

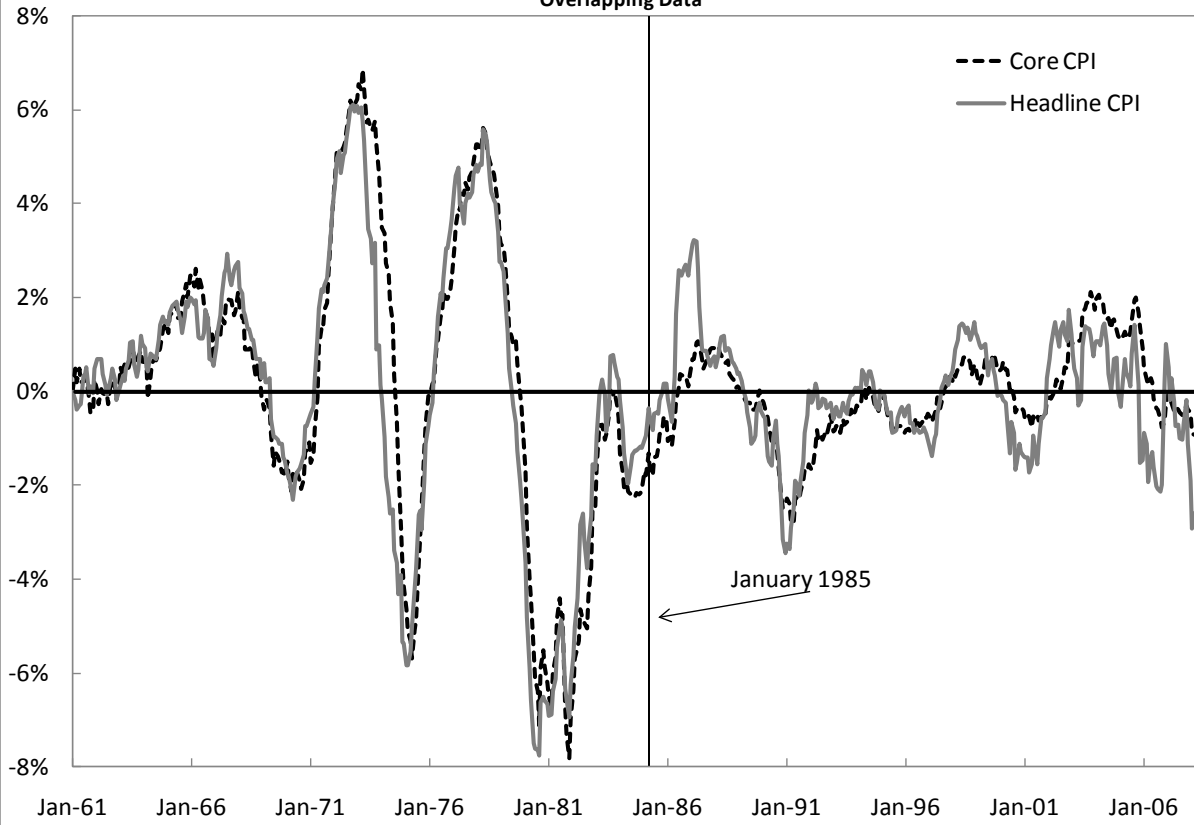
Is Core or Headline Inflation a Better Predictor of Future Headline Inflation at the Medium-Term Horizon?

This document summarizes the results of a forecasting exercise in which headline inflation is predicted at the medium-term horizons of two and three years based on both core and headline inflation measures. There are two experiments. In the first, the forecast of average headline inflation over the next two or three years is equal to the average of core or headline inflation over the previous two or three years. In the second, the forecast of average headline inflation over the next two or three years is the average core or headline inflation over the past year. These forecasting exercises address the question: Is current core inflation a better indicator (predictor) of future headline inflation than current headline inflation? The forecast errors for all exercises are presented in the figures. The figures show both the overlapping sample forecast errors and the non-overlapping sample forecast errors.

The tables summarize the results of Diebold-Mariano tests of the hypothesis of equal forecast accuracy using both mean square forecast error (MSFE) and mean absolute forecast error (MAFE) loss functions. Robust standard errors are used to construct the test. When data overlap, the truncation lag set at the length of the data overlap. For non-overlapping data, the truncation lag determined by the Schwert criterion. The tables report the average difference (core minus headline) for both loss functions, the value of the test statistic, and the corresponding significant level (p -value) for the consumer price index (CPI) using overlapping and non-overlapping data (CPI-O and CPI-NO, respectively) and for personal consumption expenditures (PCE; PCE-O, and PCE-NO, respectively). The results are reported for the full sample (January 1960–March 2011) and the subsample (January 1985–March 2011).

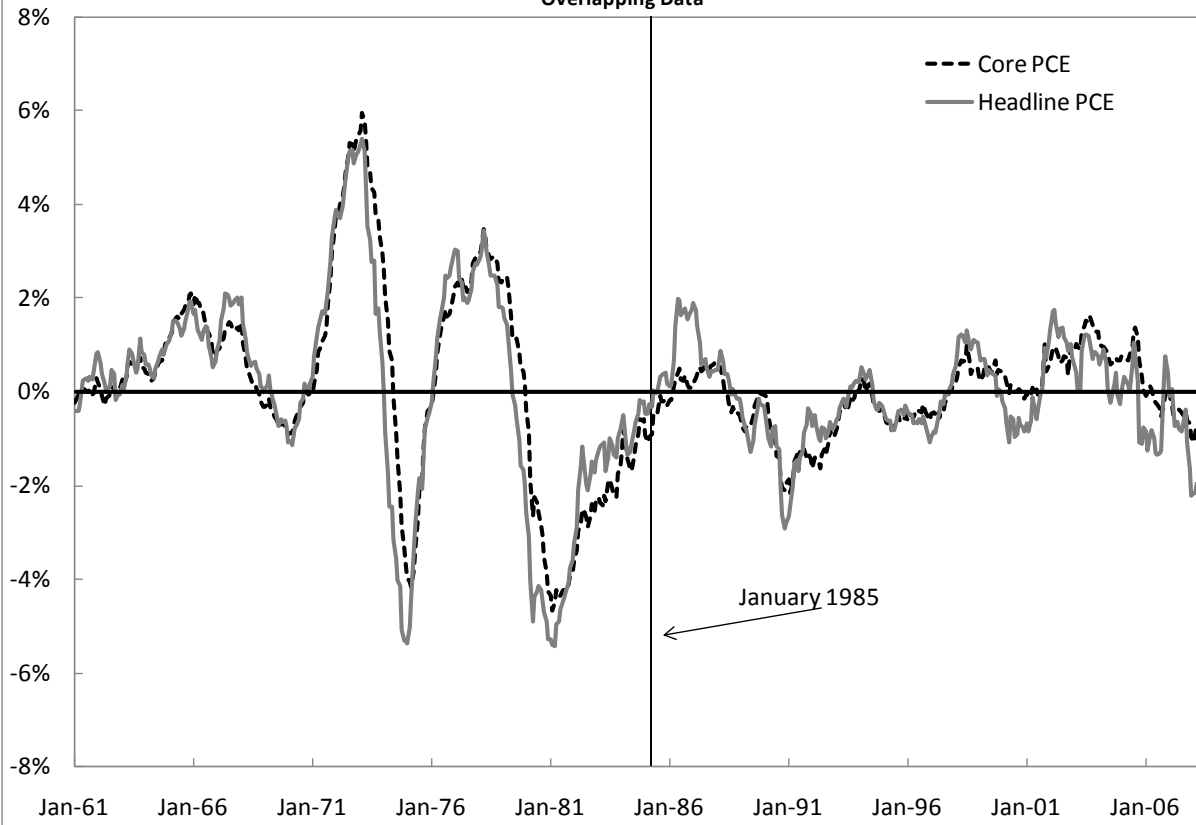
CPI: Three-Year Horizon Based on Previous Year's Inflation

Overlapping Data



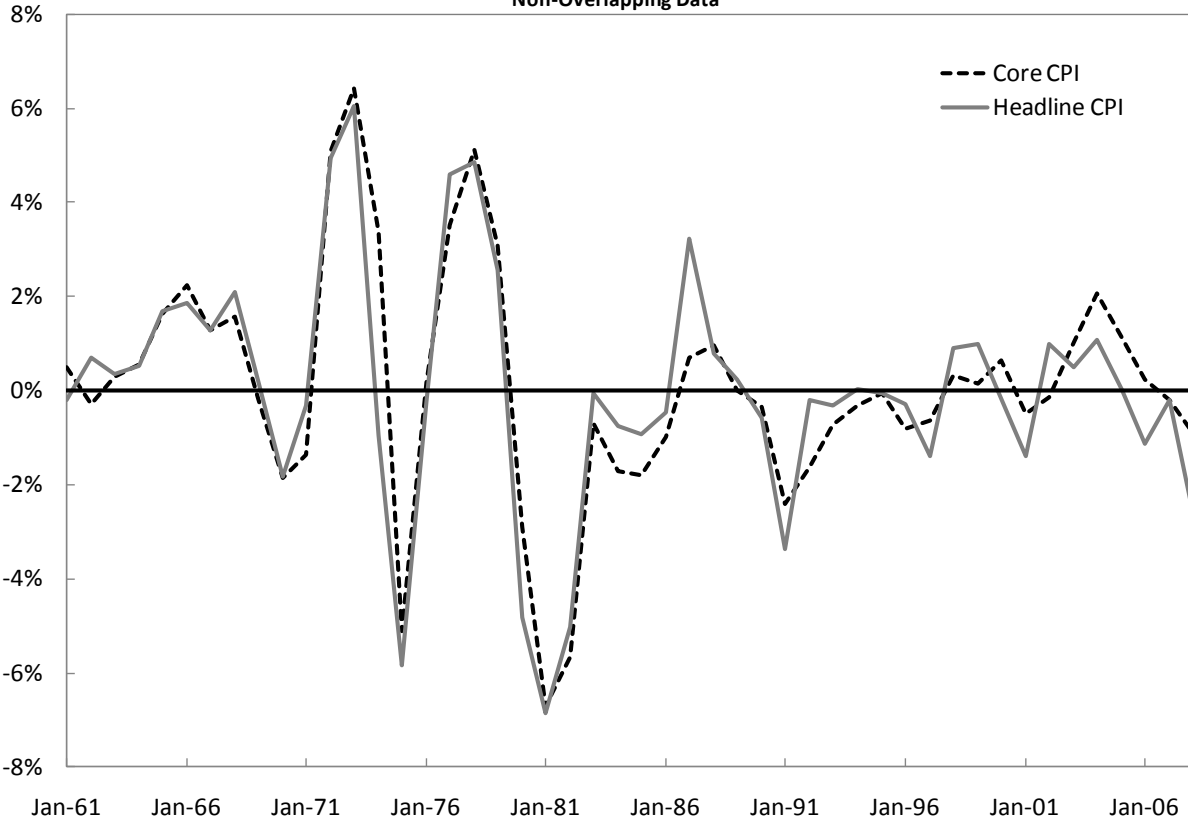
PCE: Three-Year Horizon Based on Previous Year's Inflation

Overlapping Data



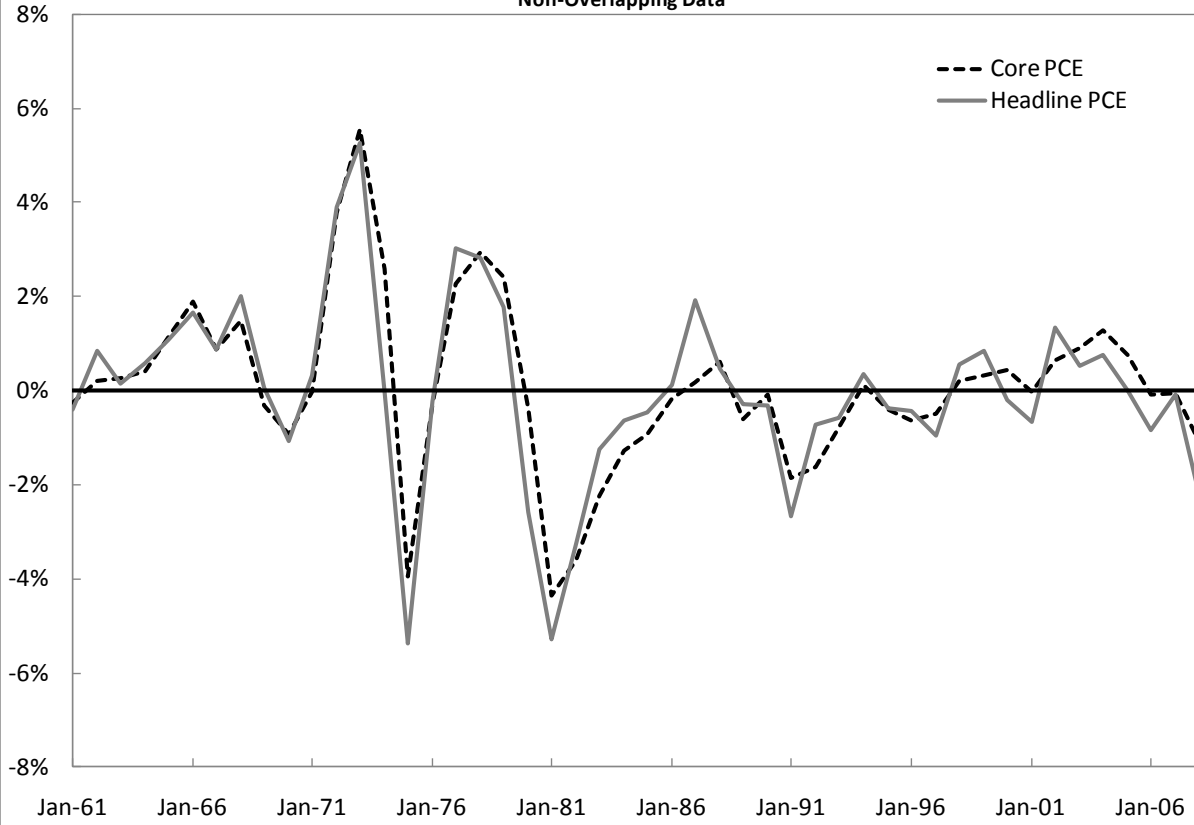
CPI: Three-Year Horizon Based on Previous Year's Inflation

Non-Overlapping Data



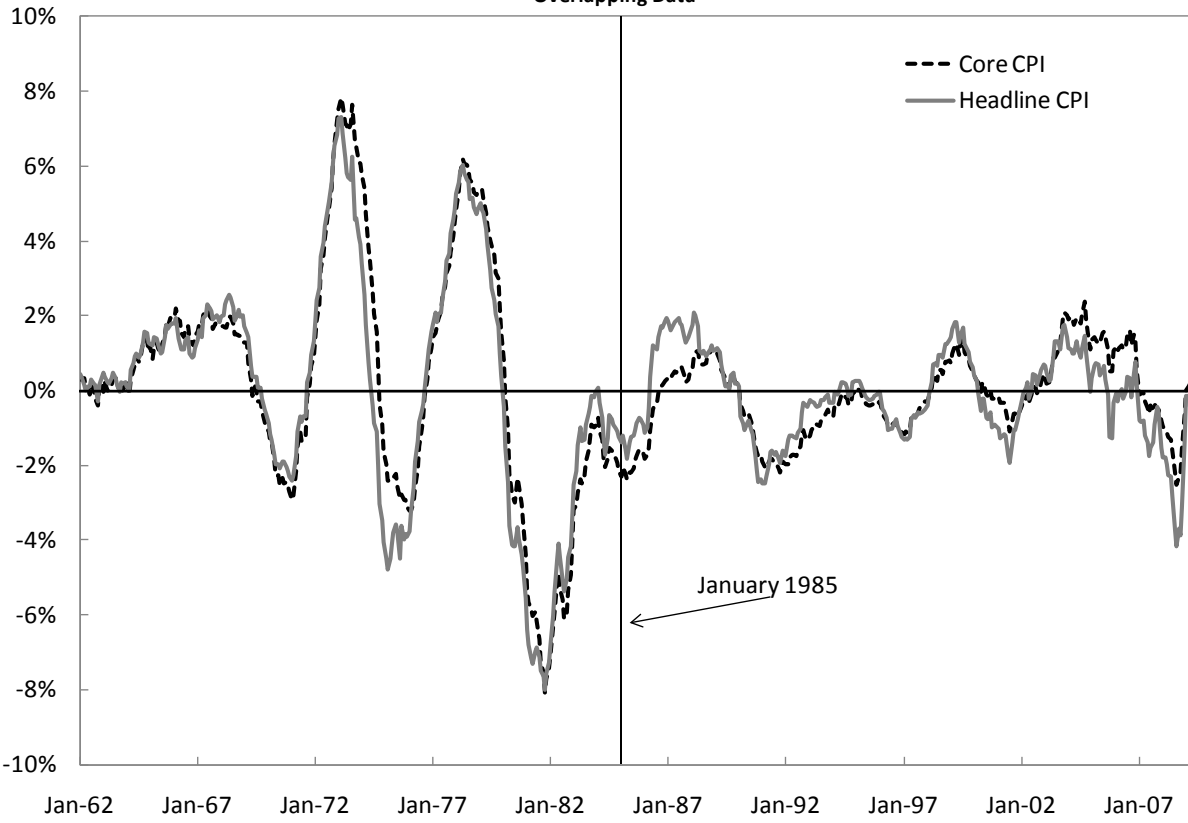
PCE: Three-Year Horizon Based on Previous Year's Inflation

Non-Overlapping Data



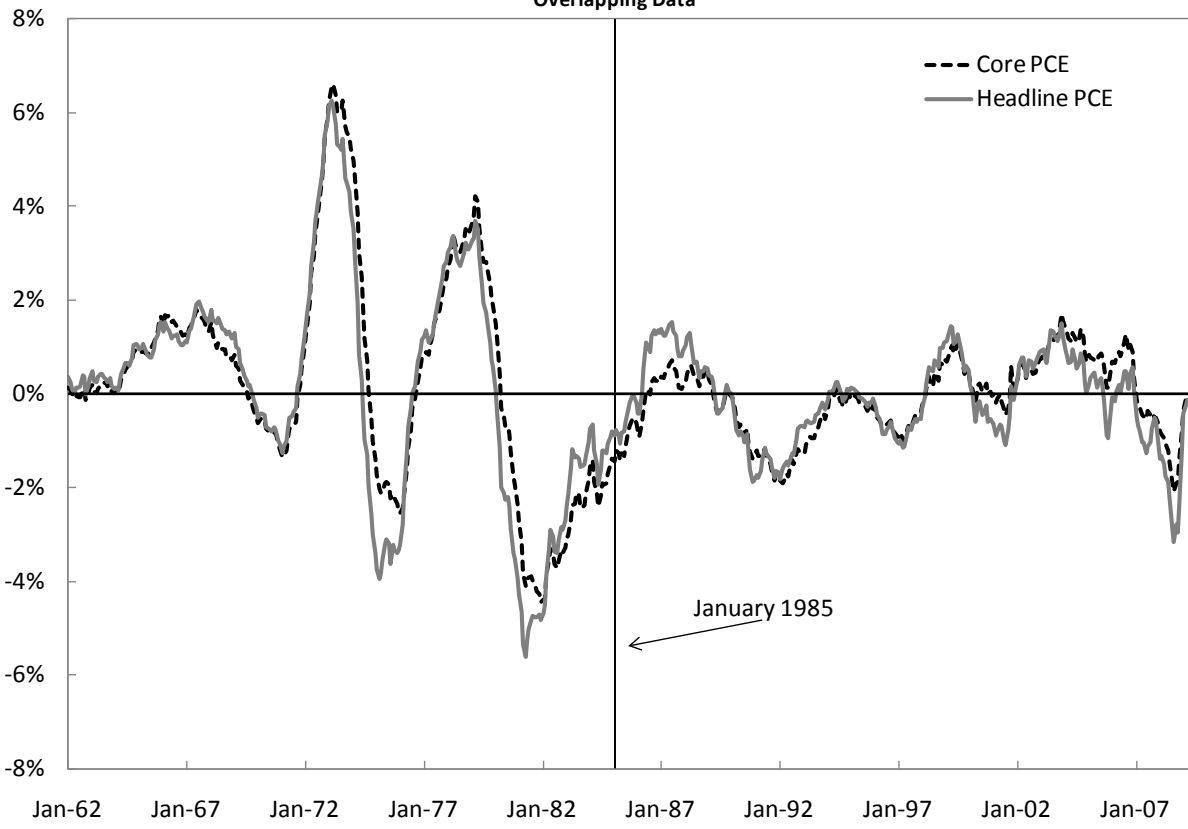
CPI: Two-Year Horizon

Overlapping Data



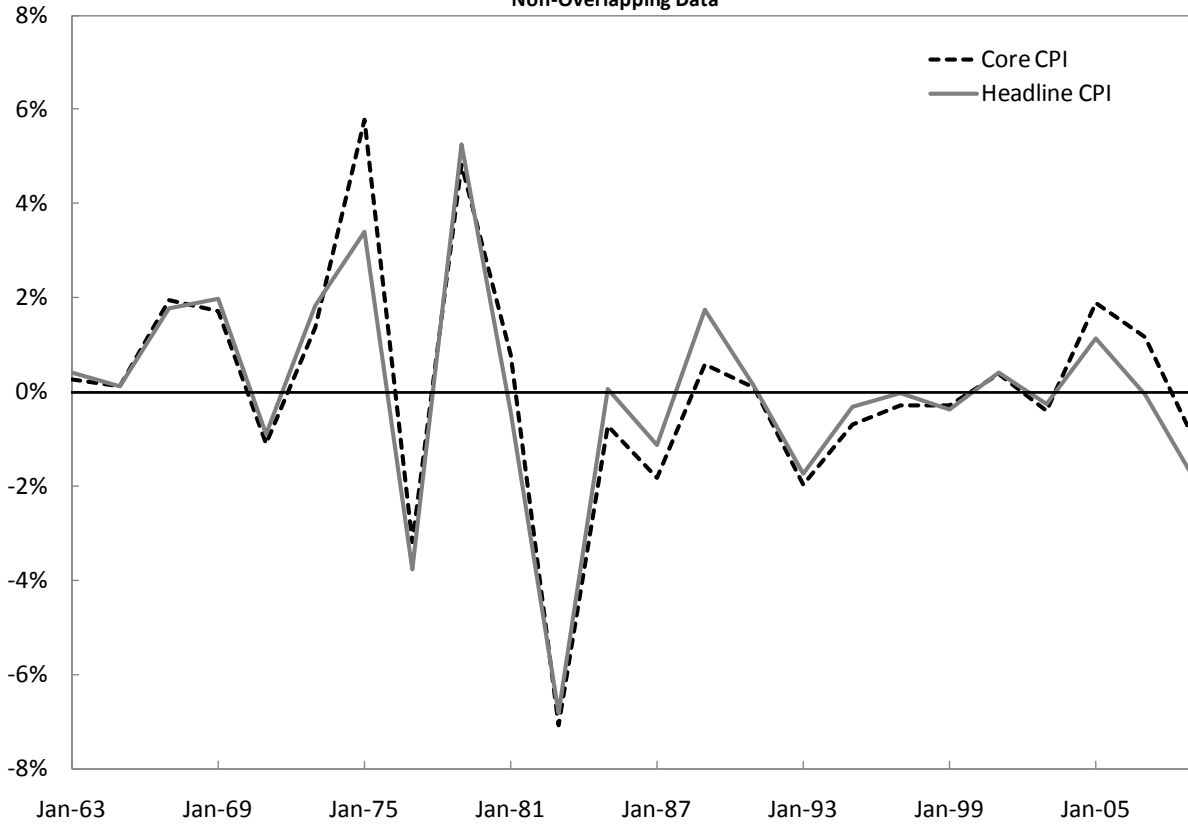
PCE: Two-Year Horizon

Overlapping Data



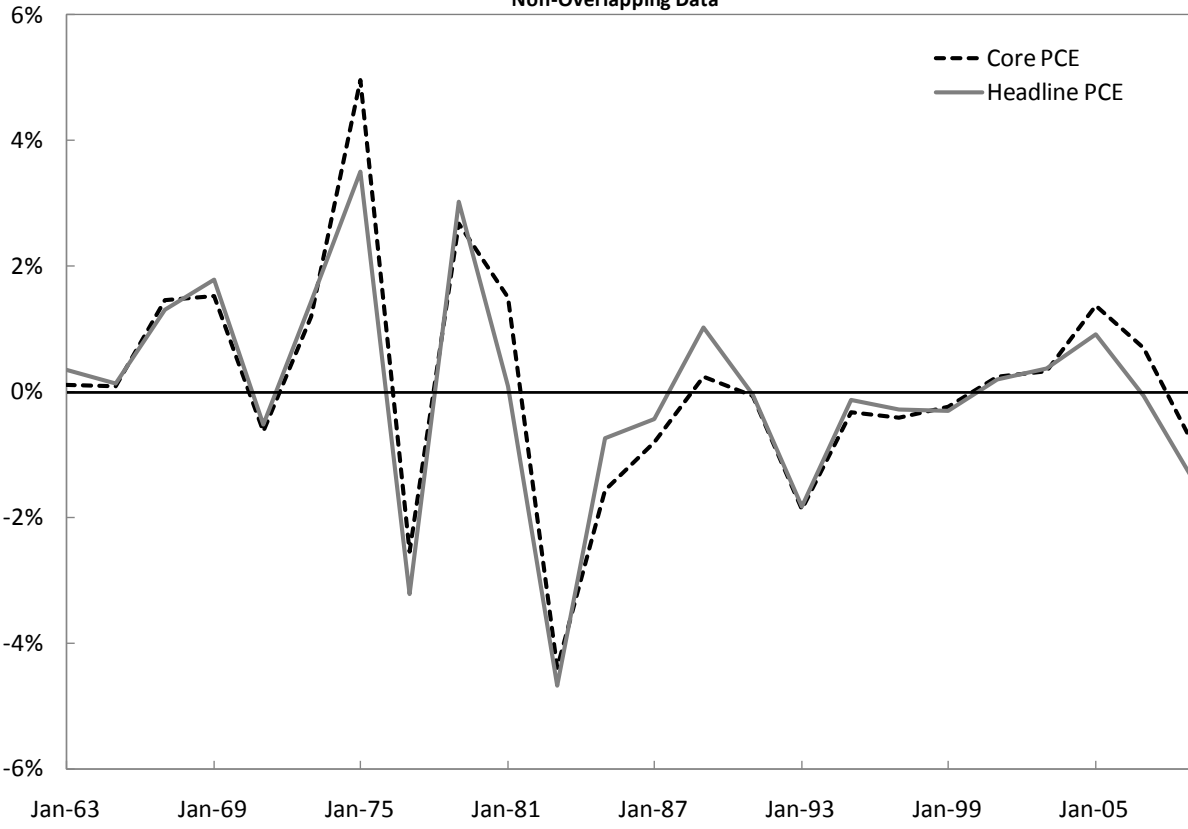
CPI: Two-Year Horizon

Non-Overlapping Data



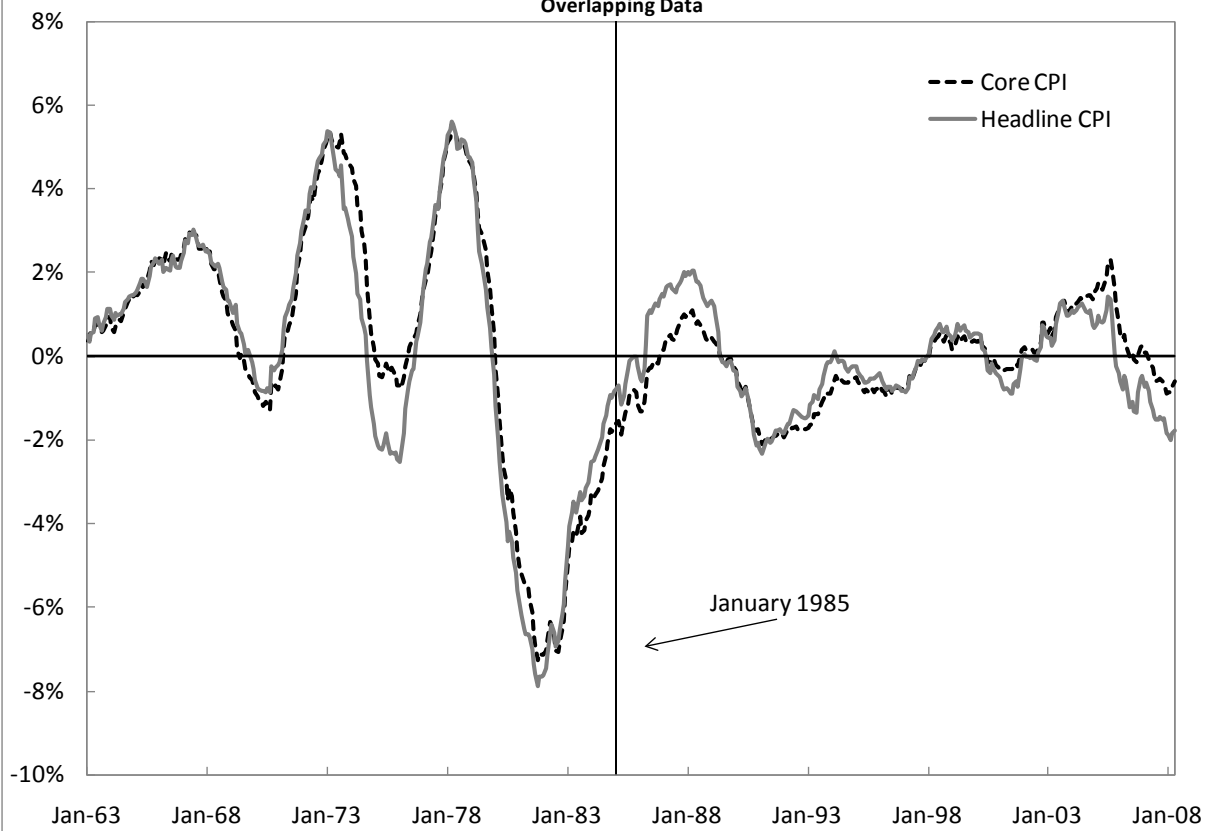
PCE: Two-Year Horizon

Non-Overlapping Data



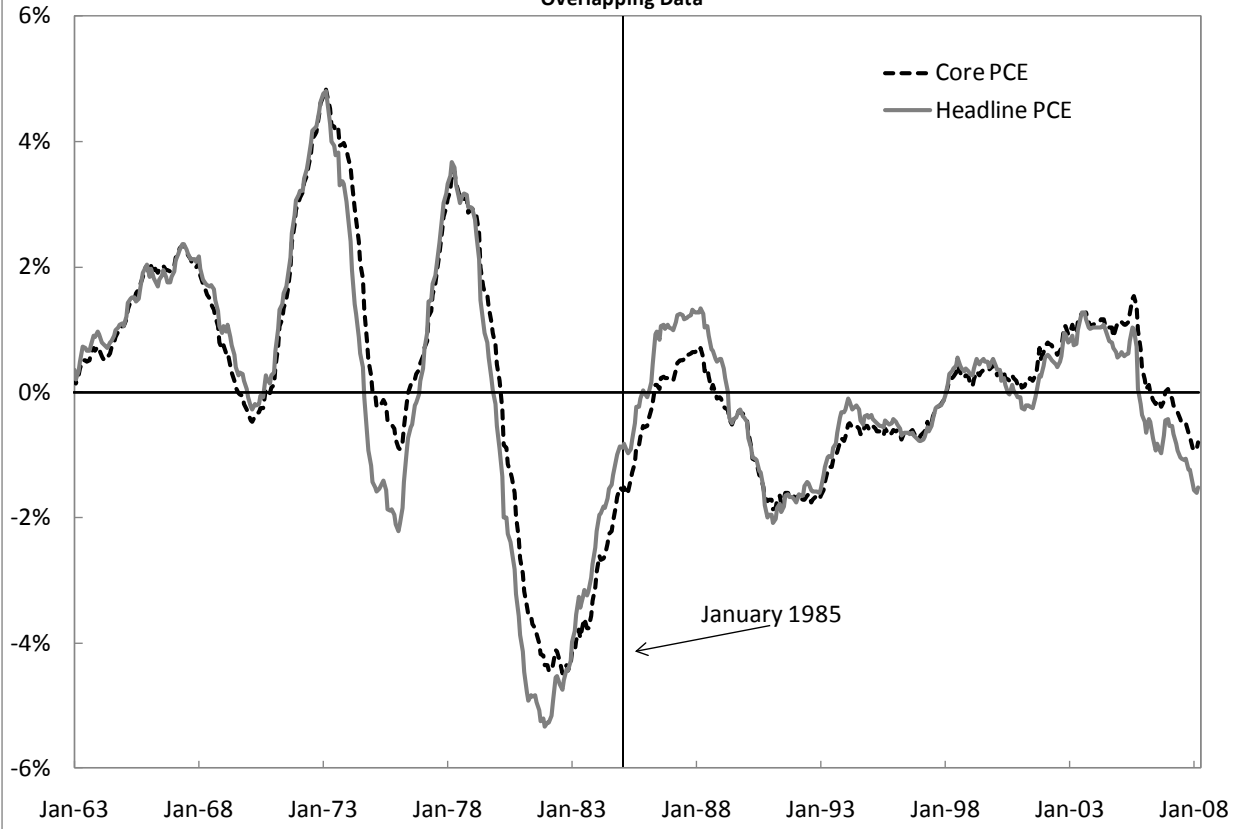
CPI: Three-Year Horizon

Overlapping Data



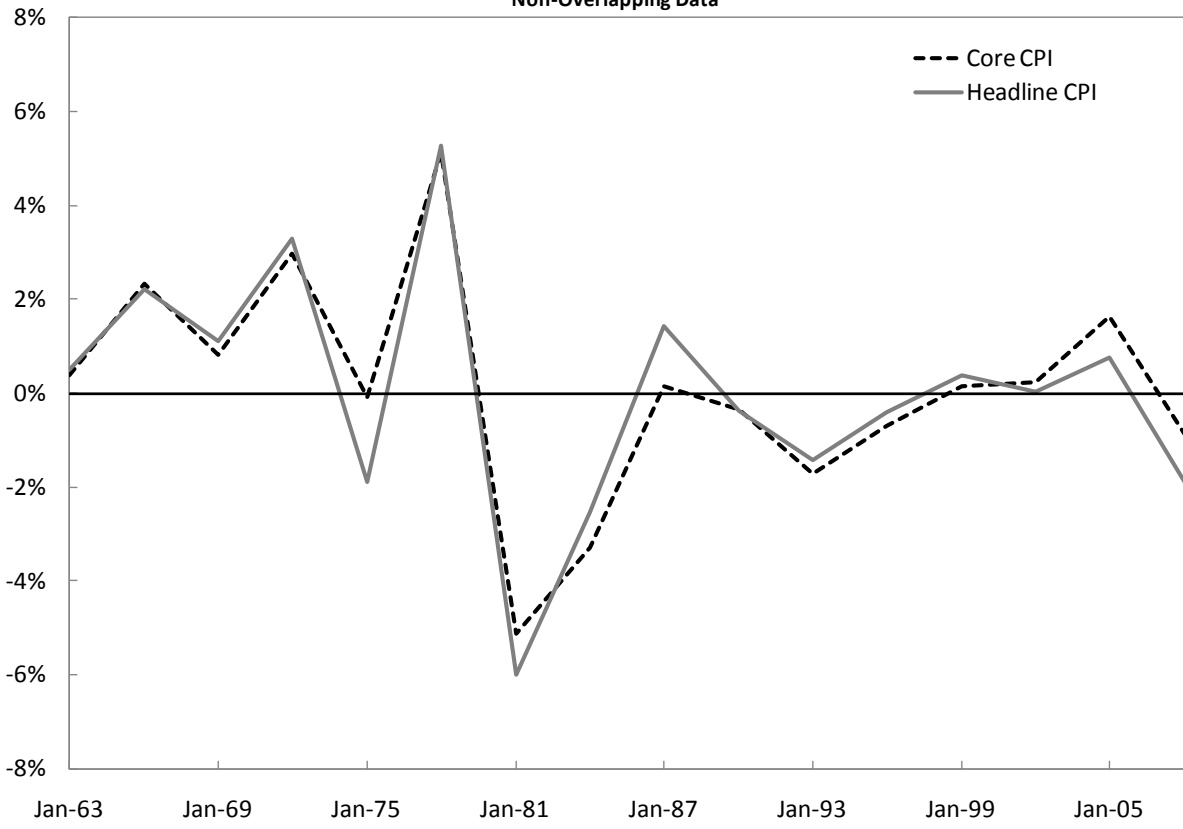
PCE: Three-Year Horizon

Overlapping Data



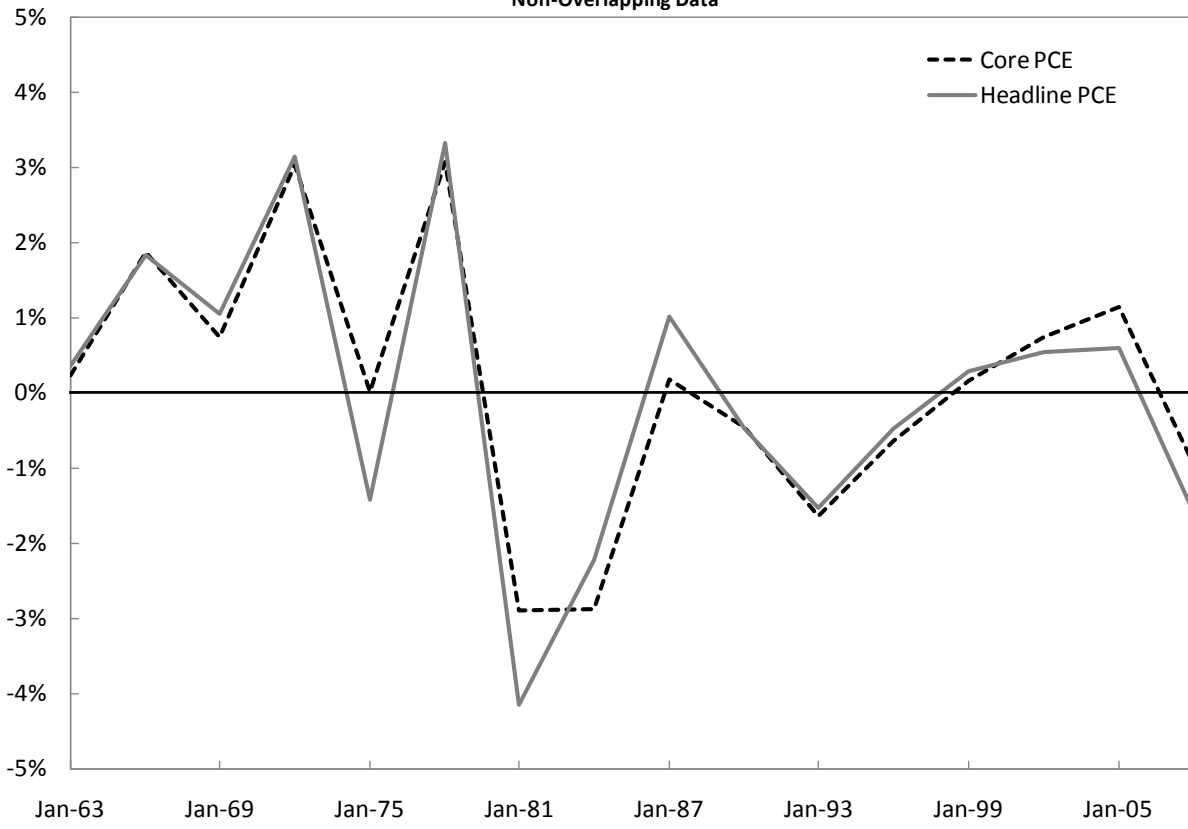
CPI: Three-Year Horizon

Non-Overlapping Data



PCE: Three-Year Horizon

Non-Overlapping Data



Diebold-Mariano Test Results: Three-Year Horizon, Full Sample						
	MSFE			MAFE		
	Difference	t-Statistic	p-Value	Difference	t-Statistic	p-Value
CPI-O	-0.00002	-0.540	0.589	-0.00060	-0.854	0.393
PCE-O	-0.00003	-0.997	0.319	-0.00078	-1.562	0.118
CPI-NO	-0.00009	-2.471	0.014	-0.00228	-2.114	0.035
PCE-NO	-0.00007	-2.975	0.003	-0.00211	-2.117	0.034

Diebold-Mariano Test Results: Two-Year Horizon, Full Sample						
	MSFE			MAFE		
	Difference	t-Statistic	p-Value	Difference	t-Statistic	p-Value
CPI-O	0.00002	0.462	0.644	0.00004	0.043	0.966
PCE-O	-0.00001	-0.530	0.596	-0.00061	-0.877	0.381
CPI-NO	0.00008	4.427	0.000	0.00150	2.571	0.010
PCE-NO	0.00003	3.222	0.001	0.00096	1.758	0.079

Diebold-Mariano Test Results: Three-Year Horizon, Post-1985						
	MSFE			MAFE		
	Difference	t-Statistic	p-Value	Difference	t-Statistic	p-Value
CPI-O	0.00003	0.562	0.574	-0.00011	-0.084	0.933
PCE-O	0.00001	0.519	0.604	-0.00004	-0.056	0.955

Diebold-Mariano Test Results: Two-Year Horizon, Post-1985						
	MSFE			MAFE		
	Difference	t-Statistic	p-Value	Difference	t-Statistic	p-Value
CPI-O	>-0.00001	-0.118	0.906	-0.00004	-0.027	0.978
PCE-O	<0.00001	0.054	0.957	-0.00022	-0.197	0.844

Diebold-Mariano Test Results: One-Year Predictions for Three-Year Horizon, Full Sample						
	MSFE			MAFE		
	Difference	t-Statistic	p-Value	Difference	t-Statistic	p-Value
CPI-O	<0.00001	0.011	0.991	-0.00041	-0.371	0.710
PCE-O	-0.00003	-0.719	0.472	-0.00096	-1.110	0.267
CPI-NO	-0.00003	-1.084	0.279	-0.00076	-0.114	0.910
PCE-NO	-0.00005	-2.025	0.043	-0.00094	-2.071	0.038