

The First Phase of the U.S. Recovery and Beyond

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Global Interdependence Center Shanghai, China January 11, 2010

Any opinions expressed here are mine and do not necessarily reflect those of other Federal Open Market Committee participants.

Plan For This Talk

- The Nascent Global Recovery
- The U.S. Recovery
- U.S. Financial Markets and Inflation
- Monetary Policy
- Asset price bubbles

The Nascent Global Recovery

Global Growth is Improving

Canada 0.4, 0.5, 4.5 U.S. 2.8, 4.0, 5.0

Latin America 6.9, 4.6, 4.3 -1.2, 1.8, 2.1 EU 1.5, 1.9, 1.4

0.9, 2.2, 3.0

U.K.

Russia 1.0, 3.0, 7.0 China 12.0, 9.6, 8.0

India 13.0, 4.0, 6.0 Japan 1.3, 3.6, 1.0 South Africa

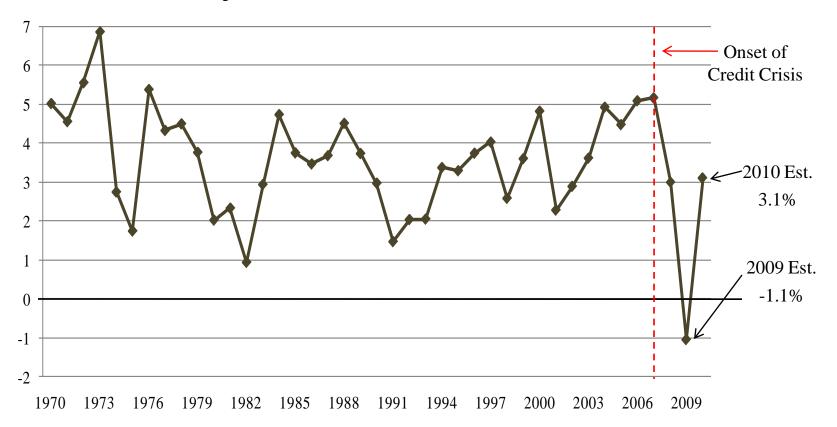
> Australia 0.8, 1.9, 2.6

Growth Rate in Real GDP, SAAR, Percent 2009:Q3, 2009:Q4,2010:Q1

Source: Barclays Capital Global Economic Weekly.

World Real GDP Growth

Year-Over-Year Percent Change



IMF Growth Forecasts for 2010

	2007	2008	2009	2010					
World Output	5.2	3.0	-1.1	3.1					
G-7 Economies									
United States	2.1	0.4	-2.7	1.5					
Germany	2.5	1.2	-5.3	0.3					
France	2.3	0.3	-2.4	0.9					
Italy	1.6	-1.0	-5.1	0.2					
United Kingdom	2.6	0.7	-4.4	0.9					
Japan	2.3	-0.7	-5.4	1.7					
Canada	2.5	0.4	-2.5	2.1					
BRIC Economies									
Russia	8.1	5.6	-7.5	1.5					
China	13.0	9.0	8.5	9.0					
India	9.3	7.3	5.4	6.4					
Brazil	5.7	5.1	-0.7	3.5					

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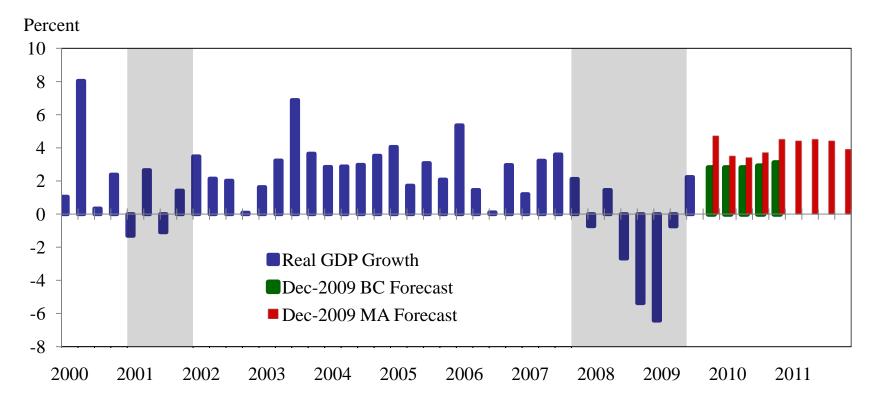
Source: IMF World Economic Outlook Database, October 2009. (Year-over-Year Percent Change.)

The U.S. Recovery

U.S. Forecasters: Growth Ahead

Real Gross Domestic Product.

Actual and forecasted, percent change from previous quarter at annual rate.



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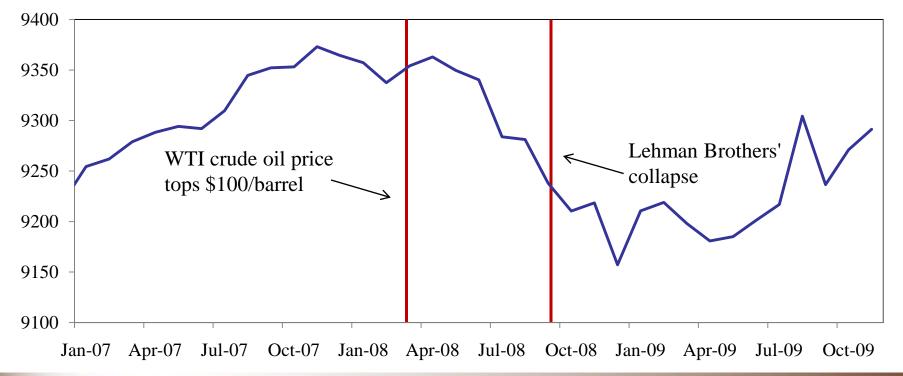
Source: Bureau of Economic Analysis, Blue Chip Consensus, Macroeconomic Advisers.

U.S. Consumption Is Stabilizing

Real Personal Consumption Expenditures

(Monthly Data. Last observation: Nov. 2009)

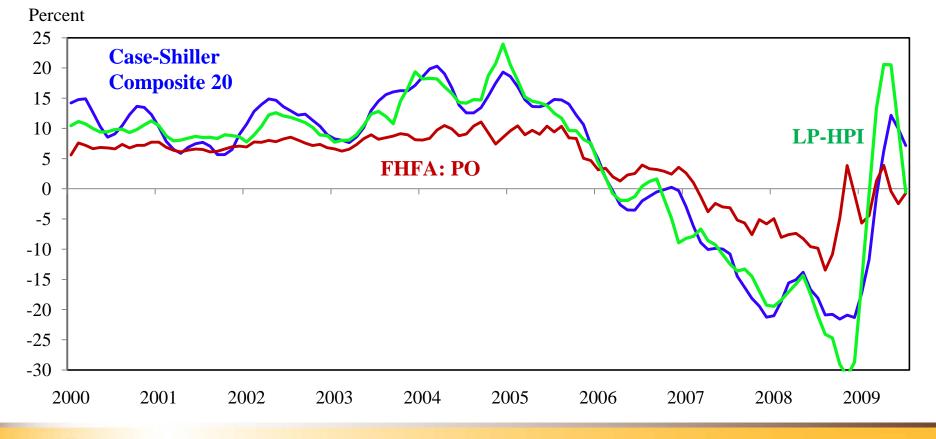
Billions of Chained 2005 Dollars



Source: Bureau of Economic Analysis.

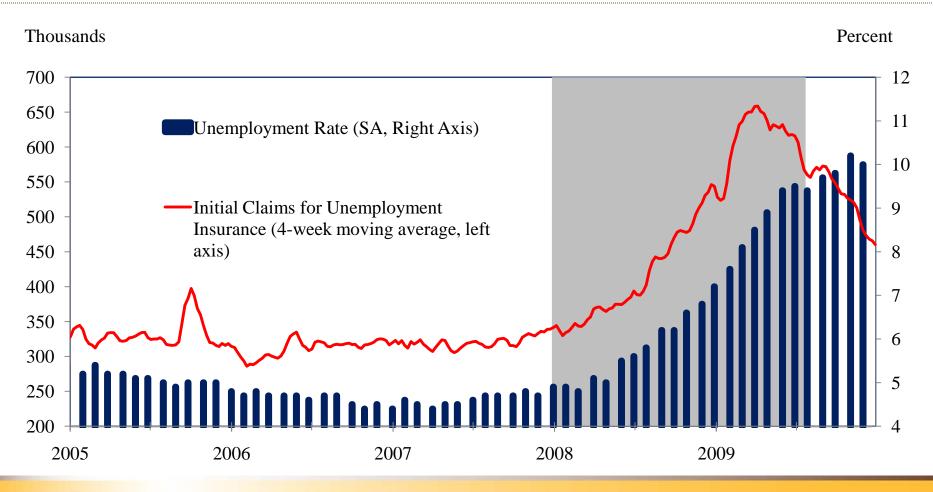
U.S. House Prices Are Stabilizing

Three-month percent change, annual rates (Monthly Data. Last observation: Oct. 2009)



Source: Loan Performance/FHFA/S&P.

U.S. Civilian Unemployment Remains High...



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Source: Bureau of Labor Statistics/Department of Labor.

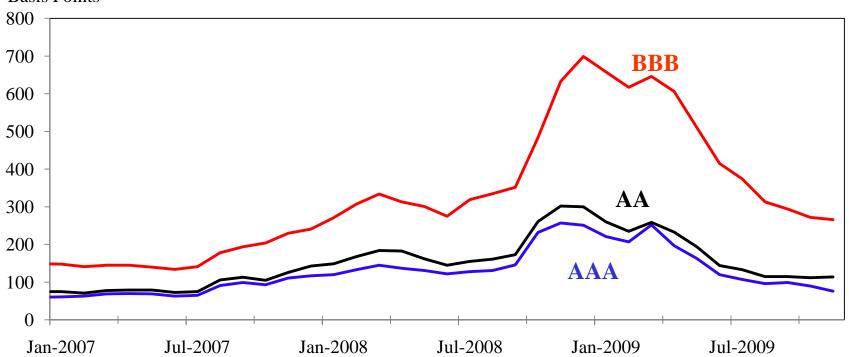
U.S. Financial Markets and Inflation

U.S. Credit Spreads Have Narrowed

Bond Spreads to 10-Yr Treasury

(Monthly data. Last Observation: Nov. 2009)

Basis Points



Source: Federal Reserve.

World Equity Prices Since Trough

Country	Peak Date	Trough Date	Peak-Trough % Change	Trough- 12/30/2009 % Change					
G7 Economies									
U.S.	Oct. 09, 2007	Mar. 09, 2009	-54%	61%					
Germany	Jul. 16, 2007	Mar. 06, 2009	-55%	62%					
France	Jun. 01, 2007	Mar. 09, 2009	-59%	56%					
Italy	May. 2, 2007	Mar. 03, 2009	-63%	59%					
U.K.	Jun. 15, 2007	Mar. 03, 2009	-49%	55%					
Japan	Jul. 09, 2007	Mar. 10, 2009	-61%	49%					
Canada	Jun. 18, 2008	Mar. 09, 2009	-50%	55%					
BRIC Economies									
Russia	May 19, 2008	Jan. 23, 2009	-80%	188%					
China	Oct. 16, 2007	Oct. 27, 2008	-72%	101%					
India	Jan. 08, 2008	Mar. 11, 2009	-61%	113%					
Brazil	May 20, 2008	Oct. 27, 2008	-60%	133%					

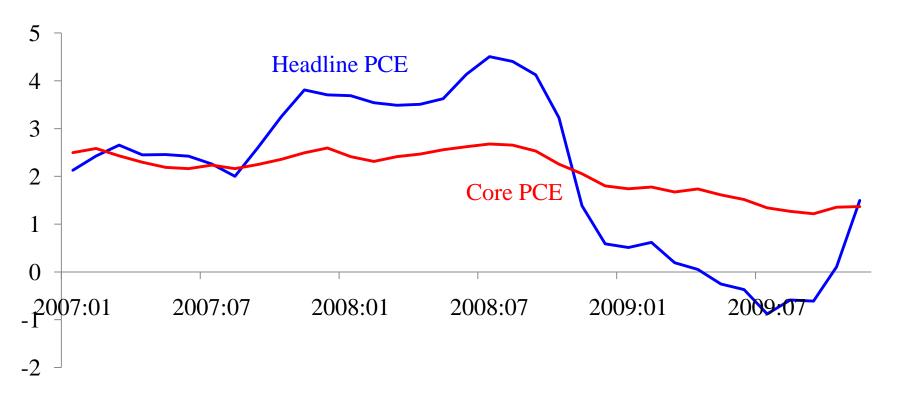
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Source: Wall Street Journal, Financial Times, Toronto Stock Exchange, and RTS Stock Exchange.

U.S. Inflation Remains Low...

PCE Inflation

Year-over-year percent change



Source: Bureau of Economic Analysis/Macroeconomic Advisers.

Monetary Policy

Three Parts to U.S. Current Monetary Policy

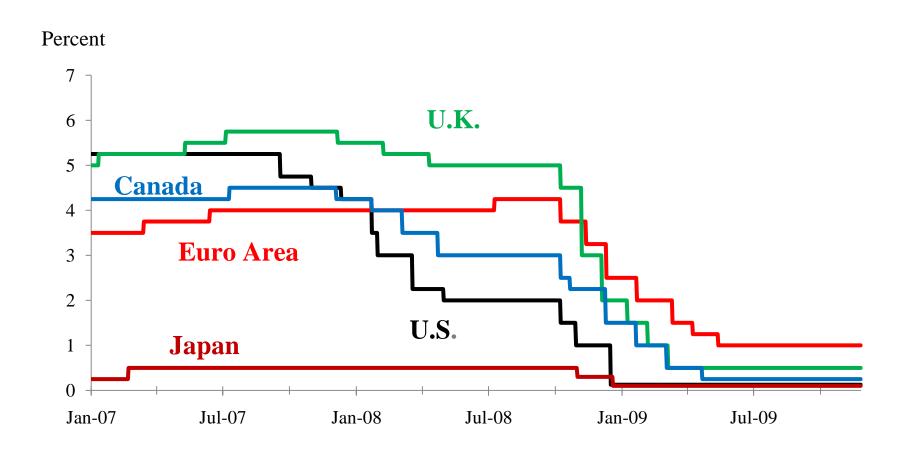
- Liquidity programs: lending on collateral to mitigate the panic.
- A near-zero interest rate policy.
- An asset purchase program, "quantitative easing."

U.S. Liquidity Programs Naturally Tapering Off

Billions \$						
2,000						
1,800 - s 1,600 - 1,400 - 1,200 - 1,000 - 800 -	Chort-term Lending to F = Repurchase Agreeme + Term Auction Credit + Commercial Paper F + Central Bank liquidi + Net Portfolio Holdin + Other Loans Less Lo + Other Assets	ents- Triparty unding Facility ty swaps gs of LLCs Thru				
600 -						
400 -						
200 -						
0						
01/0′	7 07/07	01/08	07/08	01/09	07/09	01/10

Source: Federal Reserve.

Near-Zero Policy Rates in the G-7



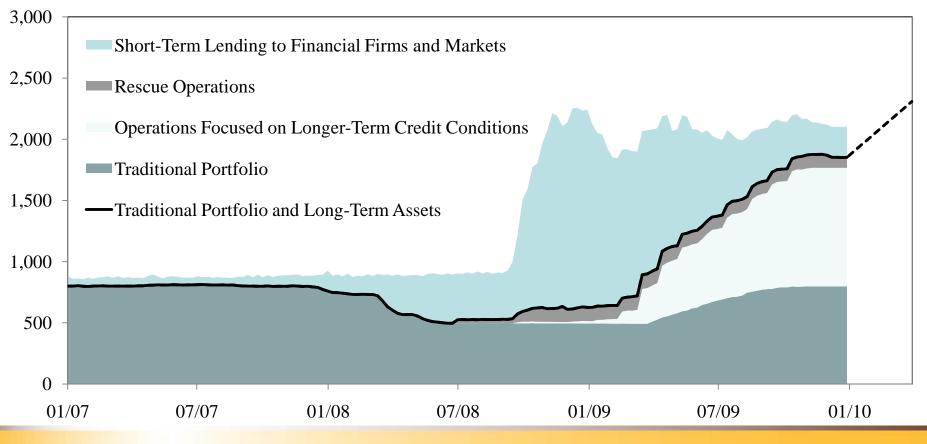
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Source: Federal Reserve, Bank of England, European Central Bank, Bank of Canada, Bank of Japan.

Composition of Federal Reserve Assets

(Weekly Data. Last Observation: Dec. 30, 2009)

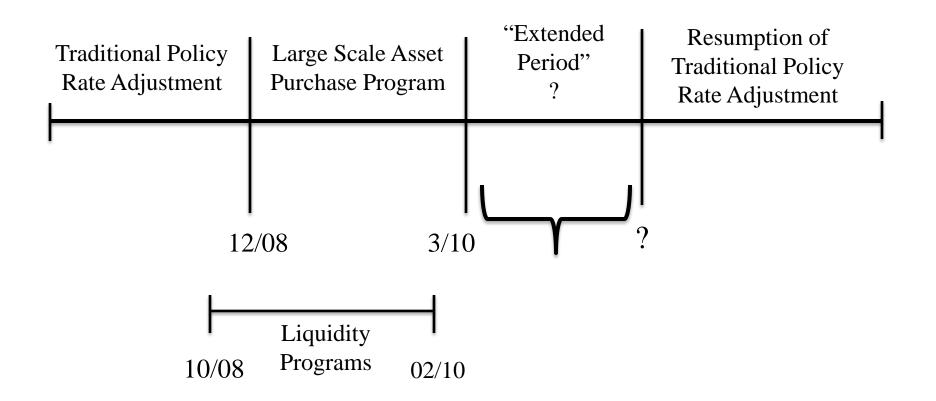
Billions \$



The Asset Purchase Program

- The Committee announced an intention to buy up to \$1.725 trillion in assets by 2010 Q1.
 - Considered successful as quantitative easing.
 - Causing a large and persistent increase in the monetary base ...
 - ... and a medium-term inflation risk.
- The FOMC asset purchase program does not have a statecontingent character.
- Main issue: How to adjust the asset purchase program going forward and not generate inflation?

Timeline of Monetary Policy

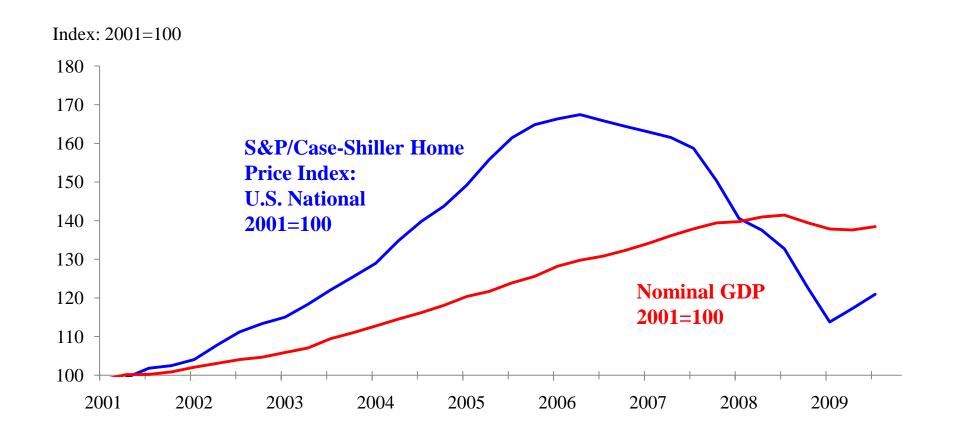


Asset Price Bubbles

Two decades, two "bubbles"

- Monetary policy necessarily affects asset prices and interest rates.
- Historically, this did not appear to create prolonged run-ups in asset prices.
- But changes in the recovery of employment in the past two recessions led the Fed to keep interest rates low for a long time.
- Both periods featured prolonged increases in certain asset prices: for technology in the 1990s, and for housing in the 2000s.
- The drag on the economy from the housing decline since 2006 has been especially severe.

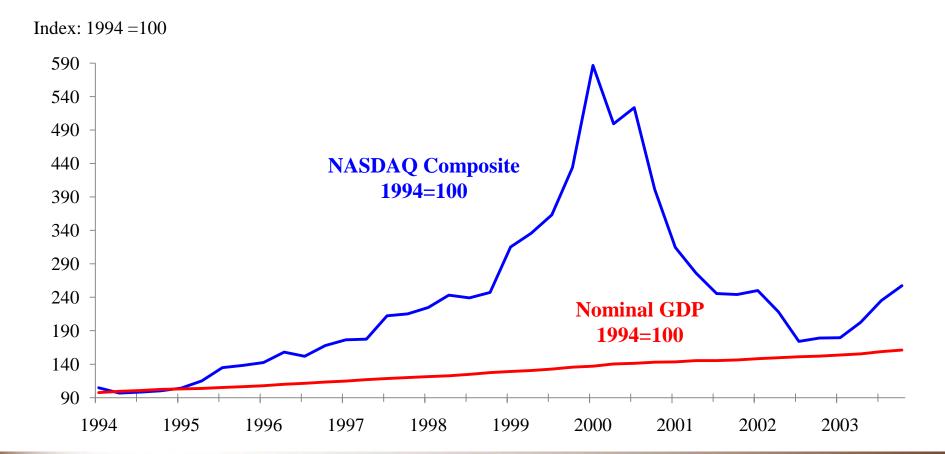
U.S. Housing Bubble: 2001-2008



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Source: S&P, Fiserv, MacroMarkets LLC, and Bureau of Economic Analysis.

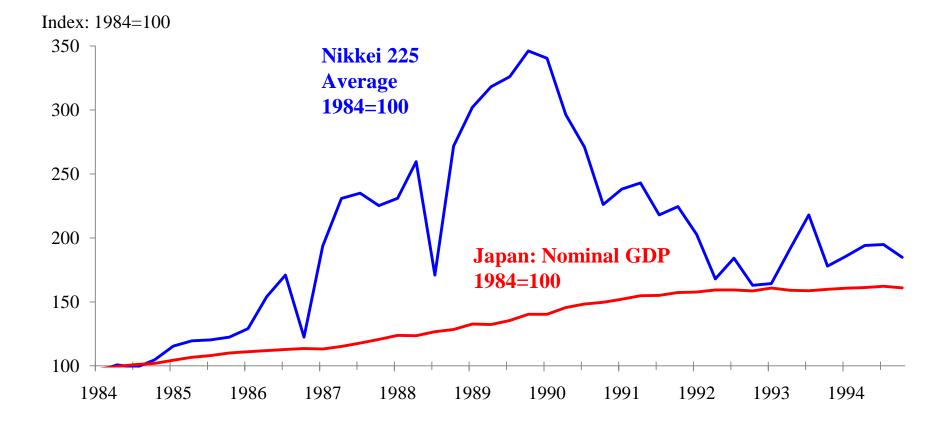
U.S. Stock Market Bubble: 1994-2003



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Source: Wall Street Journal, Bureau of Economic Analysis.

Japanese Stock Market Bubble: 1984-1994



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Source: Wall Street Journal, Financial Times, IMF.

Monetary policy outcomes

- Still, monetary policy outcomes during the past two decades up to the current crisis have been good.
- Unemployment hit lows of 3.8 percent in 2000, and 4.4 percent in 2007.
- Inflation has been low and stable through this period.
- If policy was too low for too long in the 1990s and in the 2000s, why didn't we see more inflation?
- Yet, without an increase in inflation, asset price misalignments seem to have caused significant problems for the macroeconomy.
- This may mean that monetary policy should put more weight on asset prices going forward.

Summary for Asset Price Bubbles

- Asset price "bubbles" are a very serious issue for monetary policy.
- This issue has been debated extensively over the past 15 years, but the debate will now intensify.
- The main problem: It is hard to see what was "wrong" with previous policy, given conventional ideas about what policy is trying to accomplish.



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