

April 14, 2016

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Glenn Rudebusch, executive vice president and director of research at the Federal Reserve Bank of San Francisco, stated his views on the current economy and the outlook as of April 14, 2016.

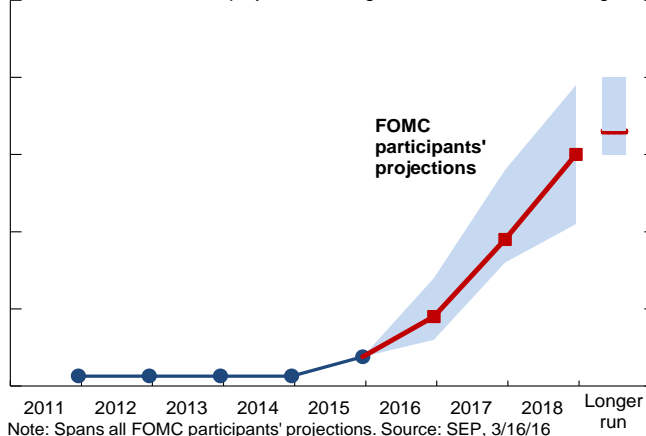
- Given the substantial progress made toward its employment and inflation goals, the Federal Reserve raised the federal funds rate target last December from the near-zero levels of the prior seven years. FOMC projections suggest the possibility of further gradual increases in the funds rate. However, this future path is not a preset course, as policymakers continue to emphasize a data-dependent approach to setting monetary policy.
- Since the policy rate liftoff, longer-term U.S. Treasury yields have fallen largely in response to developments abroad. Concerns about the prospects for global economic growth have caused investors to lower their expectations of the future path of the Fed policy rate. In addition, worries about foreign growth have prompted a shift towards safe U.S. assets, pushing down the risk premium embedded in Treasury yields.
- The price of crude oil has dropped over 60% over the past two years in response to abundant supply and lower energy demand as growth abroad has slowed.
- Global risks have weighed heavily on equity markets. While lower oil prices generally should be a positive force for the U.S. economy, the Standard & Poor's (S&P) 500 is in large part a global index with roughly half of the associated corporate earnings coming from abroad.
- The U.S. dollar has appreciated almost 15% over the past two years reflecting in part differences in the relative performance of U.S. and foreign economies and an accompanying divergence in monetary policy actions.
- Employment growth in the service-providing sector (retail, professional, government, hospitality, food, travel, etc.) has shown no signs of slowing. In contrast, jobs in the goods-producing sector (manufacturing, mining, and construction) have flattened out. The stronger dollar makes U.S. exports more expensive, and lower oil prices have greatly reduced drilling activity and curtailed upstream oil sector supply manufacturing as well. However, manufacturing and other export-sensitive sectors are a relatively small share of the economy, so overall employment growth has continued at a robust pace.
- A broad range of labor market indicators are consistent with the economy operating at full employment. Going forward, we anticipate that the unemployment rate will fall a bit below its current level of 5%, which is our current estimate of the natural or normal rate of unemployment.

- Real GDP grew a respectable 2% over the four quarters of 2015. We expect continued moderate growth as consumer spending is supported by a strong labor market, improving personal income, low gas prices, and elevated household net worth. Quarterly readings on GDP can be quite volatile. We expect first-quarter real GDP to show little if any increase. However, if history is any guide, inadequate seasonal adjustment could hold down that first-quarter estimate by as much as 1¾%. (See *FRBSF Economic Letter* 2015-16, “[The Puzzle of Weak First-Quarter GDP Growth](#),” and *FRBSF Economic Letter* 2015-27, “[Residual Seasonality and Monetary Policy](#).”)
- Inflation was restrained in 2015 by the drop in crude oil prices and the rise in the dollar. With those factors appearing to stabilize, inflation has made notable progress in moving up toward the Fed’s 2% inflation target recently. Excluding food and energy, personal consumption expenditures (PCE) prices are 1.7 % higher than a year ago. We anticipate a gradual return of inflation toward the Fed’s 2% objective based on low wage inflation domestically and disinflationary influences from abroad.
- A question often asked is: Will the current recovery die of old age? That is, like people, do recoveries get progressively frailer over time and more likely to end? At 6½ years old, the current recovery has already lasted longer than most other postwar recoveries. However, statistical analysis indicates that—based only on age—a 90-month-old expansion is really no more likely to end than a 50-month-old expansion. By contrast, actuarial calculations show increasing mortality rates for people after 65. (For a full analysis, see *FRBSF Economic Letter* 2016-03, “[Will the Economic Recovery Die of Old Age?](#)”)
- Of course, age is just one factor that could increase the likelihood of death or the demise of an economic recovery. For people, someone with, say, high blood pressure faces higher probabilities of death at any age than this actuarial baseline. Similarly, for the economy, we can calculate recession probabilities that are based not just on age but take into account other factors as well, such as forward-looking spending indicators (say, durable goods orders) or financial indicators (say, equity price indexes). For example, the spread between short- and long-term interest rates has been shown to be particularly useful for forecasting recessions. Based on this yield spread, the probability of a recession this year has edged up a bit but remains quite low. (See Glenn D. Rudebusch and John C. Williams (2009), “Forecasting Recessions: The Puzzle of the Enduring Power of the Yield Curve,” *Journal of Business and Economic Statistics* 27.)

Fed expects gradual pace of tightening

Federal funds rate

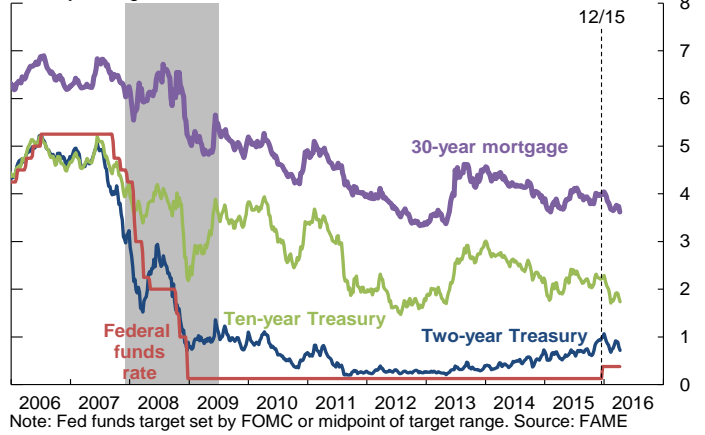
Red line is median FOMC projection for target rate; blue area is the range



Interest rates remain low

Interest rates

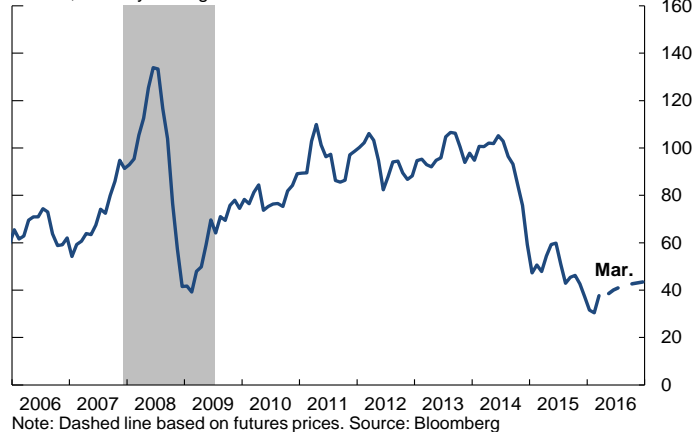
Weekly average



Crude oil at fire sale prices

Price of crude oil

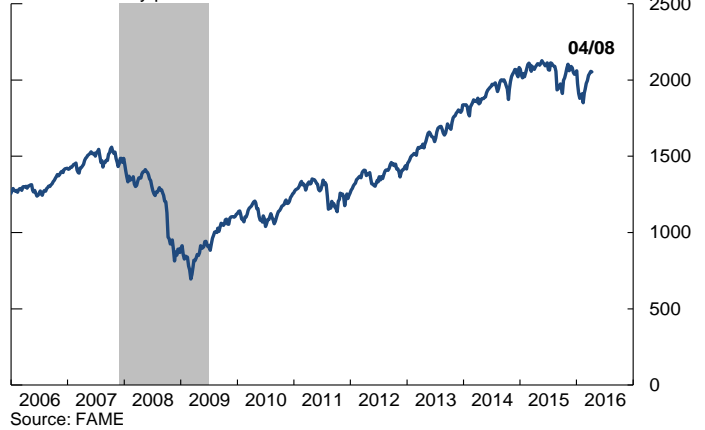
WTI oil; monthly average



Equity markets have been volatile

Stock market index

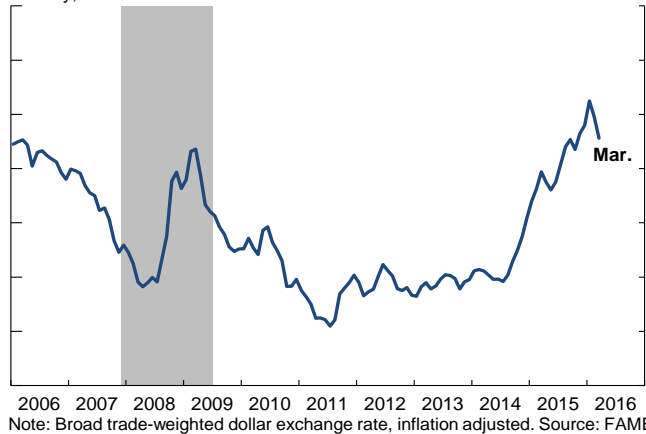
S&P 500 weekly price



Dollar remains strong

Dollar foreign exchange rate

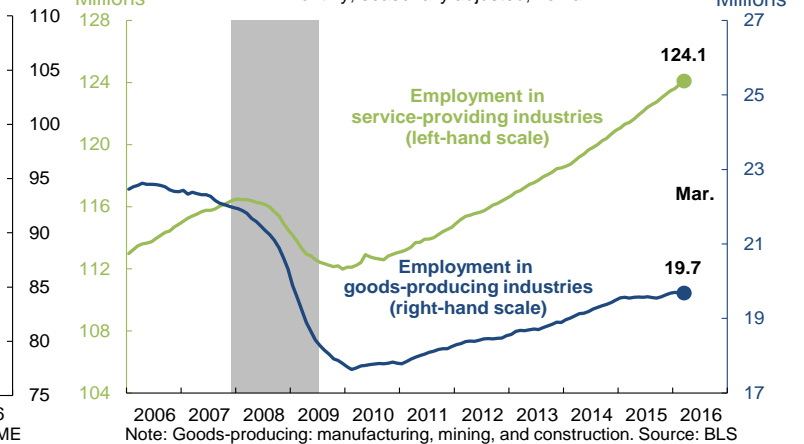
Monthly; March 1973=100



Limited job losses due to oil and dollar

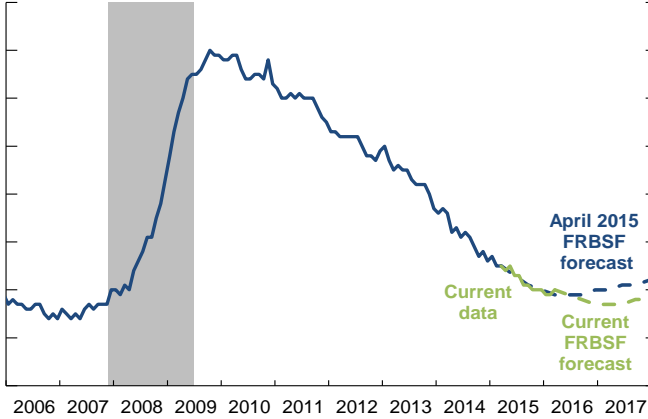
Employment in service-providing and goods-producing industries

Monthly; seasonally adjusted; nonfarm



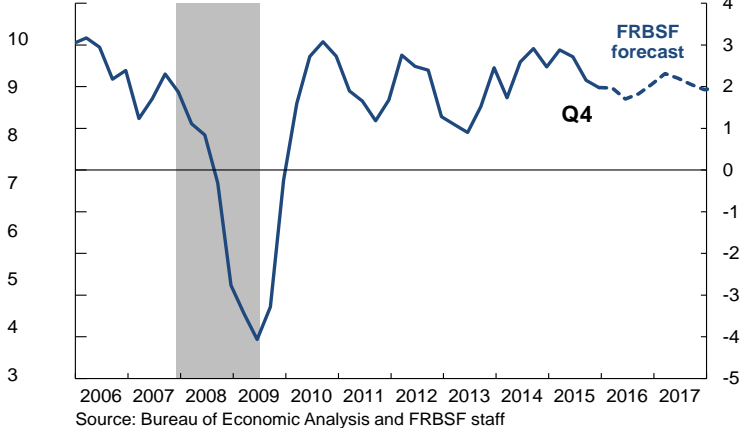
We expect a tighter labor market

Unemployment rate
Seasonally adjusted



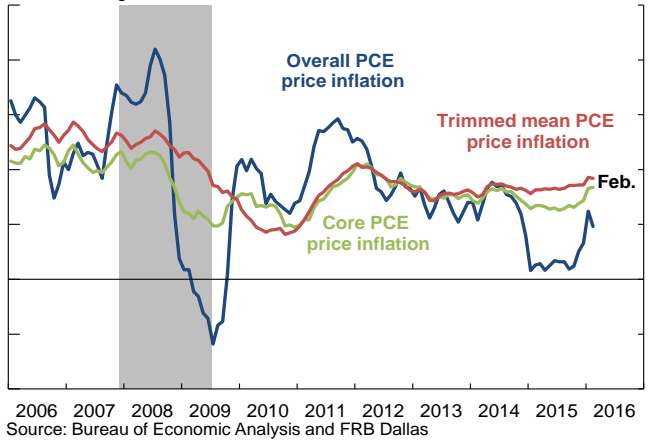
Continued moderate economic growth

Real GDP
Percent change from 4 quarters earlier



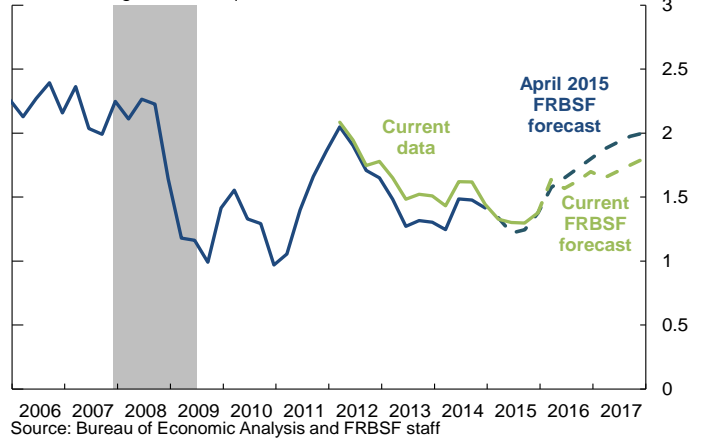
Inflation was held down by oil and dollar

Personal consumption expenditures (PCE) price inflation
Percent change from 12 months earlier



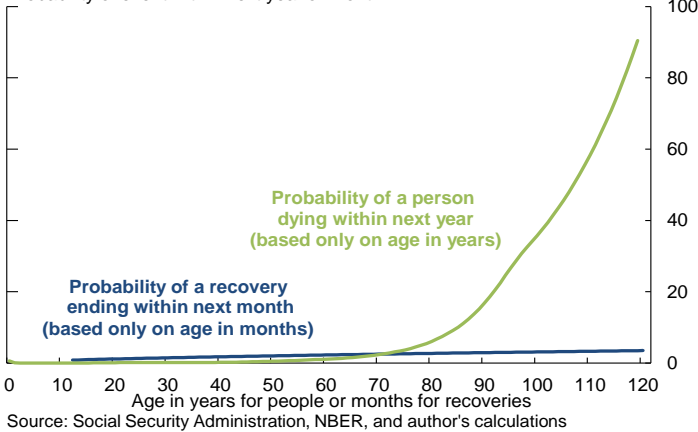
We expect a gradual return to 2%

Core PCE price inflation
Percent change from four quarters earlier



Will the current recovery die of old age?

Probability of death and probability of recession
Probability of event within next year or month



Probability of recession appears low

Probability of a recession based on yield spread
Probability of a recession two quarters ahead

