.4%: See Table
- Consider three questions in turn:
  - Why did deposits decline?
  - Why did this decline precipitate a depression?
  - What could have been done to reverse the decline?

Why the decline in deposits?

- A fractional reserve banking system will always be fragile, a house of cards

- There will always be two possible equilibria:

  - one in which people believe the bank has enough reserves to cover withdrawals and therefore it does

  - another in which people believe the bank does not have enough reserves, and therefore it doesn't

- In 1929-33 there were three episodes of bank runs: 2 in 1930, one more in 1933

- Can look at individual banks: many failed, many did not
- Table only shows large decreases in deposits in system as a whole
- Decreases arose from
  - bank failures themselves
  - preemptive withdrawals from sound banks
- A “flight to currency”

How can increased demand for currency precipitate a depression?

- To build up cash reserves, businesses, households sell off other assets
- But economy as a whole cannot get more liquidity in this way
- Only effect of these attempts is to reduce prices other assets
- Only remaining possibility for individuals is to hold on to cash inflows and try to reduce cash outflows
- Cumulative result of these efforts was a 58% decline in spending

- Spending decline has to result in deflation or decline in production
- What determines relative importance of these effects?
- Central problem of macroeconomic theory: still unresolved
- In the 1930s, both effects occurred

What could have been done?

- Get more reserves—more cash—into the system
- Fed could have offset deposit decreases due to bank runs by increasing bank reserves, permitting/encouraging sound banks to expand deposits
- Did this to some extent in 1929 and 1930, but in 1931 they did not
- Instead a large decrease in reserves in 1931! See Table
- This failure was the crucial policy mistake leading to the depression

2 New Deal Bank Regulations

- My view of 2007-08 crisis is based on parallels to 1929-33, but there are obvious differences between these situations that must be respected

- In 2008, there has been much bank reorganization, but no bank runs, no deposits lost, no flight to currency

- If these were central in 1930s, where is the parallel?

- To deal with this question, digression is needed

- After 1933, Roosevelt administration introduced measures directed at preventing bank runs

- 1933 Glass-Steagall Act set up deposit insurance: FDIC

- Also set up sharp distinction between commercial banking services and investment services

- Banks had to choose: Only commercial banks permitted to issue insured demand deposits

- Commercial banks also regulated more tightly than investment banks

- Prohibited from paying interest, and required to hold non-interest bearing reserves

- Idea is to ensure that consumers, firms have access to secure liquid assets, and that they are clear about which deposits are insured, which not

- Success? Has not been widespread run on commercial banks since 1933

- An effect of this regulatory structure is that insured depositors get no (or small) return on deposits while holders of other liquid assets—commercial paper, short term treasuries—earn interest

- Commercial banks get no return on reserves while investment banks can hold interest-bearing liquid assets

- Incentive for large depositors to move funds out of regulated banks and into unregulated (and uninsured) interest earning accounts is huge

- As interest rates rose during inflation of 1970s, incentives became much stronger

- What does it mean, exactly, to move funds out of regulated banks?

- Depositors apply effort to move funds out of bank and into other, higher return assets; move them back into the bank just in time to make payments

- This is what corporate "cash managers" do

- Incentives to do this increased in the 1970s inflation

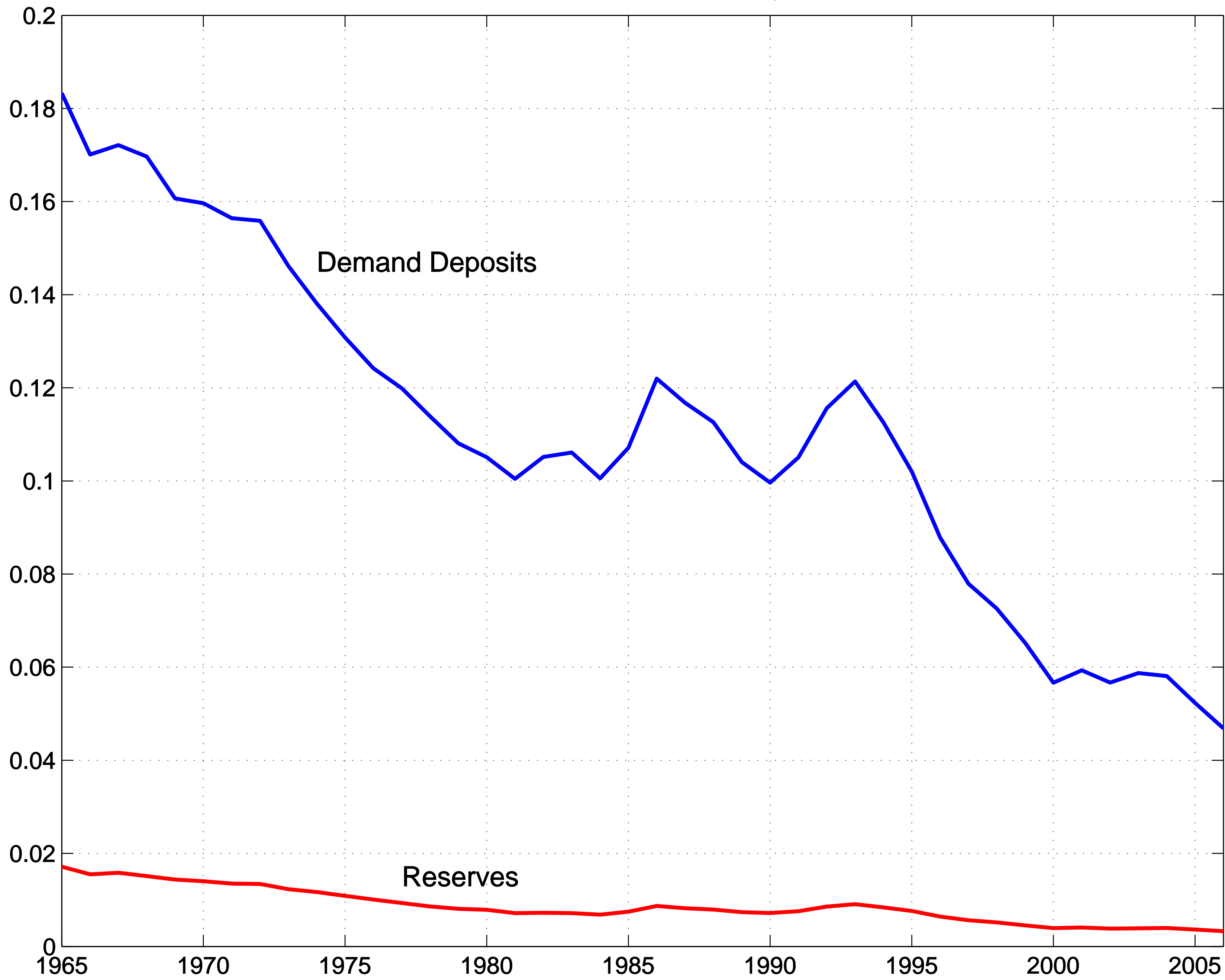
- Became routine for banks to do this moving-in-and-out automatically for business depositors—“sweeps”

- A straightforward—and legal!—evasion of the requirement that banks not pay interest on commercial accounts

- Moving these short-term promises around is a large part of what the financial sector does today

- In this way, much of Glass-Steagall evaded by 80s, 90s

- Repeal in 1999 mostly just confirmed what had already happened



DEMAND DEPOSITS AND RESERVES, RELATIVE TO GDP
Demand Deposits
Reserves
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
1965
1970
1975
1980
1985
1990
1995
2000
2005

3 Financial crisis of 2007-08

- By 1990s, then, businesses had moved most deposits out of commercial banks and into short run securities that are thought to (1) be safe from default risk, and (2) yield a better return

- Examples are short term governments and high-grade commercial paper

- Others? Many countries entered the competition to supply uncontingent, short-term claims to U.S. dollars

- Financial firms created low-risk derivatives out of packages of high risk assets

- Novel element is not issue of risky securities—need those as long as there are real risks to be shared

- It is increasing role that these played in the payments system:

- People extending short term credit to Lehmann to get a return infinitesimally higher than the T-bill rate did not think (or did not admit) that they were taking on risk, and neither did those who extended credit to them, accepting their Lehmann paper as collateral

- They thought they were doing something very close to depositing cash in an insured bank

- But they weren't, as we all know.

- Economically, the routine use of short term borrowing is identical to the issue of demand deposits: "you give me cash today, take it back (withdraw it, decline to roll it over) whenever you like"

- The economics of the "credit freeze" that happened to Bear Stearns, then to Lehmann Brothers, then to many others seems to me identical to the economics of the 1930s bank runs

- The freeze affected only financial institutions living on repeated issues of short term debt, the equivalent (I argue) of demand deposits

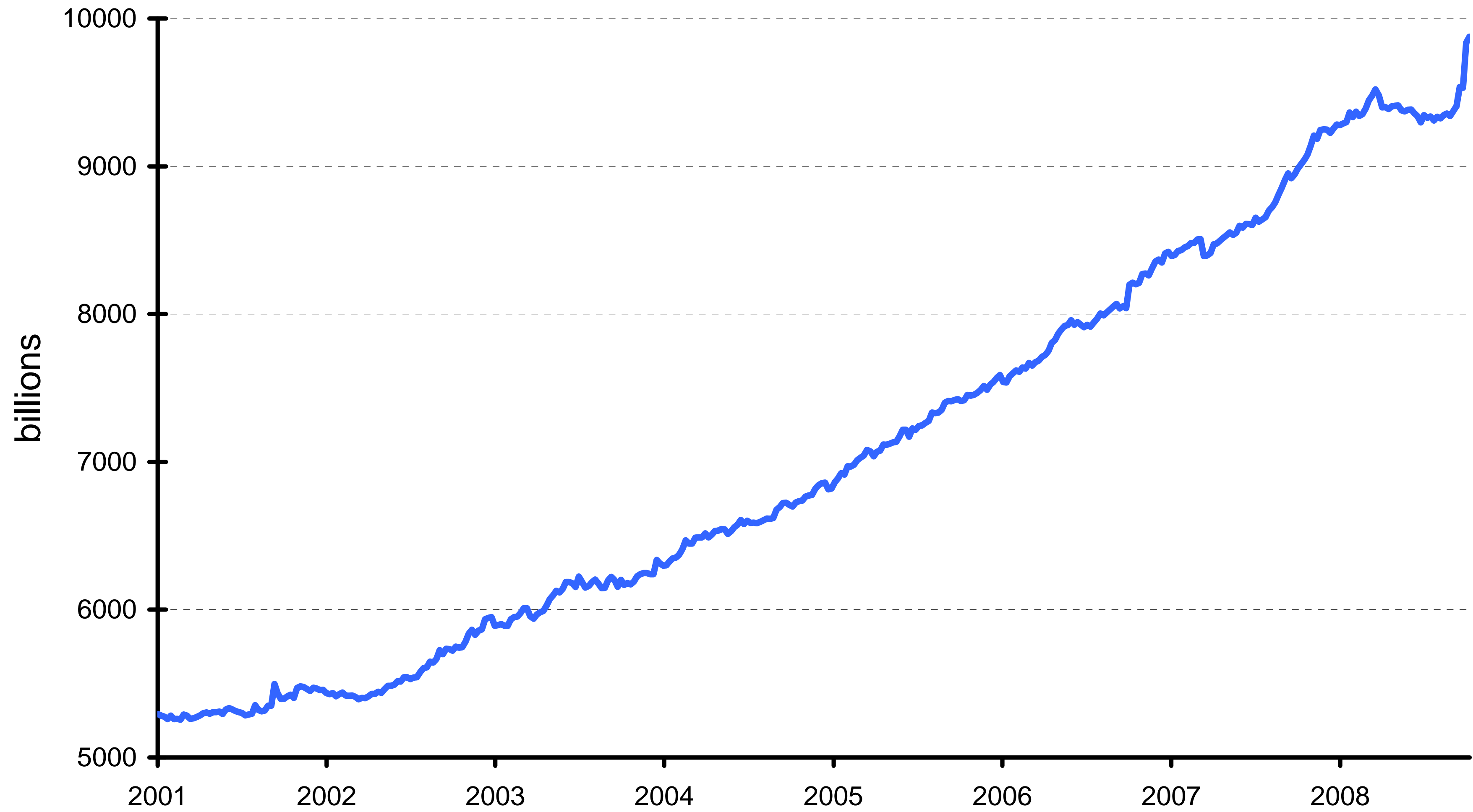
- Consumer, business lending went on pretty much as usual

- The figures that follow are taken from recent working paper:

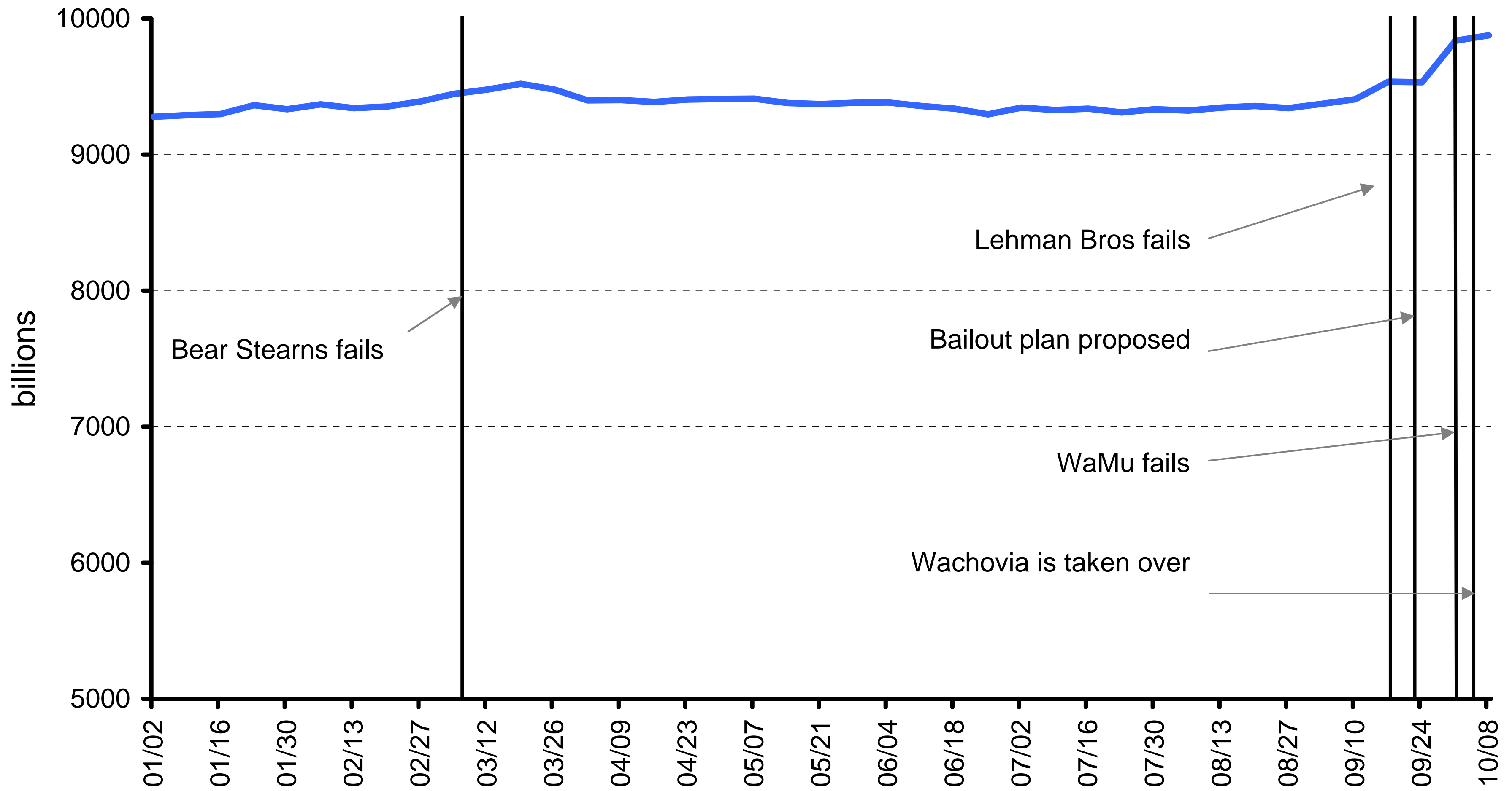
V.V. Chari, Lawrence Christiano, and Patrick J. Kehoe,

"Myths about the Financial Crisis of 2008."

Fig 1A: Bank Credit



Source: Federal Reserve Board
http://www.federalreserve.gov/releases/h8/Current/



Source: Federal Reserve Board
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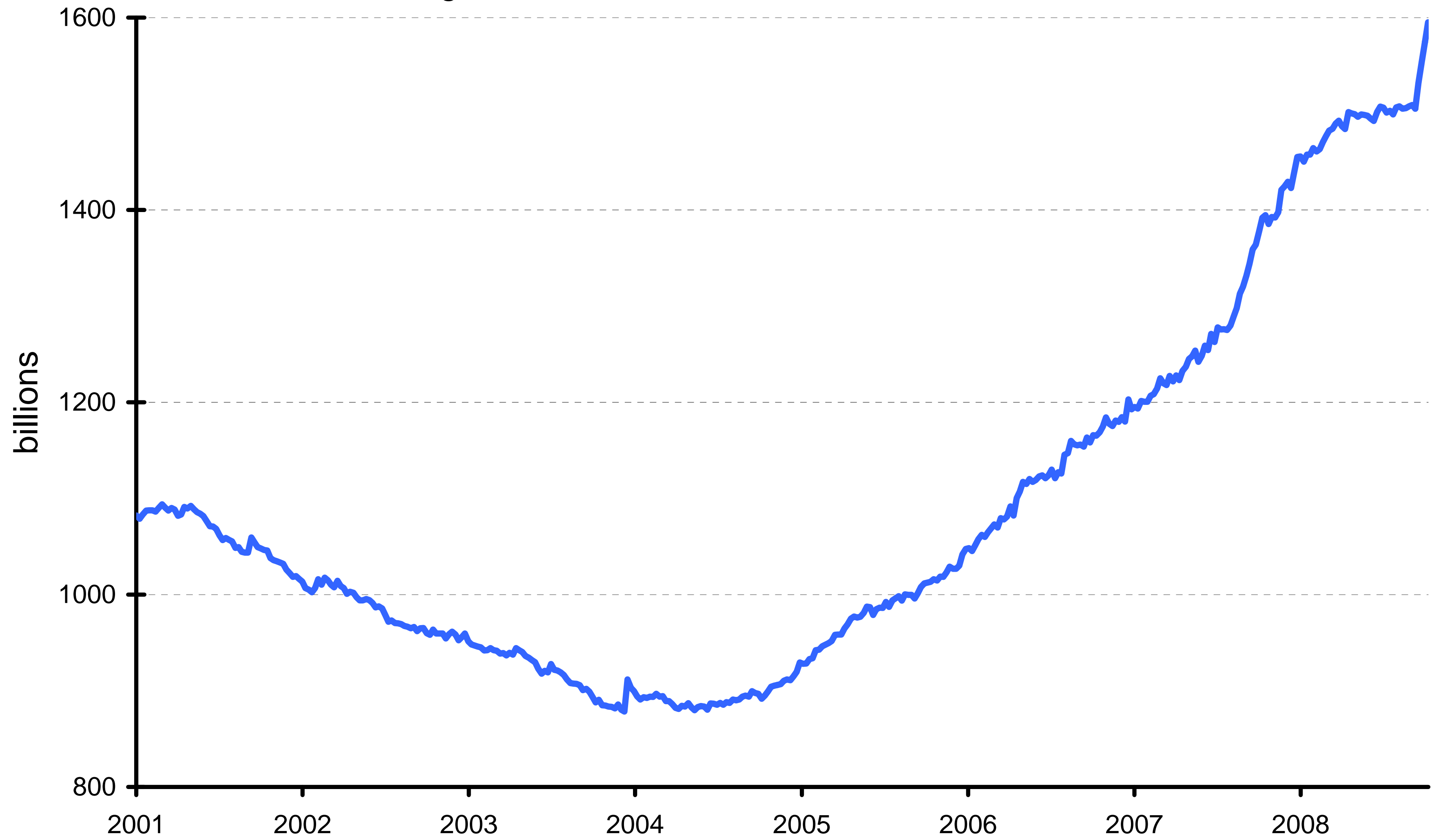
Fig 3A: Commercial and Industrial Loans



Source: Federal Reserve Board
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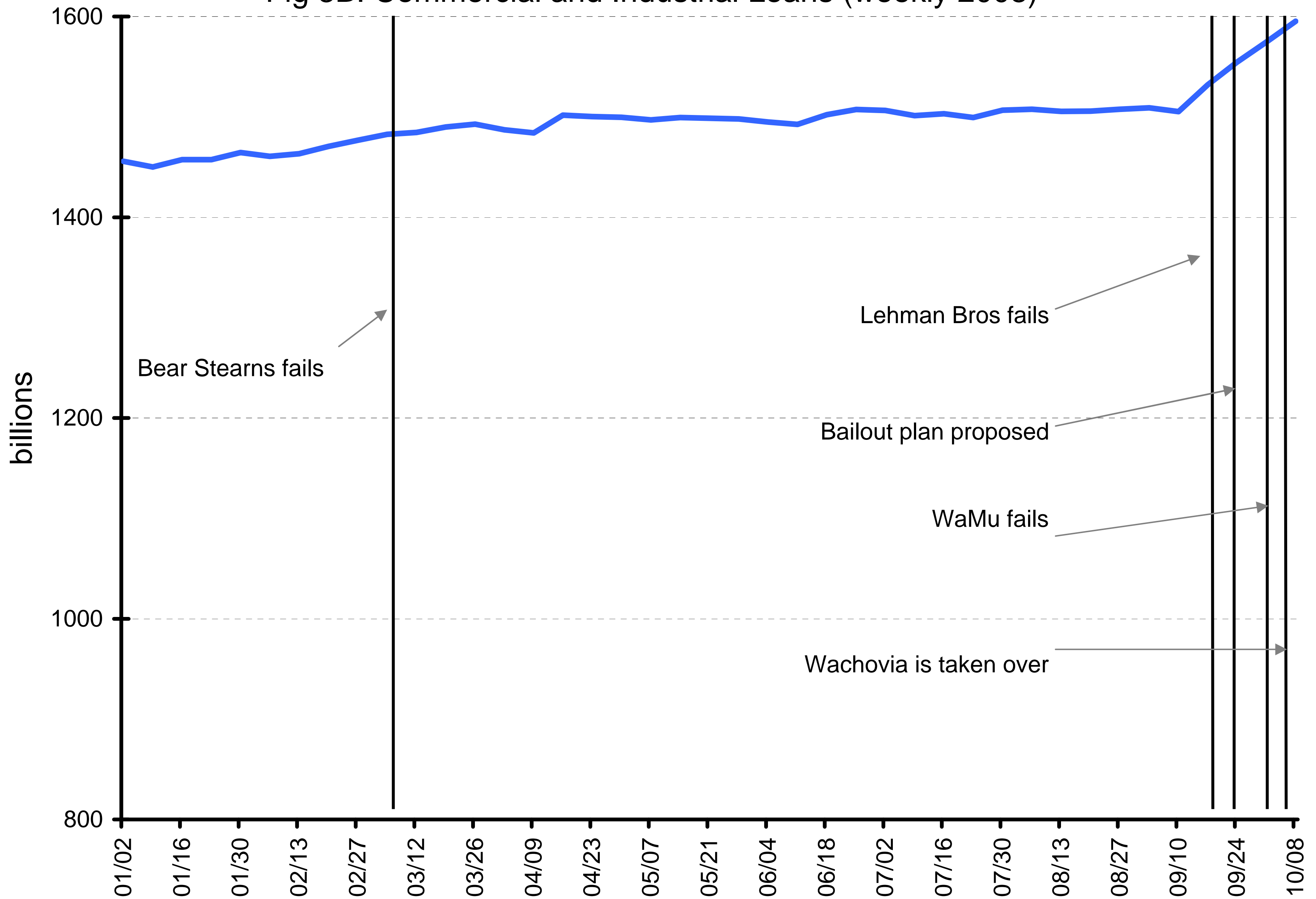
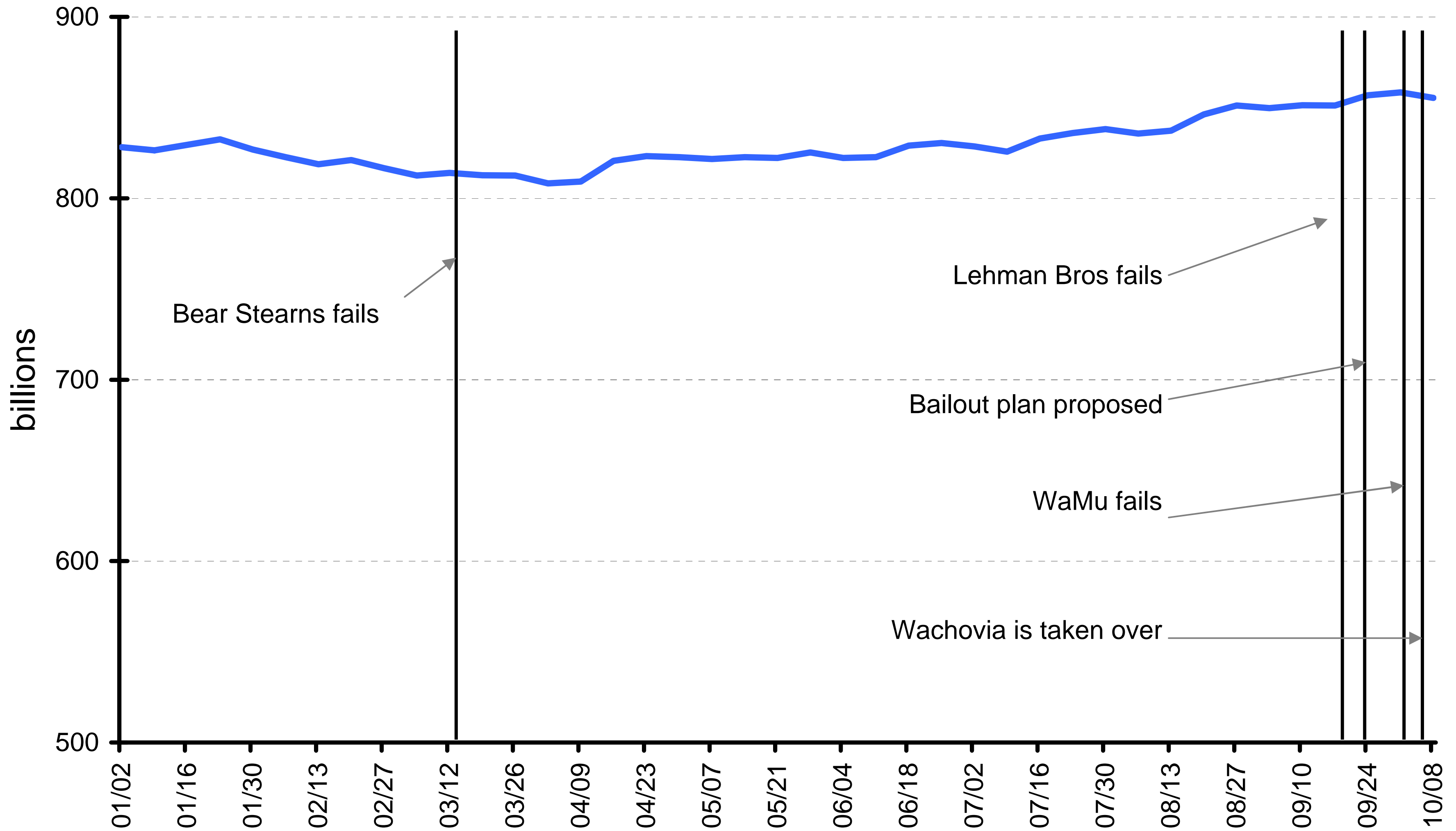


Source: Federal Reserve Board
http://www.federalreserve.gov/releases/h8/Current/

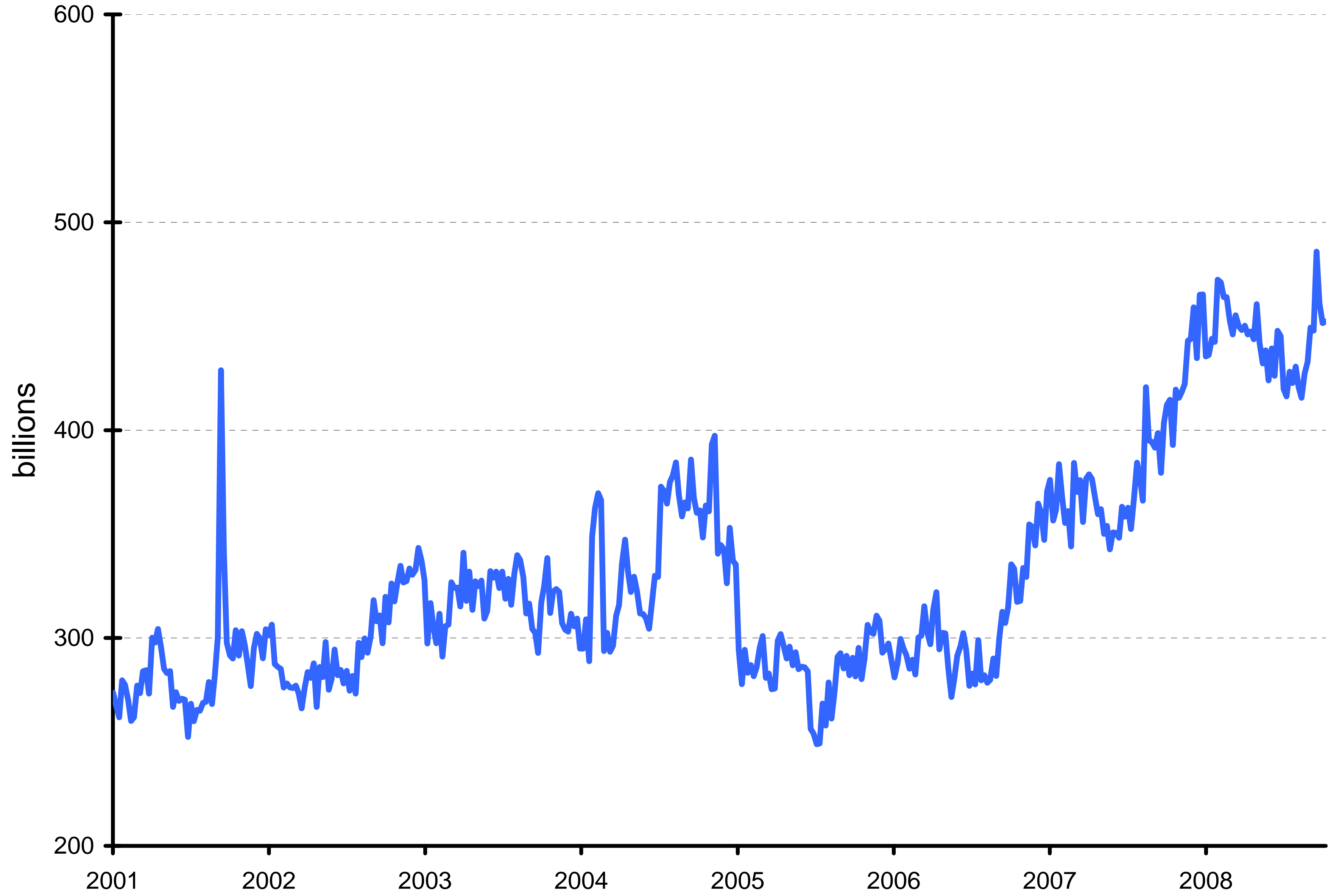
Fig 4A: Consumer Loans

Source: Federal Reserve Board
http://www.federalreserve.gov/releases/h8/Current/



Source: Federal Reserve Board
http://www.federalreserve.gov/releases/h8/Current/

Fig 5A: Interbank Loans



Source: Federal Reserve Board
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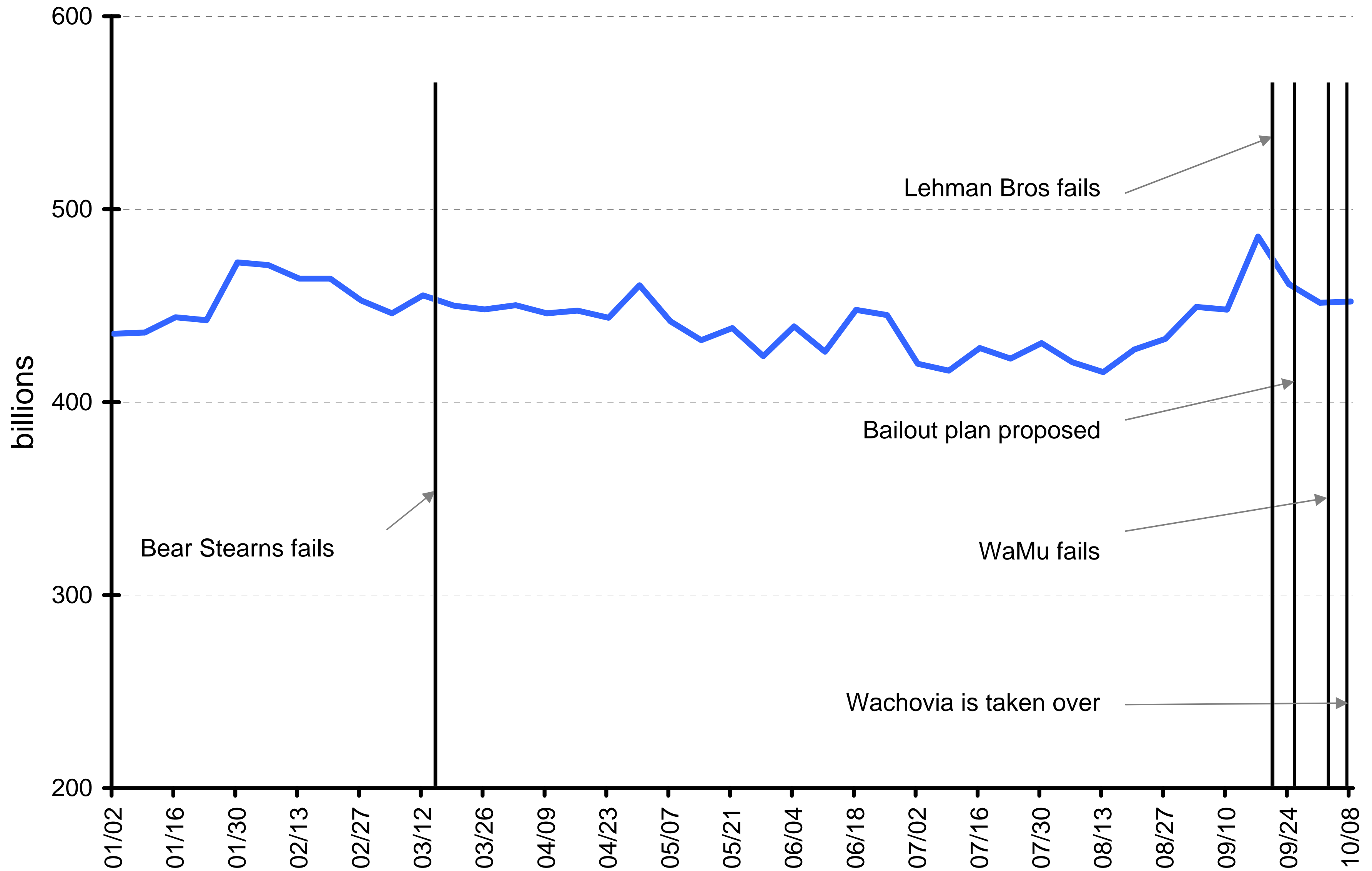

Source: Federal Reserve Board
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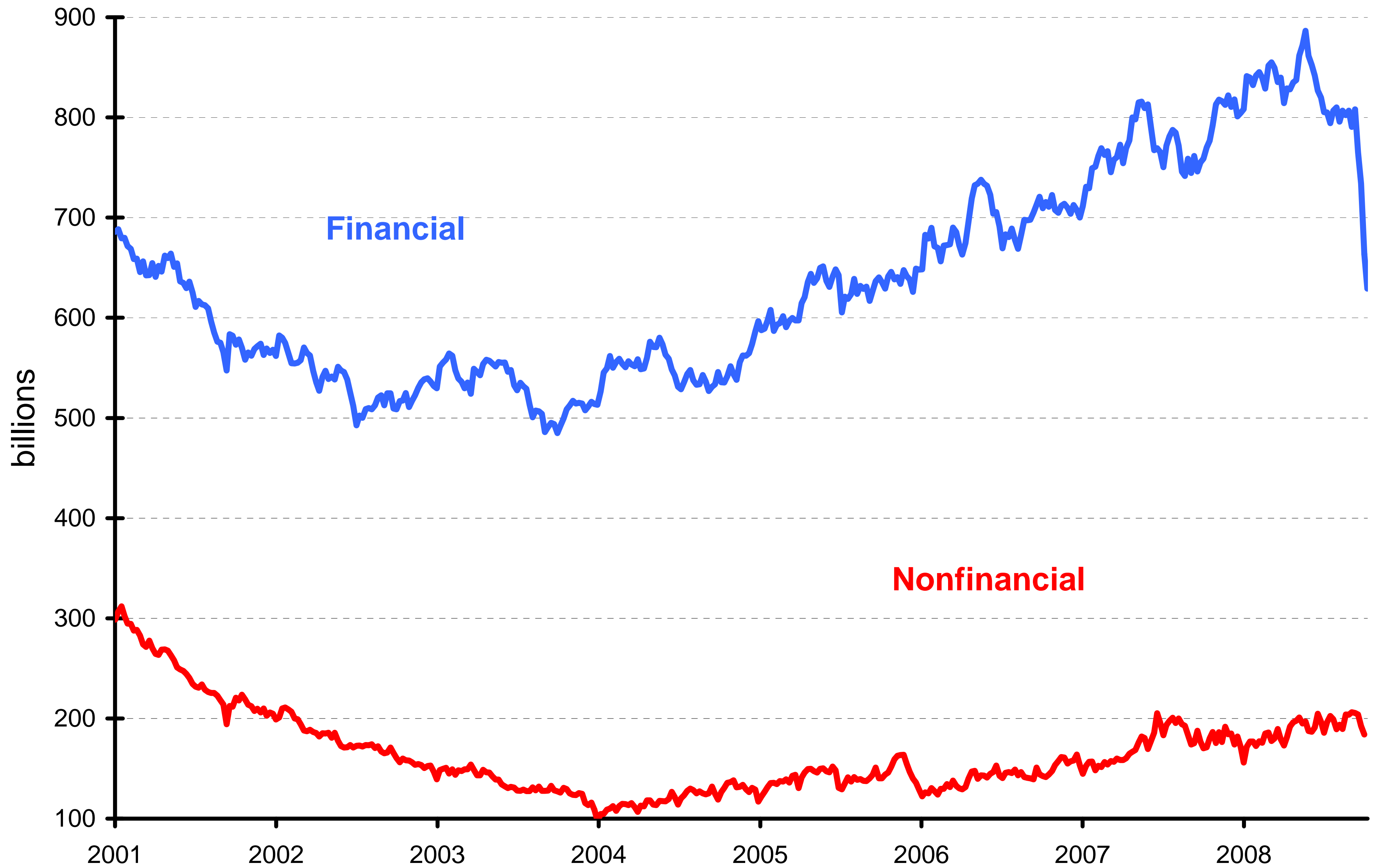
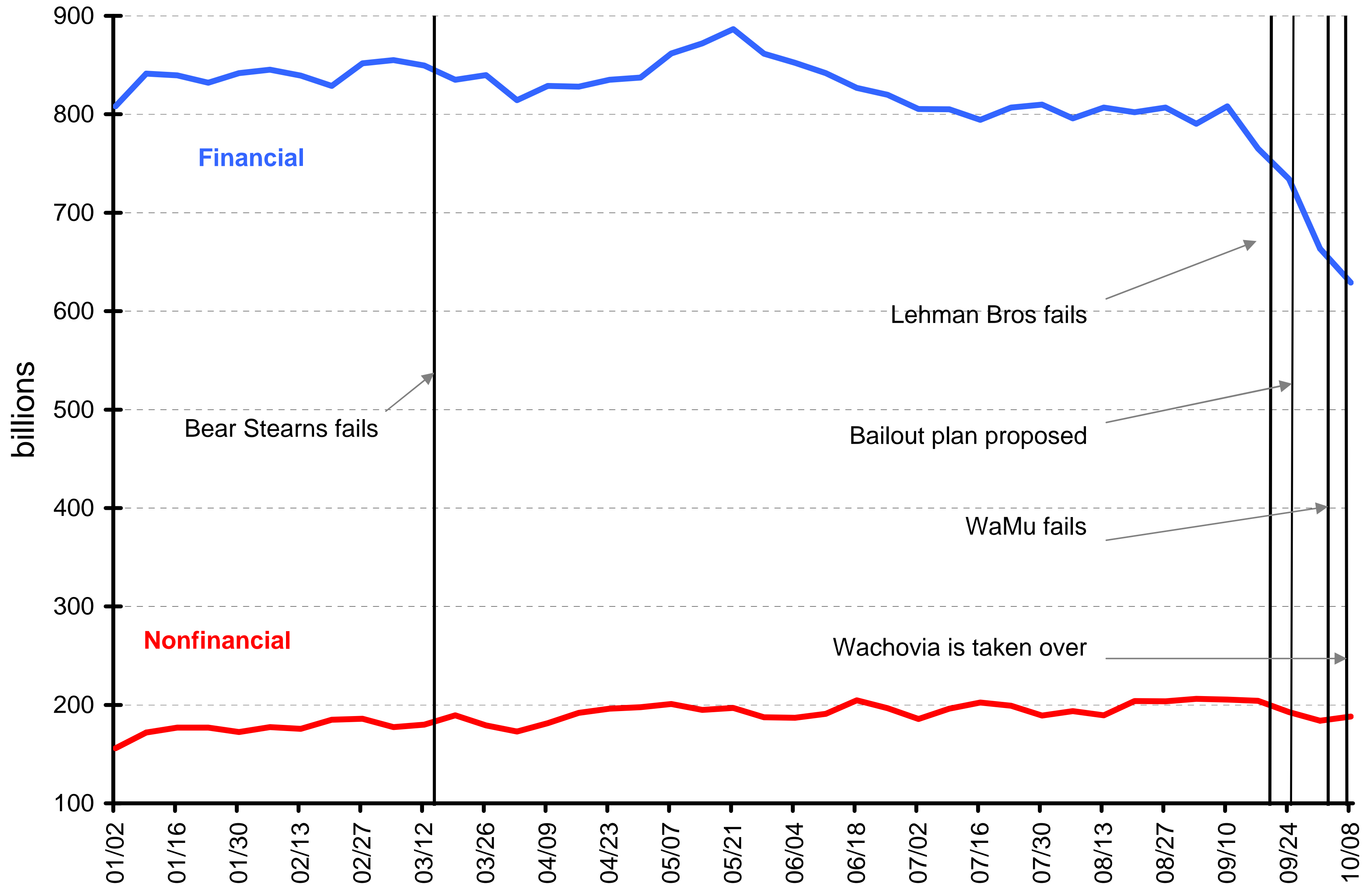


Source: Federal Reserve Board
http://www.federalreserve.gov/releases/h8/Current/

Fig 6B: Commercial Paper Outstanding (weekly 2008)



Source: Federal Reserve Board
http://www.federalreserve.gov/releases/h8/Current/

- The effects of the credit freeze are also similar to the effects of the bank runs of the 1930s

- A part of the effective supply of liquidity supply is gone, other money-substitutes now become suspect, everyone wants to get into government-issued or government-insured assets: reserves, currency, and insured deposits

- Can see this in the widening spreads between treasury bills and commercial paper, between government and corporate bonds, etc.

- A flight to currency? Not exactly. But a flight to government promises of currency, current or future

- This is what is happening now: spending has declined, the recession is deepening and threatens to get worse

- All of this similar to earliest stages of the Great Depression

- What to do? According to Friedman and Schwartz, and to the long-accepted principles of central banking, the situation calls for a "lender of last resort"

- The Fed needs to get more reserves into the system—fast

- Let's look at what is happening now

- On September 10, there were \$47 billion of reserves outstanding: about the same as in 2005

- Since then, according to the bi-weekly FRB releases,

  - September 24 \$110 b.
  - October 8 \$ 180 b.
  - October 22 \$ 329 b.
  - November 5 \$ 416 b.
  - November 19 \$ 653 b.
  - December 3 \$ 644 b.

- This is good central banking!

- The Fed is acting boldly as lender of last resort, just as it should have done in 1930s, and failed to do

- Will this be enough to end the recession? Will it be inflationary?

- We can predict that added reserves will stimulate spending, though the timing is uncertain

- But we don't have reliable way to predict how spending changes will break down into price effects and production effects

- This is exactly why a stimulus that can be quickly expanded or reversed is desirable

- $600 b. has been added in two months

- It can be revised up or down just as quickly

- Is this \$600 b. injection a "bailout"?

- In a sense, yes. The new reserves have been used to buy a variety of assets, at prices that no one else was willing to pay

- This is what a lender of last resort **does**

- The Fed has not spent these \$600 b. "bargain hunting" on taxpayers' behalf, nor should it attempt to do so

- We don't care about the asset side of the Fed's balance sheet—we care about the liabilities

- What is the relationship between these \$600 b. new reserves and the \$700 b. Paulson Plan?

- Must admit I am not sure.

- It may be too much to hope for, but it would be best, I think, if the Fed's actions of the past 2 months and their extensions/reversals in the coming months are a **replacement** for the Paulson plan and the dizzying variety of other plans that are being proposed daily

- Unlike many of these plans, the Fed's lending of last resort activity is easily reversed or extended as the situation may required, and involves
  - no new government enterprises
  - no equity positions in private enterprises
  - no price fixing or other controls on the operation of private businesses
  - no government role in the allocation of investment across different activities
- In my opinion, these are important virtues

4 Regulatory response

- Have focused on short term responses intended to limit the damage to the real economy—already substantial—caused by the financial crisis

- Want to emphasize that it should not have happened at all

- The New Deal legislation insured the deposits of commercial banks, and (necessarily) regulated them

- This regulatory structure was well designed to provide the freedom to innovate in a lightly regulated part of the financial industry and safety and stability in the more heavily regulated, insured part

- After more than 70 years of successful operation, needing only minor changes, this structure failed

- Main reason, I think, was that important liquidity-providing functions moved out of the commercial banks and into other, more lightly regulated, financial institutions

- Even with hindsight, not easy to see what alternative design would have prevented this

- The designers of the new regulatory structure that everyone knows we need will need a better monetary theory than we have now