Macroeconomic Advisers, LLC

Long-Term Unemployment and the Outlook for Inflation

The Federal Reserve Bank of Cleveland: Monetary Policy and the Public

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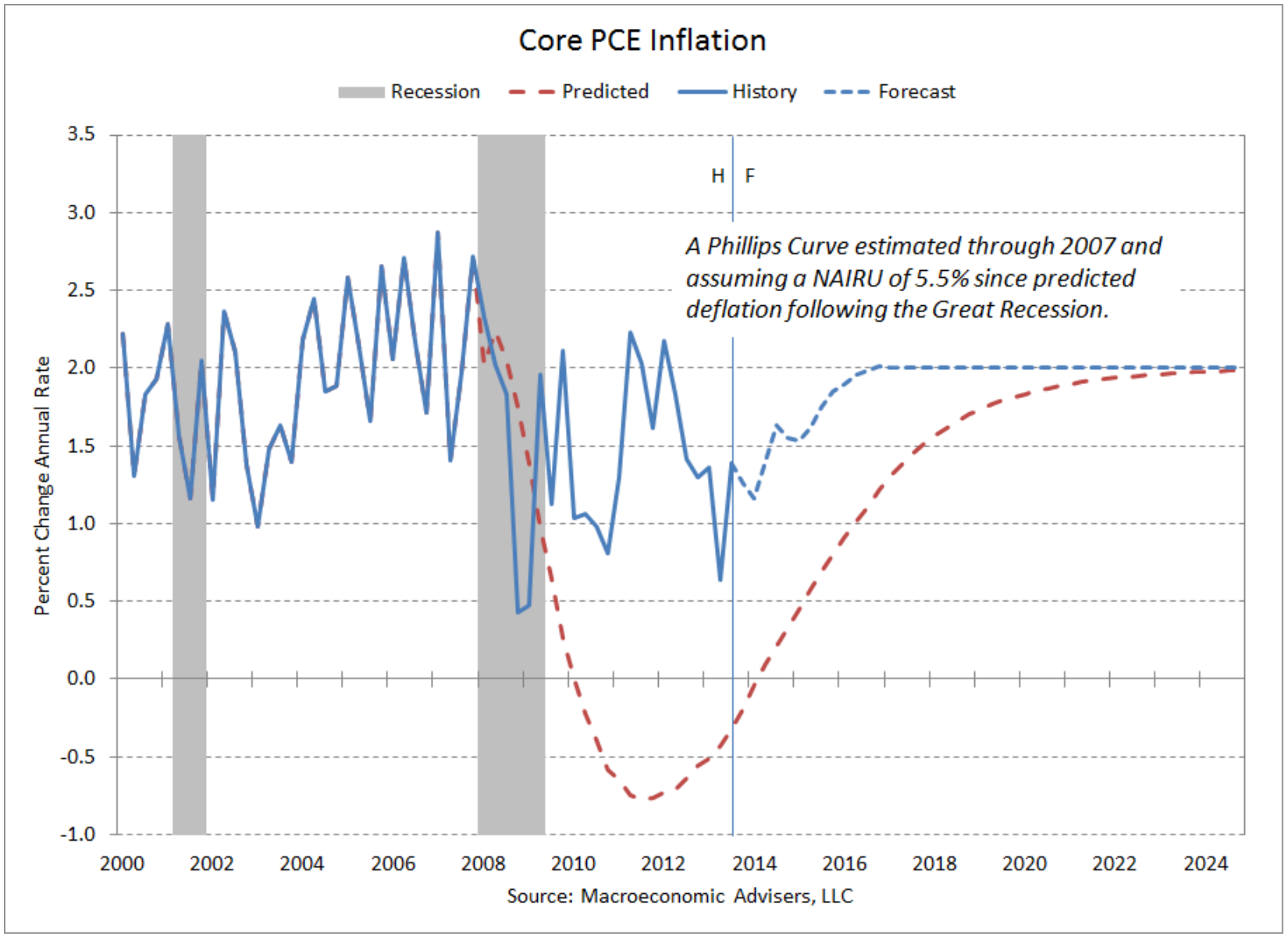
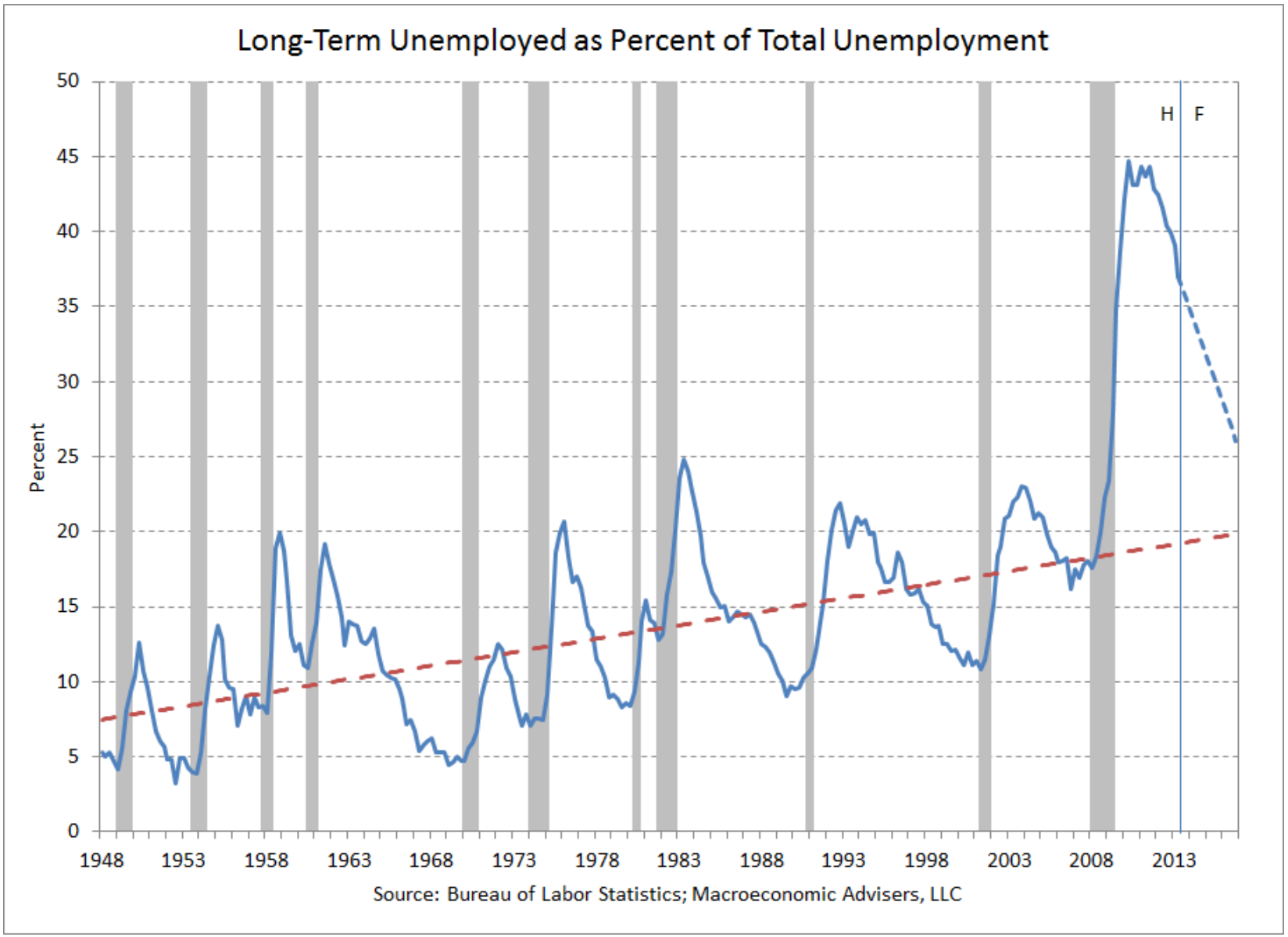
The Inflation Model: NKPC

π_t	*core PCE inflation*
$=$	$=$
$\lambda \pi_t^e$	*SPF 10 – year inflation expectations (" anchor")*
$+$	$+$
$(1-\lambda)\sum_{j=1}^{3} w_j \pi_{t-j}$	*lagged inflation (" momentum")*
$-$	$-$
$\beta(u_t - \tilde{u}_t)$	*unemployment gap (labor market " slack")*

$$\sum_{j=1}^{3} w_j = 1; \textit{ no long - run trade - off between inflation and slack}$$




Long-Term Unemployed as Percent of Total Unemployment
Percent
50
45
40
35
30
25
20
15
10
5
0
H
F
1948
1953
1958
1963
1968
1973
1978
1983
1988
1993
1998
2003
2008
2013
Source: Bureau of Labor Statistics; Macroeconomic Advisers, LLC

Empirical Results

Regressions for Change in Core PCE Inflation				
	1980-2007		1980-2013	
	(1A)	(1B)	(2A)	(2B)
Gravitational Pull of Expectations	-0.264	-0.261	-0.298	-0.301
t-statistic	*-3.0*	*-3.1*	*-3.6*	*-3.7*
Inflation Change, 1st Lag	-0.572	-0.574	-0.495	-0.491
t-statistic	*-5.4*	*-5.4*	*-5.0*	*-5.1*
Inflation Change, 2nd Lag	-0.230	-0.231	-0.183	-0.181
t-statistic	*-2.5*	*-2.5*	*-2.1*	*-2.1*
Short-Term Unemployment Rate	-0.174	-0.188	-0.170	-0.166
t-statistic	*-2.1*	*-3.2*	*-2.9*	*-3.0*
Long-Term Unemployment Rate	-0.053		0.001	
t-statistic	*-0.2*		*0.2*	
Regression Constant	0.716	0.733	0.617	0.613
t-statistic	*2.3*	*2.4*	*2.1*	*2.1*
R-squared	0.440	0.439	0.405	0.405

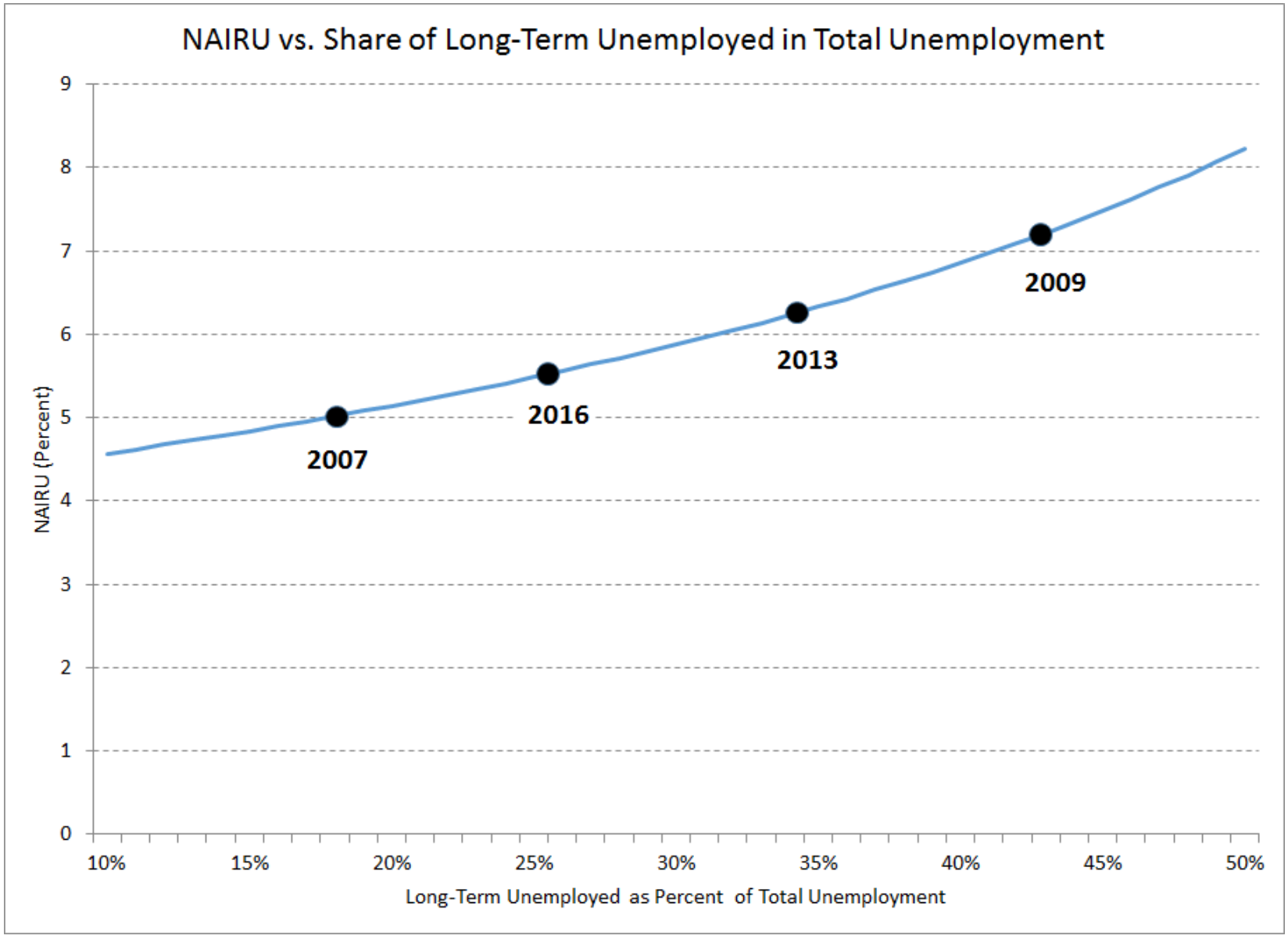
The "short-term unemployment rate" is significant over the short and and long sample, with a coefficient that is stable across the periods.

The "long-term unemployment rate" is insignificant over both the short and the long sample.

Note: the short-term and long-term unemployment rates are the contributions of the short-term and long-term unemployed to the total unemployment rate.

Why? (It Seems so Counterintuitive!)

- Decline in Labor Market Matching Efficiency
  - Krueger: no tendency for long-term unemployed to gravitate towards growing industries
  - Tendency to be re-employed in same industry, or not at all
- Job search declines with unemployment duration
  - Krueger & Mueller: search declines 1.5 minutes per week
  - Wanberg et. al: search declines from 18 to 11 hours per week by 20th week of unemployment
- Employer discrimination rises with duration of unemployment
  - Kroft et. al: “call back rate” declines with duration
  - Ghayad: “call back rate” drops sharply at exactly 6 months


NAIRU vs. Share of Long-Term Unemployed in Total Unemployment
NAIRU (Percent)
9
8
7
6
5
4
3
2
1
0
10%
15%
20%
25%
30%
35%
40%
45%
50%
Long-Term Unemployed as Percent of Total Unemployment
2007
2016
2013
2009

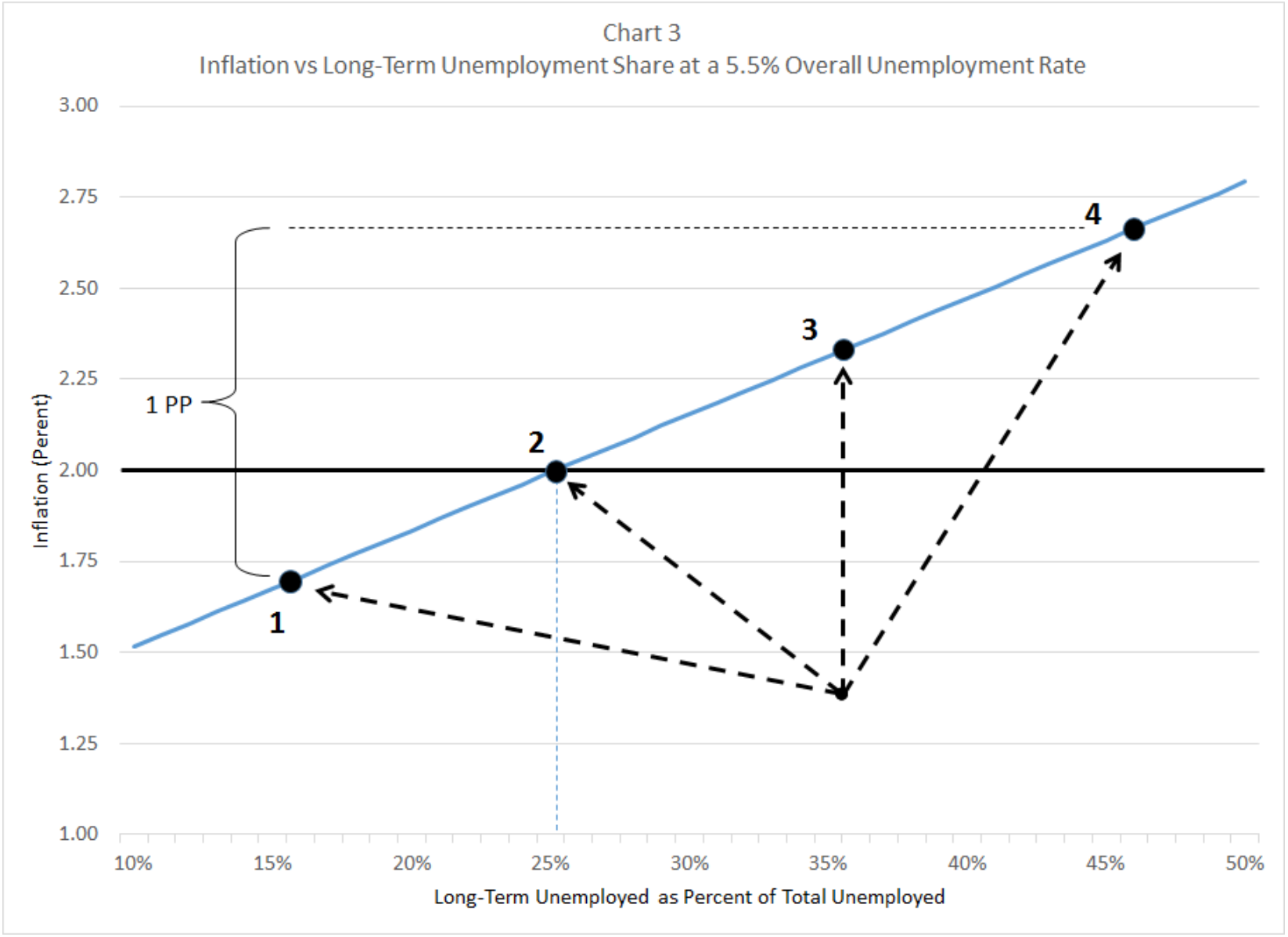


Chart 3
Inflation vs Long-Term Unemployment Share at a 5.5% Overall Unemployment Rate
3.00
2.75
2.50
2.25
2.00
1.75
1.50
1.25
1.00
Inflation (Perent)
1 PP
1
2
3
4
10%
15%
20%
25%
30%
35%
40%
45%
50%
Long-Term Unemployed as Percent of Total Unemployed

Wrap Up

- Does it matter if LT unemployment falls because the LT unemployed find jobs or exit the labor force?
  - For inflation, no; for real growth, yes.
- Given uncertainty surrounding LT unemployment
  - Our forecast balances the risks through 2016
  - But should we lower NAIRU below 5.5% after 2016?
- Policy Implications
  - FOMC can't be complacent about today's modest inflation
  - General macroeconomic stimulus riskier than policies specific to the long-term unemployed