

Total and Short-term Unemployment and the Recent Behavior of Prices and Wages

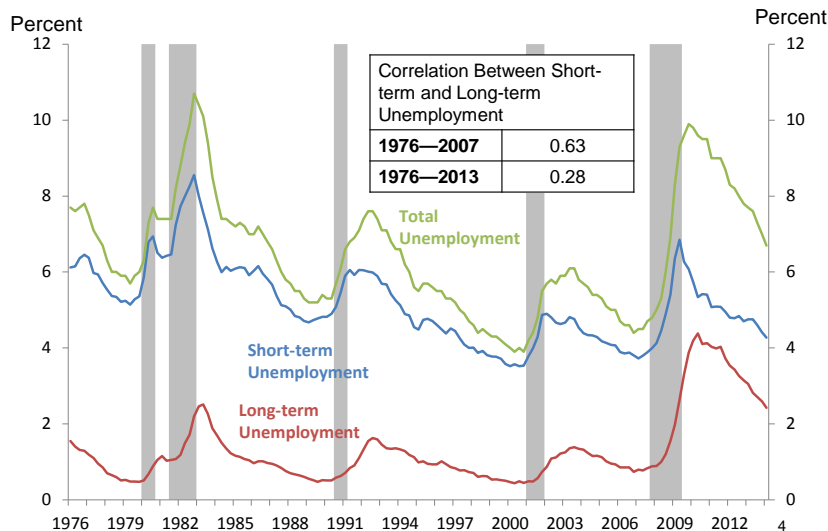
Background

- FRBNY staff analysis: considerable slack remains in the economy
 - Labor market flows
- This assessment is an important factor in FRBNY staff outlook
 - A restraining factor for price- and wage-inflation
- However, recent research has focused on two issues:
 - Extent of slack in labor market
 - Magnitude of restraining effect on inflation from conventional measure(s) of labor market slack

Background (cont.)

- Motivation to explore these issues: “missing deflation puzzle”
 - “Standard” Phillips Curve models → very low inflation or deflation in the aftermath of the Great Recession
 - Compensation growth also should have been lower
- One proposed explanation: Short-term/long-term unemployment distinction
 - Long-term unemployed (unemployment duration > 27 weeks): limited impact on price/wage inflation
 - Short-term unemployed near historical average: less slack than implied by conventional measures

Unemployment Rates by Duration



Source: Bureau of Labor Statistics

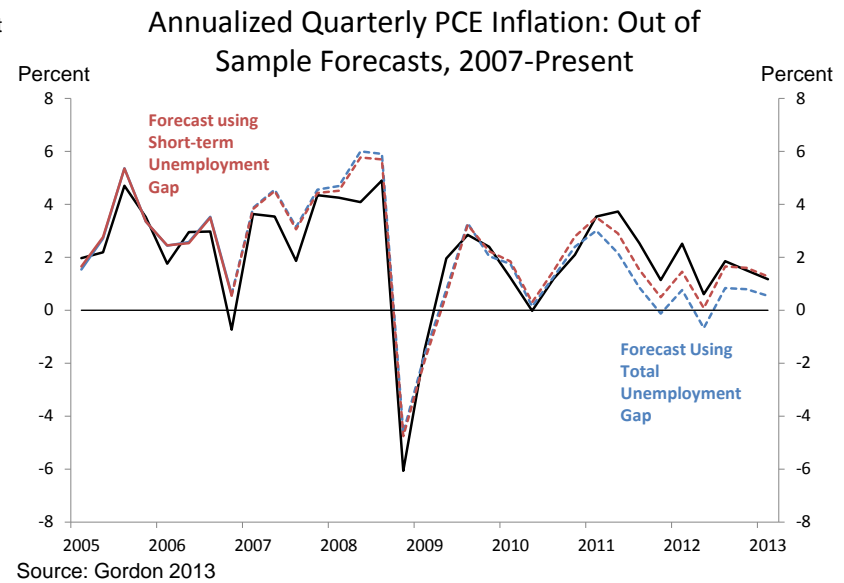
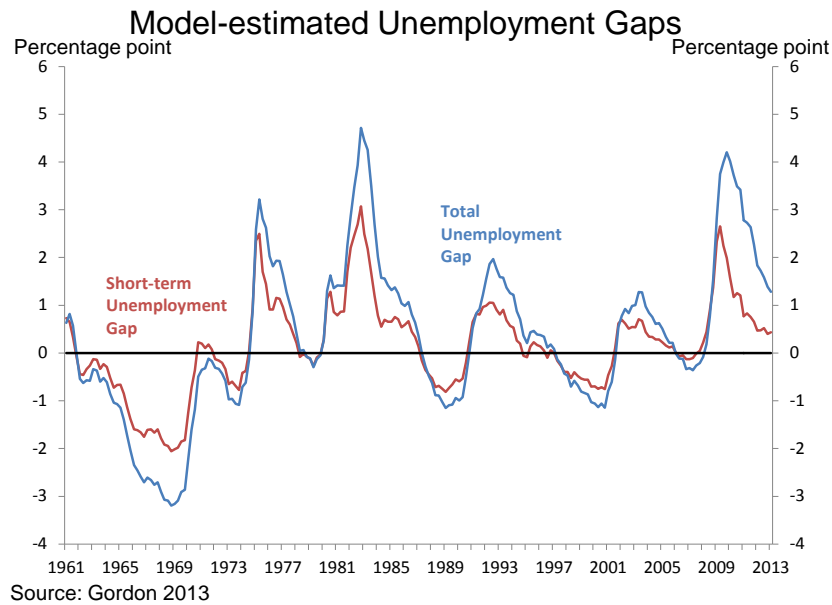
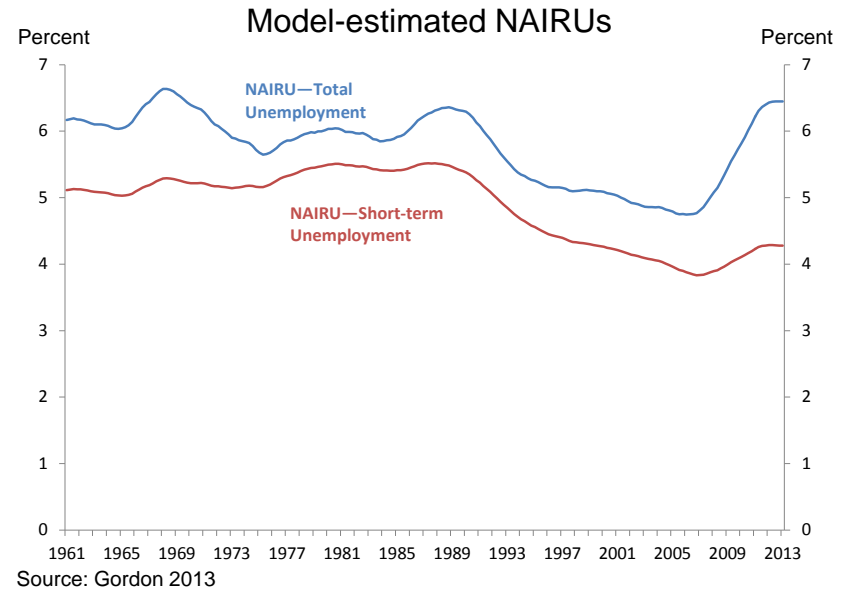
Illustration of “Standard” Approach: Gordon (2013)

- Price-inflation (PCE deflator) Phillips curve model:
 - Lagged inflation terms
 - Unemployment gap based on:
 - Total unemployment rate
 - Short-term unemployment rate
 - Supply shocks:
 - Food and energy inflation
 - Relative import price inflation
 - Trend productivity acceleration/deceleration variable
- Other features:
 - 1960:Q1-2013:Q1 sample period
 - Joint estimation of time-varying NAIRU

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Evaluation of Short-term vs. Long-term Distinction

- Out-of-sample forecast performance (often during post-2007 period)
 - Comparison of forecast errors using short-term and total unemployment gaps
- Within-sample estimates of the coefficient(s) on the unemployment gaps over different sample periods
 - Are the estimates more stable using the short-term unemployment gap?



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Phillips Curve Stability and Forecast Contributions in Short-term Unemployment Gap Model

Sum of unemployment coefficients with estimation through various dates

1996Q4		2006Q4		2013Q1	
Total	Short-term	Total	Short-term	Total	Short-term
-0.473	-0.741	-0.465	-0.726	-0.314	-0.641

Forecast Decompositions (Averages over period)

	2008Q1-2009Q4	2010Q1-2013Q3
Imports	-0.06	0.01
Food-energy	-0.20	0.26
Unemployment	-0.78	-0.76
Lagged inflation	2.38	1.76

Source: Gordon 2013

Summary of Other Studies (cont.)

- Analysis at aggregate level may be problematic
 - Little precedent for current labor market environment
 - High correlation between short- and long-term unemployment series prior to 2007
 - Additional checks for robustness needed
- Alternative approach: use disaggregated data
 - Kiley (2014) – 24 large U.S. metropolitan areas
 - Short- and long-term unemployment exert equal downward pressure on price inflation
 - Hooper, Luzzetti and Slok (2014) – State level data
 - Long-term unemployed more impactful in labor market as short-term unemployment gap closes

Summary of Other Studies

- Is the short-term unemployment rate a better indicator of labor market slack?
- Empirical evidence at aggregate level is mixed:
 - Very favorable
 - Ball and Mazumder (2011), Krueger, Cramer and Cho (2014), Macro Advisers (2014)
 - Slightly favorable
 - Feroli (2014), Hooper, Luzzetti and Slok (2014), Linder, Peach and Rich (2014), Watson (2014)
 - Not convincing
 - Hatzius and Stehn/Mericle (2014)

Discussion Questions

- What is your current view concerning the short-term/long-term unemployment debate?
- What is your forecast for price- and wage inflation over the near- and medium-term horizons?
- Some have claimed that labor market conditions may be more closely linked to services inflation than goods inflation. Do you believe this distinction is helpful in discussions of inflation and the inflation outlook?