

Our Great Recession in the Mirror of the Great Depression

Washington University Forum on “Monetary
Policy Amid Economic Turbulence”
February 5, 2010

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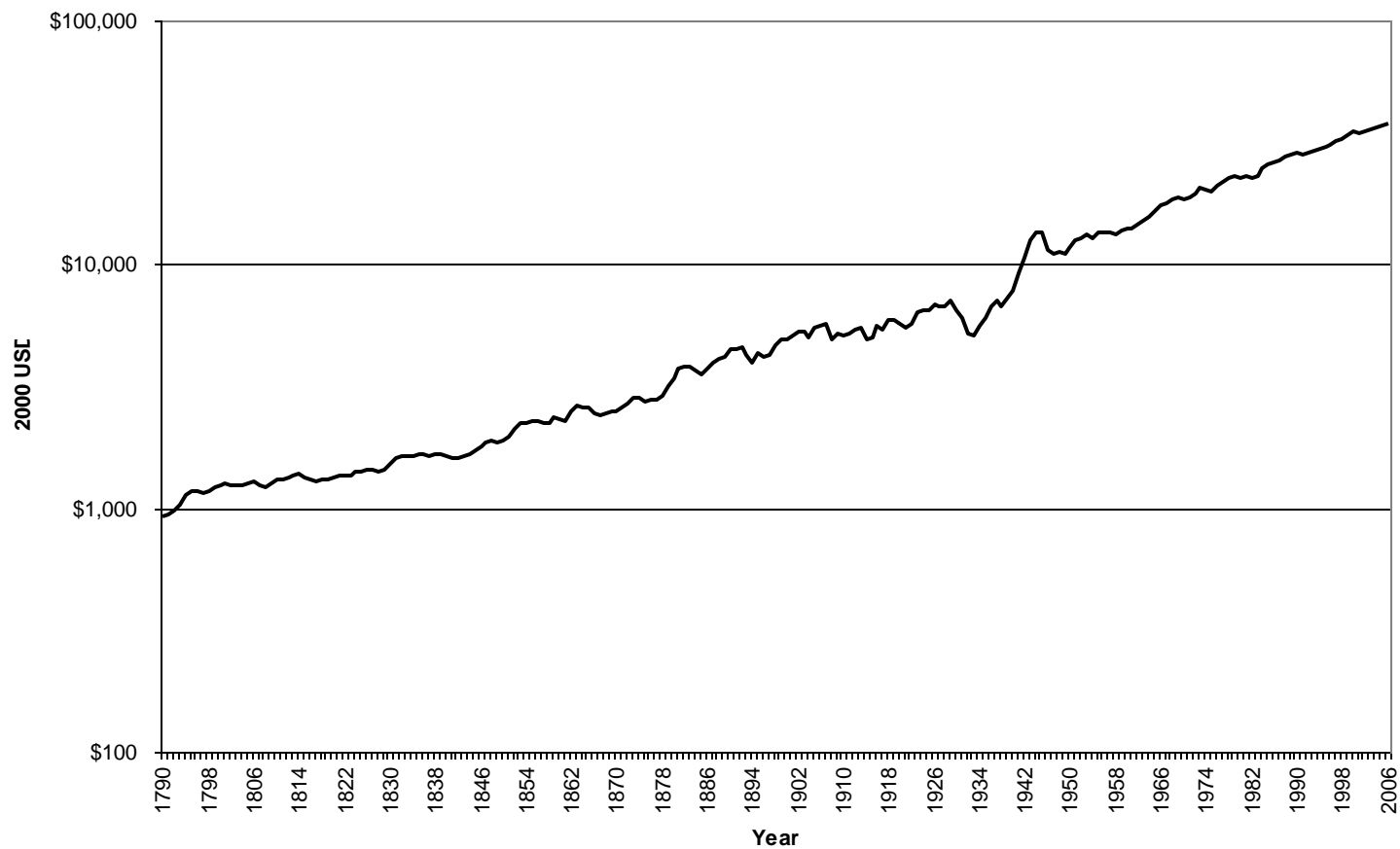
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Also read: A. S. Blinder, "After the Music Stopped," Google Books, 2013

US Financial Crises--dates

- 1792
- 1819
- 1837
- 1839-42
- 1857
- 1873
- 1884
- 1893-95
- 1907
- 1929-33
- 1973-74 (oil, stocks)
- 1979 (oil, inflation)
- 1982 (LDC debts)
- 1987 (stock crash)
- 1989-92 (S&Ls)
- 1998 (LTCM)
- 2000-02 (dot.com etc)
- 2007-09

Real GDP Per Capita in the United States, 1790-2006



Financial Crisis—typical pattern

- Displacement
- Boom
- Speculation Money chases assets, Credit/Debt creation
- Mania
- Distress
- Revulsion Assets chase money, Debt deflation
- Panic and/or crash “deleveraging”
- Depression?
- Lender of Last Resort?

Walter Bagehot's rules, 1873 (independently formulated by Alexander Hamilton in 1792)

- “The end is to stay the panic; and the advances should, if possible, stay the panic. And for this purpose, there are two rules:--First. That these loans should only be made at a very high rate of interest....
- Secondly. That at this rate these advances should be made on all good banking securities, and as largely as the public ask for them.... If it is known that the Bank of England is freely advancing on what in ordinary times is reckoned as a good security—on what is then commonly pledged and easily convertible—the alarm of the solvent merchants and bankers will be stayed.”

Walter Bagehot, *Lombard Street* (1873)

Crisis of 1929-1933

- Stock market crash, Oct.-Nov 1929, **largely undone by April 1930**
- First banking crisis, late 1930
- Second banking crisis, spring 1931
- Third banking crisis, late 1932-early 1933
- 8000-9000 banks fail during 1930-1933
- Federal Reserve and Treasury do little to prevent bank failures
- Stocks lose nearly 90% of value from 1929 peak
- Money stock collapses, prices deflate, deposits shrink
- Real GDP falls by a third
- Unemployment rises to 20-25% of US labor force
- New president, 1933 (FDR), New Deal financial reforms

Real GNP and Selected Components, 1919-1939 (billions of 1929 dollars)

	Total Consumption Expenditures	Gross Investment	Construction	Gross National Product
1919	50.2	10.7	4.8	74.2
1920	52.7	12.8	5.0	73.3
1921	56.1	7.4	4.9	71.6
1922	58.1	10.6	7.1	75.8
1923	63.4	15.6	8.2	85.8
1924	68.1	12.4	9.0	88.4
1925	66.1	16.4	10.0	90.5
1926	71.5	17.1	10.7	96.4
1927	73.2	15.6	10.4	97.3
1928	74.8	14.5	9.8	98.5
1929	79.0	16.2	8.7	104.4
1930	74.7	10.5	6.4	95.1
1931	72.2	6.8	4.5	89.4
1932	66.0	.8	2.4	76.4
1933	64.6	.3	1.9	74.2
1934	68.0	1.8	2.0	80.8
1935	72.3	8.8	2.8	91.4
1936	79.7	9.3	3.9	100.9
1937	82.6	14.6	4.6	109.1
1938	81.3	6.8	4.1	103.2
1939	85.9	9.9	4.9	111.0

Source: Peter Temin, *Did Monetary Forces Cause the Great Depression?* (New York: W. W. Norton, 1976), p. 4.

C recovers in 7 yrs, Y in 8.5 yrs.

I takes longer

$$Y_{1933} = Y_{1919}$$

Aggregate Price Indexes, 1919-1939

	Wholesale Price Index (WPI) (1947-1949 = 100)	Consumer Prime Index (CPI) (1947-1949 = 100)	Implicit GNP Price Deflator (1929 = 100)
1919	90.1	74.0	106
1920	100.3	85.7	121
1921	63.4	76.4	103
1922	62.8	71.6	98
1923	65.4	72.9	100
1924	63.8	73.1	99
1925	67.3	75.0	101
1926	65.0	75.6	101
1927	62.0	74.2	99
1928	62.9	73.3	100
1929	61.9	73.3	100
1930	56.1	71.4	96
1931	47.4	65.0	85
1932	42.1	58.4	77
1933	42.8	55.3	75
1934	48.7	57.2	80
1935	52.0	58.7	79
1936	52.5	59.3	82
1937	56.1	61.4	83
1938	51.1	60.3	83
1939	50.1	59.4	82

Source: Peter Temin, *Did Monetary Forces Cause the Great Depression?* (New York: W. W. Norton, 1976), p. 6.

P drops by 1/3

The Money Stock and Related Quantities, 1919-1939 (billions of dollars)

	M_1	M_2	High-Powered Money	D/R	D/C
1919	21.7	30.8	6.6	10.2	6.7
1920	23.5	34.5	7.2	11.0	6.7
1921	21.2	32.5	6.5	11.3	7.1
1922	21.5	33.6	6.3	11.4	8.2
1923	22.7	36.4	6.7	11.8	8.3
1924	23.5	38.4	6.9	11.7	8.8
1925	25.5	41.8	7.0	12.3	9.6
1926	25.9	43.3	7.1	12.5	9.9
1927	25.9	44.5	7.2	12.6	10.3
1928	26.2	46.1	7.1	13.0	10.9
1929	26.4	46.2	7.1	13.0	11.0
1930	25.4	45.2	6.9	12.8	11.2
1931	23.6	41.7	7.3	11.8	9.2
1932	20.6	34.8	7.8	10.3	6.2
1933	19.4	30.8	8.2	8.2	5.1
1934	21.5	33.3	9.1	6.4	6.3
1935	25.5	38.4	10.7	5.6	7.1
1936	29.2	42.9	12.2	5.4	7.3
1937	30.3	45.0	13.4	5.0	7.1
1938	30.0	44.9	14.6	4.3	7.2
1939	33.6	48.7	17.6	3.7	7.1

Note: All yearly figures are the averages of the respective monthly figures.

M_1 = Currency held by the public and (adjusted) demand deposits held in commercial banks. drops by 1/3

M_2 = Currency held by the public and (adjusted) demand and time deposits held in commercial banks.

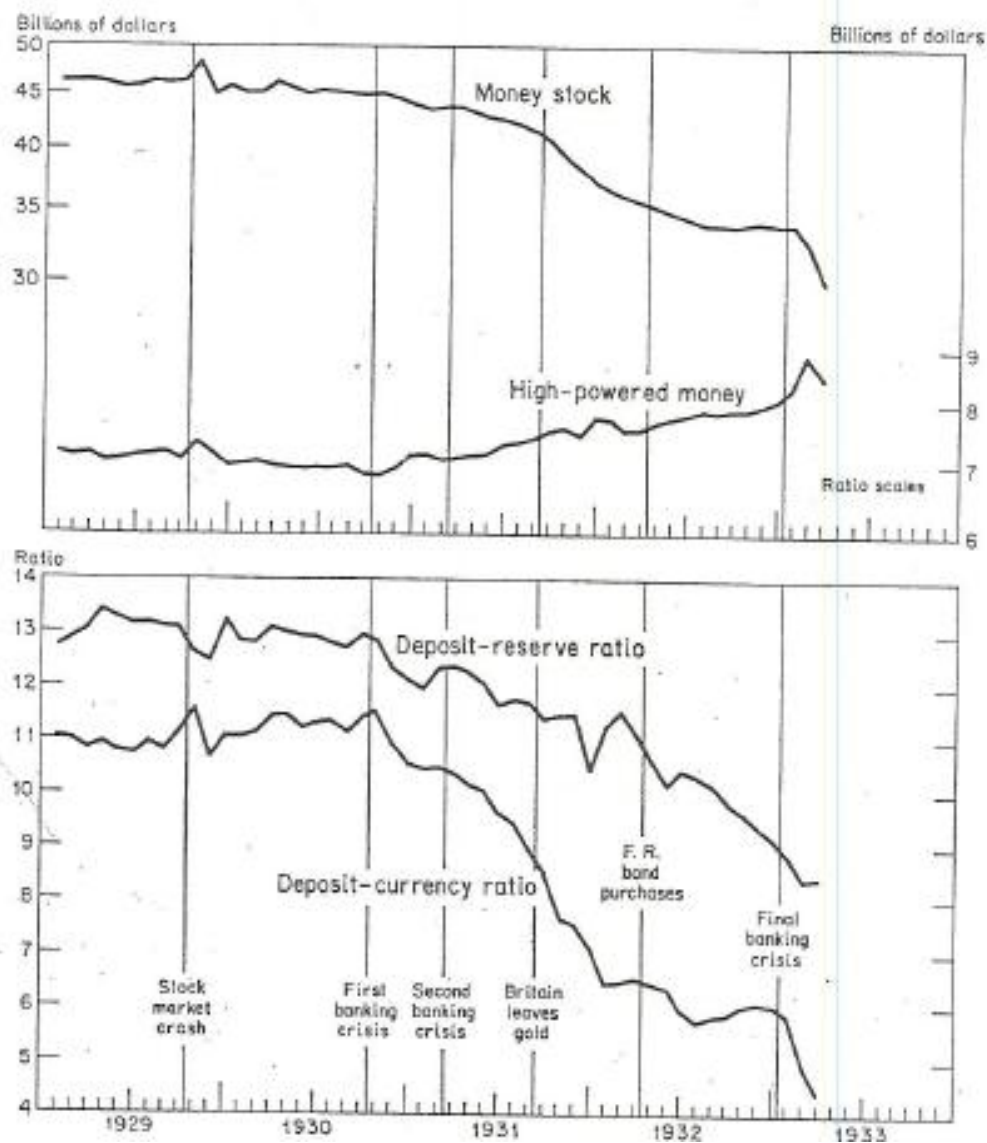
High-Powered Money = Currency held by the public plus bank vault cash plus bank deposits at Federal Reserve banks.

D/R = Commercial bank deposits (demand plus time) divided by bank reserves (member bank deposits minus float plus nonmember bank clearing account, seasonally adjusted by Shiskin-Eisenpress method)

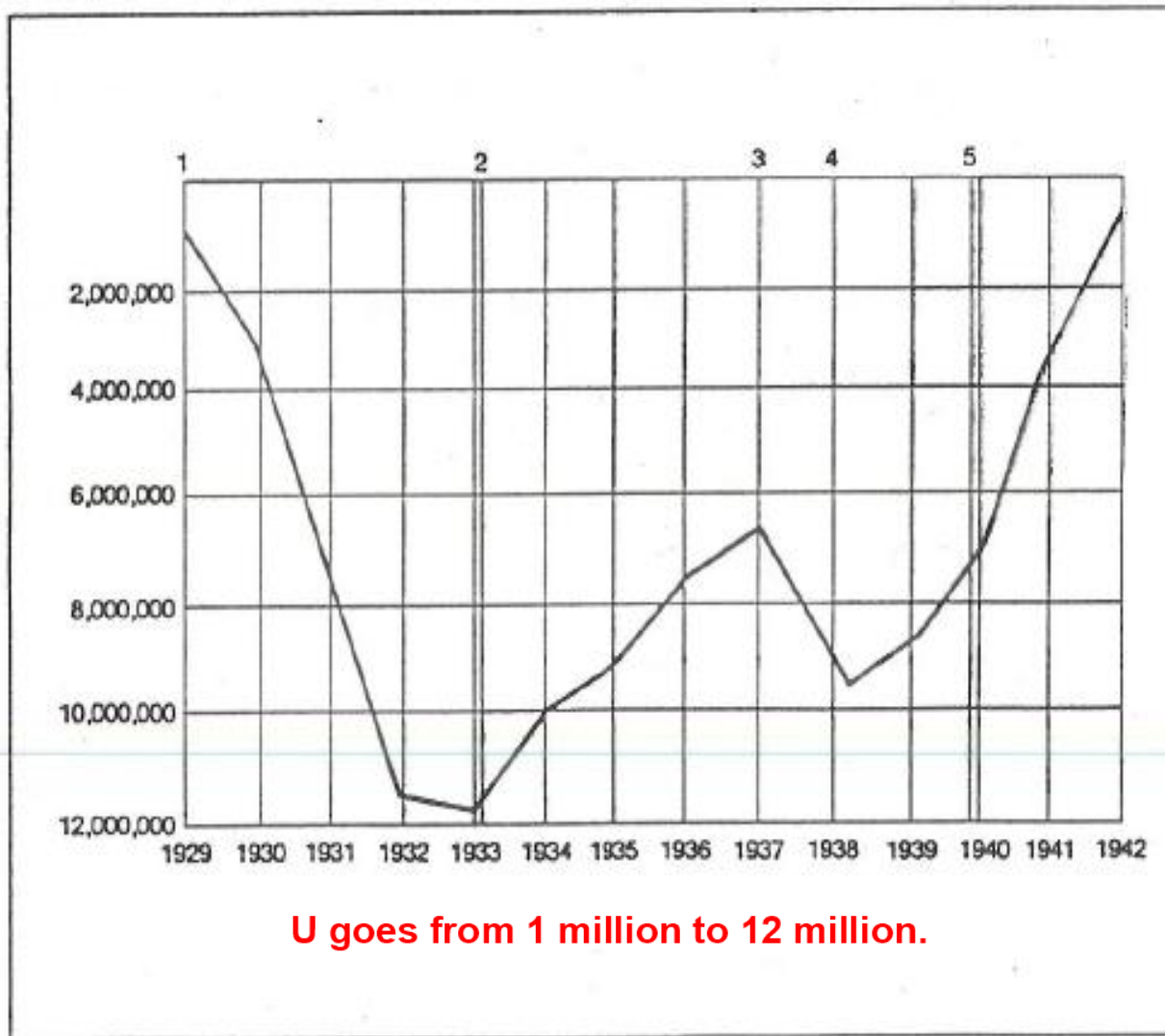
D/C = Commercial bank deposits divided by currency held by the public. drops by 50%

Source: Peter Temin, *Did Monetary Forces Cause the Great Depression?* (New York: W. W. Norton, 1976), p. 5.

The Stock of Money and Its Proximate Determinants, Monthly, 1929–March 1933



Unemployment, 1929-1942



1 Stock Market Crash

2 New Deal Begins

Policy Responses to the Depression

- Fiscal policy: limited effects because it wasn't tried. Increases at federal level were offset by cuts at state and local level.
- Monetary policy: The Fed did little during 1930-1932 (balance sheets).
- Gold policy changes and dollar devaluation led to monetary and economic expansion, 1933-1937.
- Policy changes undercut the recovery in 1936-1937. Major recession in 1937-1938.

Stimulus Spending in the Depression

- Real $G + (X-M)$ was flat, 1929-32 in a range of \$9.2 to 10.4 billion.
- During 1933-37, it ranged from \$10.3 to 11.9 billion a year.
- In 1938-39, it rose to \$15.2 billion per year with changes in both G (all levels of government) and $(X-M)$.

Federal Reserve Balance Sheets, 1929 and 1932 (both Dec. 31)

1929

Assets		Liabilities	
Gold, etc.	3.1 billion	Federal Reserve Notes	1.9 billion
Bills discounted and bought	1.0	Deposits (mostly bank reserves)	2.4
US gov't securities	0.5	Deferred availability, etc.	0.7
Uncollected items, etc.	0.8	Capital accounts	0.4
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	5.4		5.4

1932

Assets		Liabilities	
Gold, etc.	3.3	Federal Reserve Notes	2.7
Bills discounted and Bought	0.3	Deposits (reserves)	2.6
US gov't securities	1.9	Deferred availability	0.4
Uncollected items, etc.	0.7	Capital accounts	0.4
	6.1		6.1

Source: Fed, *Banking and Monetary Statistics* (1943), Table 85, 331-32.

(ADP) *[illegible]*

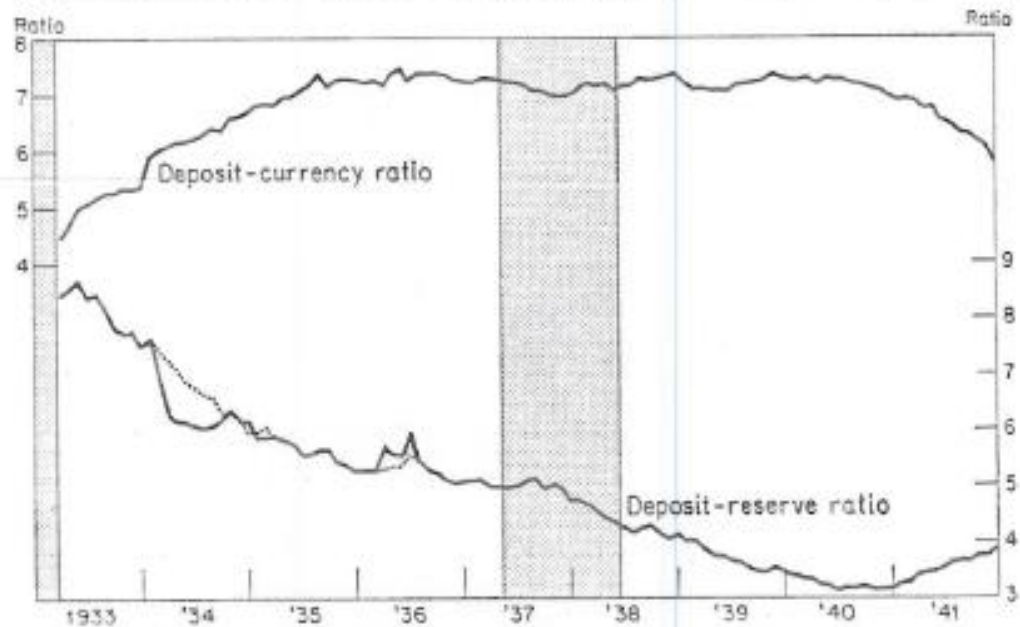
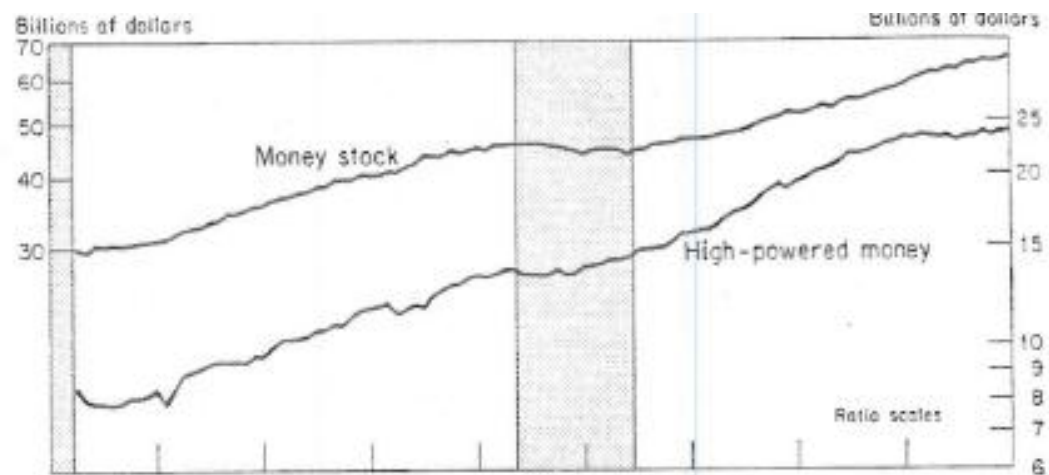
1932-36 vs. 1929-32

- Dollar devaluation in 1934 led to inflow of gold from Europe.
- Fed balance sheet doubles, 1932-1936, unlike 1929-1932; monetary expansion and strong economic recovery.
- Fed tightens in 1936-37; recession 1937-38.
- Fed balance sheet , after little change from 1936 to 1937, doubles again, 1937-41, and again mostly because of gold inflows.

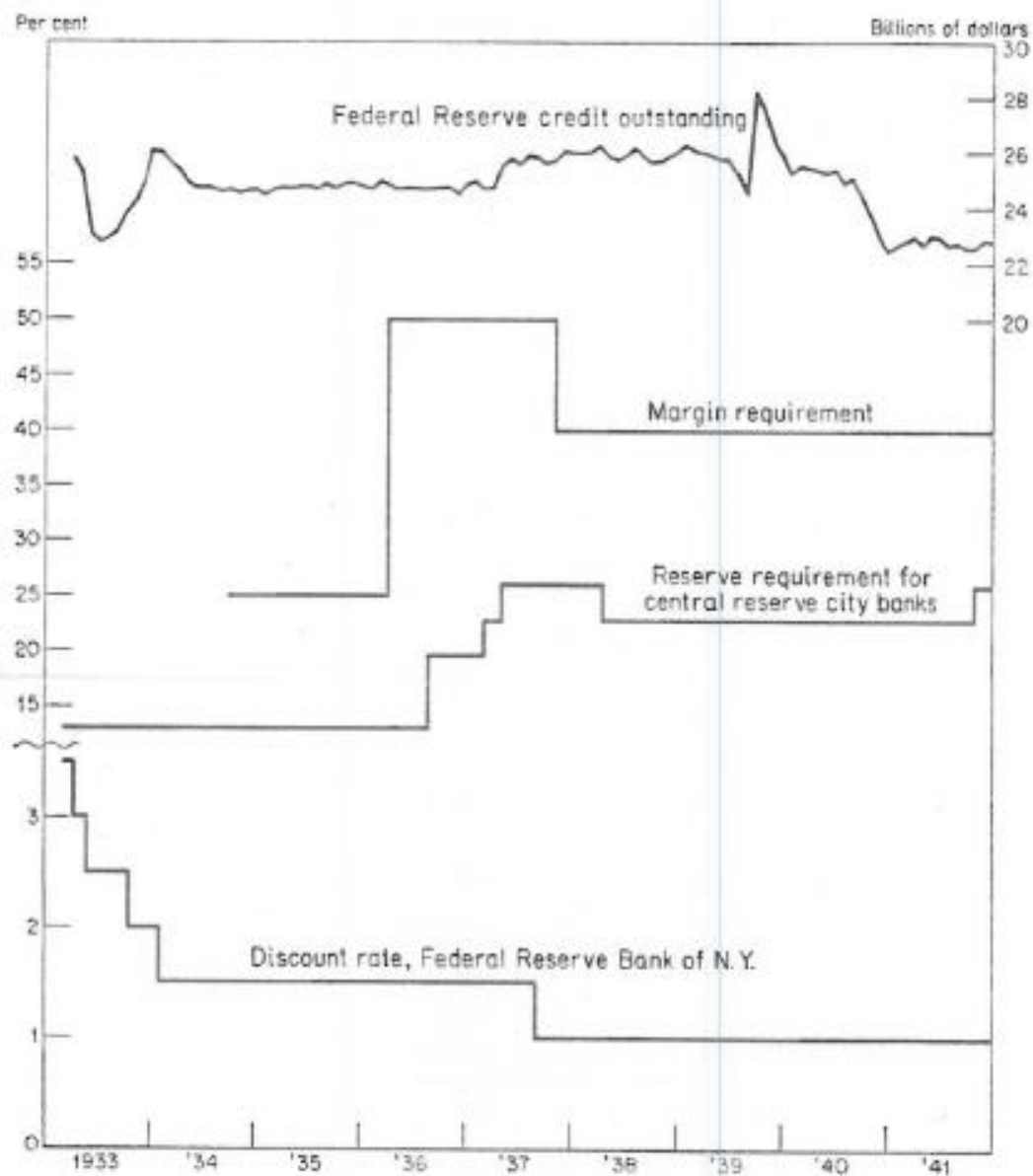
Federal Reserve Balance Sheet, 1936 (Dec. 31)

1936

Assets		Liabilities	
Gold, etc.	9.1 bill.	Federal Reserve Notes	4.3 bill.
Bills discounted and bought, loans	.03	Deposits (mostly bank res.)	7.1
US gov't securities	2.5	Deferred availability, etc.	0.8
Uncollected items, etc.	0.9	Capital accounts	0.3
	-----		-----
	12.5		12.5



Use of Tools by Federal Reserve System, March 1933–December 1941



Could the Fed have done more?

- Gold standard limited Fed action, 1930-33.
- The Fed balance sheet, like 1932-36 and 1937-41, nearly doubles during 1942-1945; the economy more than fully recovers.
- But this was during World War II, and the Treasury dictated Fed policy; US gold stock actually went down during the war.
- After the war, wage and price controls are removed, and all the liquidity created during the war causes prices to double.

Federal Reserve Balance Sheet, 1941 (Dec. 31)

1941

Assets		Liabilities	
Gold, etc.	20.8 billion	Federal Reserve Notes	8.2 billion
Bills discounted and bought	.001	Deposits (mostly bank res.)	14.7
US gov't securities	2.3	Deferred availability, etc.	1.1
Uncollected items, etc.	1.3	Capital accounts	0.4
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	24.4		24.4

1945 (Jan. 2, 1946)

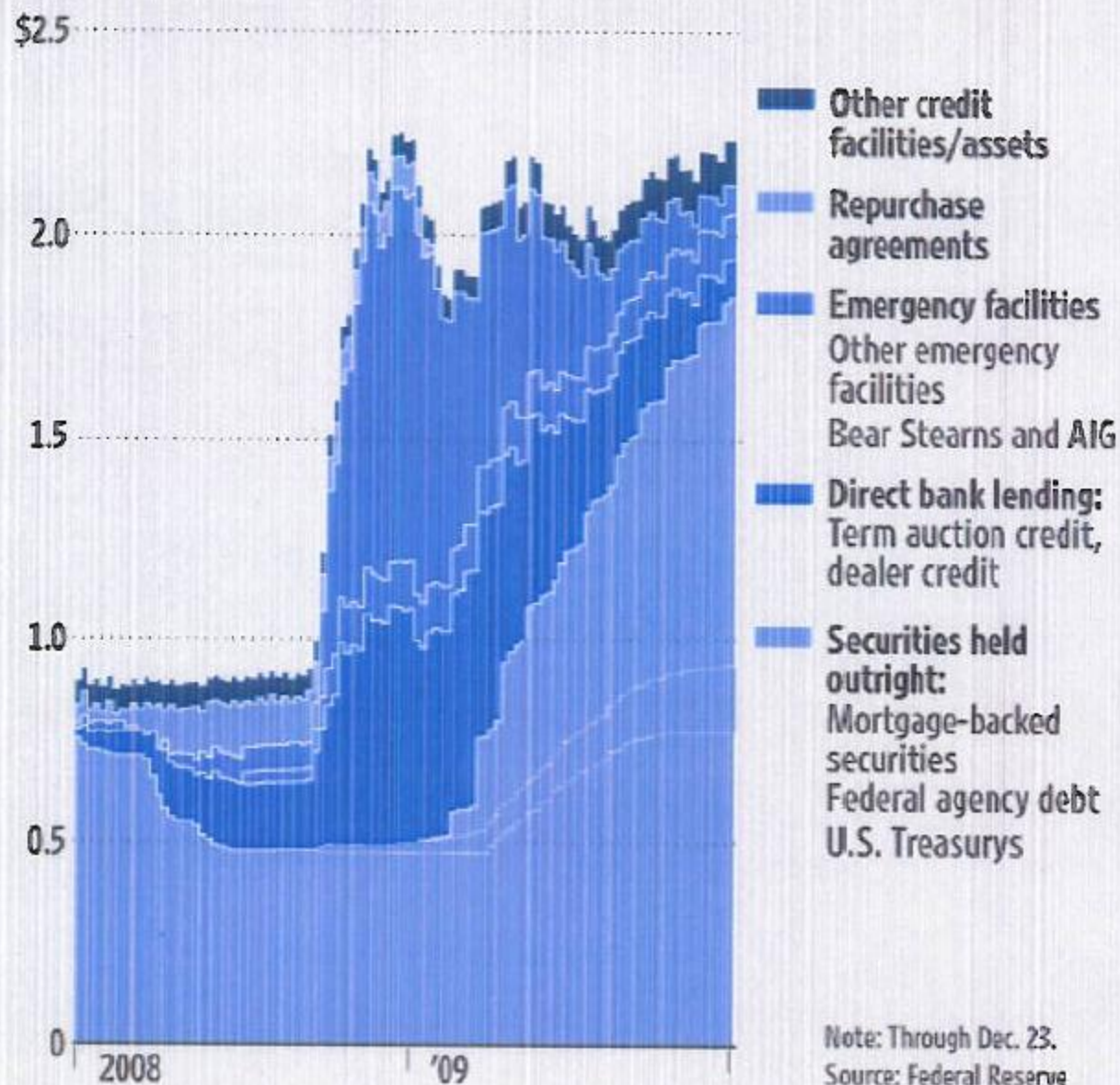
Assets		Liabilities	
Gold, etc.	17.9	Federal Reserve Notes	24.6
Bills discounted and Bought	0.2	Deposits (reserves)	18.0
US gov't securities	24.3	Deferred availability	1.8
Uncollected items, etc.	2.6	Capital accounts	0.6
	-----		-----
	45.0		45.0

Source: Fed, *Banking and Monetary Statistics* (1943), Table 85, 332; *Federal Reserve Bulletin*, Feb. 1946.

The Crisis of 2007-2010

- Fiscal policy: despite rising federal deficits, there are some parallels with the 1930s re weak stimulus.
- Monetary policy: The Fed's balance sheet more than doubles in Fall 2008 and is still rising; many innovations have been introduced by the Bernanke Fed.
- This constitutes a whole new chapter in the long history of central banking; previous doublings of the Fed balance sheet took years, not months.
- It also is engendering a backlash.

The Fed's Assets | In trillions



Federal Reserve Balance Sheet, 2007 (Dec. 31) and 2010 (Jan.)

2007 (\$ billion)

ASSETS		LIABILITIES	
Securities & Loans	835.7	Fed. Res. notes	791.7
Cash items. etc.	80.5	Reverse repos	44.0
Bank premises	2.1	Deposits (reserves)	38.8
		Other	6.9
		Capital & surplus	36.9
Total	918.8		918.9

2010 (\$ billion)

ASSETS		LIABILITIES	
US Treasury secs.	776.6	Fed. Res. Notes	878.4
Fed. Agency debt	163.7	Reverse repos	57.8
Mortgage-backed secs.	969.7	Deposits (reserves)	1,246.3
Term auction credit, loans	126.4	Other	15.5
Net portfolio holdings*	73.7		
Preferred interests**	25.1	Capital & surplus	52.3
Other assets***	115.0		
Total	2,250.3		2,250.3

*Maiden Lane I, II, III LLCs, TALF LLC

** AIA Aurora LLC, ALICO Holdings LLC

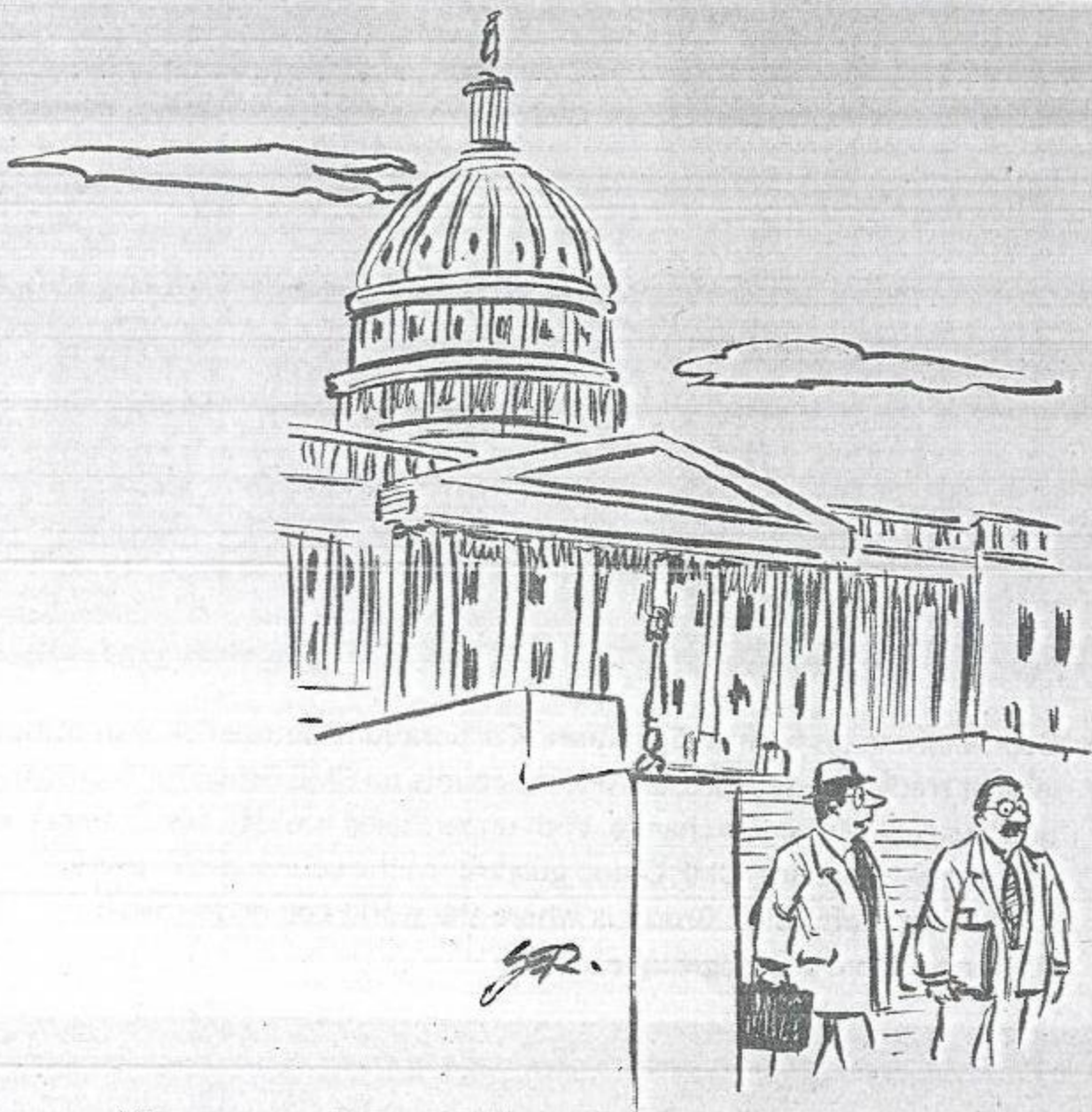
*** Assets denominated in foreign currencies, accrued dividends on preferred interests (**)

Backlash

- For more than two centuries Americans have had a phobia about concentrated financial power:
- The first Bank of the United States, 1791-1811,
- The second BUS, 1816-1836,
- Fragmented banking system,
- Glass-Steagall.

Backlash today

- Actions of Treasury and Fed authorities are second-guessed.
- Bernanke's reappointment was 'close.'
- Congress's reform bills call for Fed audits and more control over the Fed.
- Central bank independence is under threat.
- Who might gain from all this?



"I never, ever dreamed I'd be able to spend money ad infinitum."

Monetary regimes

- In the 1930s, the gold standard limited policy responses to the Depression, but gold inflows after devaluation helped.
- World War II ended just in time for the Fed to avoid going below its reserve reqs.
- Ending the link to gold in the 1970s created our Brave New World in which the Fed can easily double its balance sheet in a matter of months.
- Is this a modern Pandora's Box? What lies ahead? Fed independence? Inflation?