Quarterly % Change in U.S. Economic Output
(Real GDP - Chainweighted 2005$)

Source: Department of Commerce.

2015 Economic Growth = 3.0%, due to the following economic factors:

1. Housing market recovery (25% growth)
2. Rising home prices (5-6%)
3. Rising auto manufacturing (16.5 million units) confidence
4. Rising business investment spending
5. Strong energy sector
   reduce current-account deficit
6. Strong medical care sector
7. Easing credit conditions
8. Rising consumer
9. End of deleveraging
10. Less imported oil will reduce current-account deficit

GDP Output Gap vs. Federal Funds Rate

Source: CBO & Federal Reserve.
**Unemployment Rate**

- **Recession**
- **Unemployment**
- **Underemployment (U-6)**
- **Full Employment (NAIRU)**

Source: Department of Labor.

**Inflation (CPI)**

*(year over year % growth)*

**Forces Keeping Inflation Low:**

1. Negative output gap => idle capacity => \(\downarrow\) prices
2. Unemployment Rate > U.R. \(_{Natural}\) => \(\downarrow\) wages
3. ↑ value of $ => \(\downarrow\) import prices
4. “Commodity super cycle” => \(\downarrow\) commodity prices
5. Bond markets are not *pricing in* higher inflation. (Nominal rates – TIPS rates)
Oil Price per Barrel
(West Texas Intermediate Crude)

Oil Economics
\[ \uparrow P_{\text{oil}} = 10 \Rightarrow \uparrow P_{\text{Gas}} = 0.25 \Rightarrow \downarrow \text{growth 0.3-0.5\%} \]

S&P 500 Stock Index
(monthly average)
In the short run, the deficit ratio is determined by the unemployment rate. When the unemployment rate exceeds 6%, the deficit ratio rises above the 3% sustainable target. If unemployment falls below 6% the deficit ratio falls below 3%. This will bring down the Debt-to-GDP ratio.

In the long run, the unemployment rate is influenced by the nation’s debt-to-GDP ratio.
**Long-term Interest Rate Forecast:** 10-year treasury below 3.5% through 2015

**Lower Demand for Money (Supply of Bonds):**
- Treasury issuance is below long-run average
- Deficit-to-GDP ratio = 2.8%
- Post-debt-crisis borrowing aversion
  …BRITA
- Slow long-term economic growth 2%

**Higher Supply of Money (Demand for Bonds):**
- Fed’s “Forward Guidance”; market expects short-term rates to be lower for longer.
- Trade dollars recirculated back to U.S. bond market
- Struggling “emerging market” countries, …BRITA
- Rising income inequality

**Consumer Confidence & Sentiment Index**

*Source: Conference Board & University of Michigan*
The real annual purchasing power of financial assets are the highest in U.S. history at $5.29 per dollar of disposable income (5.29 years worth of disposable income), up 25% from the cyclical low of 4.22 set back in the first quarter 2009. Rising stock prices were the major contributing factor. The Federal Reserve’s quantitative easing program (printing money to buy financial assets) has led to a balance sheet recovery more than an income statement (GDP) recovery.

Households’ debt burden ratio (debt-to-disposable-income) fell to 0.98 in the first quarter, from 1.24 in the fourth quarter of 2007. Financial institutions writing off and households paying off mortgage debt were the major contributing factors for the decline. The deleveraging phase of the business cycle has come to an end. If growth in debt equals the growth rate of disposable income over the next few years the debt burden ratio will remain around 100% which is what economists believe is sustainable in the long run.