

March 20, 2015

## **Discussion Section 8**

*Keynesian vs Classical the Great Recession (Chapters 10-11)*

### **Announcements**

#### **Prelim's Done**

Handed back

Solutions up.

Partial credit

#### **Homework Due**

Just graded on whether it was done

# The Great Recession – Competing Views

What happened in the great recession?

Housing bubble

- Increase in Wealth
  - Decrease in savings [graph]
- Increase in expectation of profit (MPK)
  - Higher investment
- Expected result (partial equilibrium, closed economy): higher interest rate, questionable savings and investment [show graph]
- ~~Expected result: Open economy~~ (later chapter)
  - Some savings will come from abroad
- Expected result: General equilibrium
  - IS shifts out
  - LM shifts up (and to the left) from wealth/income
  - But LM curve is shifted by expansionary monetary policy
  - Equilibrium: Y up, r up some
  - LE? Only shifted by changes in capital (including human) and population

Crash of the housing bubble = wealth shock

- Decrease in Wealth
  - Increase in savings
- Decrease in expectation of profit (MPK)
  - Lower investment
- Expected result (partial equilibrium, closed economy): lower interest rate, questionable savings and investment [show graph]
- ~~Expected result: Open economy~~ later chapter
  - Savings will from abroad will decrease
- Expected result: General equilibrium
  - Movement of LM curve unknown (competing forces)

Investment

Savings

Money Supply

Money Demand

Full Employment Output

Lehman brothers collapse = confidence shock

- Drop in expected future income
- Decrease in expectation of profit (MPK)
  - Lower investment

Response: Government stimulus

- Was there really an increase?
  - Show charts
- Why Ricardian equivalence matters
- Impact of increase
- Impact of decrease

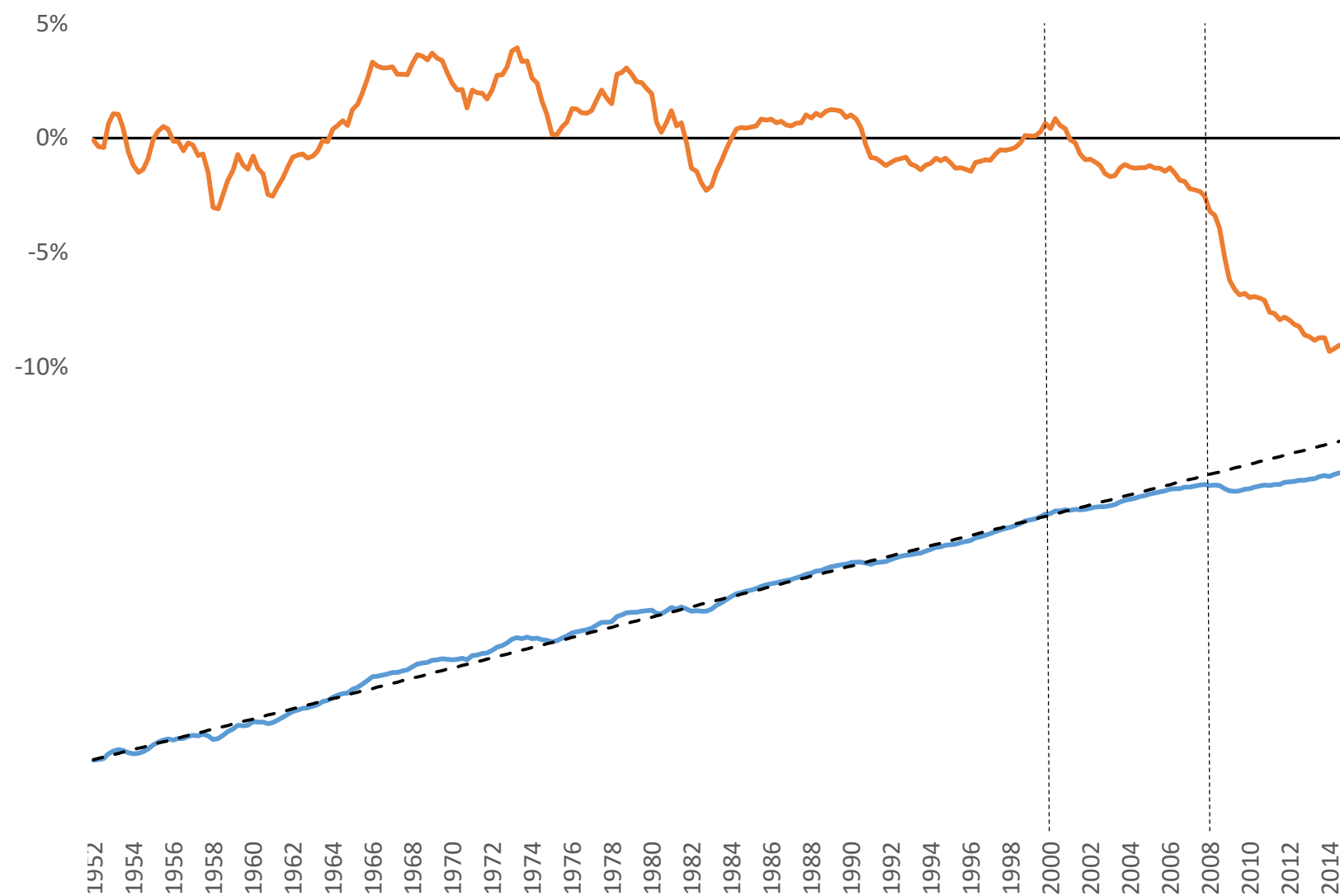
Response: Austerity

- How big was the decrease?

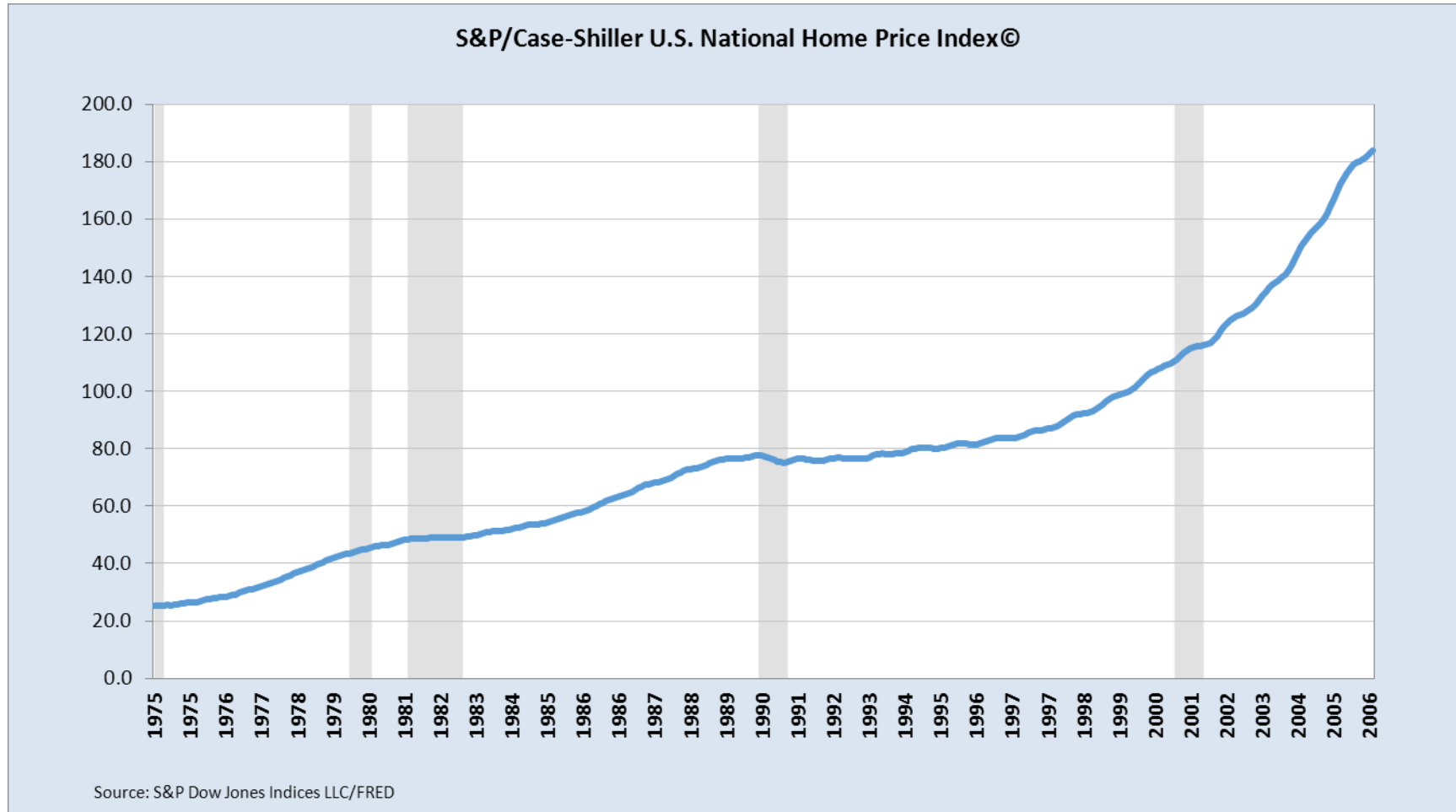
Response: Increase in unemployment insurance

# IS-LM & the Great Recession

# Log(GDP) and % Deviation from Trend



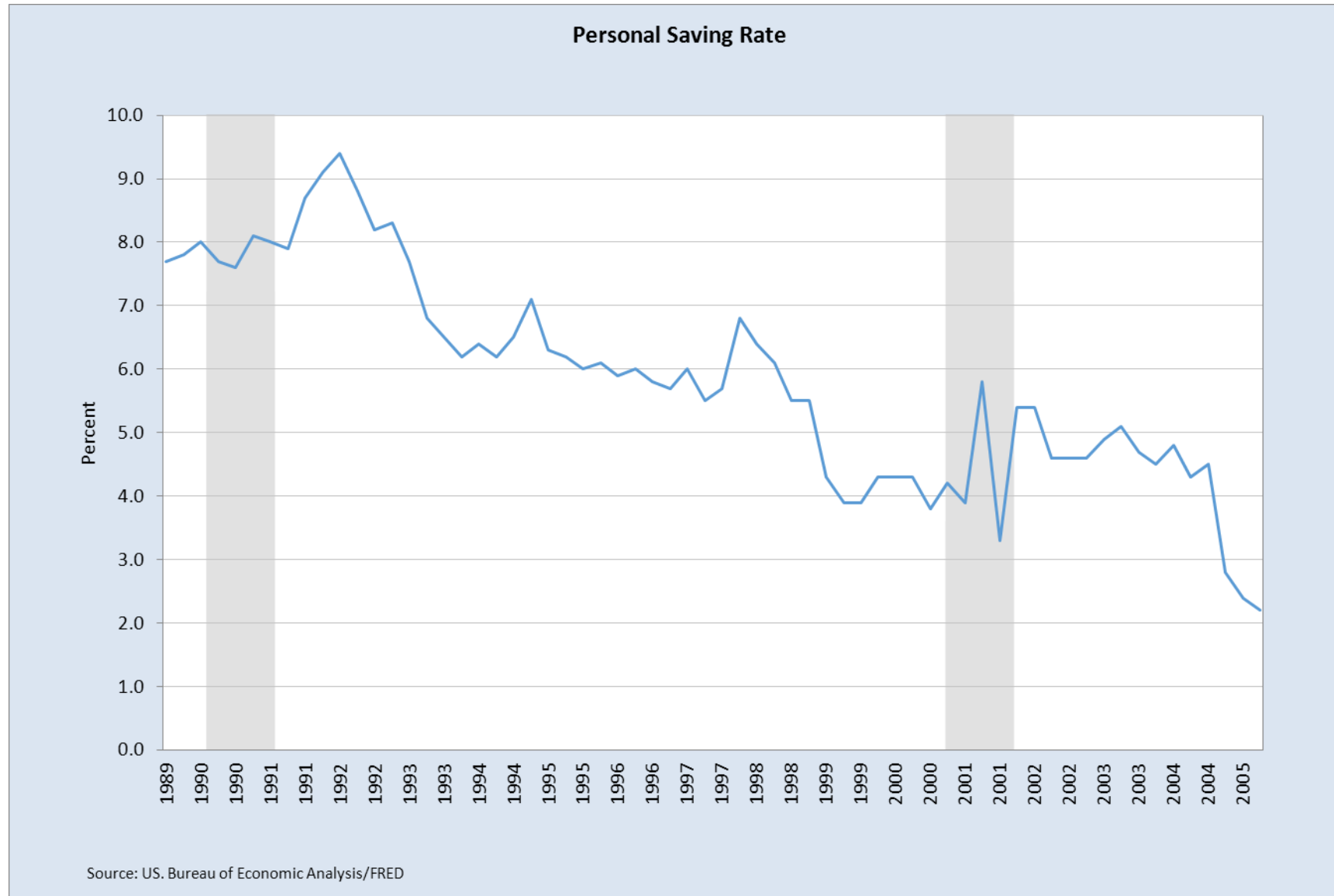
# The Housing Bubble



# Impacts of the Housing Bubble

- Increase in Wealth
  - Decrease in savings

# Decrease in Savings

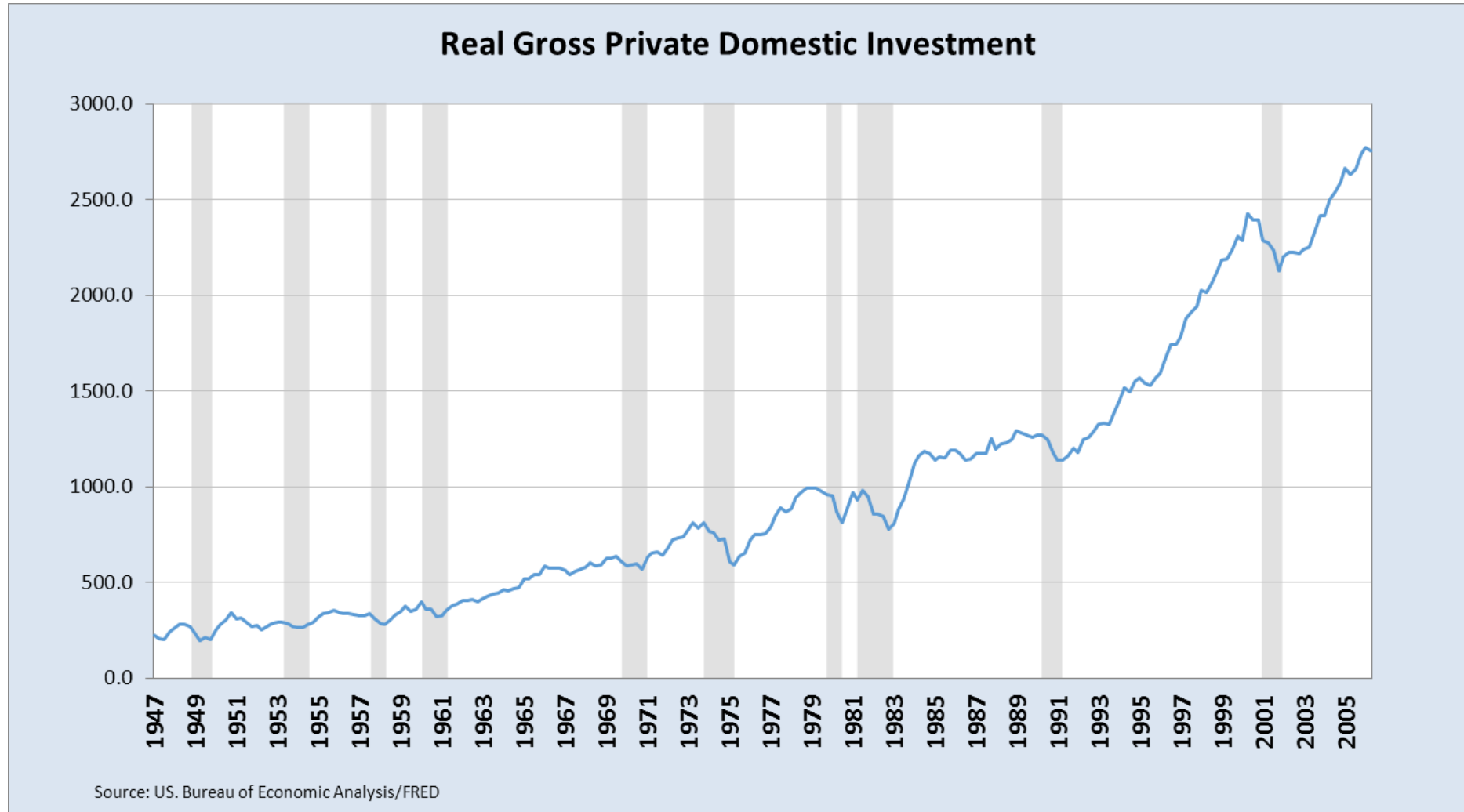




# Impacts of the Housing Bubble

- Increase in Wealth
  - Decrease in savings
- Increase in expectation of profit (MPK)
  - Higher investment

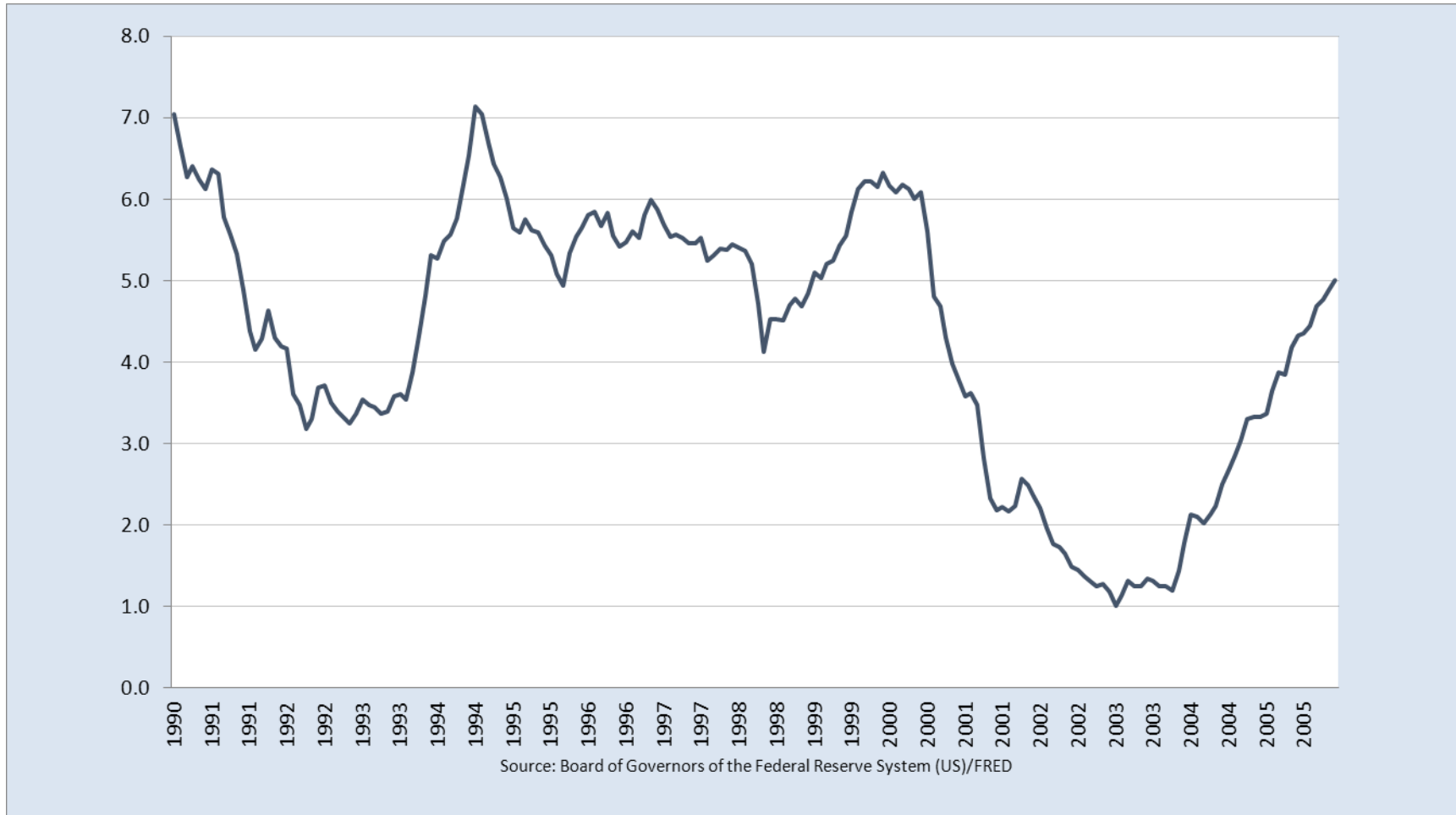
# Increase in Investment



# Impacts of the Housing Bubble

- Increase in Wealth
  - Decrease in savings (at every interest rate = shift in curve)
- Increase in expectation of profit (MPK)
  - Higher investment (at every interest rate = shift in curve)
- Expected result (partial equilibrium, closed economy)
  - higher interest rate, questionable savings and investment

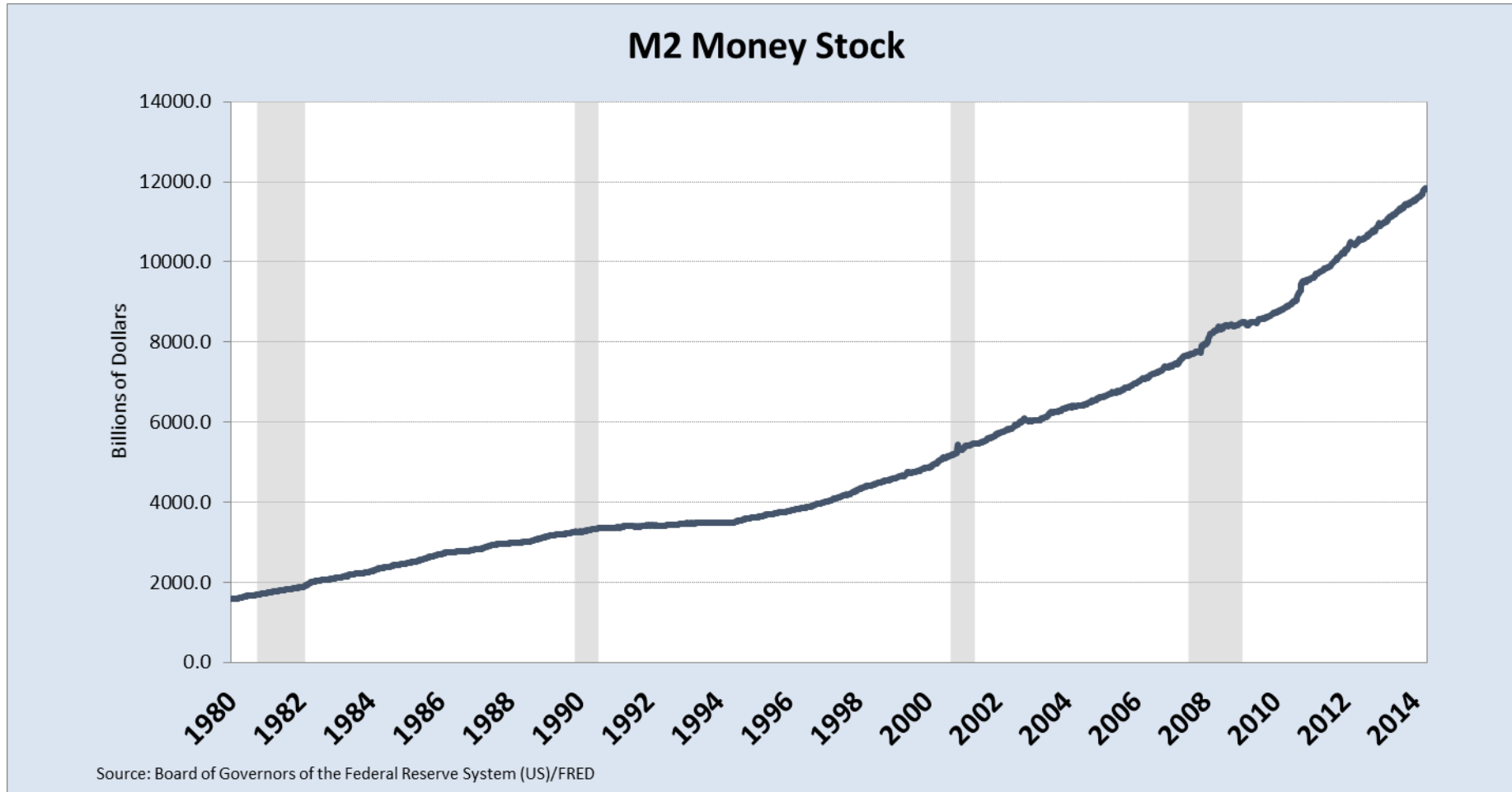
# Interest Rate (1 yr T-Bill)



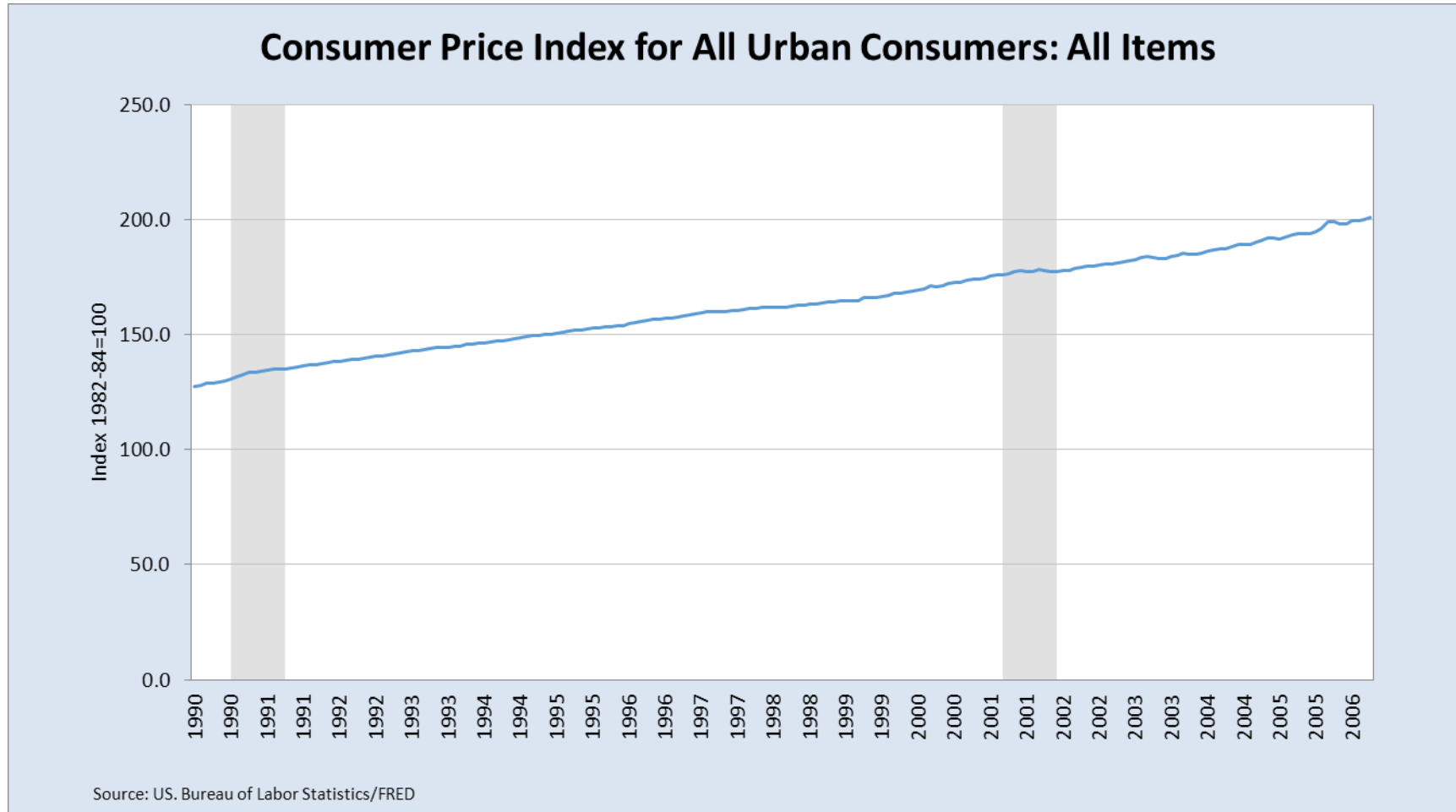
# Impacts of the Housing Bubble

- Increase in Wealth
  - Decrease in savings (at every interest rate = shift in curve)
- Increase in expectation of profit (MPK)
  - Higher investment (at every interest rate = shift in curve)
- Expected result (partial equilibrium, closed economy)
  - higher interest rate, questionable savings and investment
- Note: In open economy some savings will come from abroad

# Money Supply



# CPI

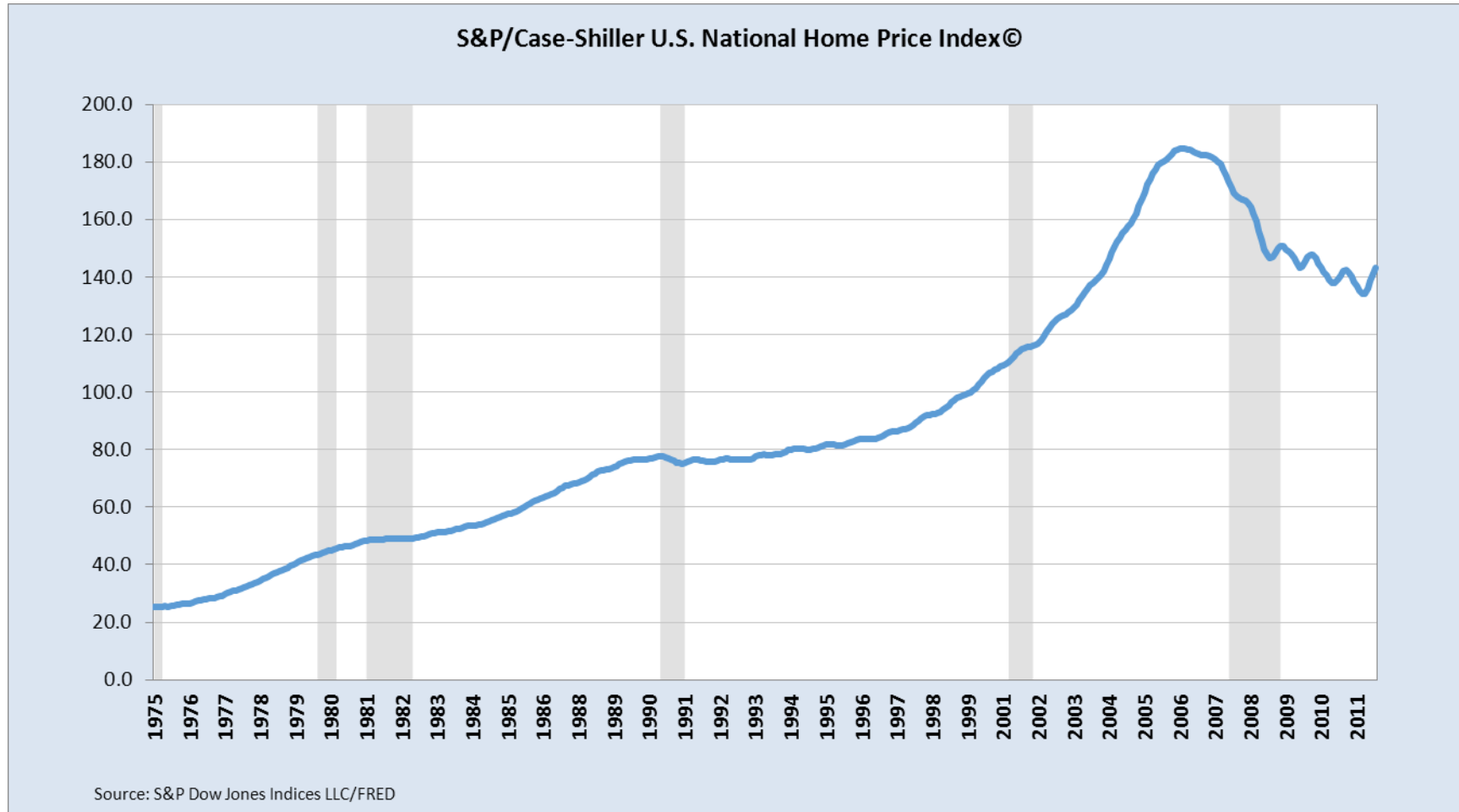


# Impacts of the Housing Bubble: GE

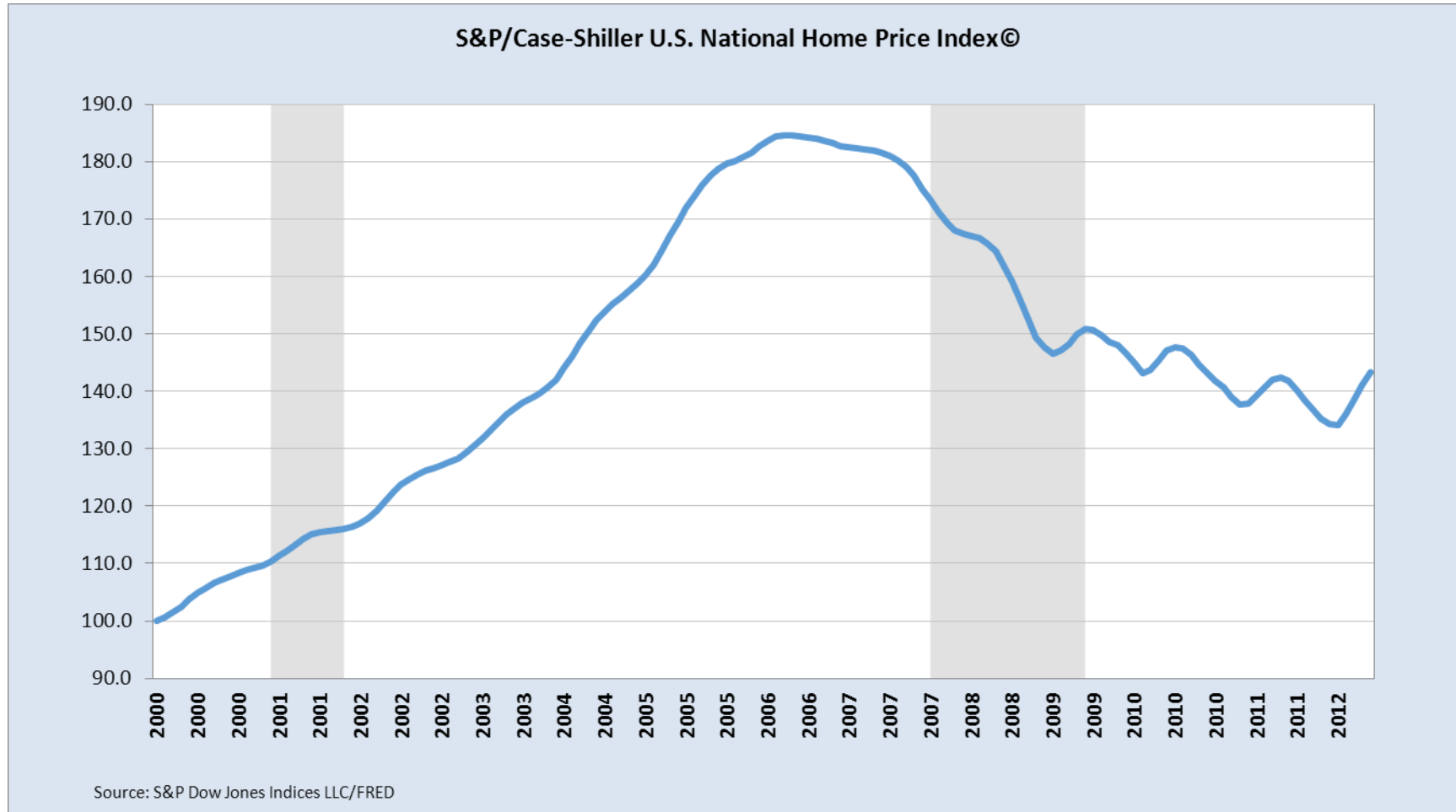
- Expected result: General equilibrium
  - IS shifts out
  - LM shifts up (and to the left) from wealth/income
  - But LM curve is shifted by expansionary monetary policy
  - Equilibrium:  $Y$  up,  $r$  up some
  - FE? Only shifted by changes in capital (including human) and population



# The Crash of the Bubble



# The Crash of the Bubble: ~20% drop



# Impacts of the Crash

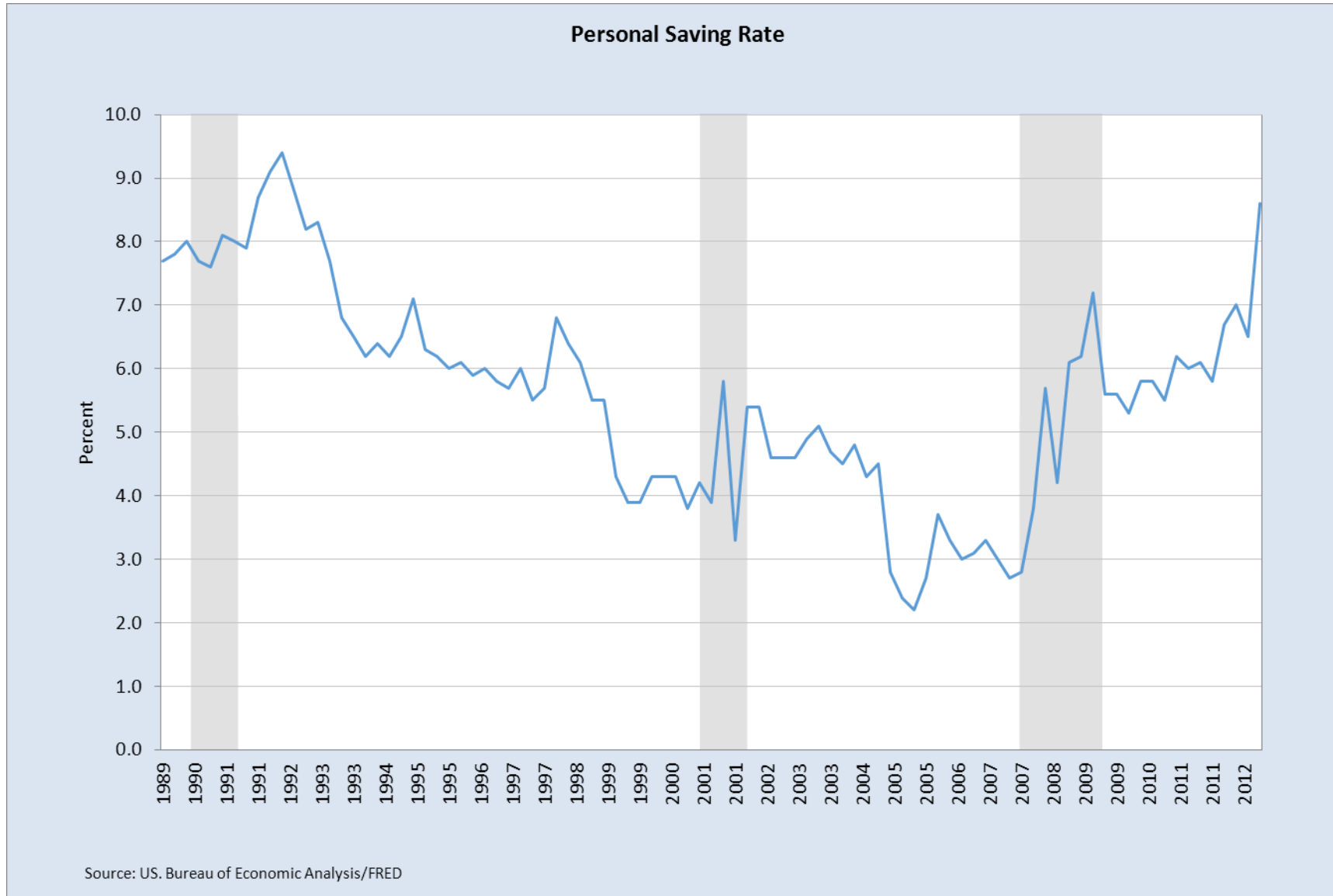
Crash = Wealth Shock

- Decrease in Wealth
  - Increase in savings
- Decrease in expectation of profit (MPK)
  - Lower investment
- Expected result (partial equilibrium, closed economy): lower interest rate, questionable savings and investment [show graph]

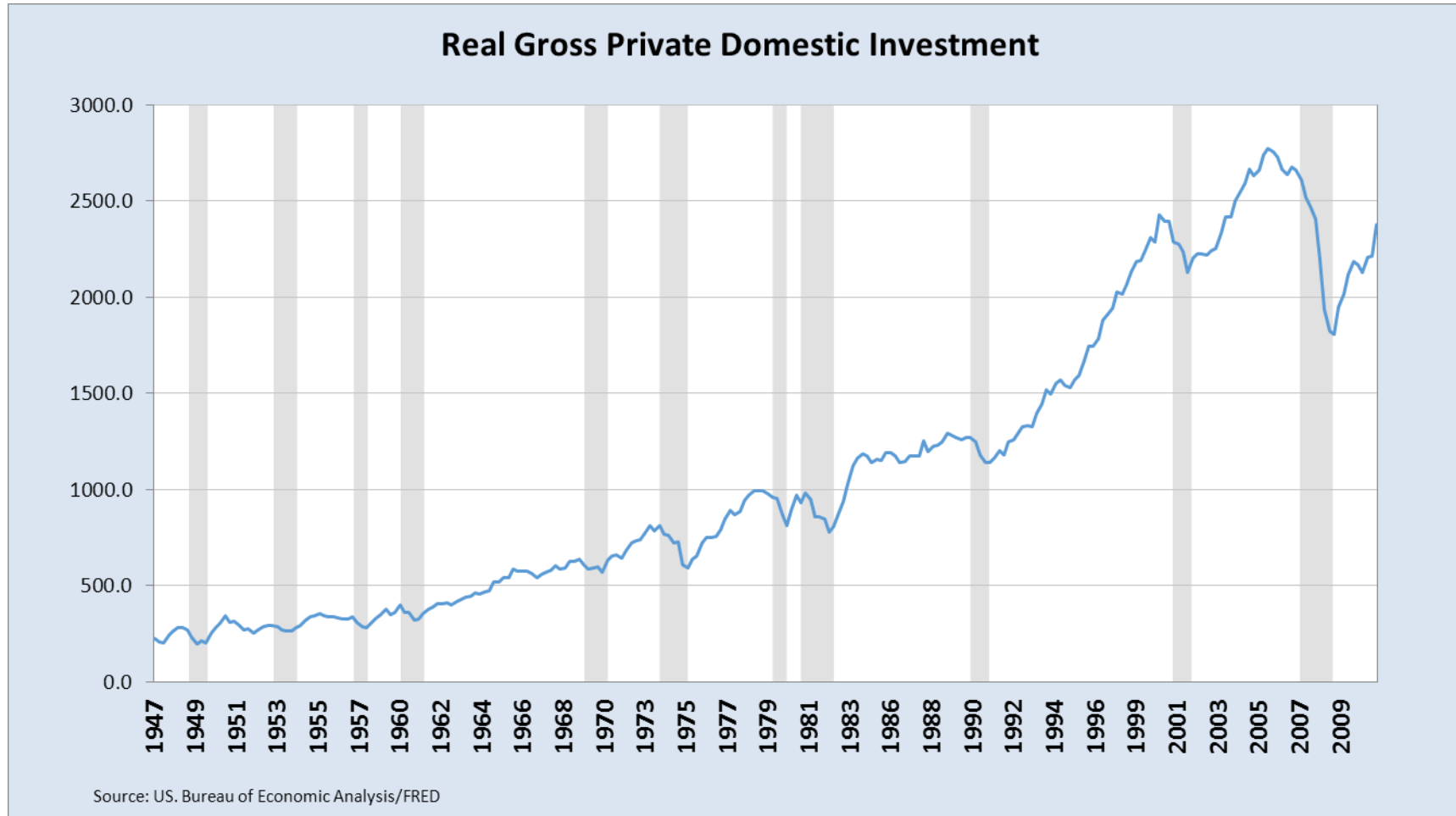
Lehman brothers collapse = confidence shock

- Drop in expected future income / MPK
  - Same impacts as above

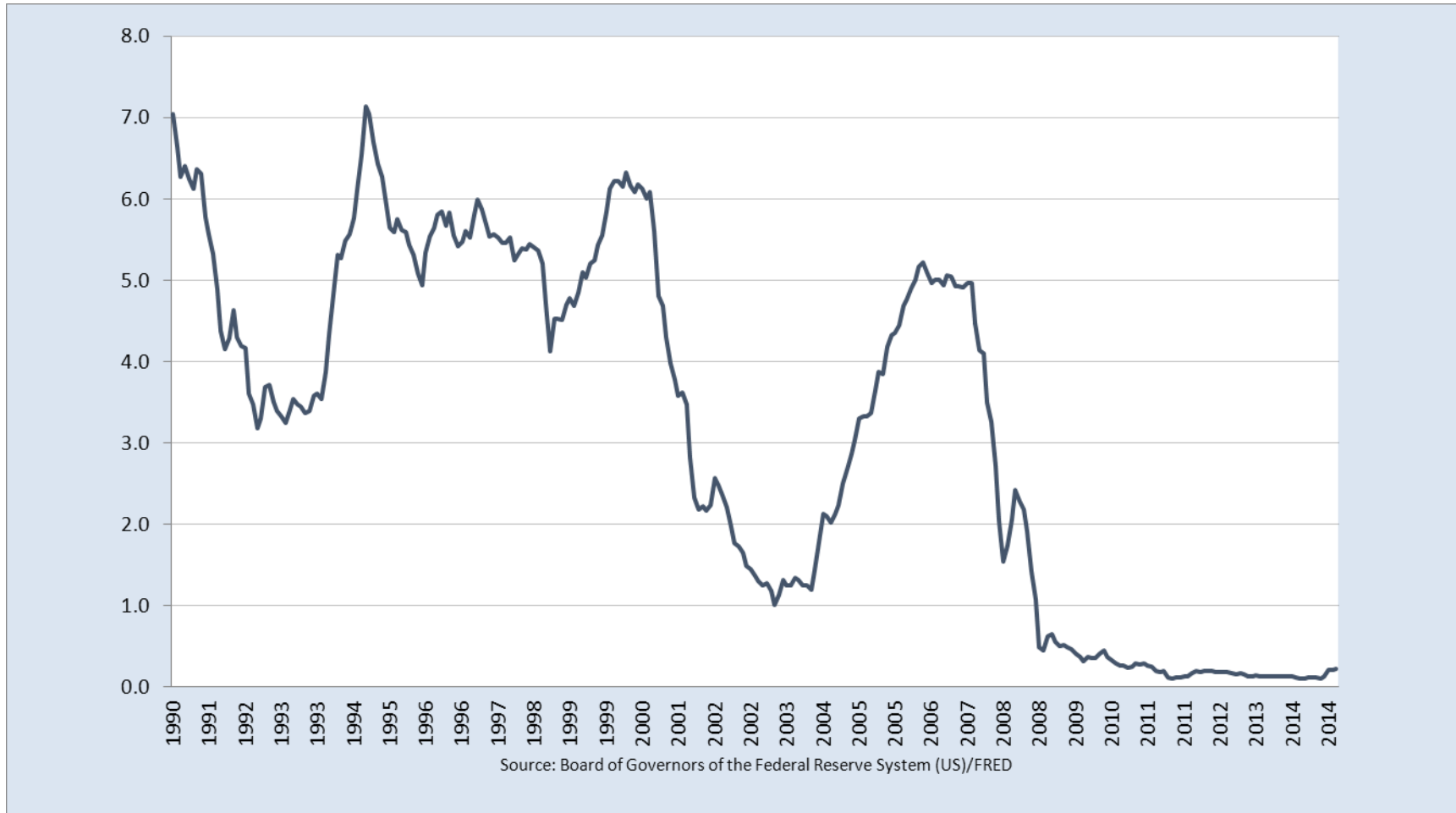
# Saving



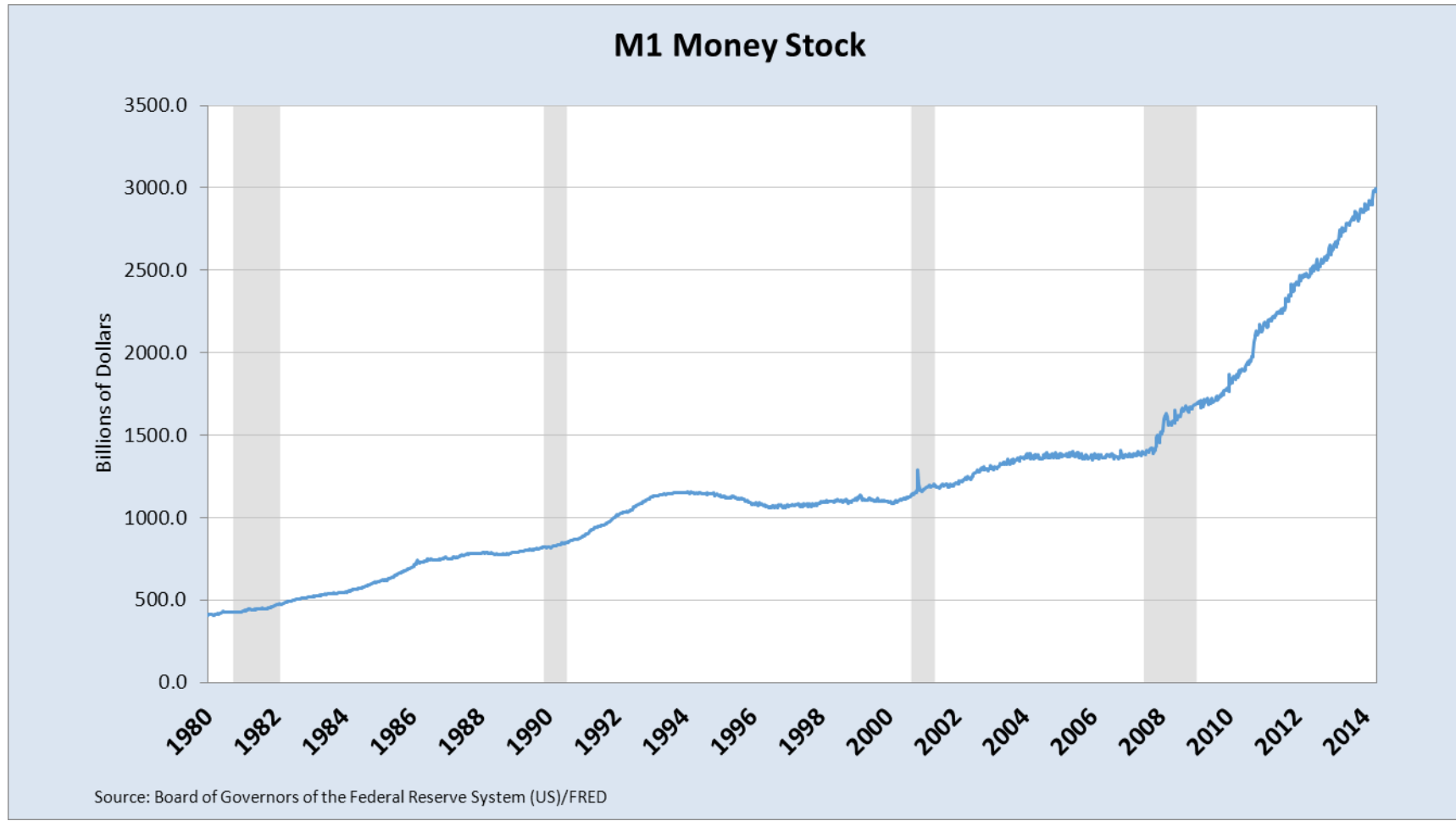
# Investment



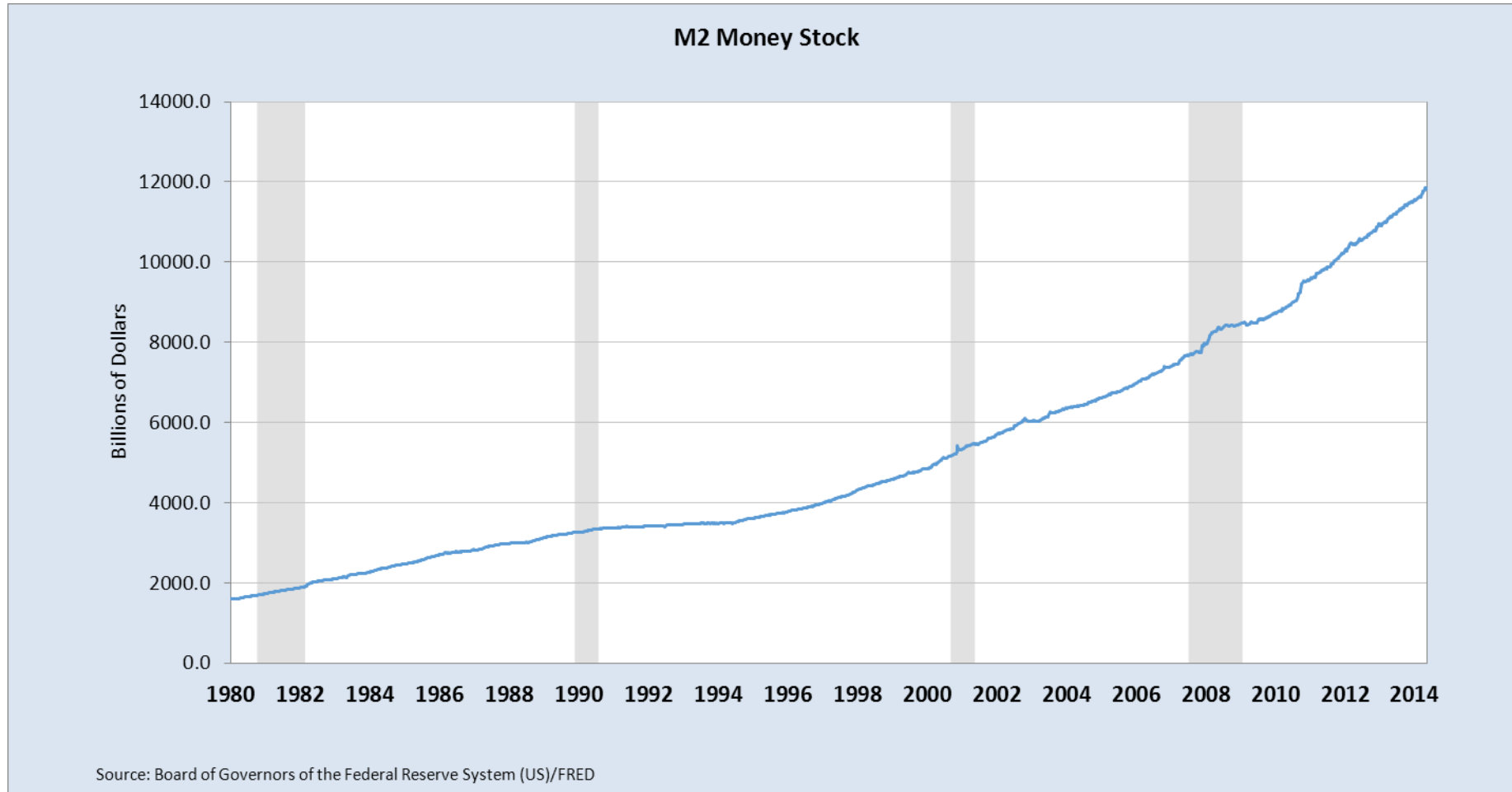
# Interest Rate



# Money: M1

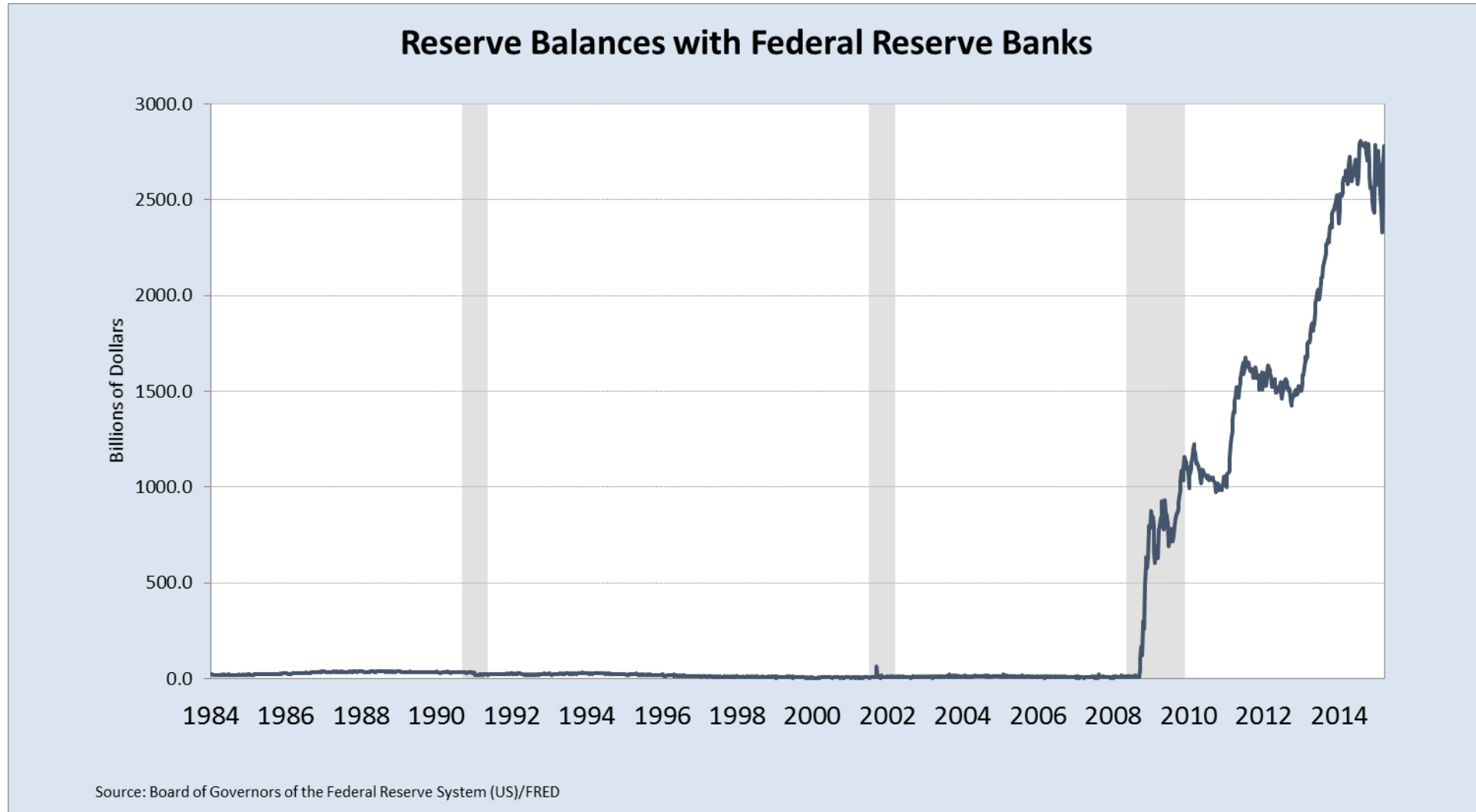


# Money: M2

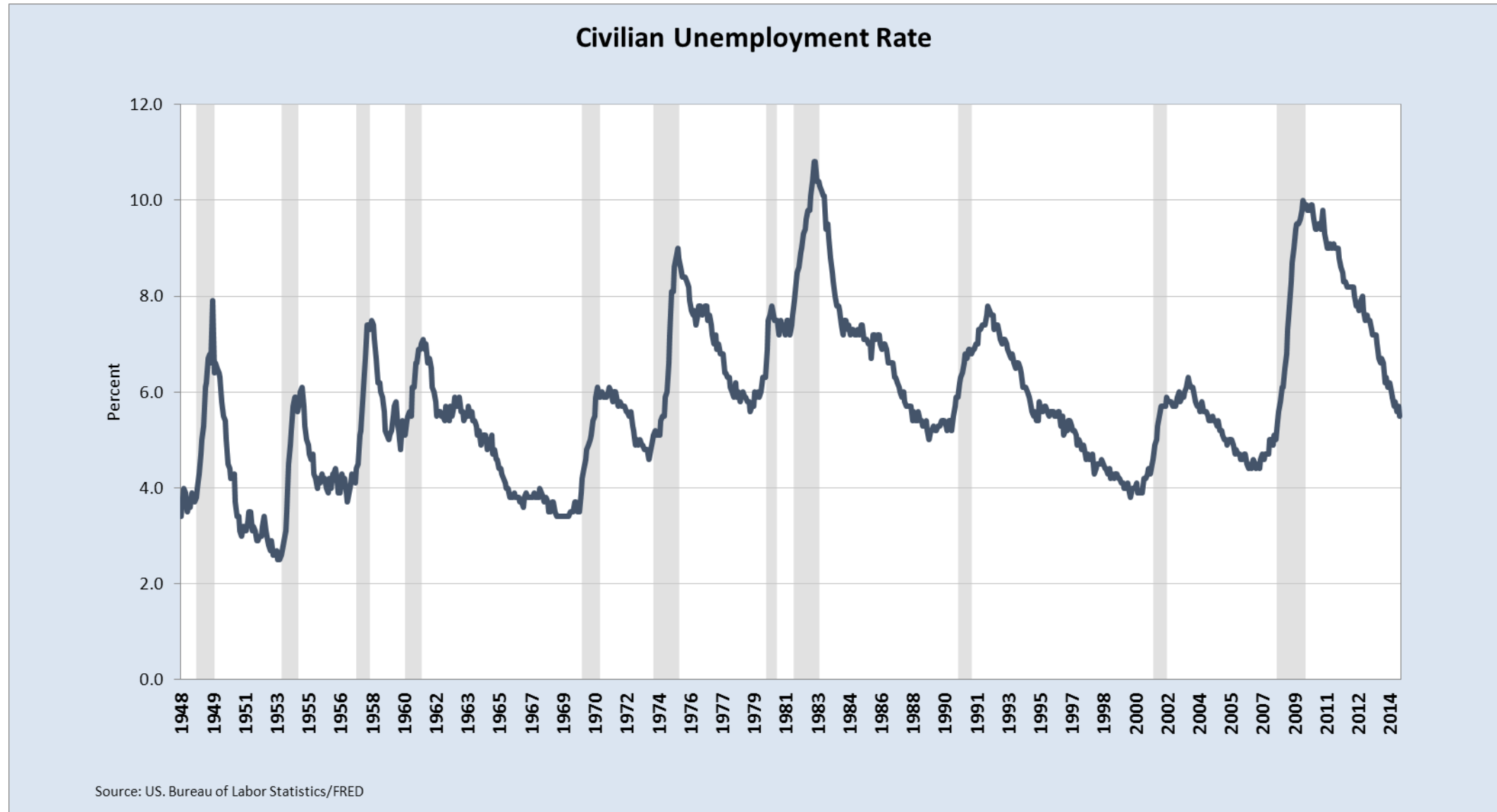




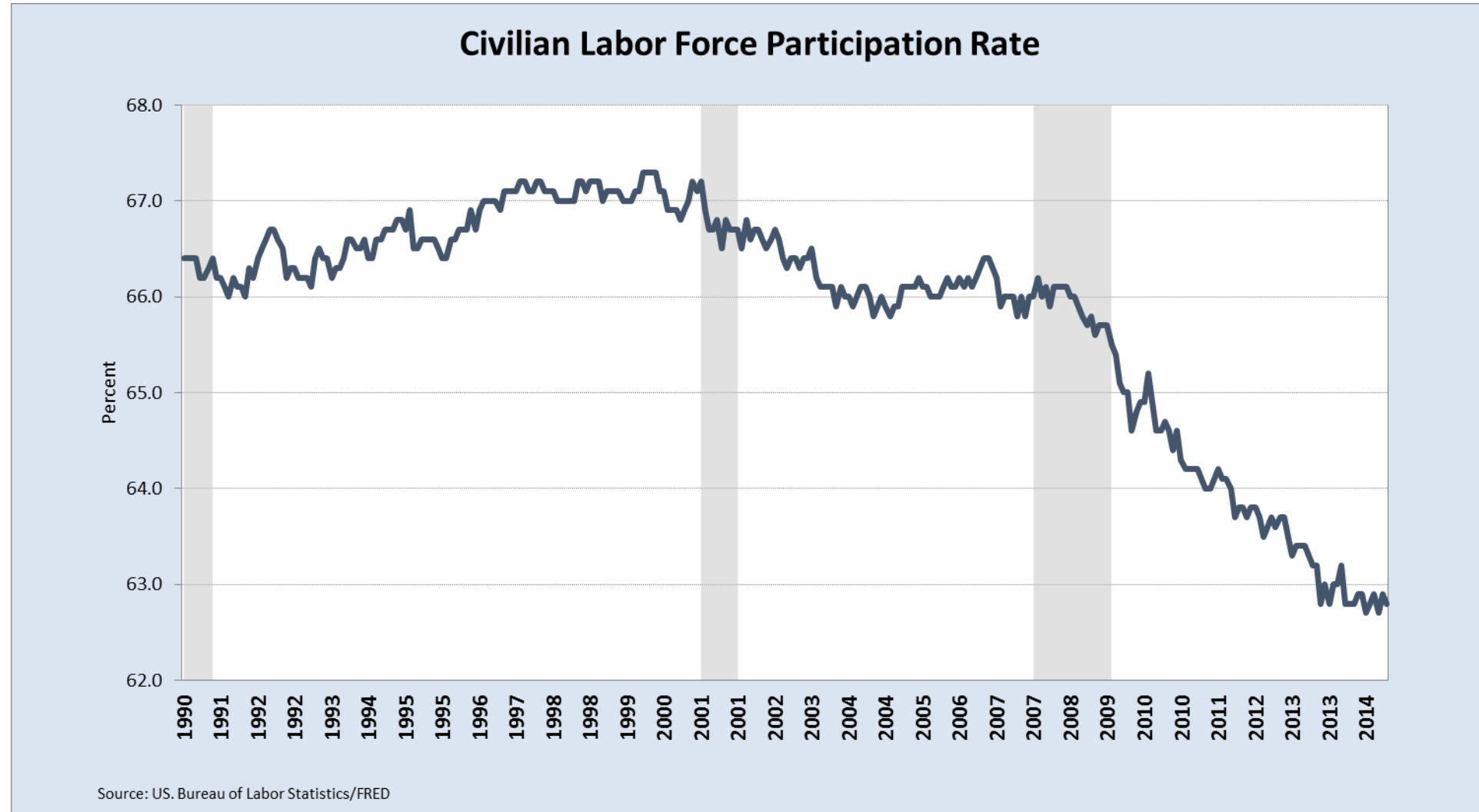
# M1 vs M2



# Unemployment (Y below FE)



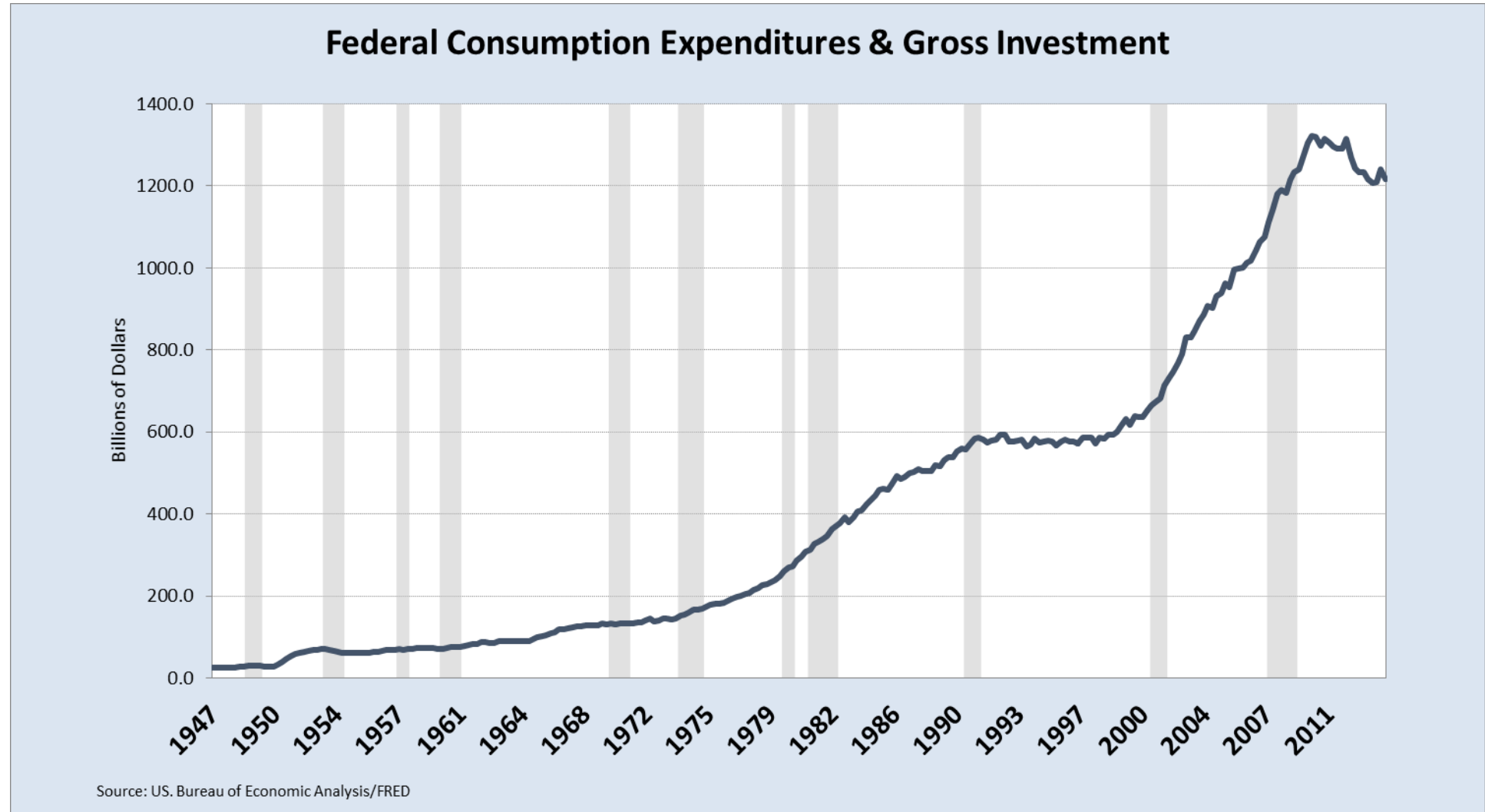
# Participation Rate



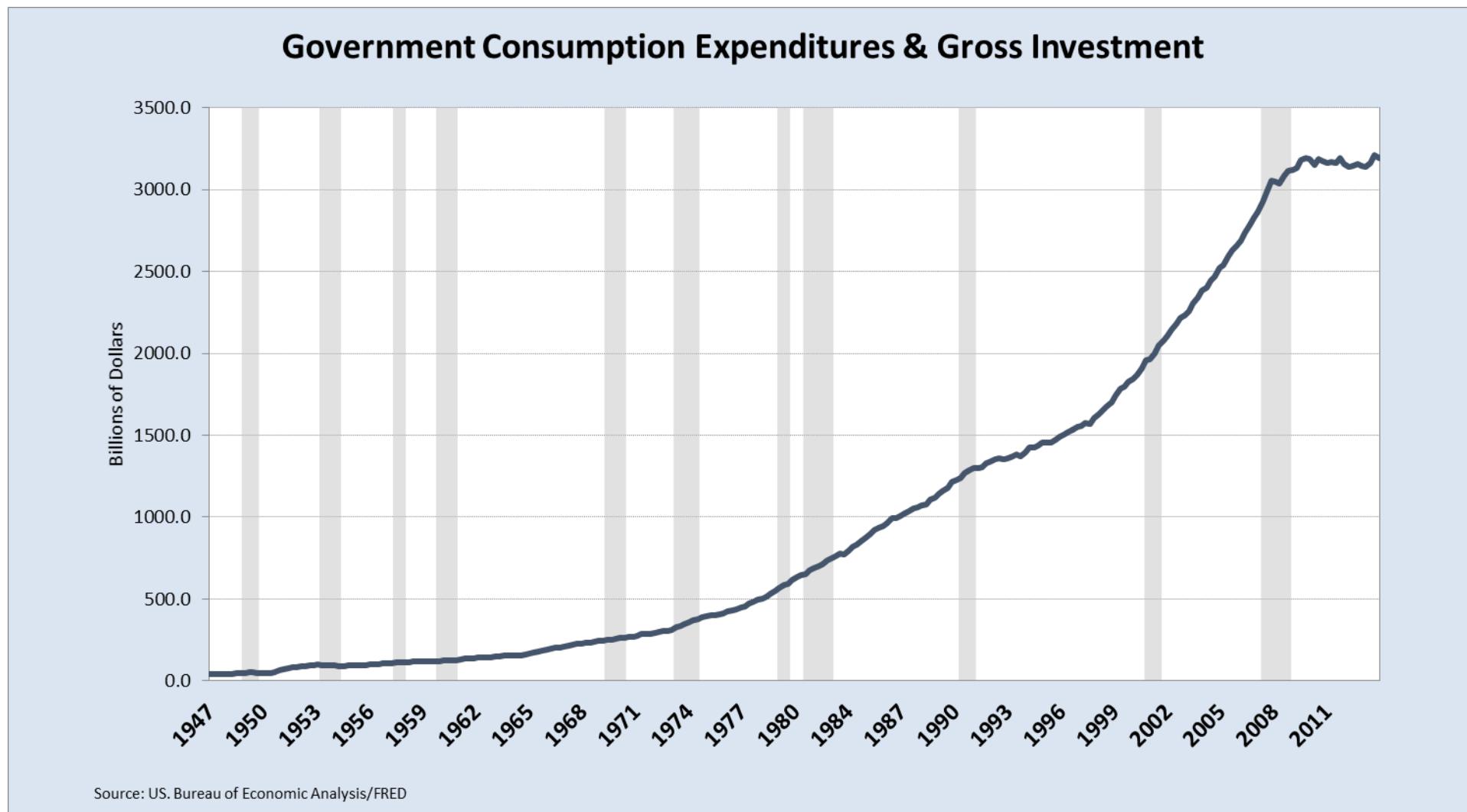
# Fiscal Policy Response

- Federal Government Stimulus
- State and Local Budget Constraints

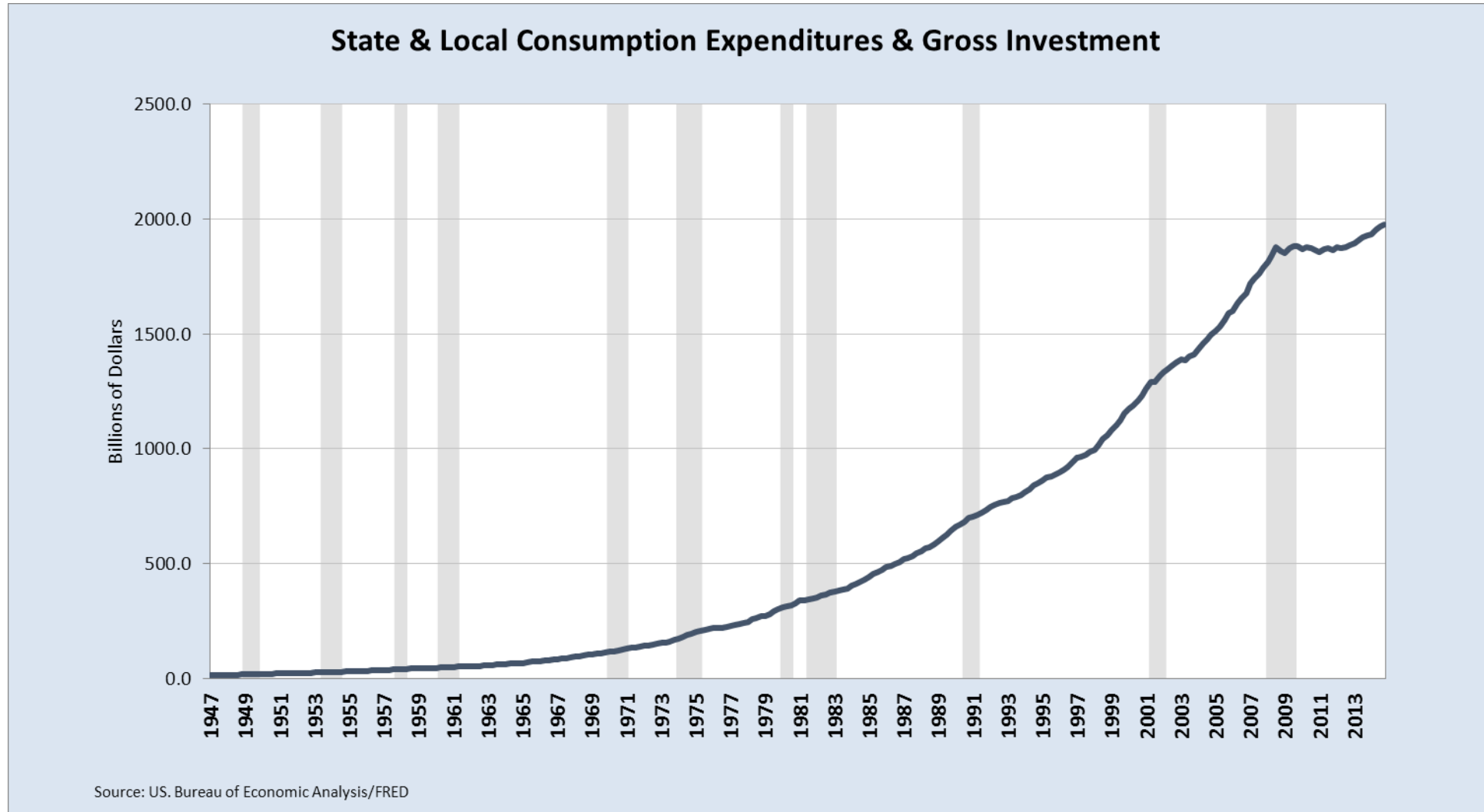
# Federal Portion of GDP (G)



# Total Government Spending



# State and Local



# Productivity

