



EMBARGOED UNTIL FRIDAY, OCTOBER 14 AT 8:30 A.M.; OR UPON DELIVERY

After the Great Recession, a Not-So-Great Recovery

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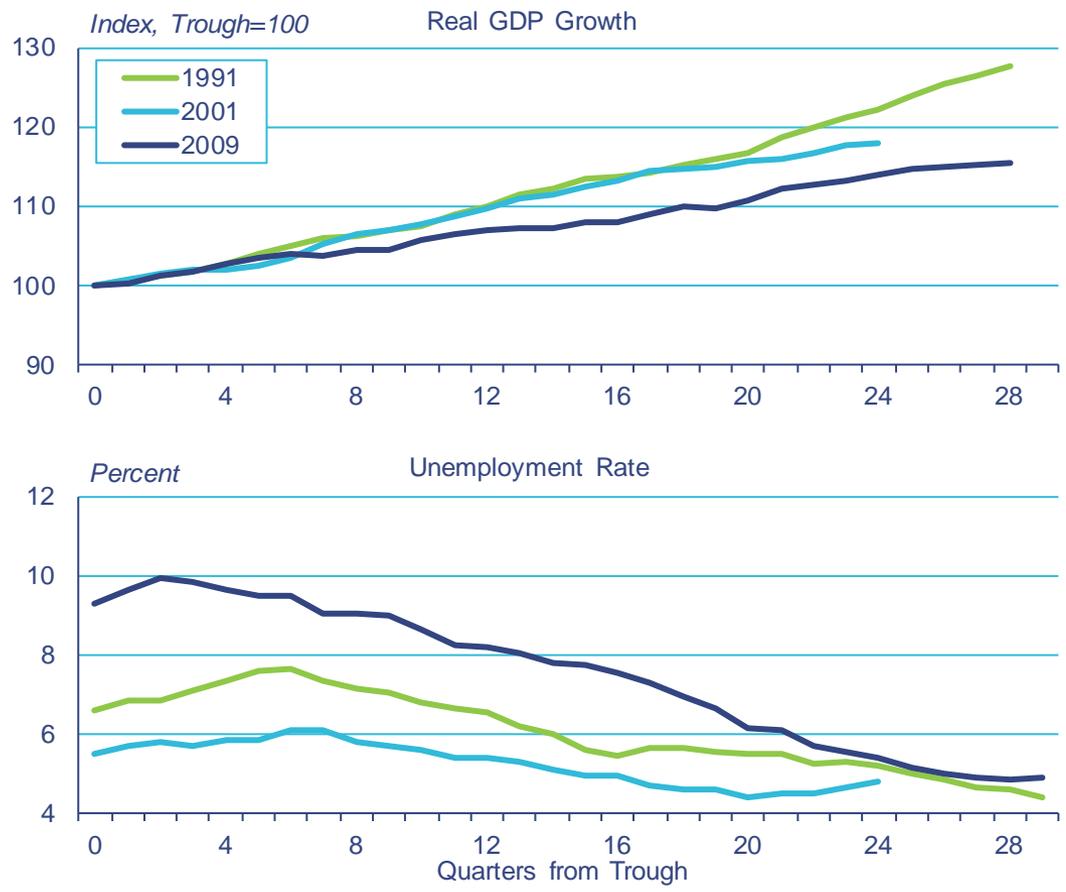
October 14, 2016

Federal Reserve Bank of Boston's
60th Economic Conference:
The Elusive "Great" Recovery: Causes and Implications for
Future Business Cycle Dynamics
Boston, Massachusetts

bostonfed.org



Figure 1: Real GDP Growth and the Unemployment Rate over the Last Three Recoveries



Note: The recovery from the 2001 recession lasted 24 quarters, with the next business cycle peak in 2007:Q4.

Source: BEA, BLS, NBER, Haver Analytics



Figure 2: Labor Force Participation Rate of Prime Working-Age Population

1990:Q1 - 2016:Q3

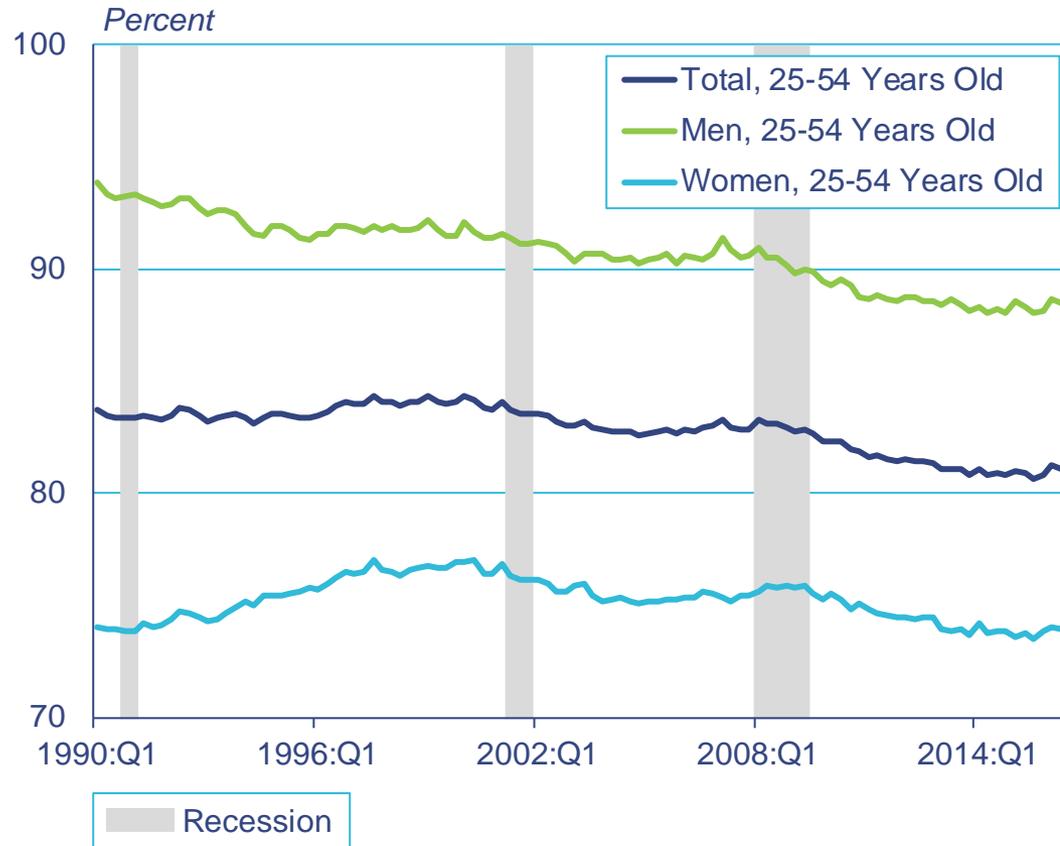




Figure 3: Personal Saving Rate
1990:Q1 - 2016:Q2

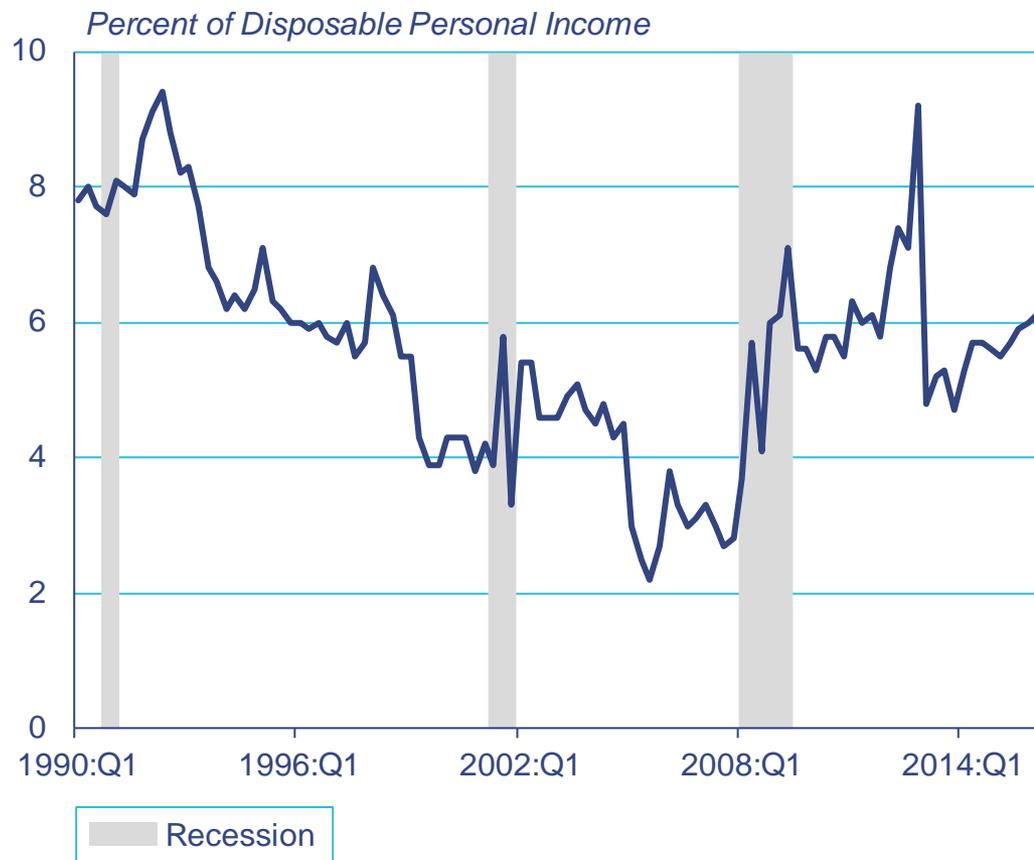
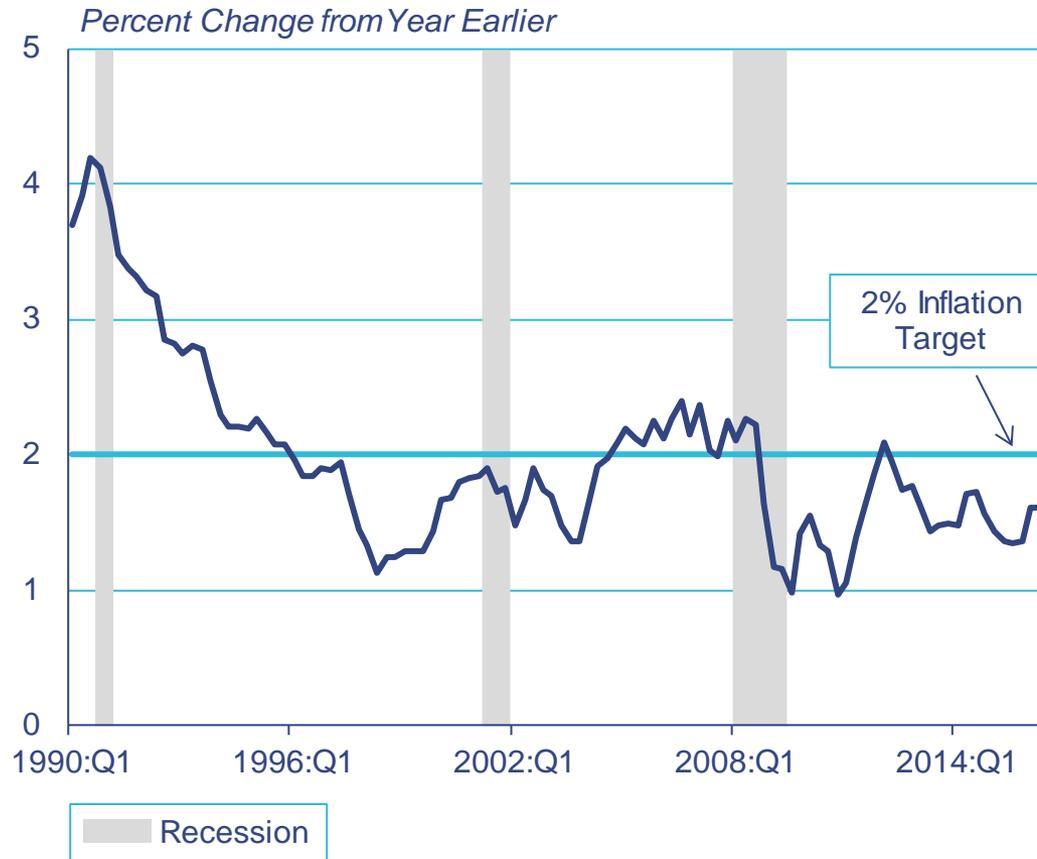




Figure 4: Inflation Rate: Change in Core Personal Consumption Expenditures (PCE) Price Index
1990:Q1 - 2016:Q2

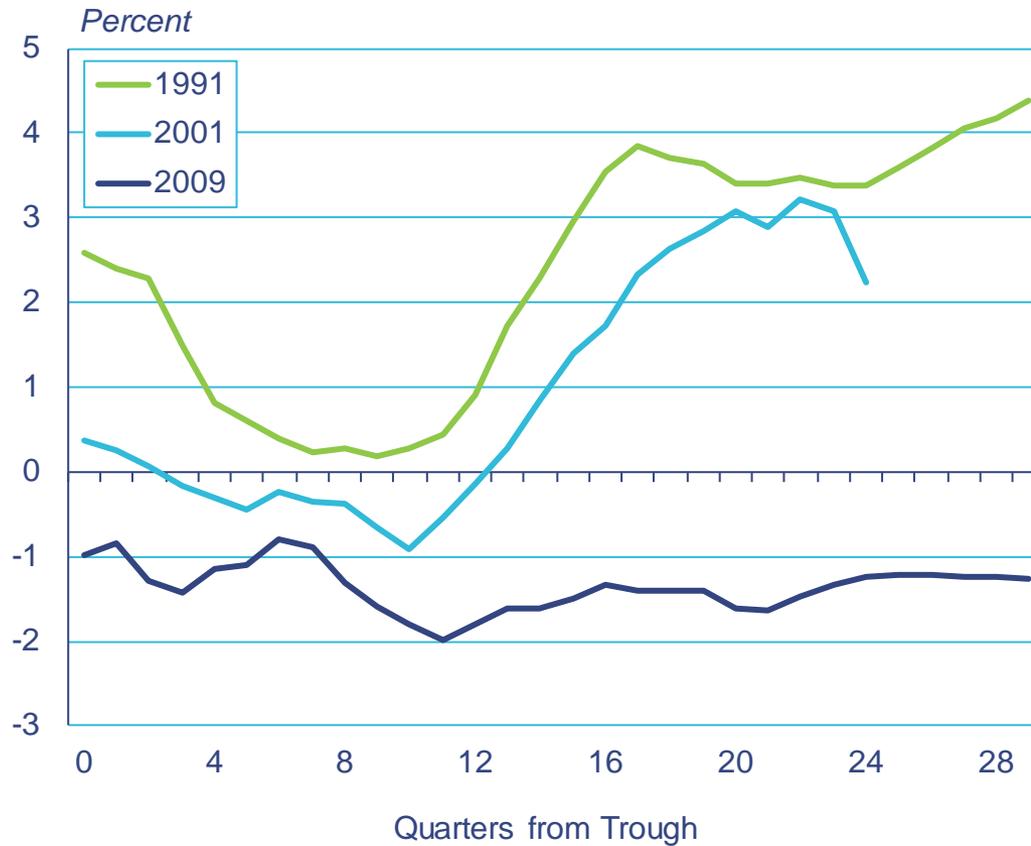


Note: Core PCE is the Personal Consumption Expenditures Price Index Excluding Food and Energy.

Source: BEA, NBER, Haver Analytics



Figure 5: Real Federal Funds Effective Rate over the Last Three Recoveries

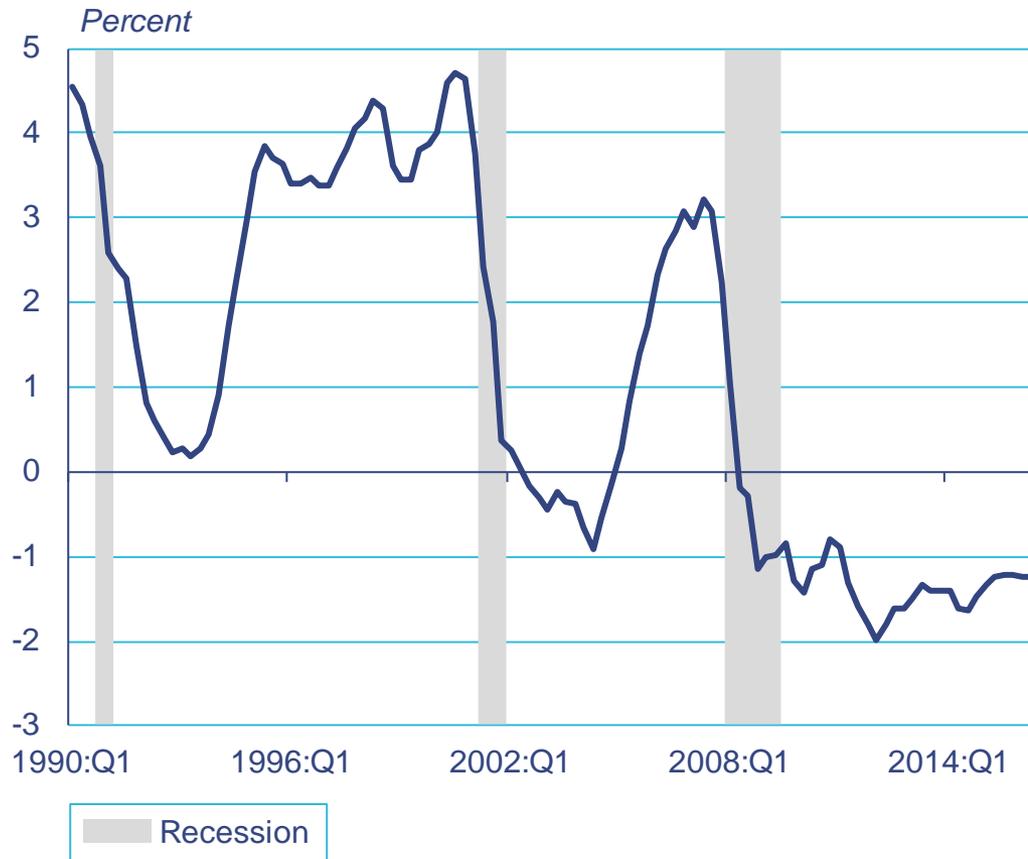


Note: The real federal funds effective rate is calculated by subtracting the core PCE inflation rate from the nominal federal funds effective rate. To calculate the real rate for 2016:Q3, we assume core PCE remained unchanged in September. The recovery from the 2001 recession lasted 24 quarters, with the next business cycle peak in 2007:Q4.

Source: Federal Reserve Board, BEA, NBER, Haver Analytics



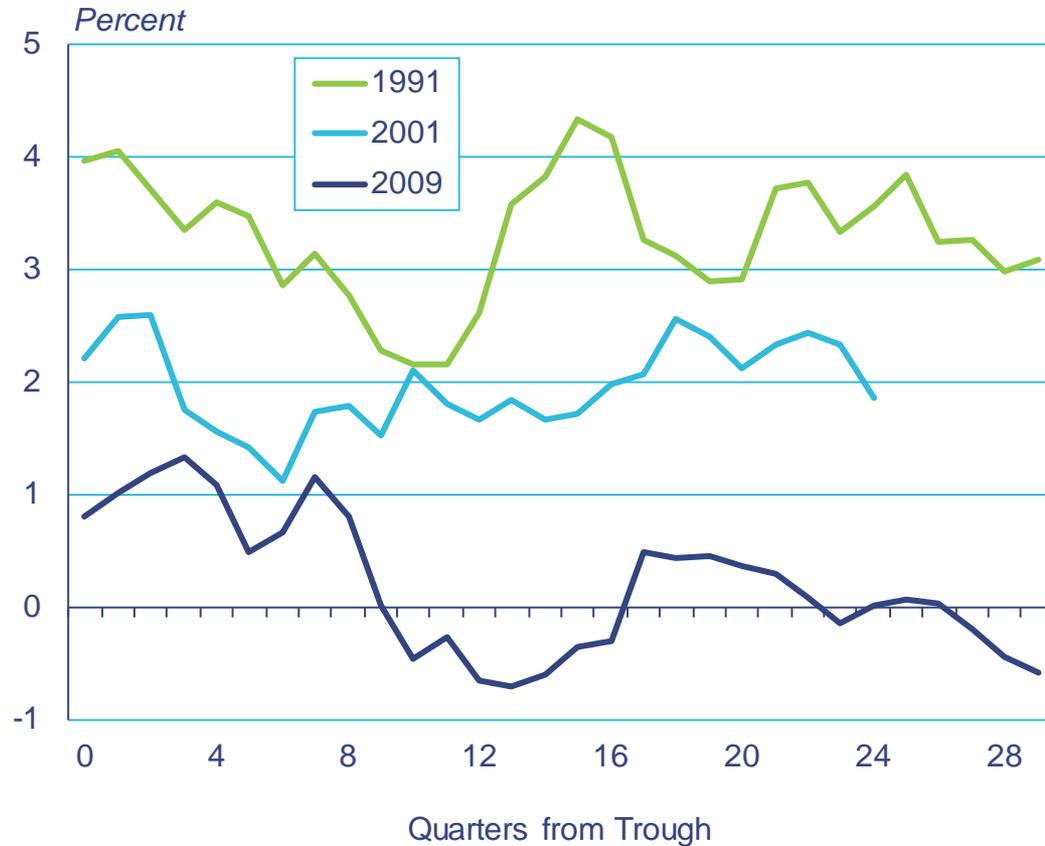
Figure 6: Real Federal Funds Effective Rate 1990:Q1 - 2016:Q3



Note: The real federal funds effective rate is calculated by subtracting the core PCE inflation rate from the nominal federal funds effective rate. To calculate the real rate for 2016:Q3, we assume core PCE remained unchanged in September.

Source: Federal Reserve Board, BEA, NBER, Haver Analytics

Figure 7: Ten-Year Treasury Yield Minus Ten-Year Inflation Expectations over the Last Three Recoveries



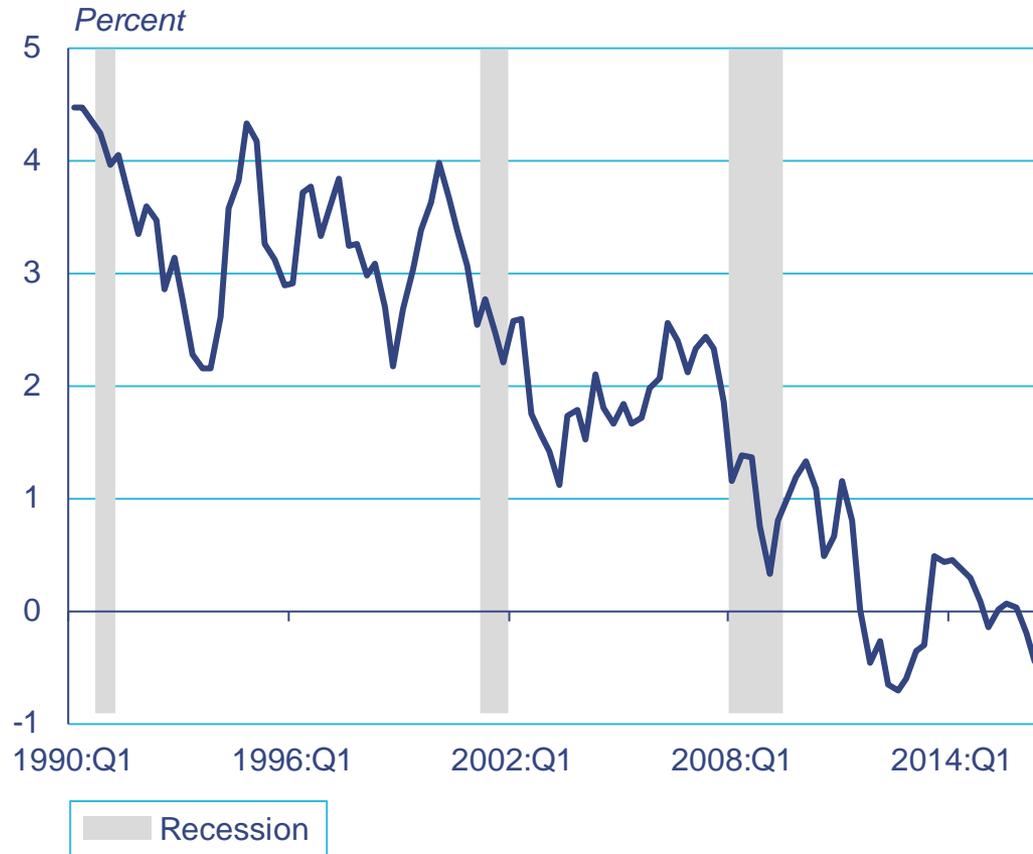
Note: The Survey of Professional Forecasters median projection for annual average CPI inflation over the next ten years is used for inflation expectations. The recovery from the 2001 recession lasted 24 quarters, with the next business cycle peak in 2007:Q4.

Source: Federal Reserve Bank of Philadelphia, Federal Reserve Board, NBER, Haver Analytics



Figure 8: Ten-Year Treasury Yield Minus Ten-Year Inflation Expectations

1990:Q1 - 2016:Q3



Note: The Survey of Professional Forecasters median projection for annual average CPI inflation over the next ten years is used for inflation expectations.

Source: Federal Reserve Bank of Philadelphia, Federal Reserve Board, NBER, Haver Analytics



Figure 9: S&P 500 Composite Price to Operating Earnings Ratio

1990:Q1 - 2016:Q3

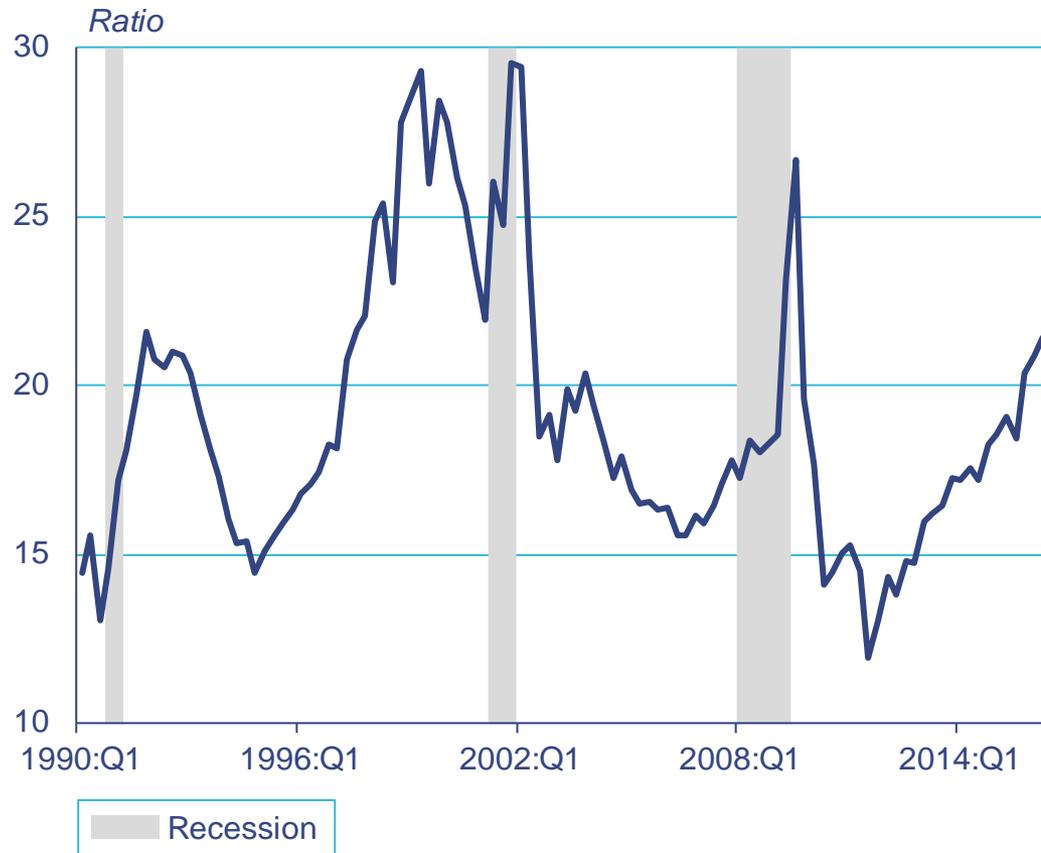
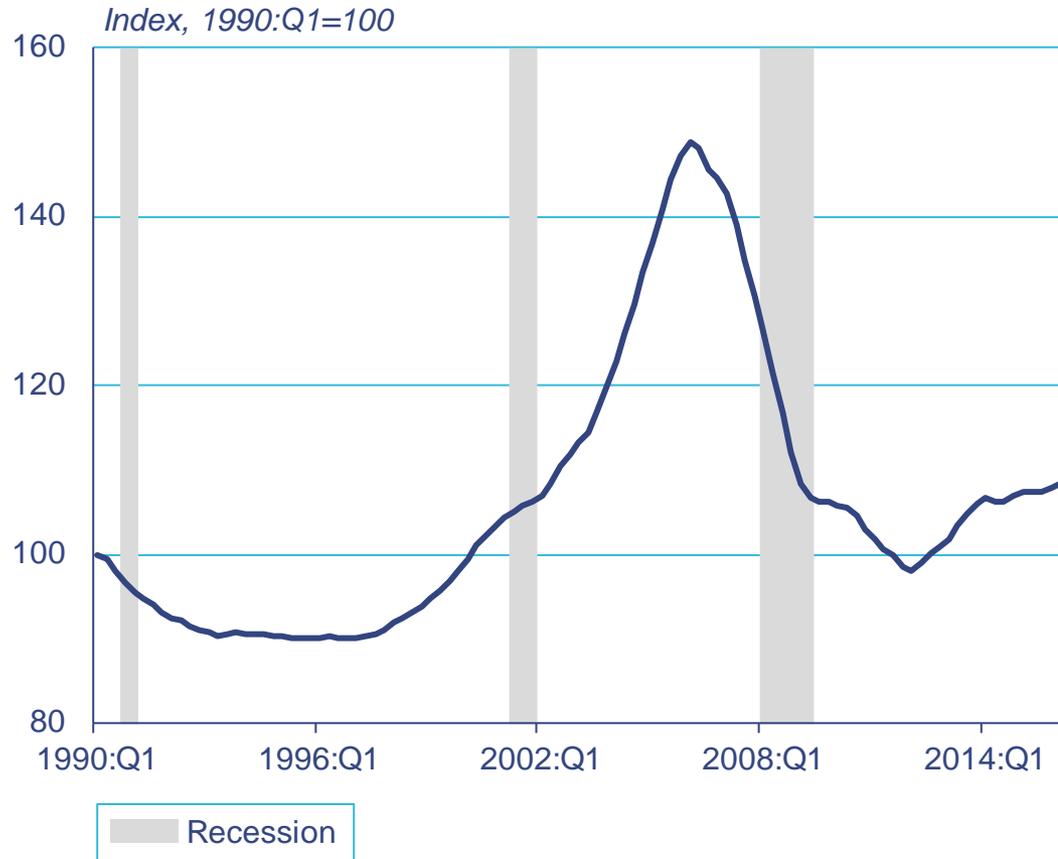




Figure 10: Index of Price to Rent for Residential Housing

1990:Q1 - 2016:Q2

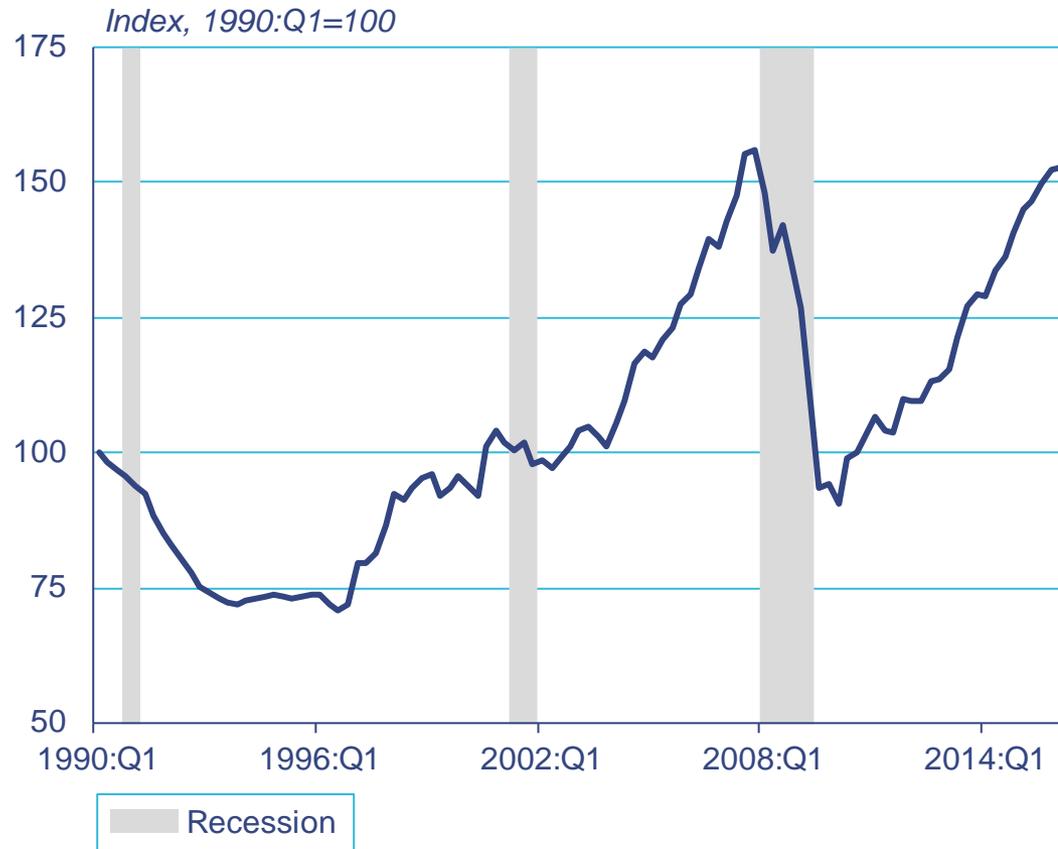


Note: Based on the ratio of the CoreLogic House Price Index excluding distressed sales to the CPI for Rent of a Primary Residence.

Source: CoreLogic, BLS, NBER, Haver Analytics



Figure 11: Real Commercial Real Estate Price Index 1990:Q1 - 2016:Q2



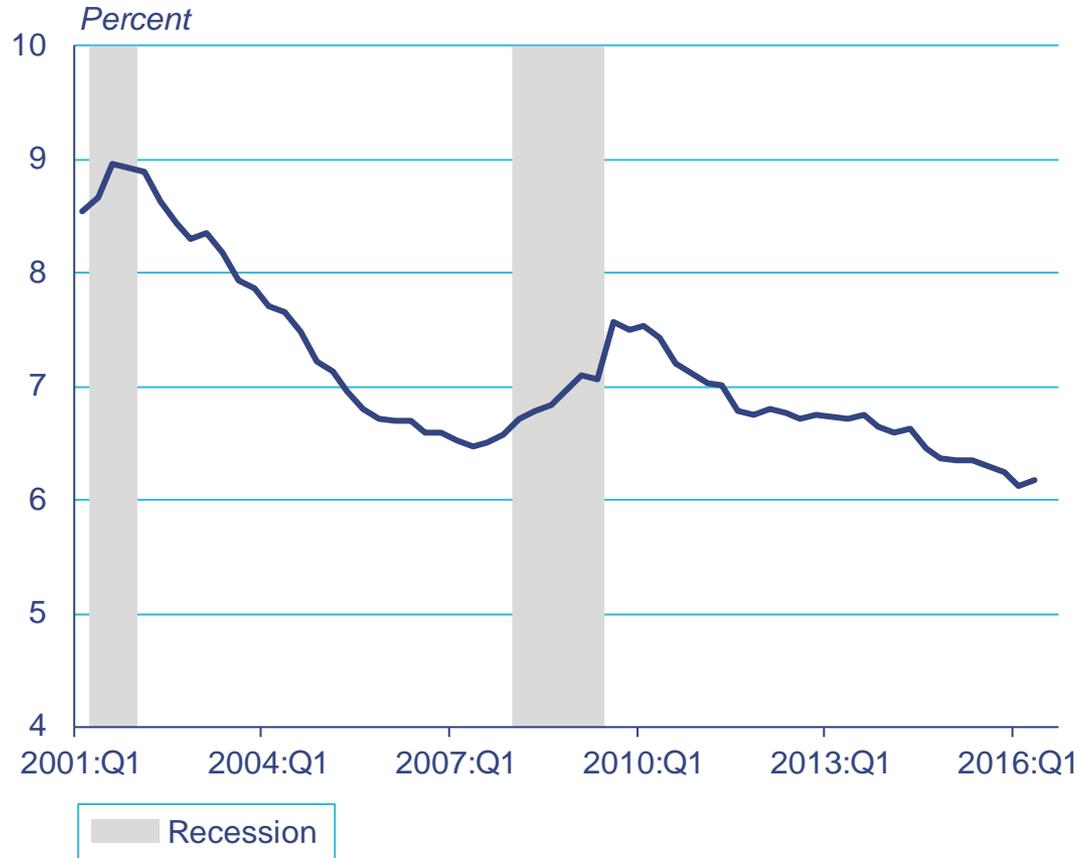
Note: Price index is adjusted for inflation using the GDP deflator.

Source: Federal Reserve Board, BEA, NBER, Haver Analytics



Figure 12: Commercial Real Estate Capitalization Rate

2001:Q1 - 2016:Q2



Note: The capitalization or “cap” rate is the ratio of net operating income produced by a property to the price paid, calculated at the time of a transaction.

Source: Real Capital Analytics, NBER, Haver Analytics

Figure 13: Duration of the Federal Reserve System Open Market Account (SOMA) Holdings of U.S. Treasury and Agency Mortgage-Backed Securities
December 2006 - August 2016



Note: The duration for Treasury securities is the market value weighted modified duration. For Agency MBS, the duration is the market value weighted effective duration. Figures are as of month-end.

Source: Federal Reserve Bank of New York