

# The Fed's Punch Bowl

aka

## The Federal Reserve Balance Sheet

PCBE Meeting

December 3, 2009

Rick Lang



FEDERAL RESERVE BANK  
OF PHILADELPHIA

Web site: [www.philadelphiafed.org](http://www.philadelphiafed.org)

# Federal Reserve System (7/11/07)

Assets (\$Billions)		Liabilities and capital (\$B)	
Treasury Securities	\$790.6	Federal Reserve Notes outstanding	\$779.9
Agency securities	\$ 0	Reserve deposits	\$ 10.7
RPs	\$ 20.5	Treasury deposits	\$ 4.9
Loans to banks	\$ 0.2	All other liabilities	\$ 44.5
All other assets	\$ 61.9	Capital & surplus	\$ 33.2
=====		=====	
<b>Total</b>	<b>\$873.2</b>	<b>Total</b>	<b>\$873.2</b>

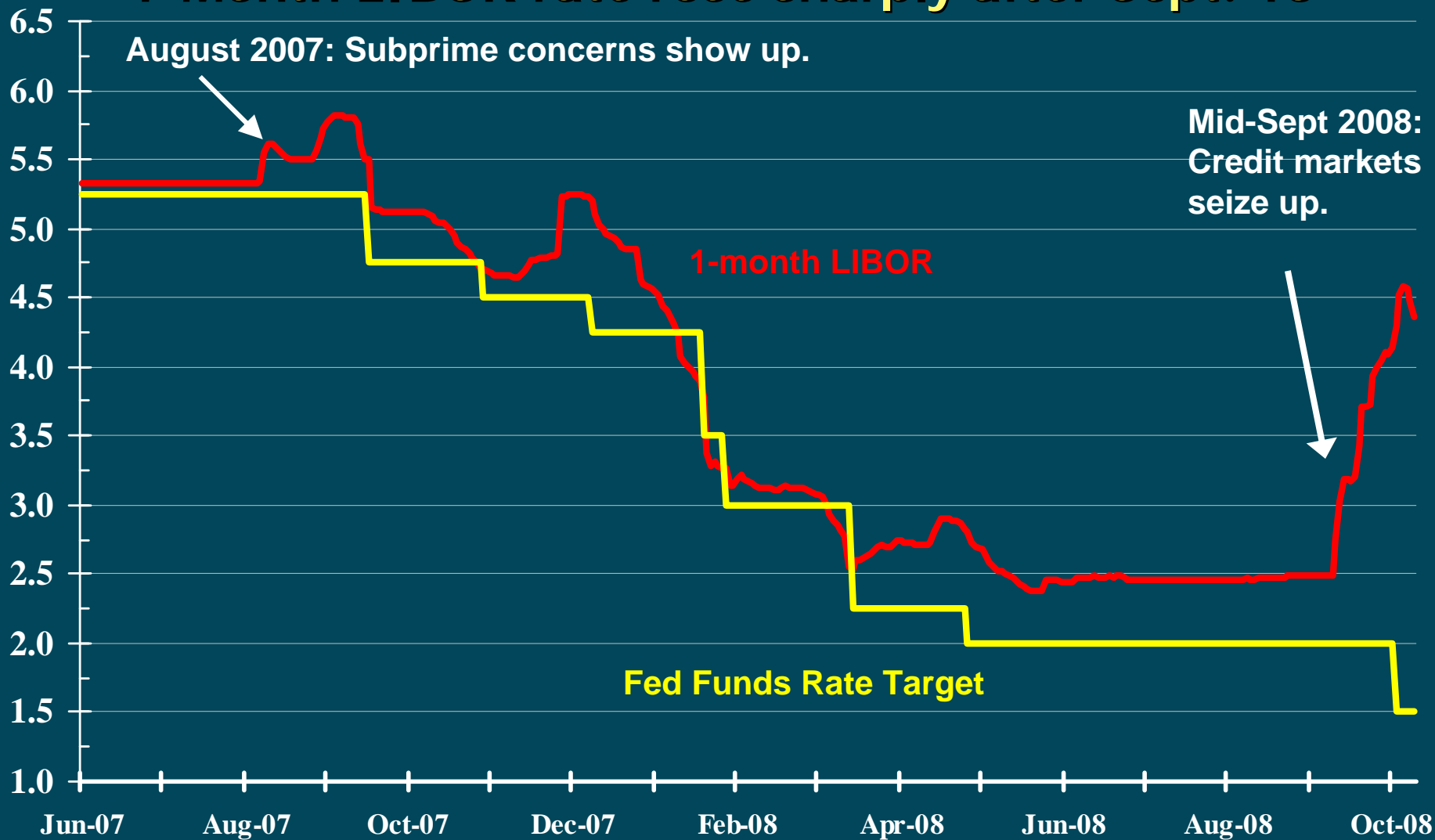


# Federal Reserve Balance Sheet (11/11/09)

<b>Assets (\$ Billions)</b>		<b>Liabilities and capital (\$B)</b>	
Treasury and Agency securities	\$1,703	Federal Reserve Notes outstanding	\$ 881
Lending facilities	\$ 325	Reserve deposits	\$1,044
Short-term	\$158	Treasury deposits	\$ 78
Targeted	\$ 58	Reverse RPs	\$ 60
Emergency	\$109	All other liabilities	\$ 22
All other assets	\$ 110	Capital & surplus	\$ 53
<b>Total</b>	<b>\$2,138</b>	<b>Total</b>	<b>\$2,138</b>



# One Sign of Financial Instability: 1-Month LIBOR rate rose sharply after Sept. 15



Daily data: Last point plotted is October 15, 2008



**Treasury authorized to use up to \$700 billion to buy troubled mortgage assets of financial firms and inject capital into banking system.**

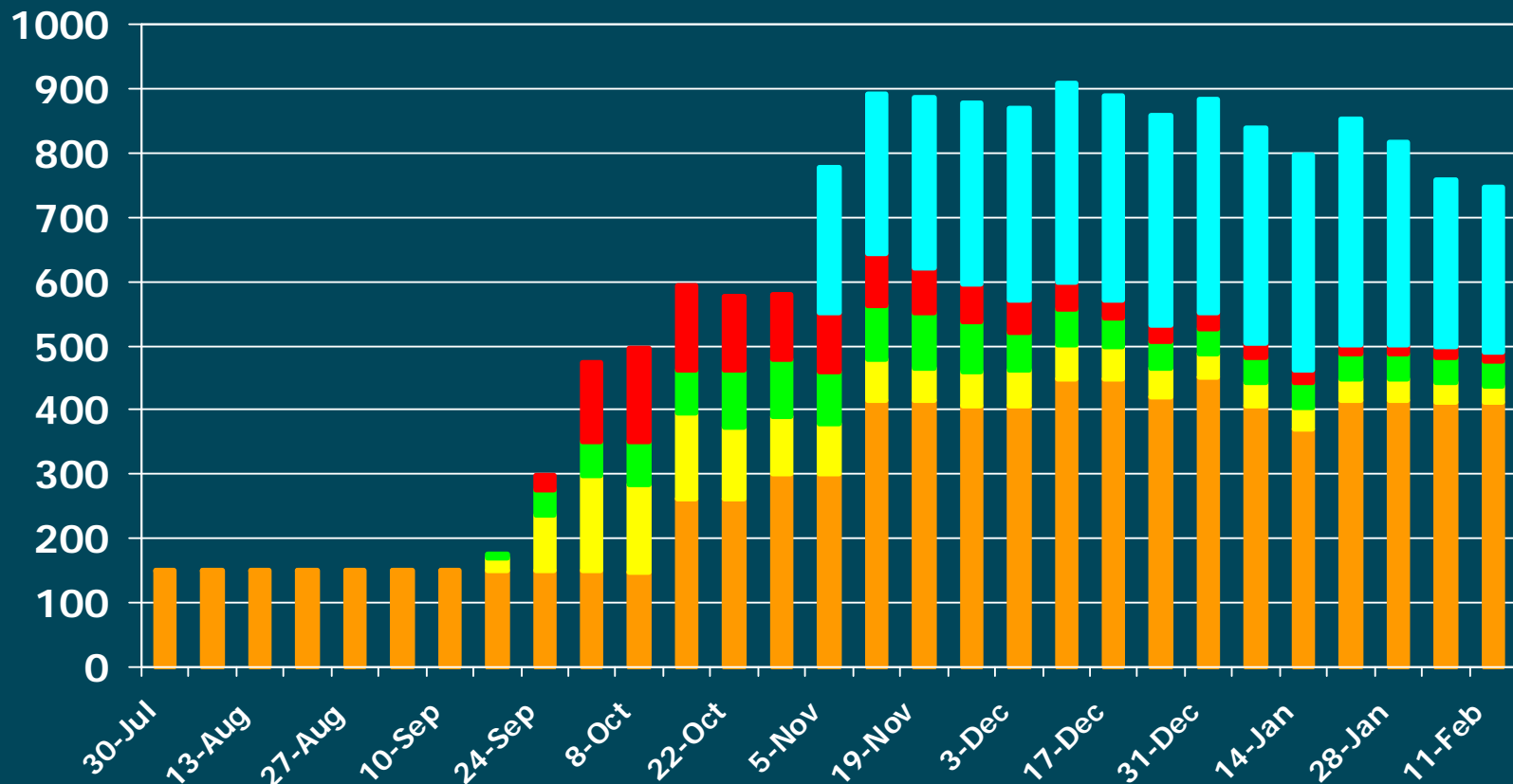
The Federal Reserve took additional steps to provide liquidity to the financial system using its Lender-of-last-resort function.

The FDIC expanded its insurance of banks' deposits and senior unsecured debt.



# Fed System Temporary Lending Facilities, included a Commercial Paper Funding Facility (CPFF)

Billions \$

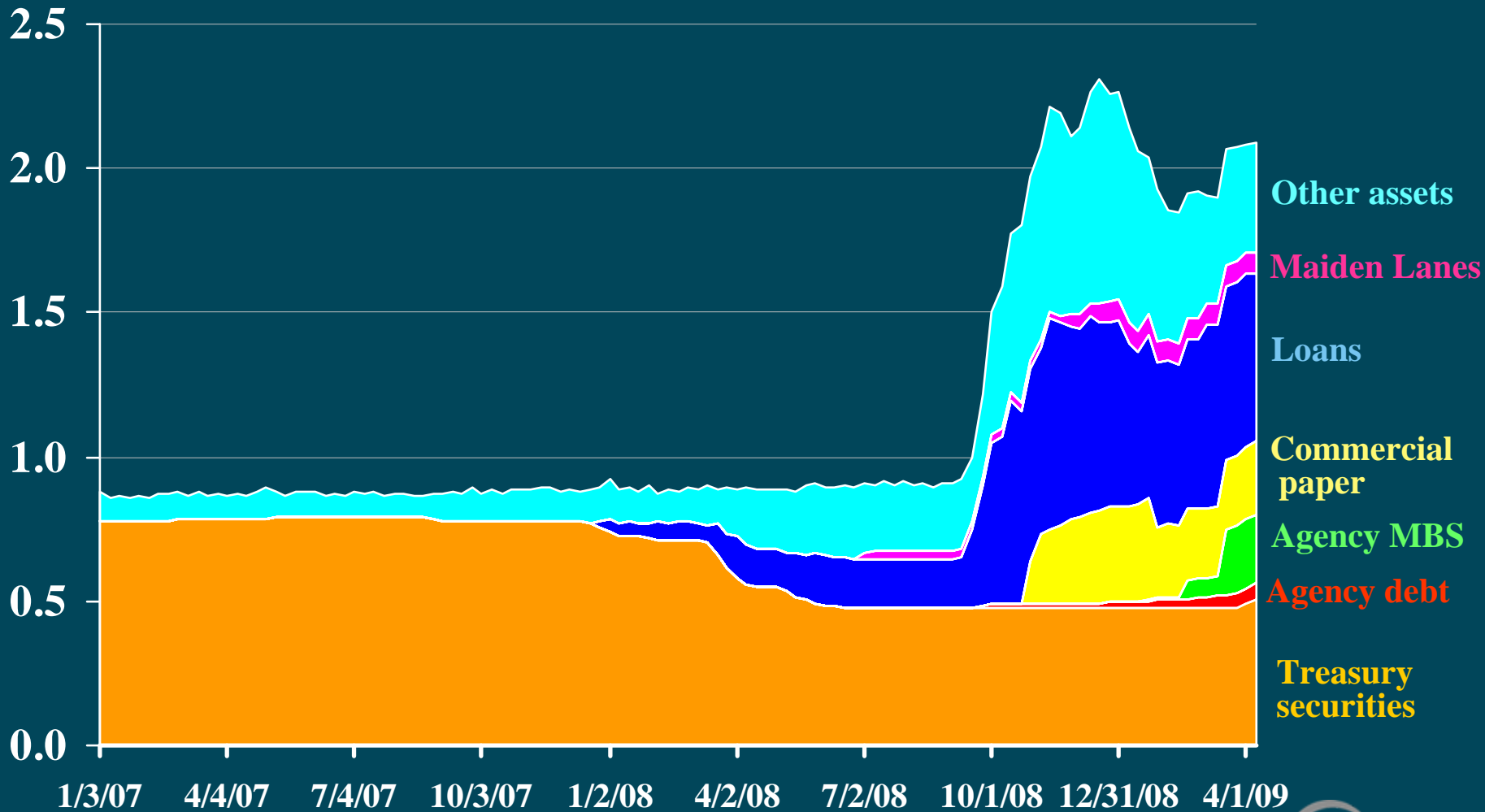


Last date plotted is  
February 11, 2009



# Size & composition of the Fed's balance sheet changed dramatically.

Trillions \$



Weekly data: Last point plotted is April 8, 2009



# Federal Reserve Balance Sheet (11/11/09)

<b>Assets (\$ Billions)</b>		<b>Liabilities and capital (\$B)</b>	
Treasury and Agency securities	\$1,703	Federal Reserve Notes outstanding	\$ 881
Lending facilities	\$ 325	Reserve deposits	\$1,044
Short-term	\$158	Treasury deposits	\$ 78
Targeted	\$ 58	Reverse RPs	\$ 60
Emergency	\$109	All other liabilities	\$ 22
All other assets	\$ 110	Capital & surplus	\$ 53
<b>Total</b>	<b>\$2,138</b>	<b>Total</b>	<b>\$2,138</b>



<b>Assets: Short-Term Lending Programs for Financial Institutions (Billions of dollars)</b>	<u>11/11/09</u>	<u>12/31/08</u>	<b>Change Year-to- date</b>
<b>Short-term lending programs for financial institutions</b>	<b>158</b>	1,159	-1,000
-- Discount window	<b>21</b>	94	-73
-- Term auction facility (TAF)	<b>109</b>	450	-341
-- Currency swaps	28	554	-525
-- Primary dealer credit facility (PDCF)	<b>0</b>	37	-37
-- Money market fund facilities (AMLF and MMIF)	<b>0</b>	24	-24



<b>Assets: Targeted Lending Programs (Billions of dollars)</b>	<b><u>11/11/09</u></b>	<b><u>12/31/08</u></b>	<b><u>Change Year-to- date</u></b>
<b>Targeted lending programs</b>	<b>58</b>	334	-276
--Commercial Paper Funding Facility (CPFF)	<b>14</b>	334	-320
--Term Asset-Backed Securities Loan Facility (TALF)	<b>44</b>	0	+44



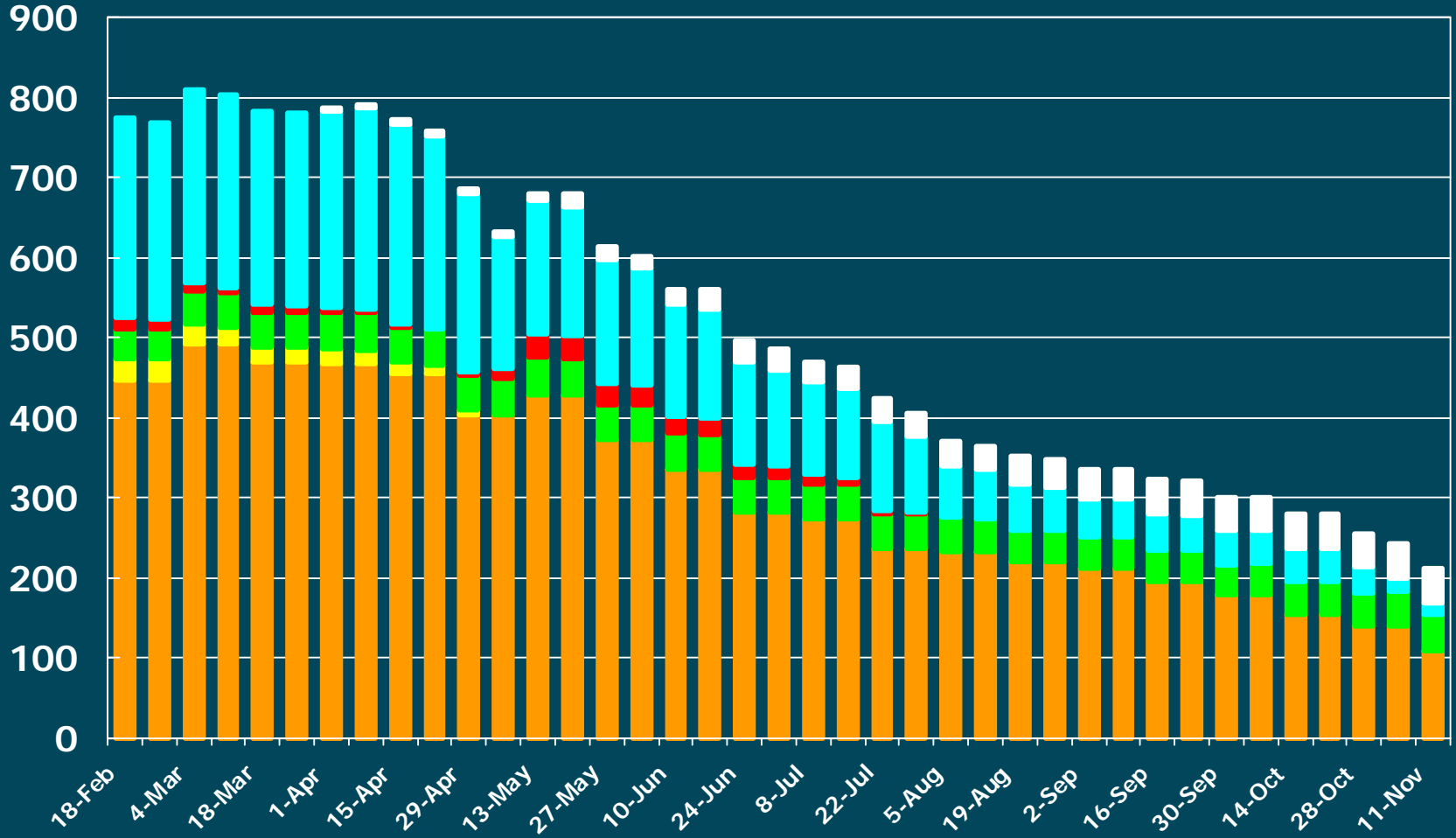
<b>Assets: Emergency Lending (Billions of dollars)</b>	<b><u>11/11/09</u></b>	<b><u>12/31/08</u></b>	<b><u>Change Year-to-date</u></b>
<b>Emergency lending</b>	<b>109</b>	113	-4
-- Maiden Lane LLC (Bear Stearns)	<b>26</b>	27	-1
-- Maiden Lane II LLC (AIG RMBS holdings)	<b>16</b>	20	-4
-- Maiden Lane III LLC (AIG-backed CDOs)	<b>23</b>	27	-4
-- Credit to AIG	<b>44</b>	39	+5

**Note:** RMBS = Residential mortgage-backed security;  
CDO = Collateralized debt obligation



# Fed System Temporary Lending Facilities (Daily Average)

Billions



Last date plotted is  
November 11, 2009



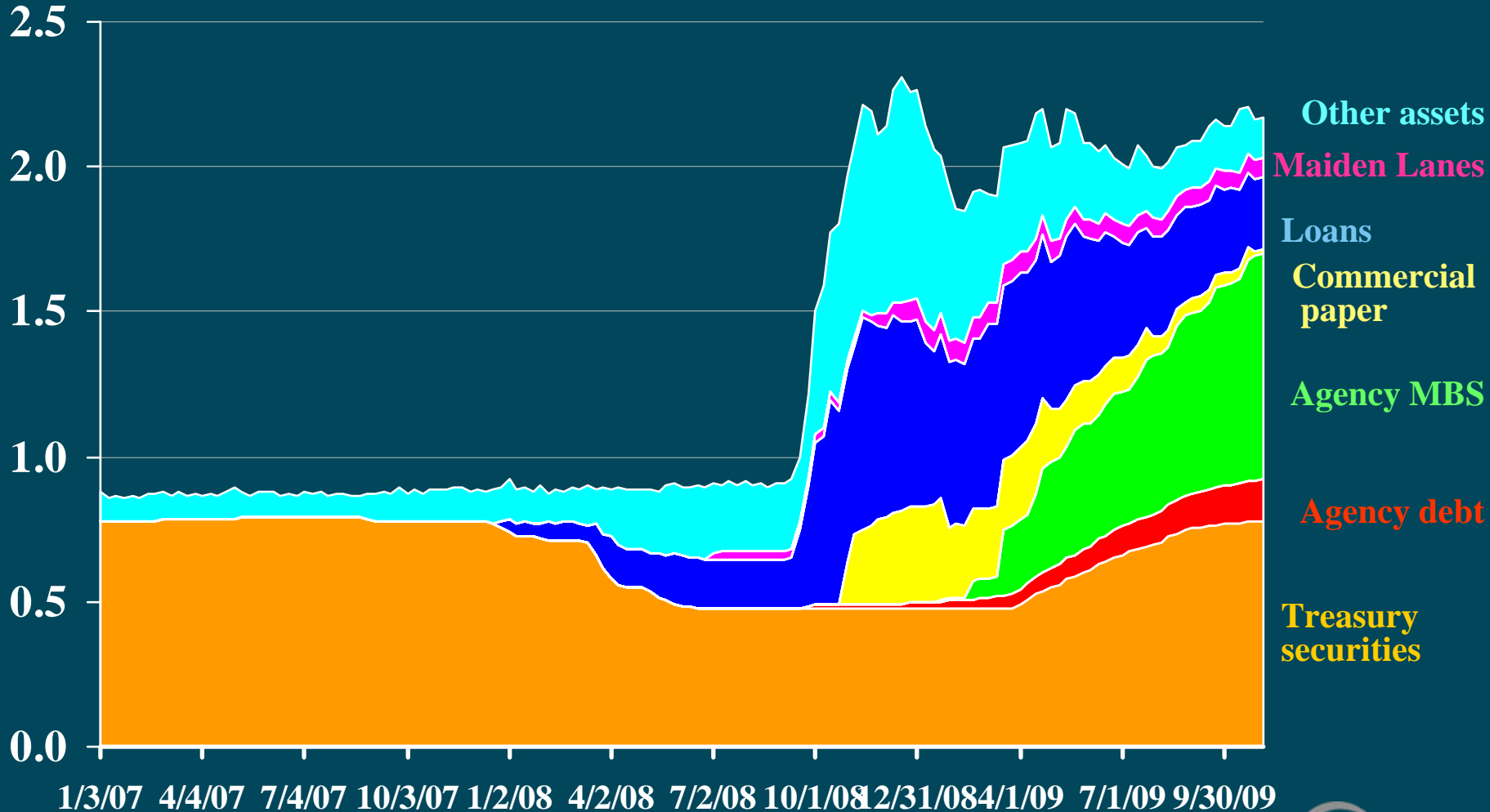
<b>Assets: Securities Holdings (Billions of dollars)</b>	<b><u>11/11/09</u></b>	<b><u>12/31/08</u></b>	<b><u>Change Year-to- date</u></b>
<b>Securities holdings</b>	<b>1,703</b>	496	+1,207
-- Treasury securities	<b>777</b>	476	+301
-- GSE Agency securities	<b>150</b>	20	+130
-- GSE-related MBS securities	<b>776</b>	0	+776

**Note: GSE Government-sponsored enterprise**



The overall Fed balance sheet has changed little even as the Fed has purchased longer-term Treasuries, agency debt, and agency MBS because of the unwinding of lending facilities.

Trillions \$



Weekly data: Last point plotted is November 4, 2009



Federal Reserve Balance Sheet (Billions of dollars)	<u>11/11/09</u>	<u>12/31/08</u>
<b>Total assets</b>	<b>2,138</b>	<b>2,266</b>
Short-term lending programs for financial institutions	158	1,159
Targeted lending programs	58	334
Securities holdings	1,703	496
-- <i>Treasury securities</i>	777	476
-- <i>GSE-related securities</i>	926	20
Repurchase Agreements	0	80
Emergency lending	109	113
Other assets (such as foreign exchange, bank premises)	110	84
<b>Total liabilities</b>	<b>2,085</b>	<b>2,224</b>
Federal Reserve notes	881	853
Reserve balances	1,044	860
Treasury deposits	78	365
Reverse Repurchase Agreements	60	88
Other (such as foreign official deposits)	22	58

# Exit Strategies

When the economy and financial system get back on track, how does the Fed:

- A) Remove the large volume of liquidity it has provided to the financial system?
- B) Neutralize the large volume of liquidity it has provided?
- C) Raise its fed funds rate target without shrinking its balance sheet first?

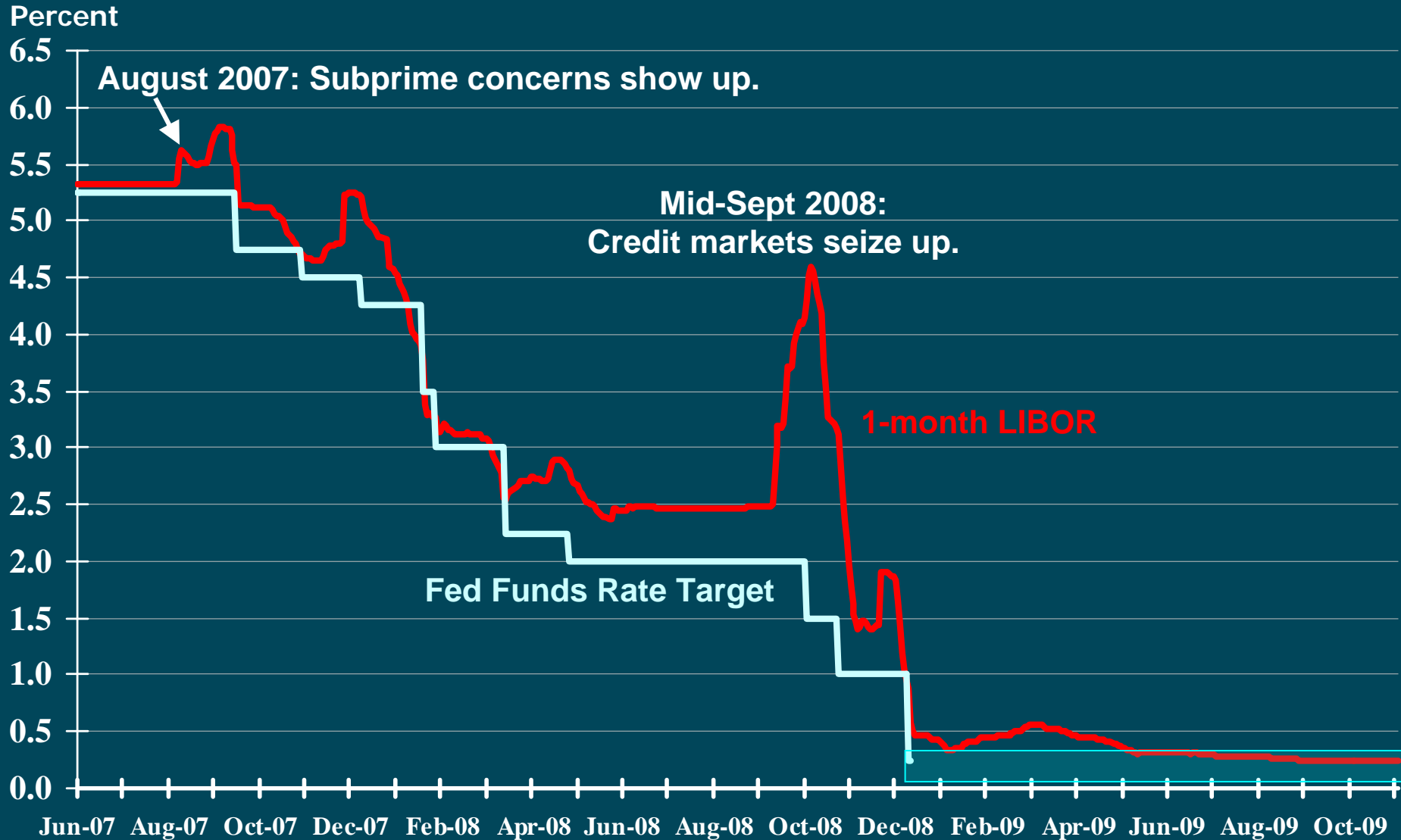


# Exit Strategies

- Wind down short-term and targeted lending
- Runoffs of maturing securities
- Asset sales (of Treasuries, Agencies, or GSE MBS)
- Reverse repurchase agreements (Reverse RPs)
- Rebuild Treasury Supplementary Financing Account
- Term deposits for depository institutions' reserves
- Pay higher interest rate on banks' reserve balances



# 1-Month LIBOR has edged lower.

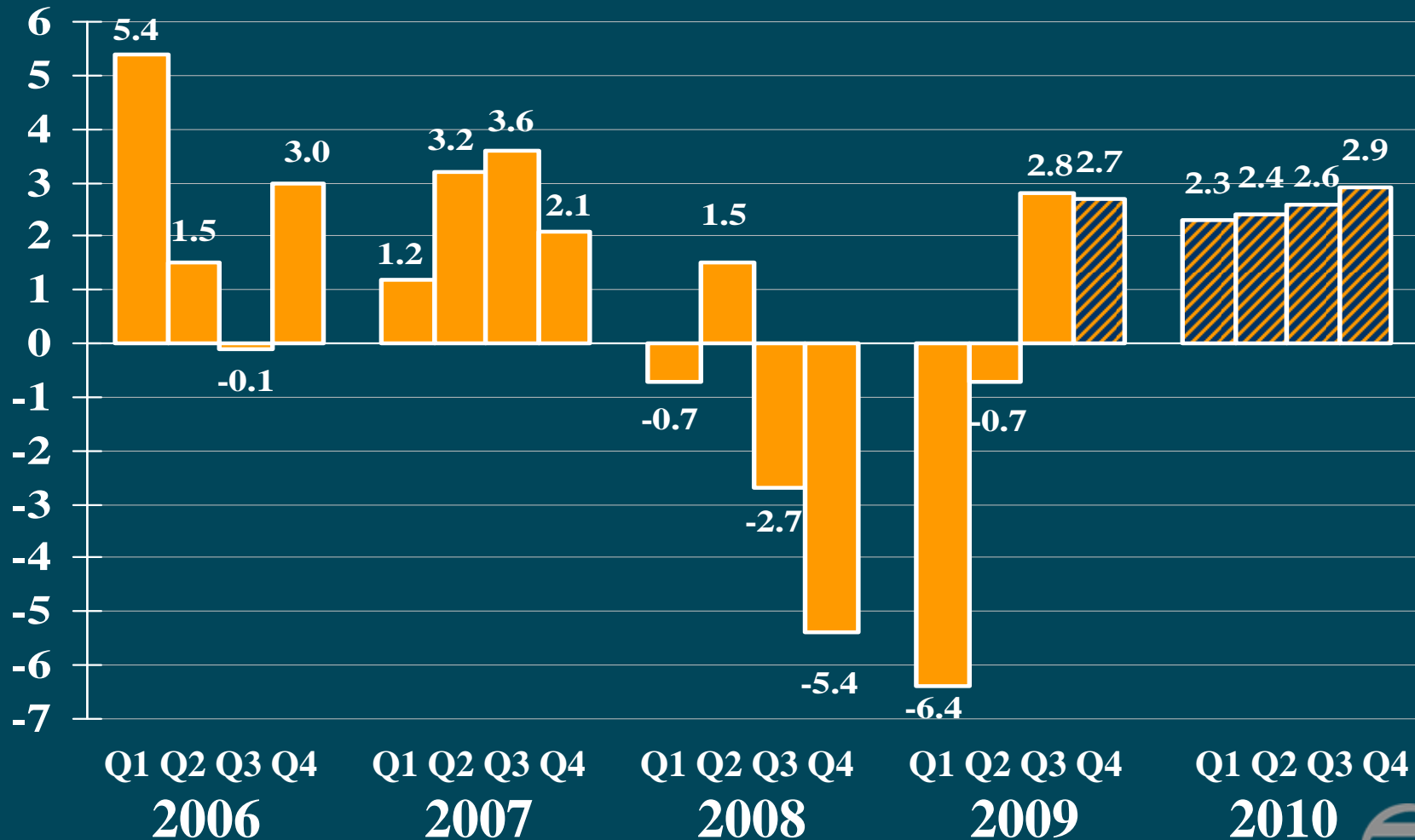


Daily data: Last point plotted is November 12, 2009



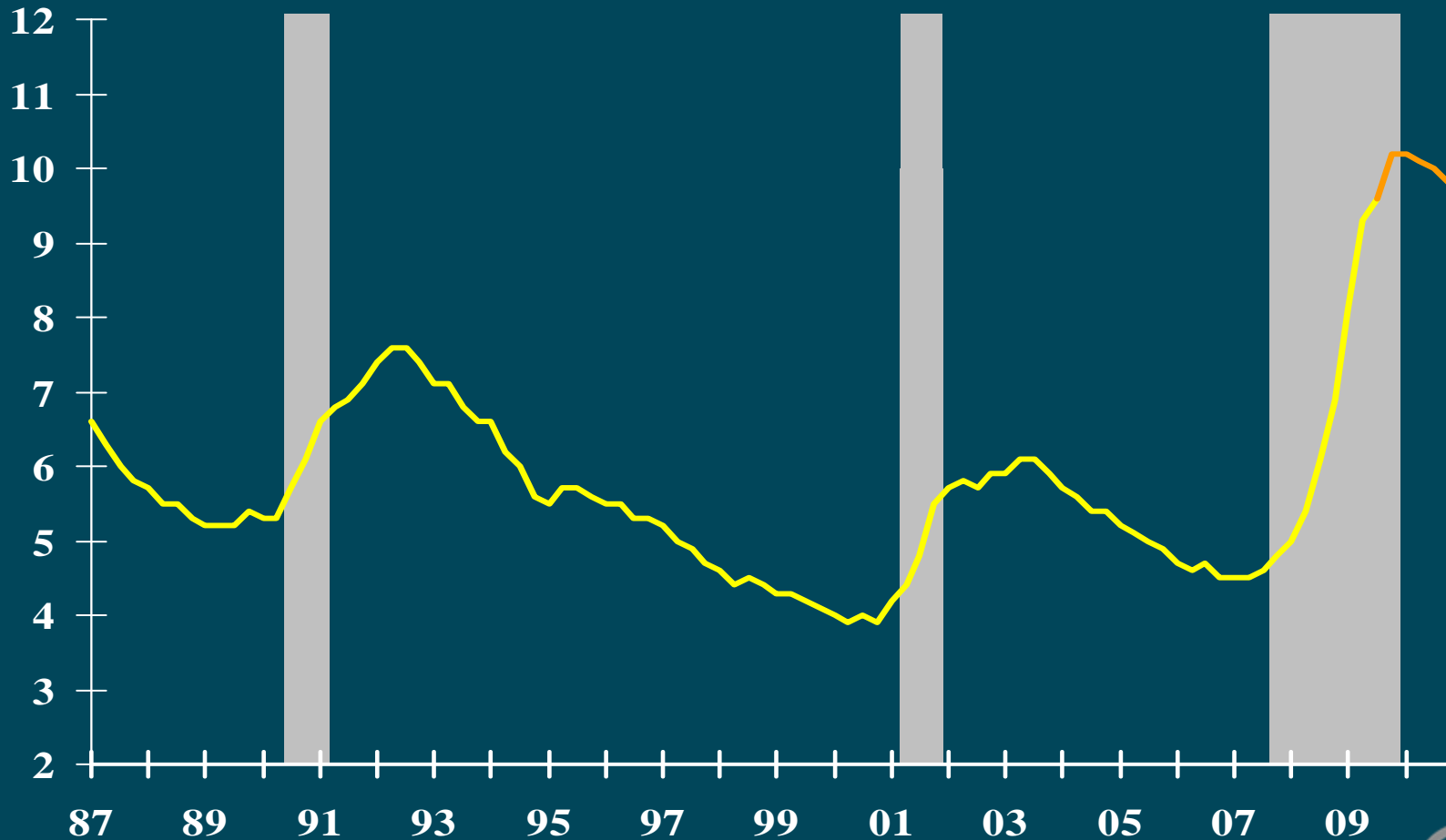
# Latest Survey of Professional Forecasters (SPF) projects positive growth for remainder of 2009, and for 2010.

Percent



# SPF expects the unemployment rate to peak at 10.2% in Q4:2009 & Q1:2010 before coming down.

Percent



# Lengths of Recessions

1919 – 1945 Average	18 months
1945 – 2001 Average	10 months

## Recessions beginning:

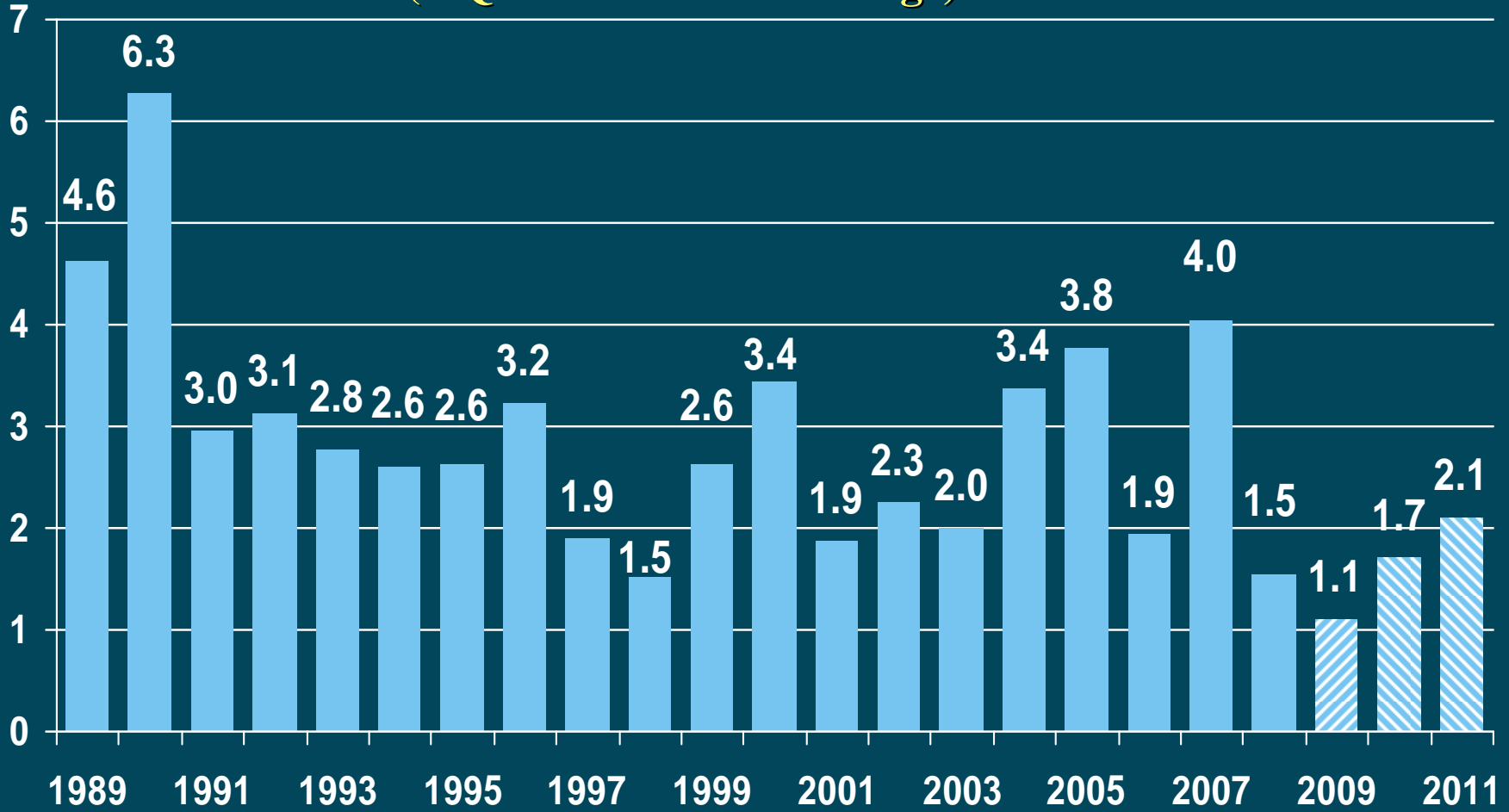
December 1969	11 months
November 1973	16 months
January 1980	6 months
July 1981	16 months
July 1990	8 months
March 2001	8 months
December 2007	22 months? (so far)
Great Depression	43 months



# SPF expects 2009 CPI inflation near 1%, then rising to near 2% in 2011.

Percent

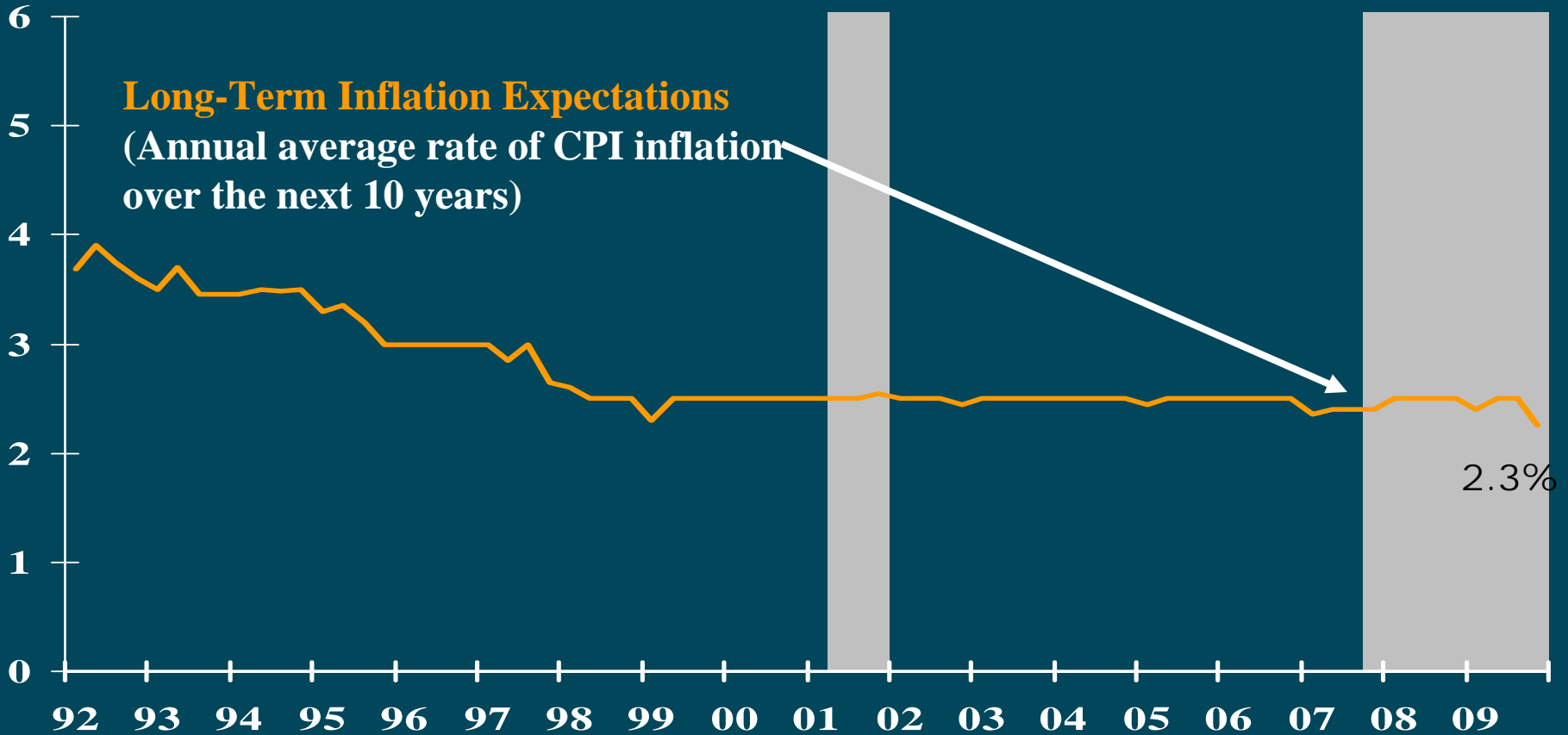
(4-Quarter Percent Change)



# Long-term inflation expectations have remained stable.

## Survey of Professional Forecasters

Percent



Quarterly data: SPF; Last point plotted is 2009 Q4





FEDERAL RESERVE BANK  
OF PHILADELPHIA

