

How Should Monetary Policy Respond to Price Increases Driven by Supply Shocks?

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The Debate...

- What's the likely impact of increasing food and energy prices?
- How should monetary policy respond?
 - Accommodative monetary policy appropriate given anemic recovery, high unemployment
 - Given food and energy prices, some say policy should be less accommodative

New Supply Shocks

- Political upheaval in the Middle East:
...higher oil prices
- Severe weather affecting global harvests:
...higher prices for agricultural products
- Japan's tragedy:
...disruption in global supply chain

An Important Distinction

- The Fed looks at **all** prices, including food and energy, when developing policy
- **Core** measures of inflation take out volatile food and energy
- Often we use core as a **guide** to where overall inflation is likely to go
- But our goal is to stabilize **overall** inflation

Effects of a Supply Shock: *Near Term*

- A supply shock can slow economic growth (reduces spending on other things)
- Other prices may be initially unaffected – total inflation rises, but not core inflation

Monetary tightening would likely worsen the shock's impact for households and businesses

Effects of a Supply Shock: *Longer Term*

- Longer-run impact on other prices depends on how inflation **expectations** respond...
 - If people expect it's temporary and the central bank will act, then the rise in total inflation will be temporary:
 - **total will converge with core (...the experience since 1986)**
 - If inflation expectations do rise, then wages and salaries will be pressured to increase in time to keep pace:
 - **other prices will be affected and core will converge with total (...the experience in the 1970s and early 1980s)**

My Outlook

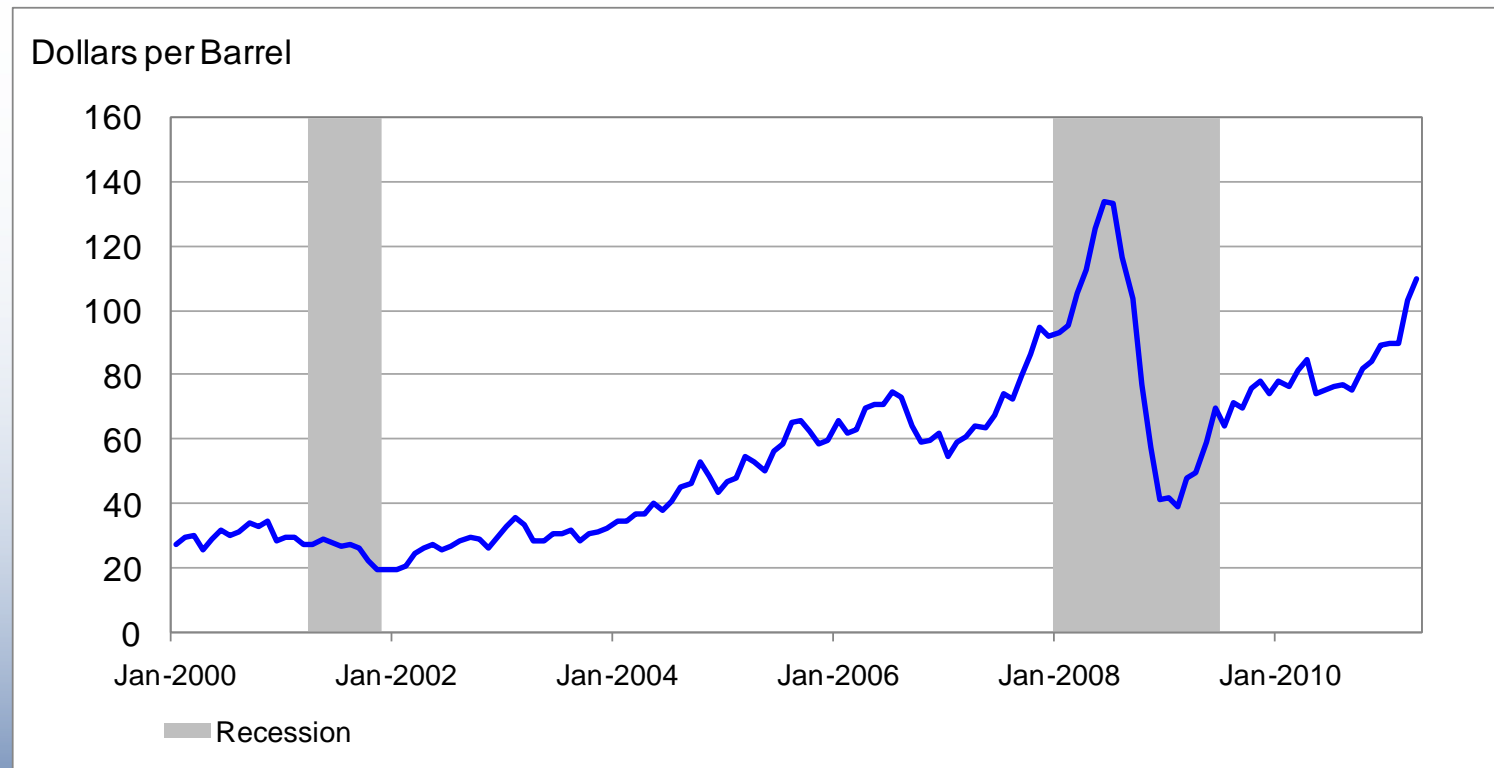
- The Fed will ensure that inflation remains contained over time
- Supply shocks will bring slower growth near term; only modest effects on longer-term inflation
- Unemployment is high (8.8%); shocks mean a somewhat slower return to full employment
- Core inflation is low (a bit above 1% in prior year)

*Thus the current accommodative stance of monetary policy **is appropriate, and can continue** to support growth and both elements of the Fed mandate*

Figure 1

Spot Oil Price: West Texas Intermediate Crude Oil

January 2000 - April 2011

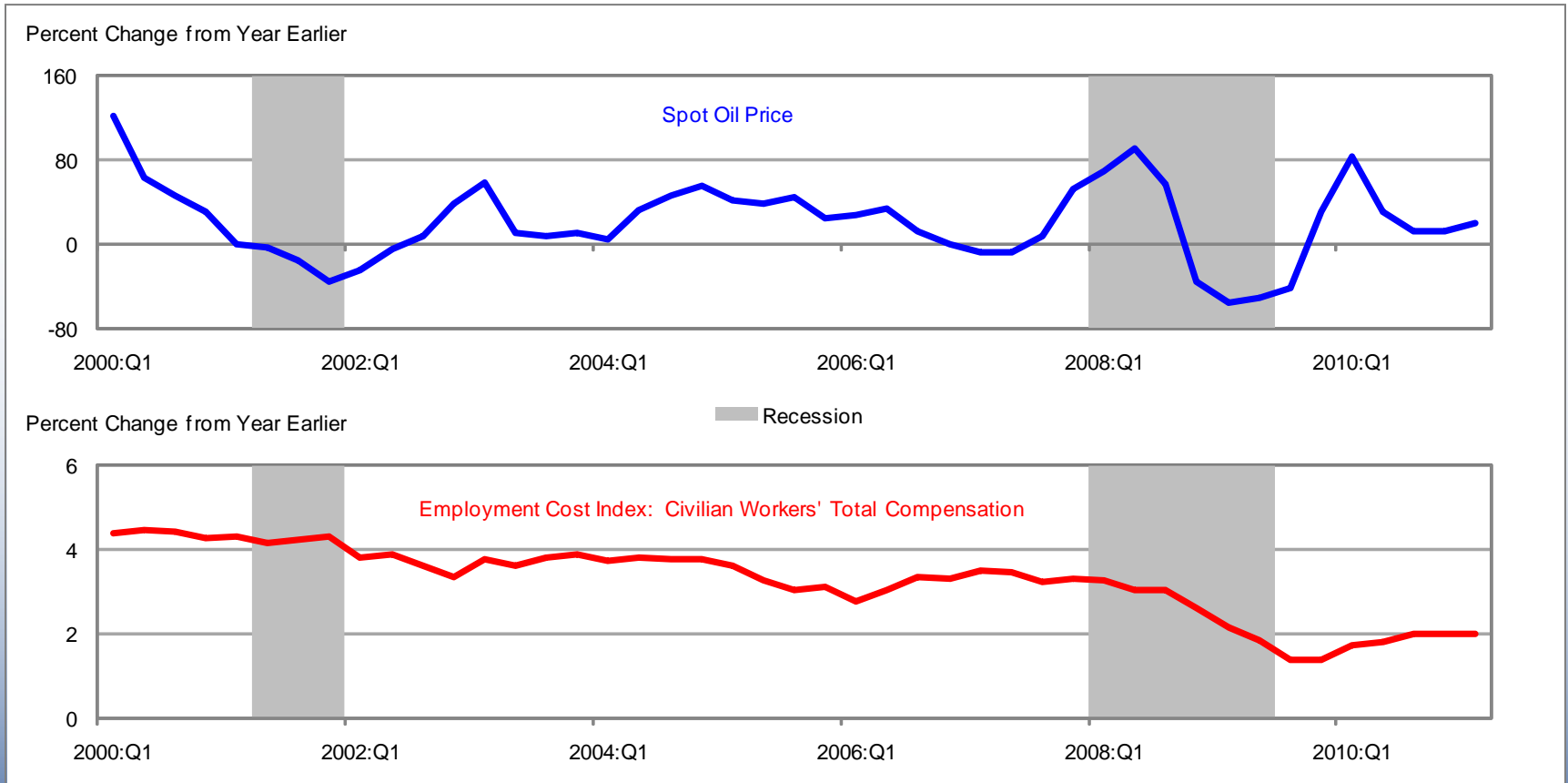


Source: WSJ, NBER / Haver Analytics

Figure 2

Oil Prices and Wages

2000:Q1 - 2011:Q1

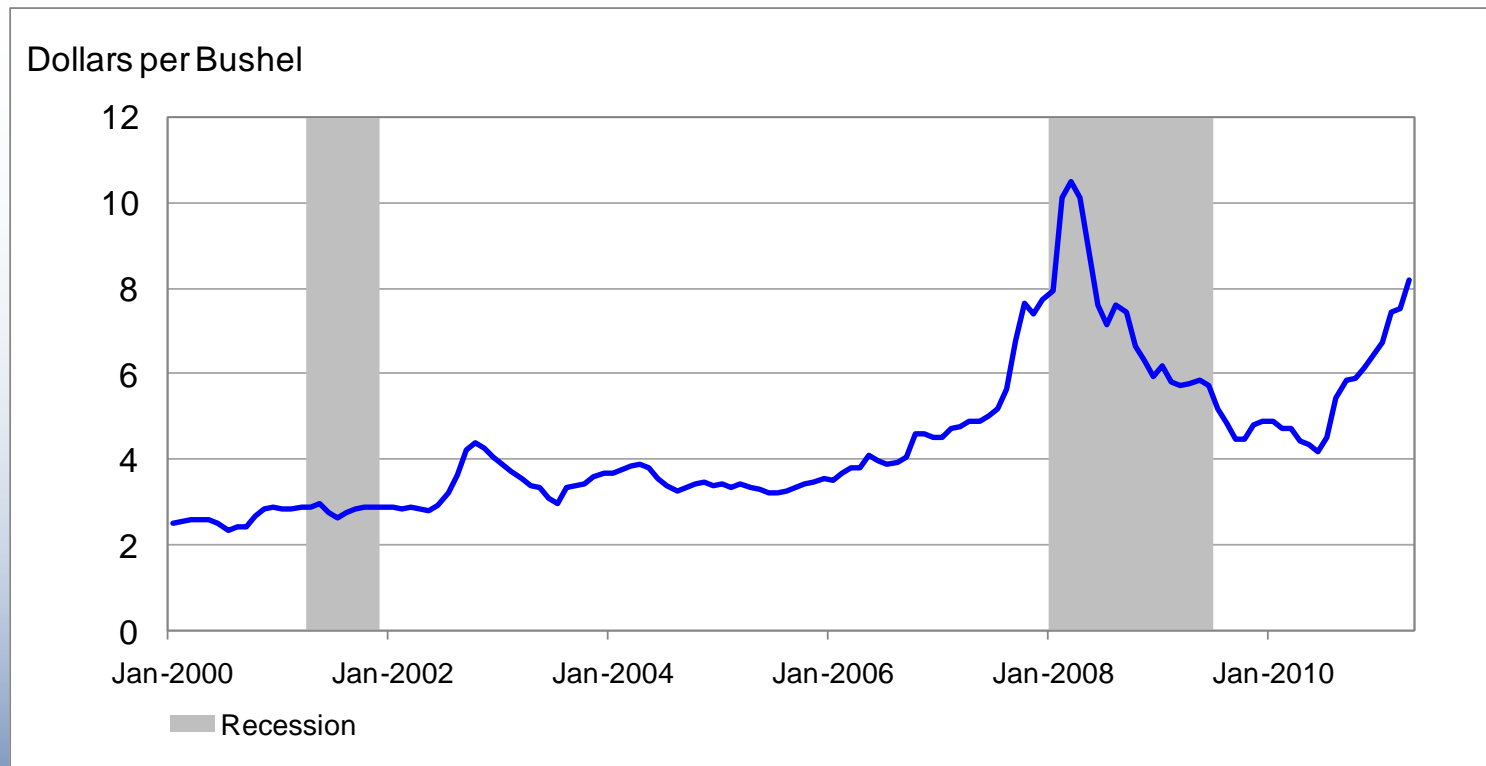


Source: WSJ, BLS, NBER / Haver Analytics

Figure 3

Wheat Prices Received by Farmers

January 2000 - April 2011



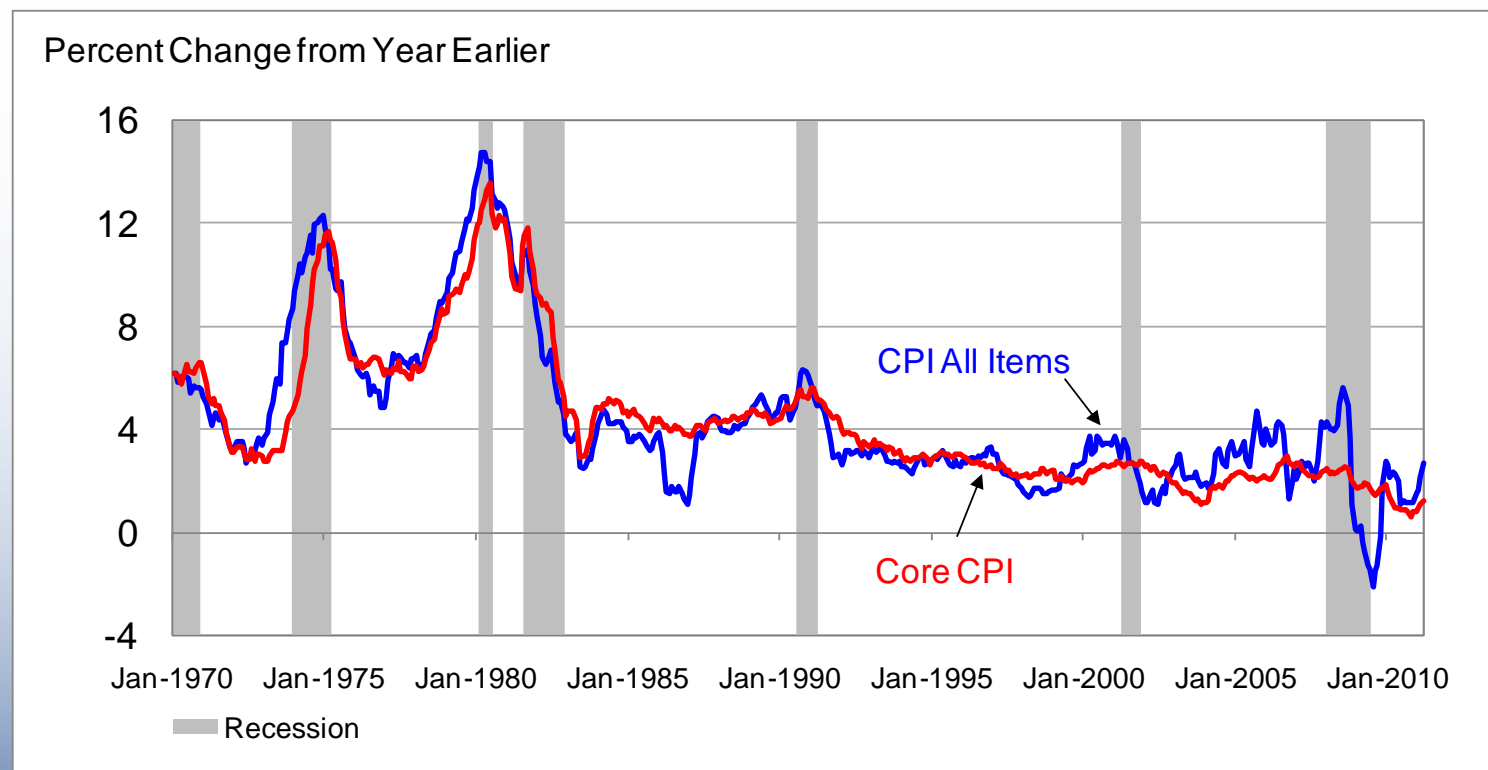
Source: USDA, NBER / Haver Analytics

Figure 4

Inflation Rate:

Core and All-Items Consumer Price Indexes

January 1970 - March 2011



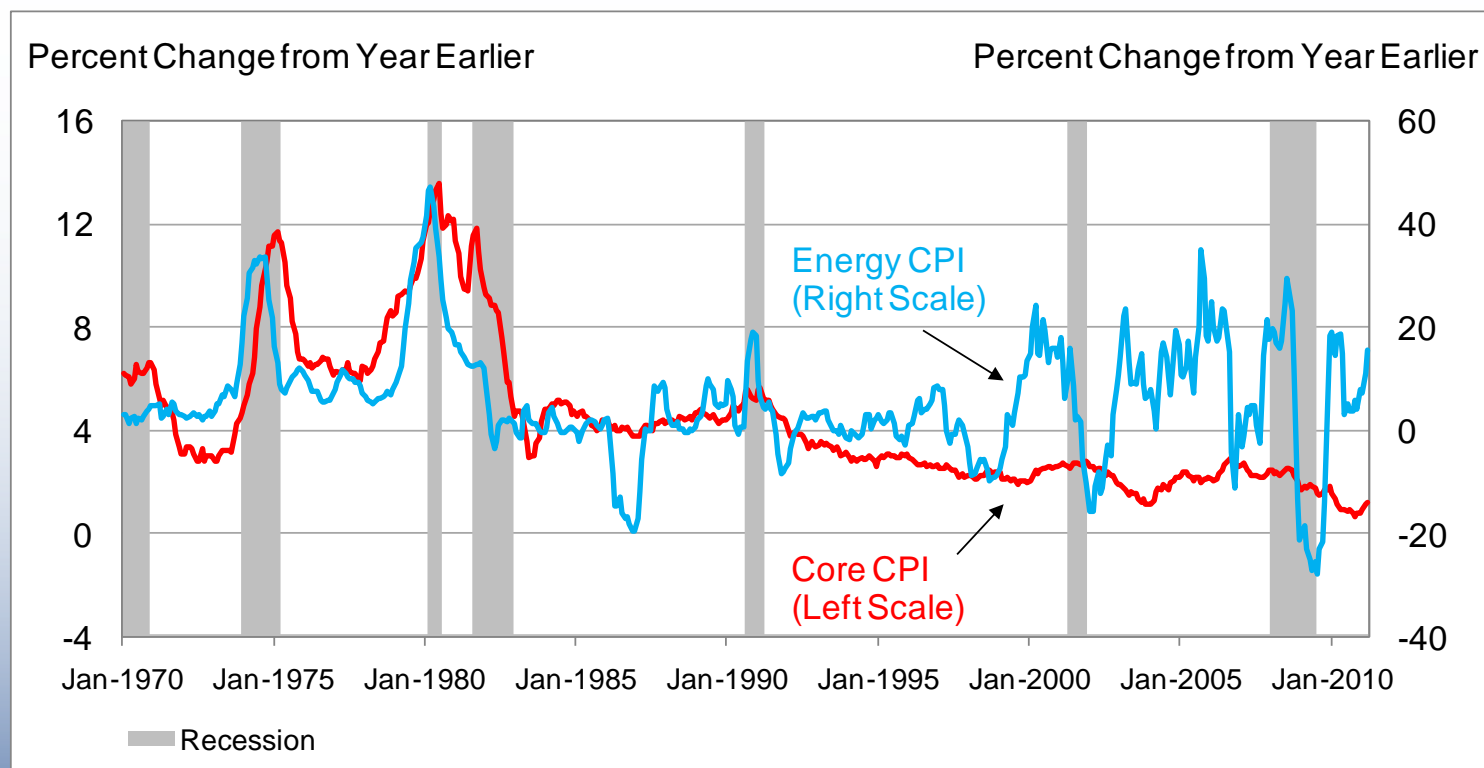
Source: BLS, NBER / Haver Analytics

Figure 5

Inflation Rate:

Core and Energy Consumer Price Indexes

January 1970 - March 2011



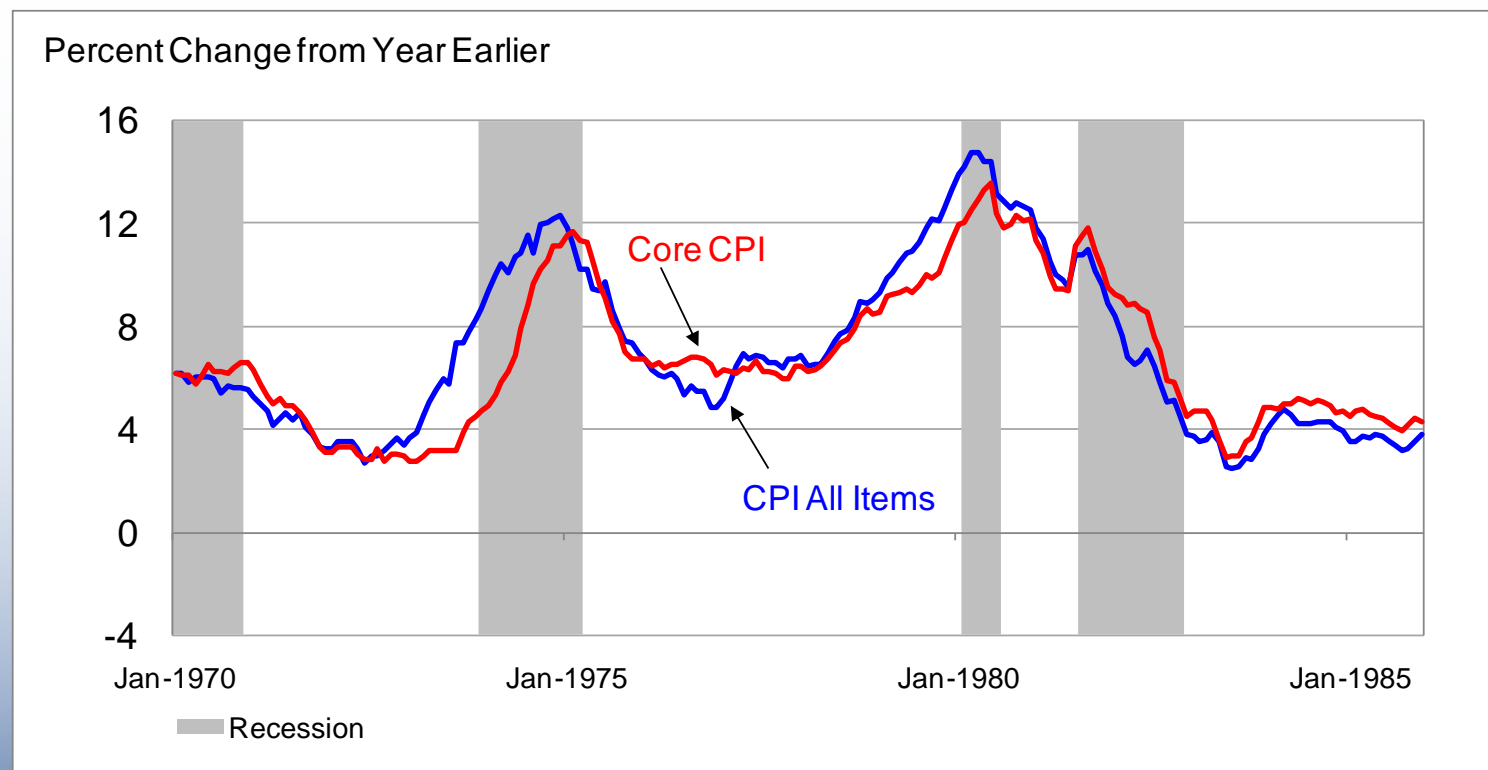
Source: BLS, NBER / Haver Analytics

Figure 6

Inflation Rate, 1970 - 1985:

Core and All-Items Consumer Price Indexes

January 1970 - December 1985



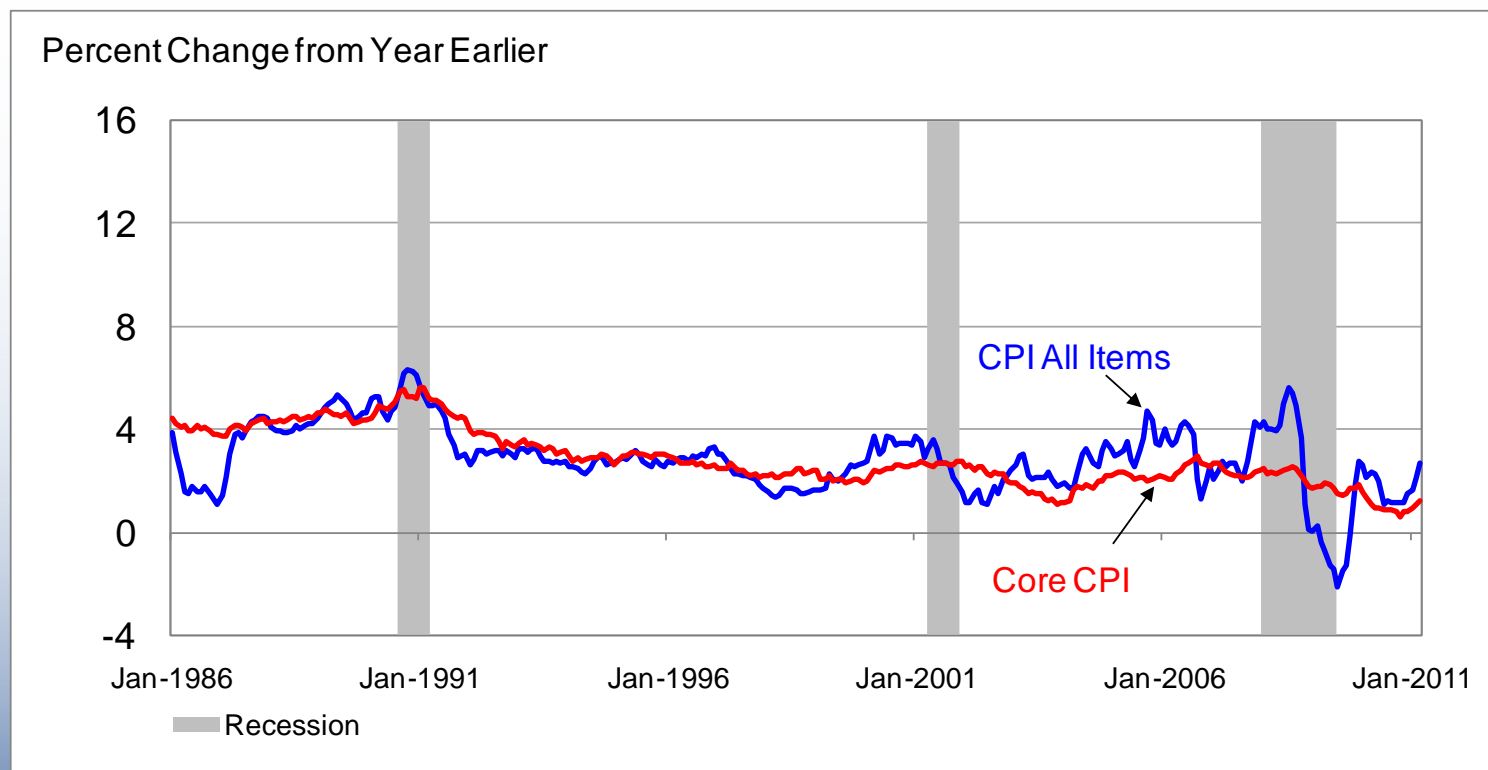
Source: BLS, NBER / Haver Analytics

Figure 7

Inflation Rate, 1986 - 2011:

Core and All-Items Consumer Price Indexes

January 1986 - March 2011

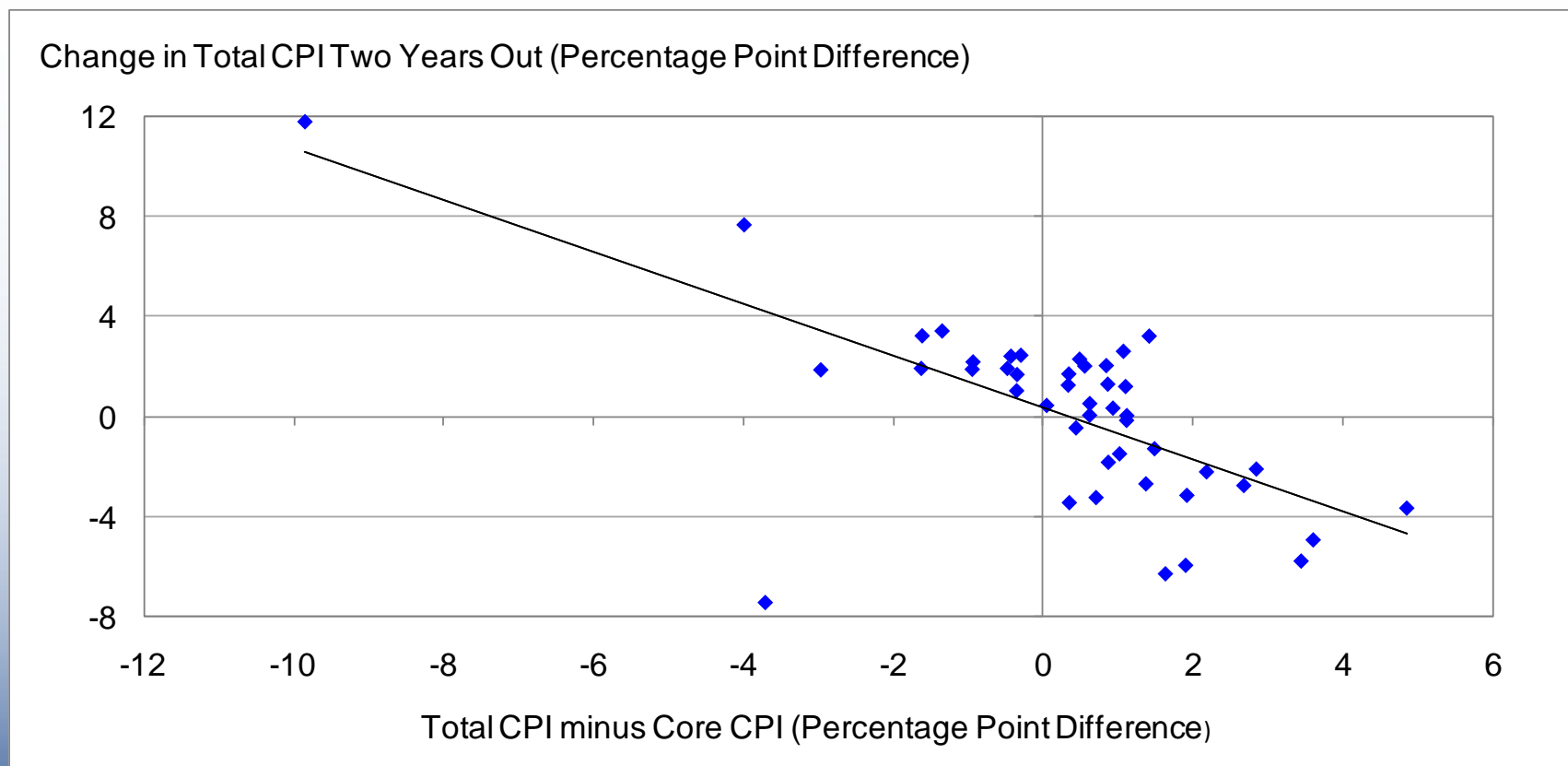


Source: BLS, NBER / Haver Analytics

Figure 8

Gap Between Total and Core Inflation vs Change in Total Inflation

1998:Q1 - 2011:Q1

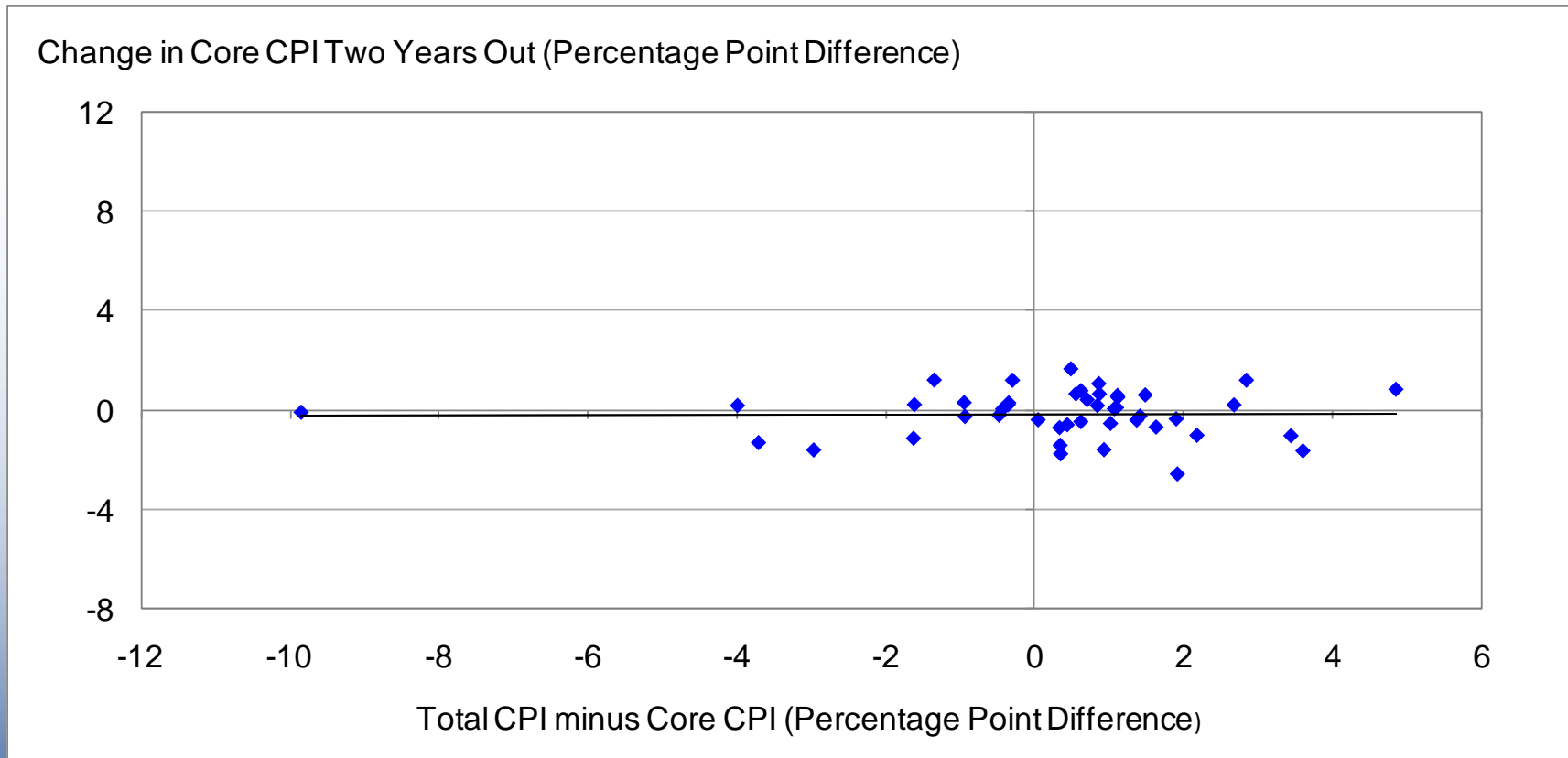


Source: BLS / Haver Analytics

Figure 9

Gap Between Total and Core Inflation vs Change in Core Inflation

1998:Q1 - 2011:Q1

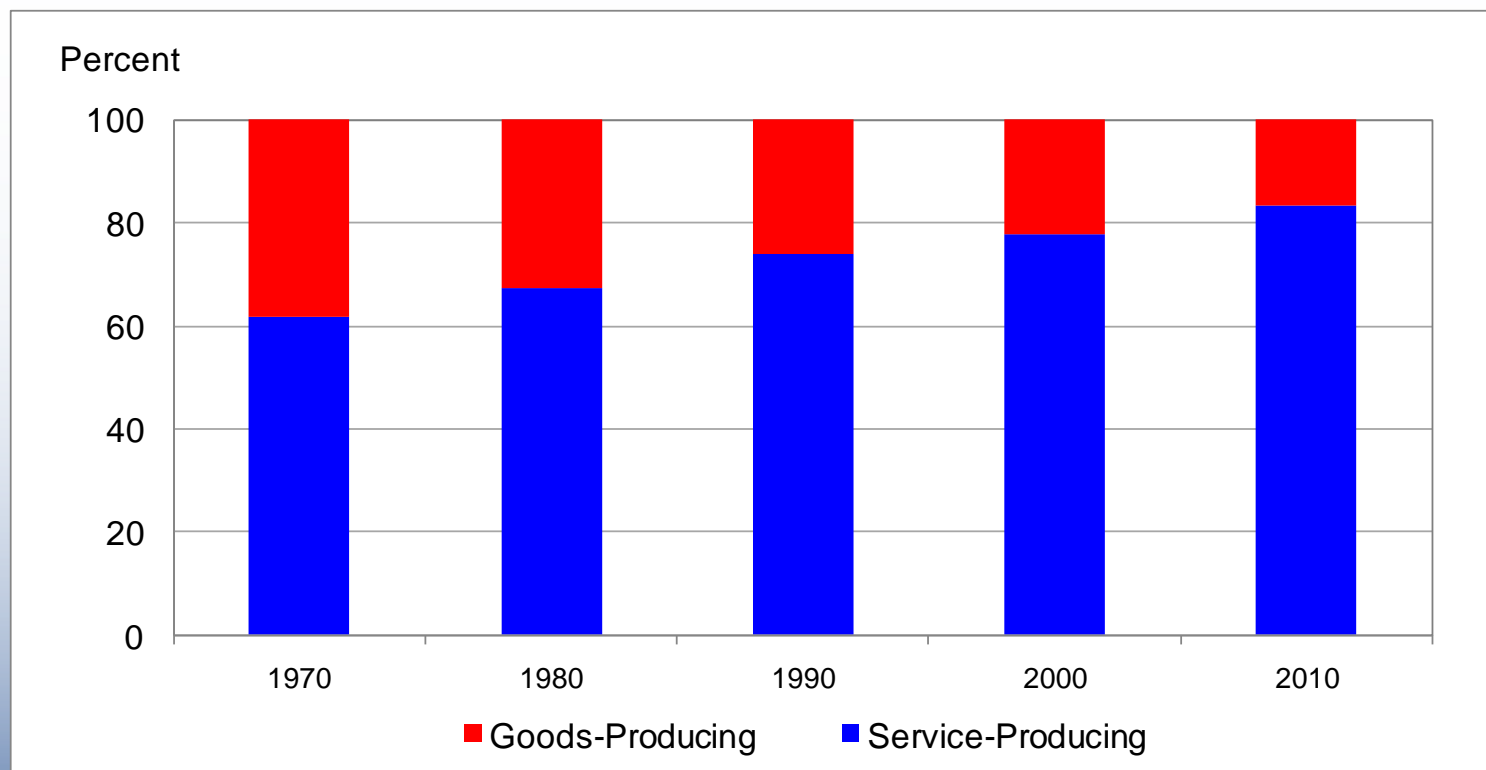


Source: BLS / Haver Analytics

Figure 10

Distribution of Private-Sector Employment between Goods-Producing and Service-Producing Industries

1970 - 2010

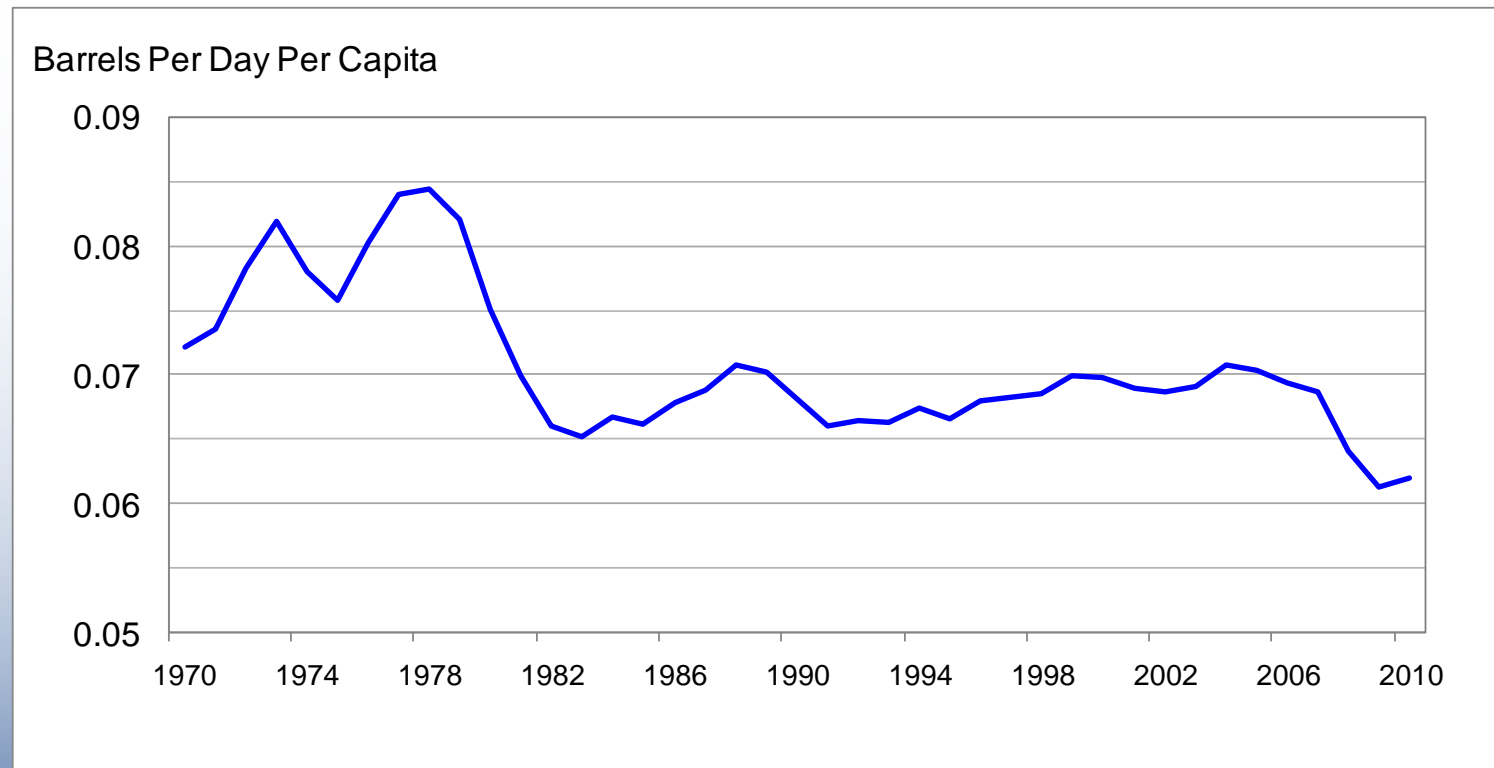


Source: BLS / Haver Analytics

Figure 11

US Per Capita Oil Consumption

1970 - 2010

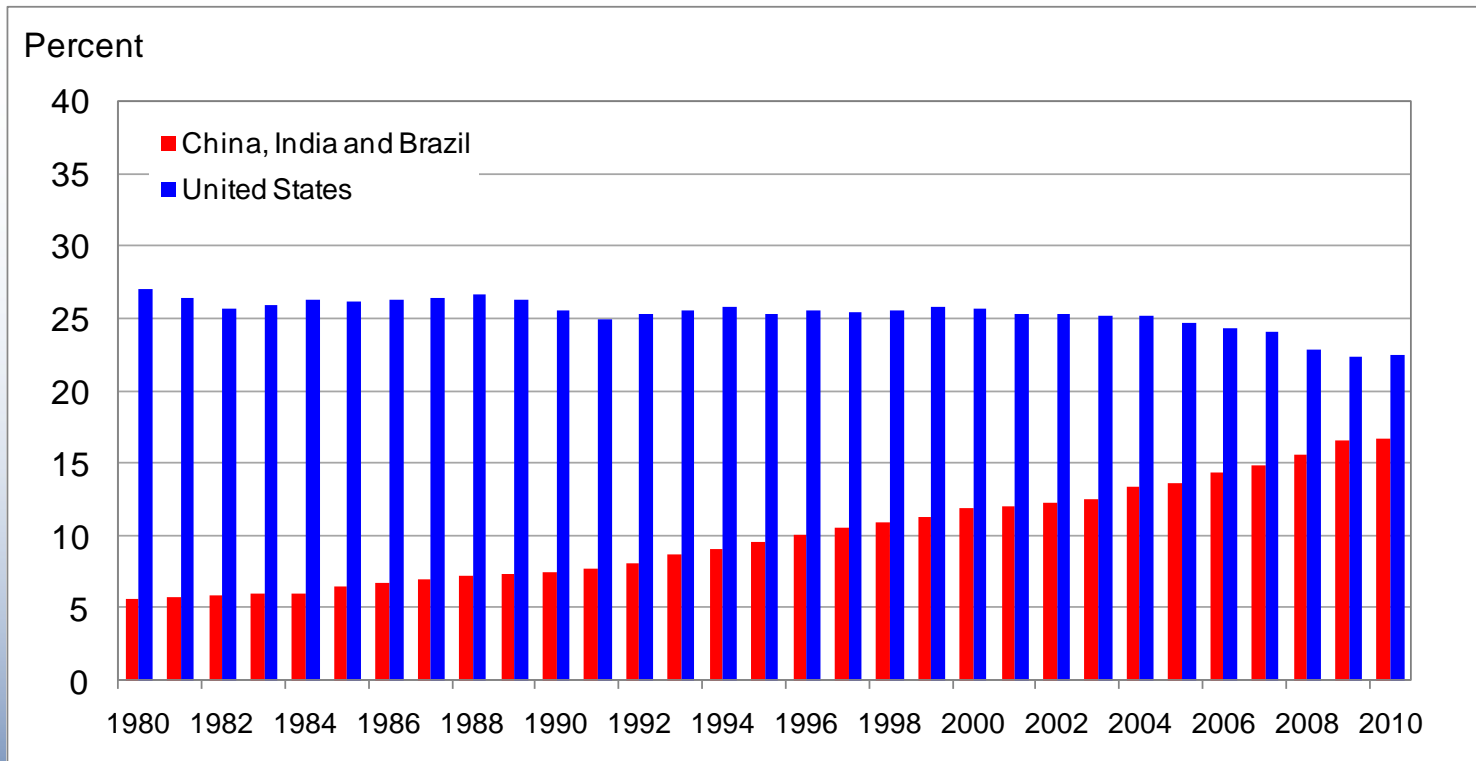


Source: Energy Information Administration, Census Bureau / Haver Analytics

Figure 12

Share of World Oil Consumption

1980 - 2010



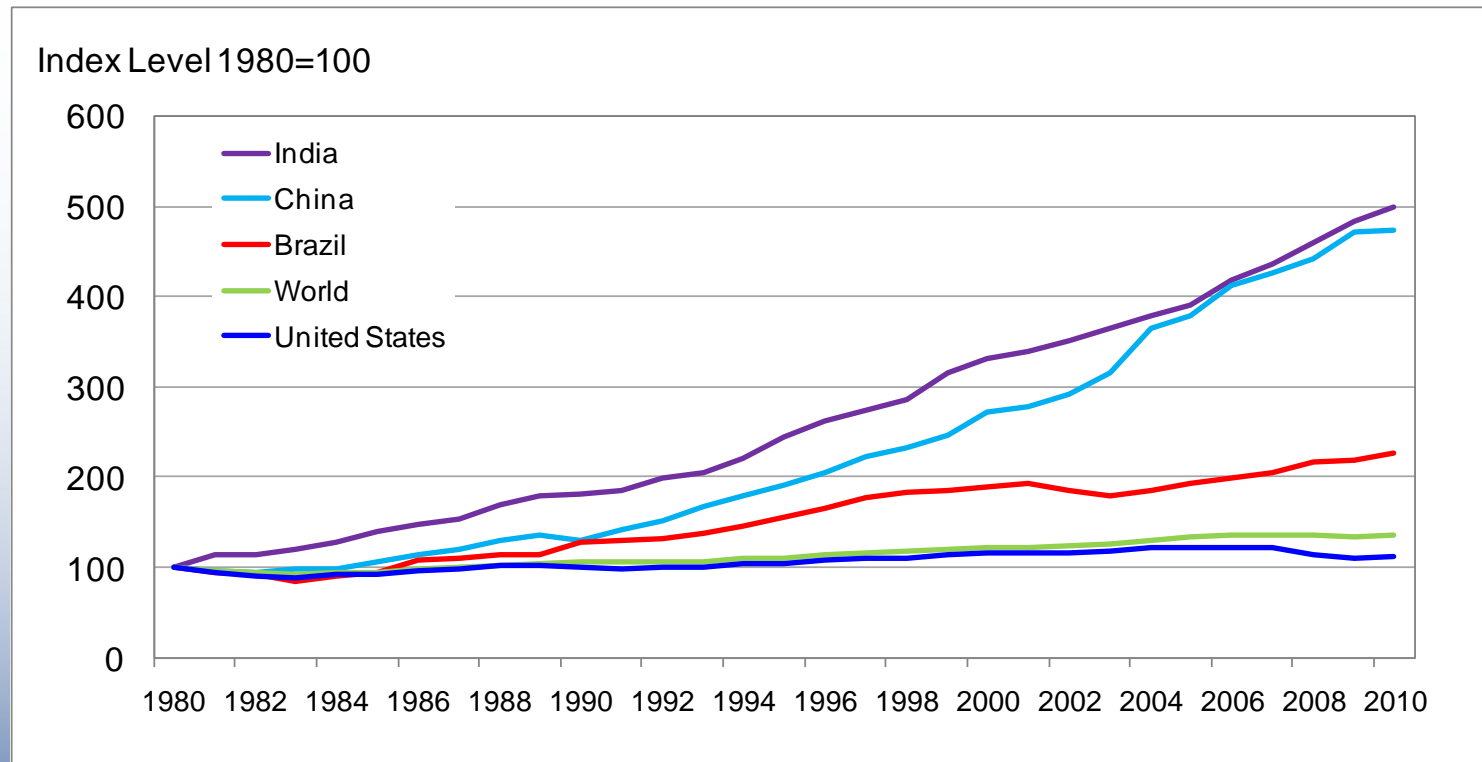
Note: Figures for 2010 are based on Energy Information Administration forecasts

Source: Energy Information Administration

Figure 13

Growth in World Oil Consumption

1980 - 2010



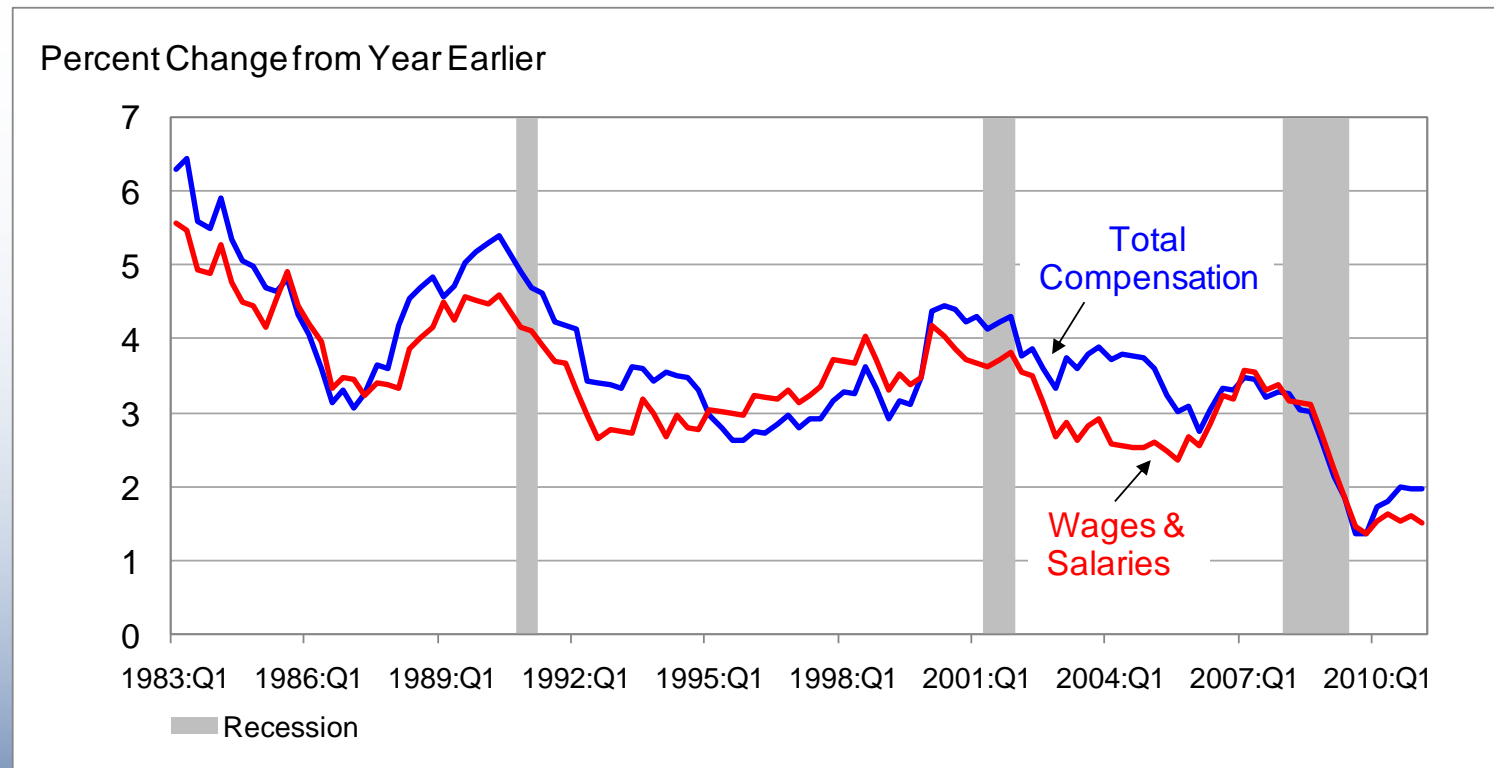
Note: Figures for 2010 are based on Energy Information Administration forecasts

Source: Energy Information Administration

Figure 14

Employment Cost Indexes for Civilian Workers

1983:Q1 - 2011:Q1

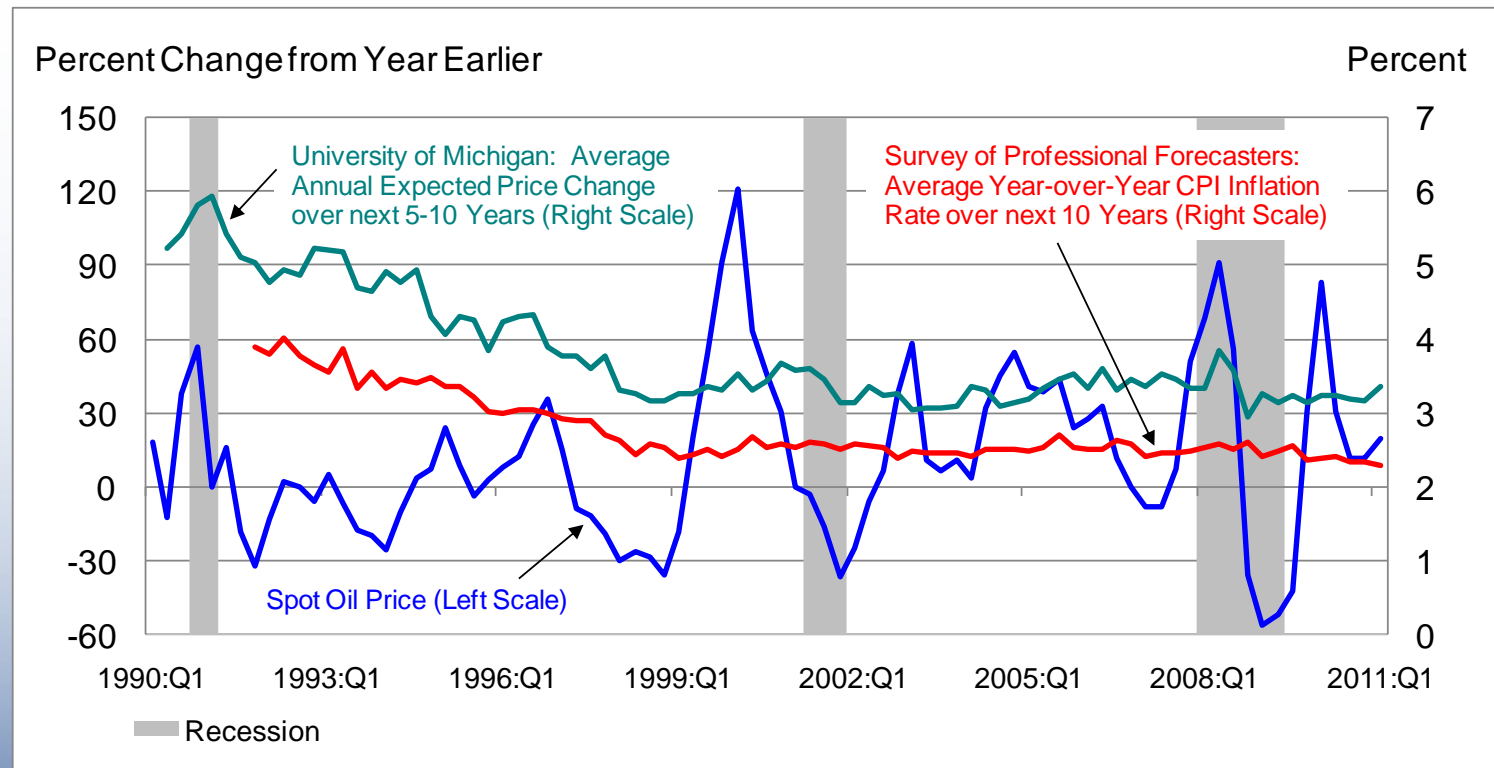


Source: BLS, NBER / Haver Analytics

Figure 15

Long-Term Expected Inflation and Oil Prices

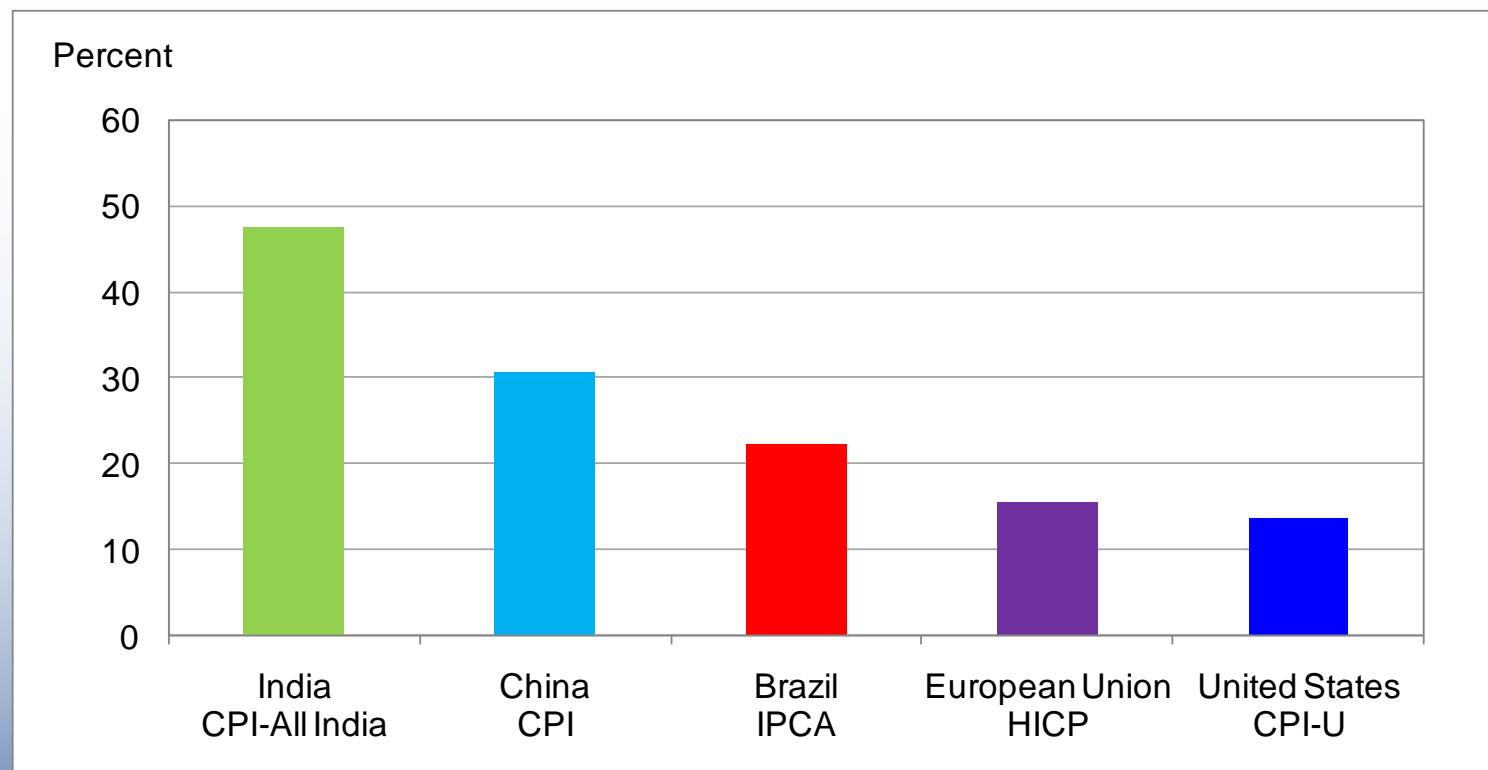
1990:Q1 - 2011:Q1



Source: Thomson Reuters / University of Michigan, Federal Reserve Bank of Philadelphia, WSJ, NBER / Haver Analytics

Figure 16

Inflation Components: Relative Importance of Food Component of CPI by Country



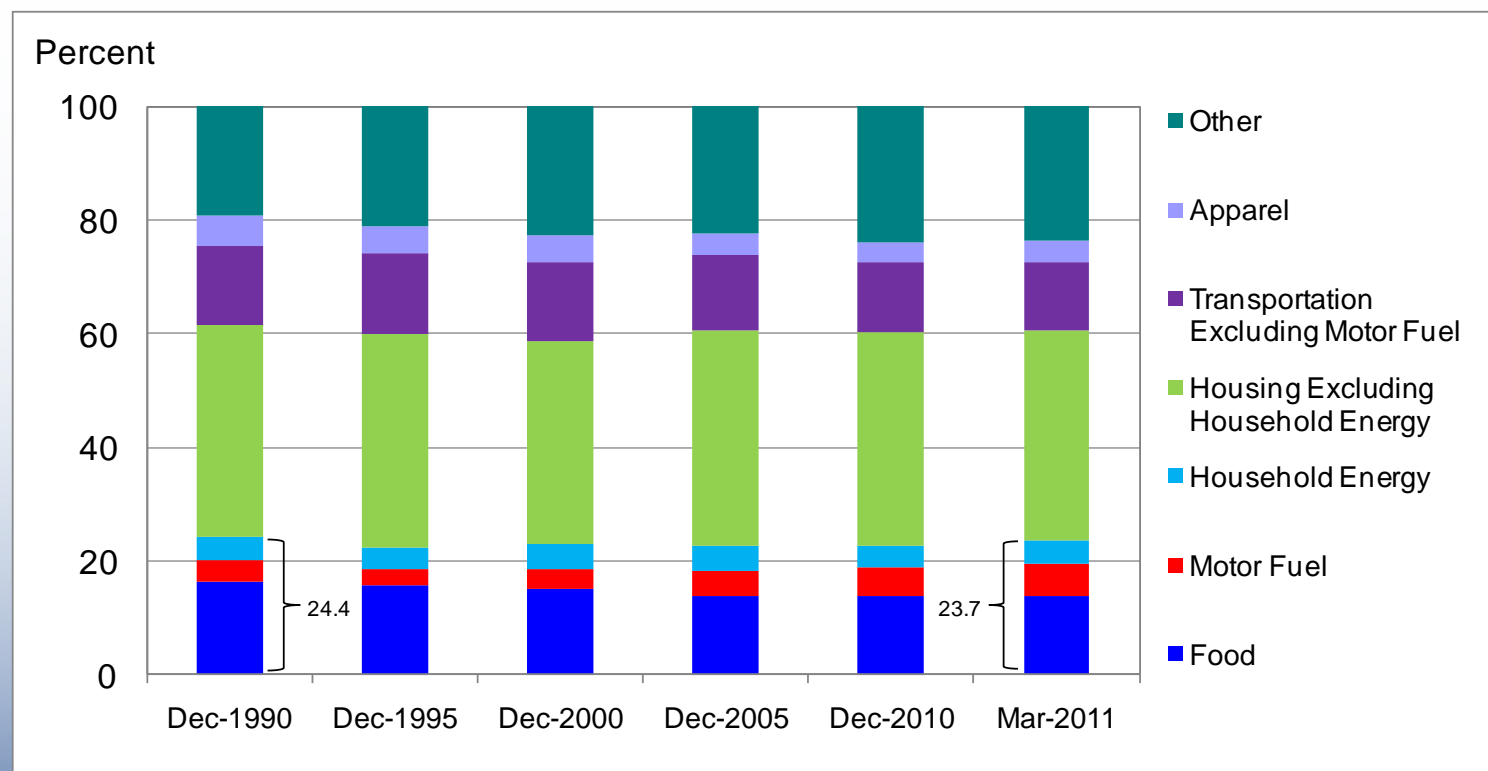
Source: India - CSO, China - The Economist, Brazil - IBGE, EU - Eurostat, US - BLS

Figure 17

Inflation Components:

Relative Importance of US CPI Components

December 1990 - March 2011



Source: BLS / Haver Analytics

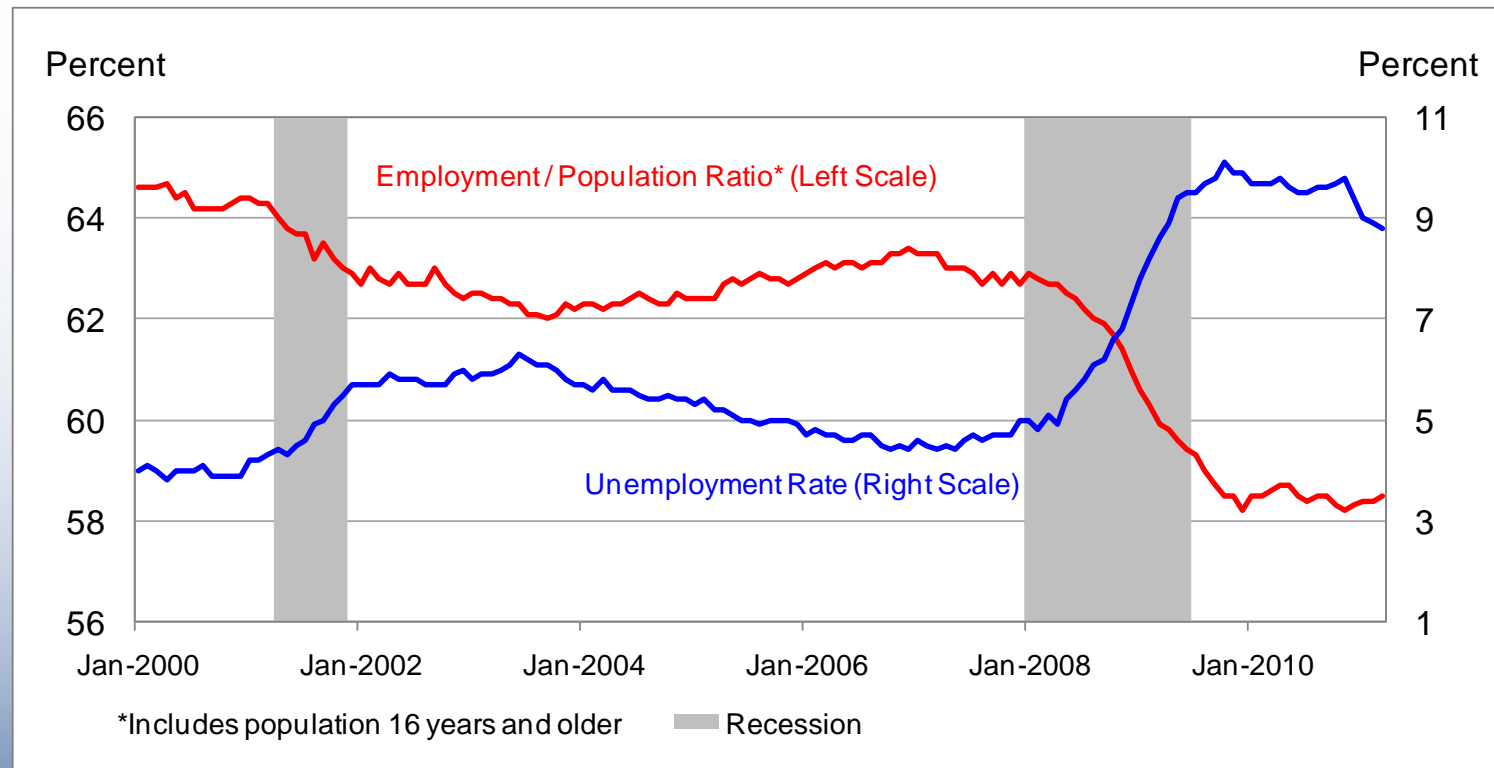
Concluding Observations

- Recent supply shocks have pressured households; raised concern about long-term inflationary impacts
- But evidence shows that over the last 25 years most supply shocks have been transitory, for inflation and expectations
- Still, recent trends don't always continue, so we must monitor inflation dynamics closely
- To date, inflation expectations seem stable
- Must respond as forcefully as necessary should that change
- Currently, wages and salaries reflect the slack in labor markets...

Figure 18

Civilian Unemployment Rate and Employment / Population Ratio

January 2000 - March 2011



Source: BLS, NBER / Haver Analytics

Concluding Observations Continued...

- Central tendency of FOMC participants expects core inflation to remain low
- Currently no reason to slow the economy down with tighter monetary policy
- Until there is progress on both elements of the Fed's mandate (stable prices and employment) the accommodative stance of policy is appropriate