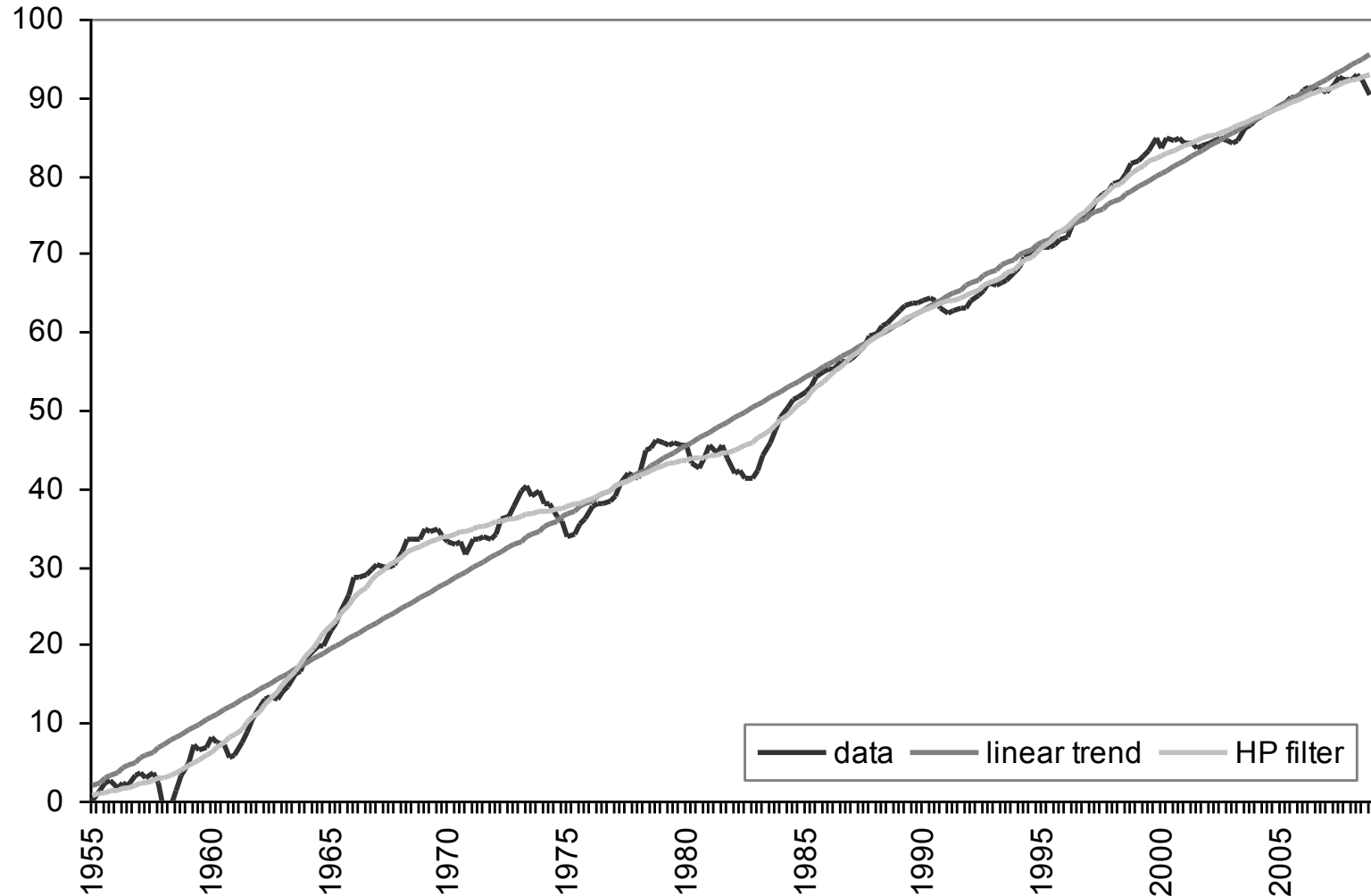


# **Some Facts About Business Cycles**

# Real GDP p.c. in the U.S.

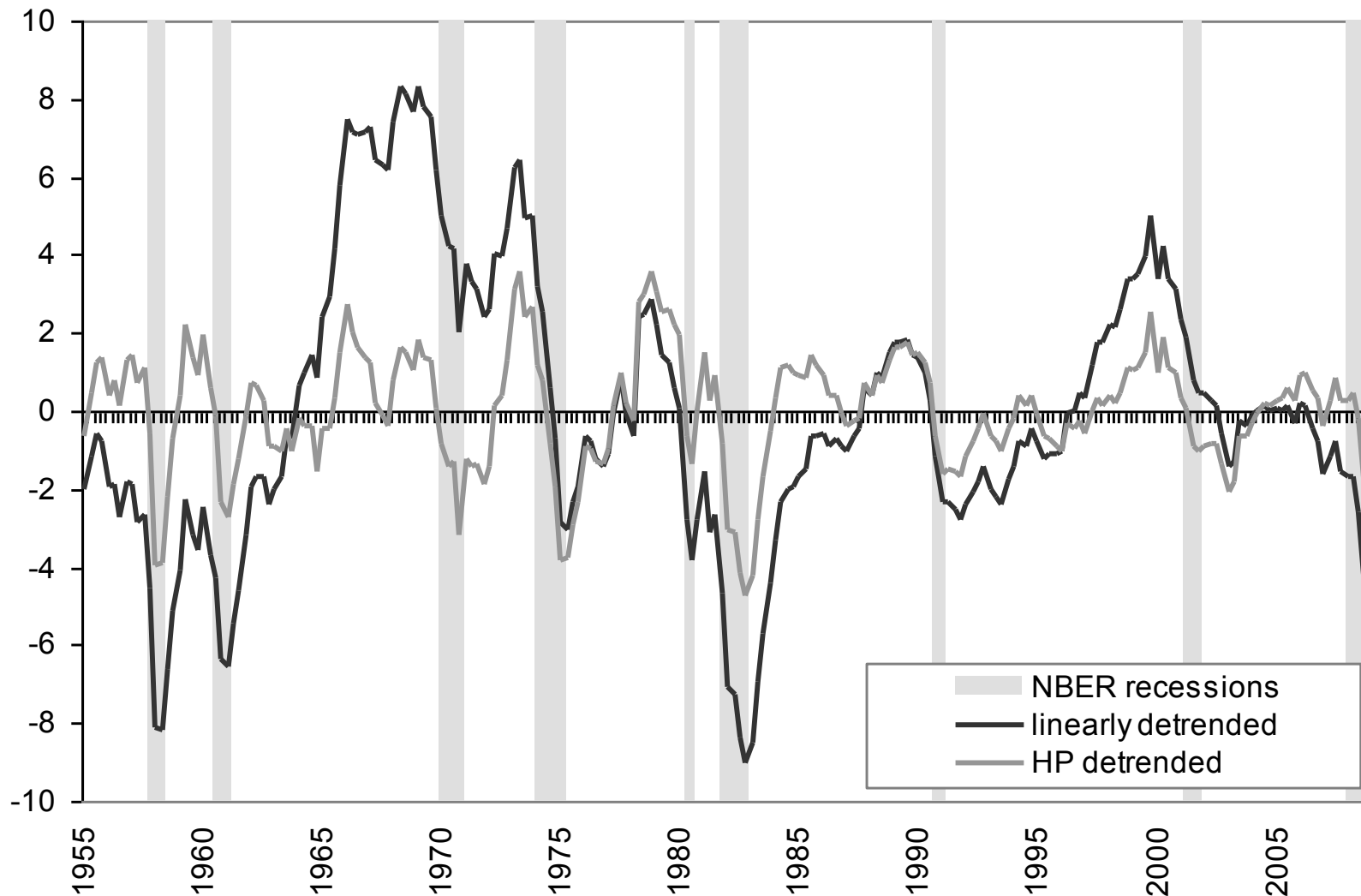
( $100 \cdot \log, 1955:1=0$ )



Source: BEA

# Cyclical component of GDP p.c. in the U.S.

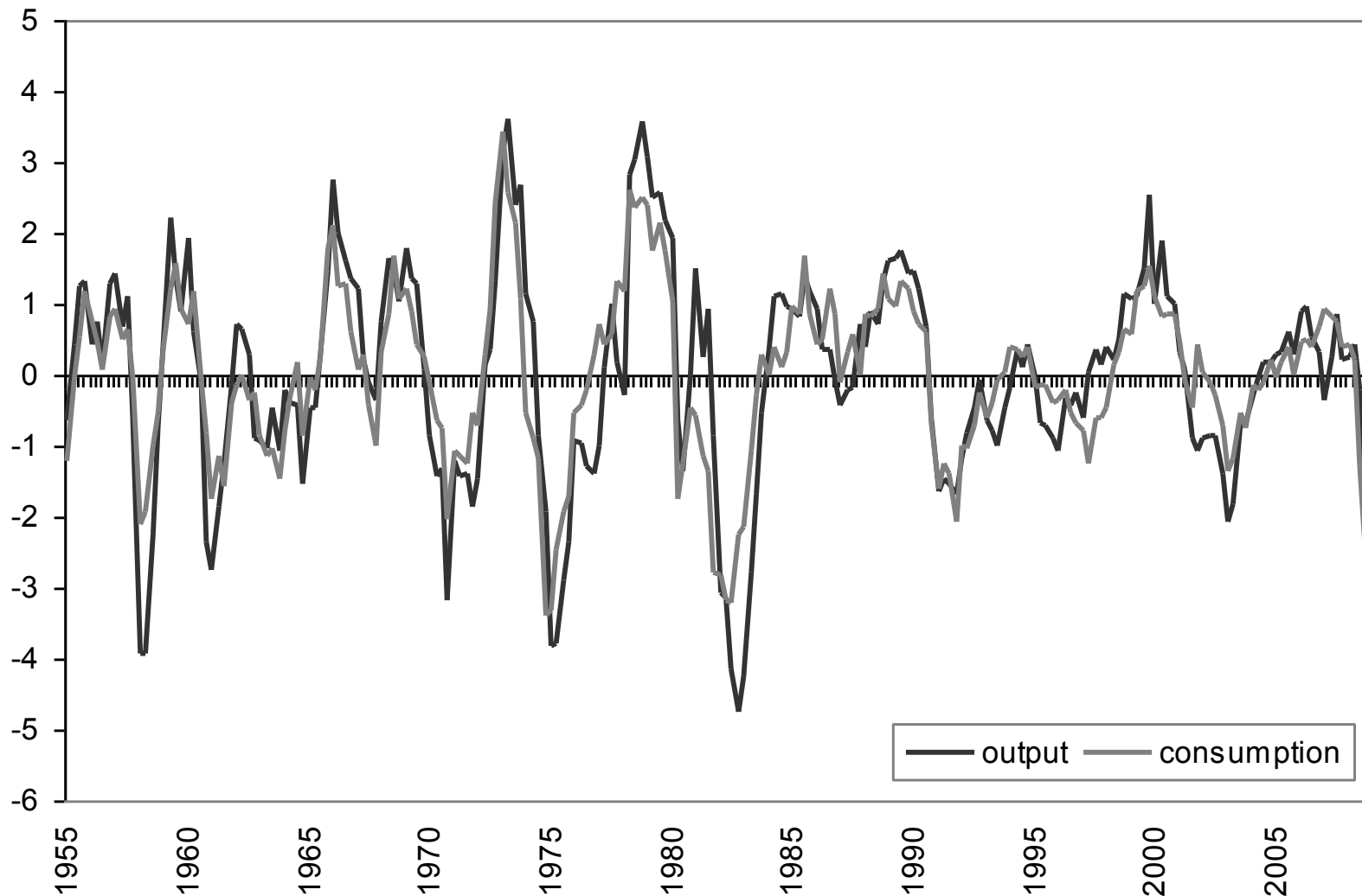
(100\*log deviations from trend)



Source: BEA

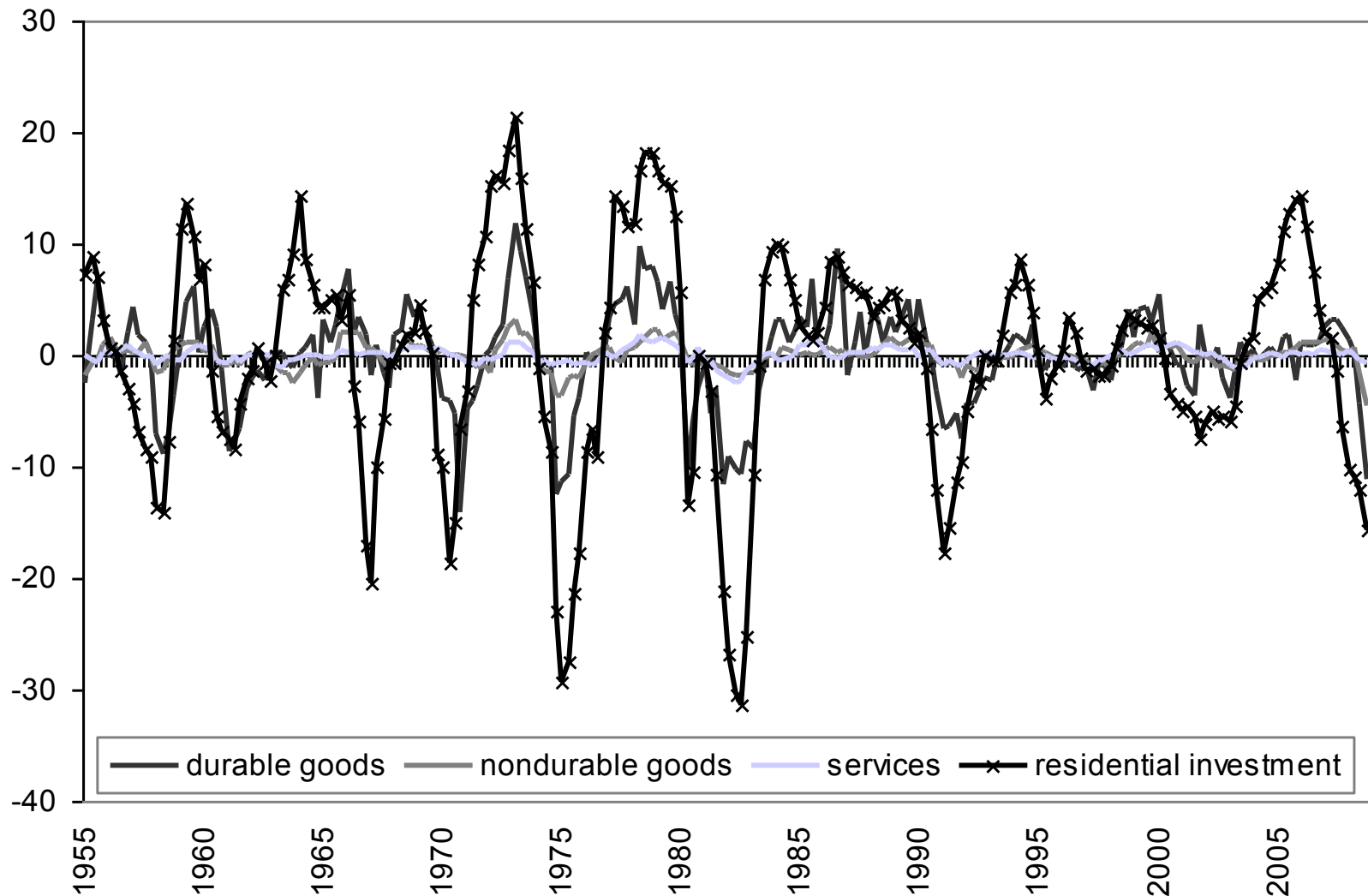
# Output and consumption in the U.S.

(HP-detrended variables)



# Household expenditures in the U.S.

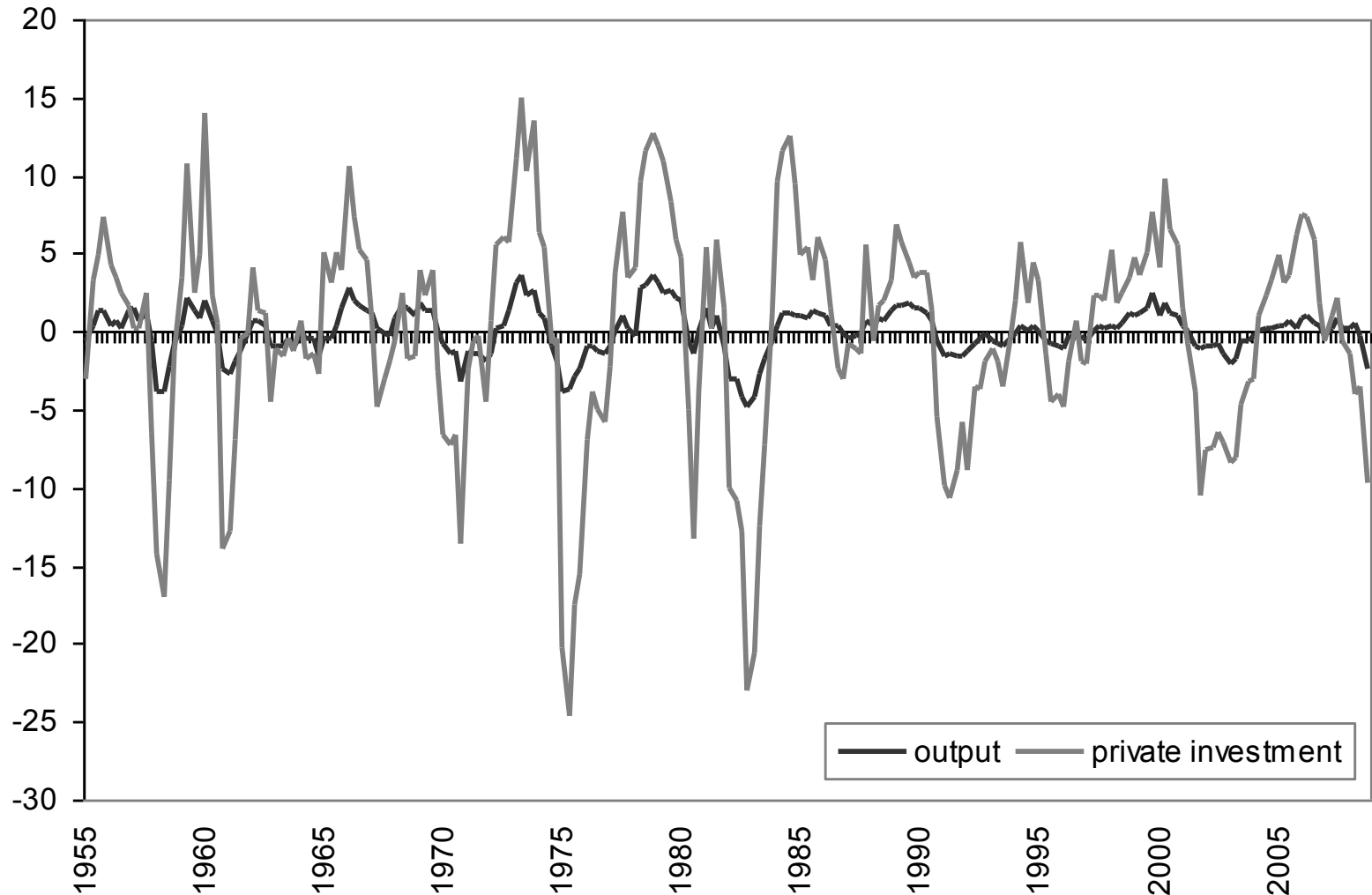
(HP-detrended variables)



Source: BEA

# Output and private investment in the U.S.

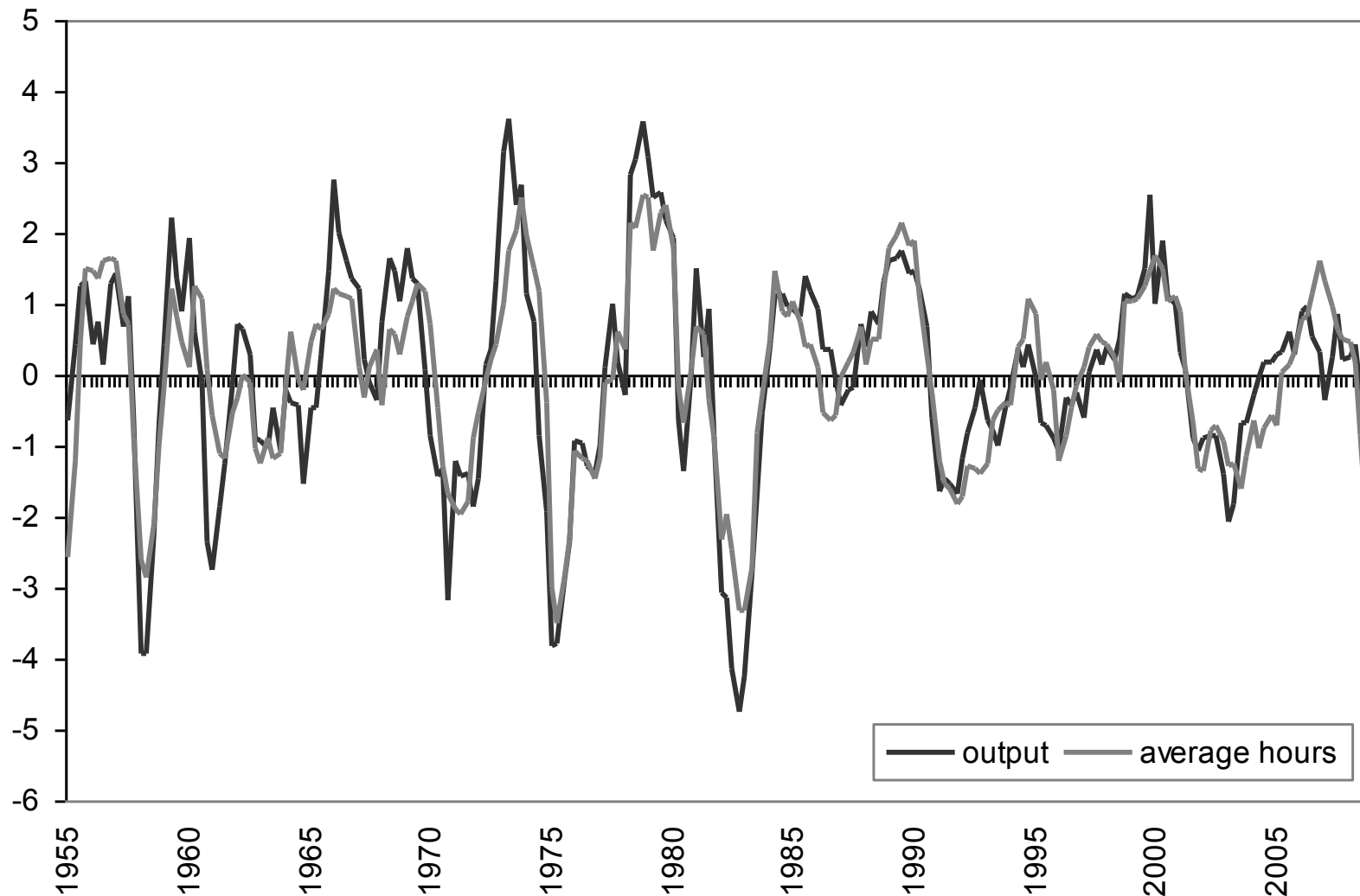
(HP-detrended variables)



Source: BEA

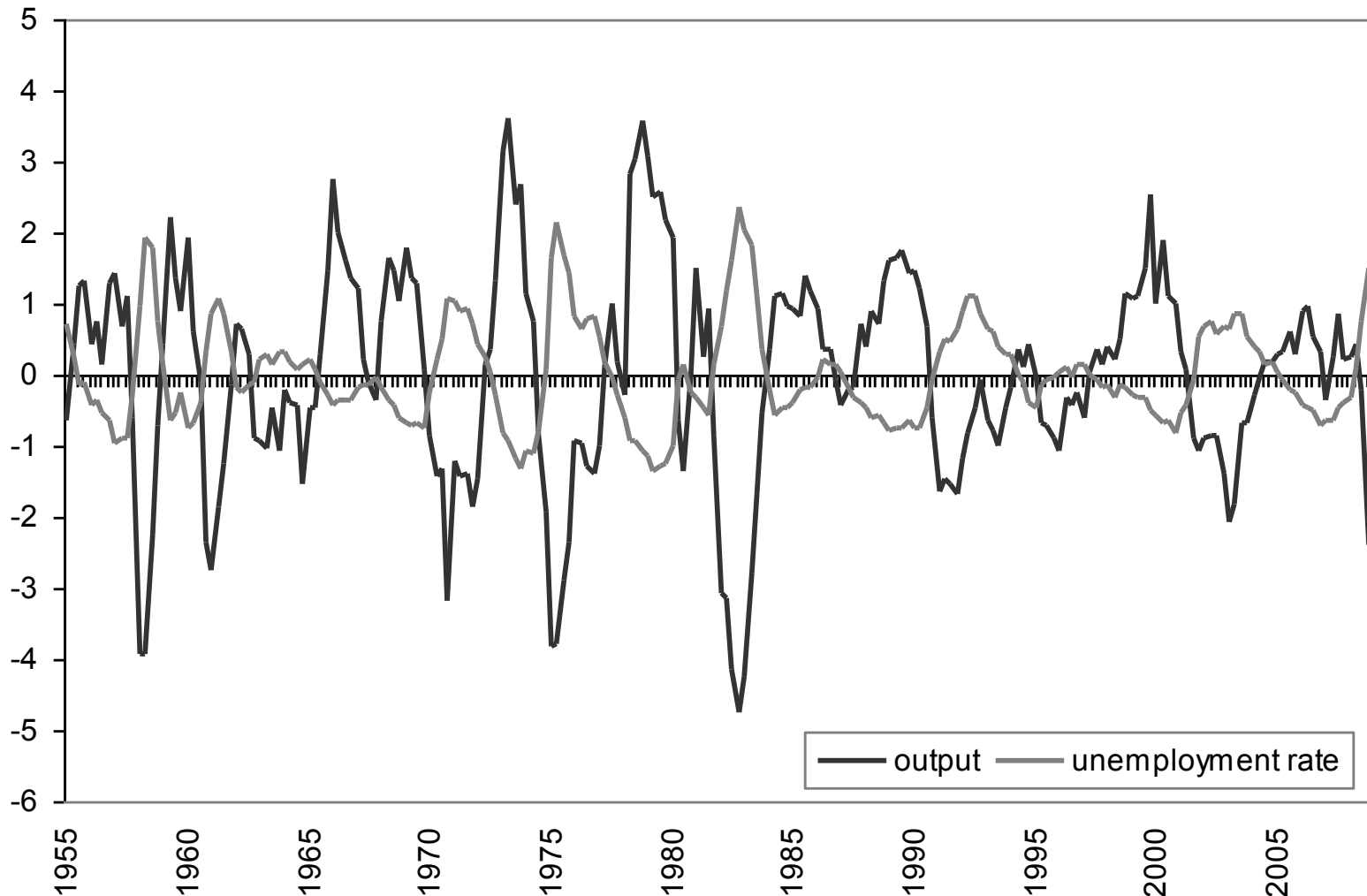
# Output and hours worked in the U.S.

(HP-detrended variables)



# Output and unemployment in the U.S.

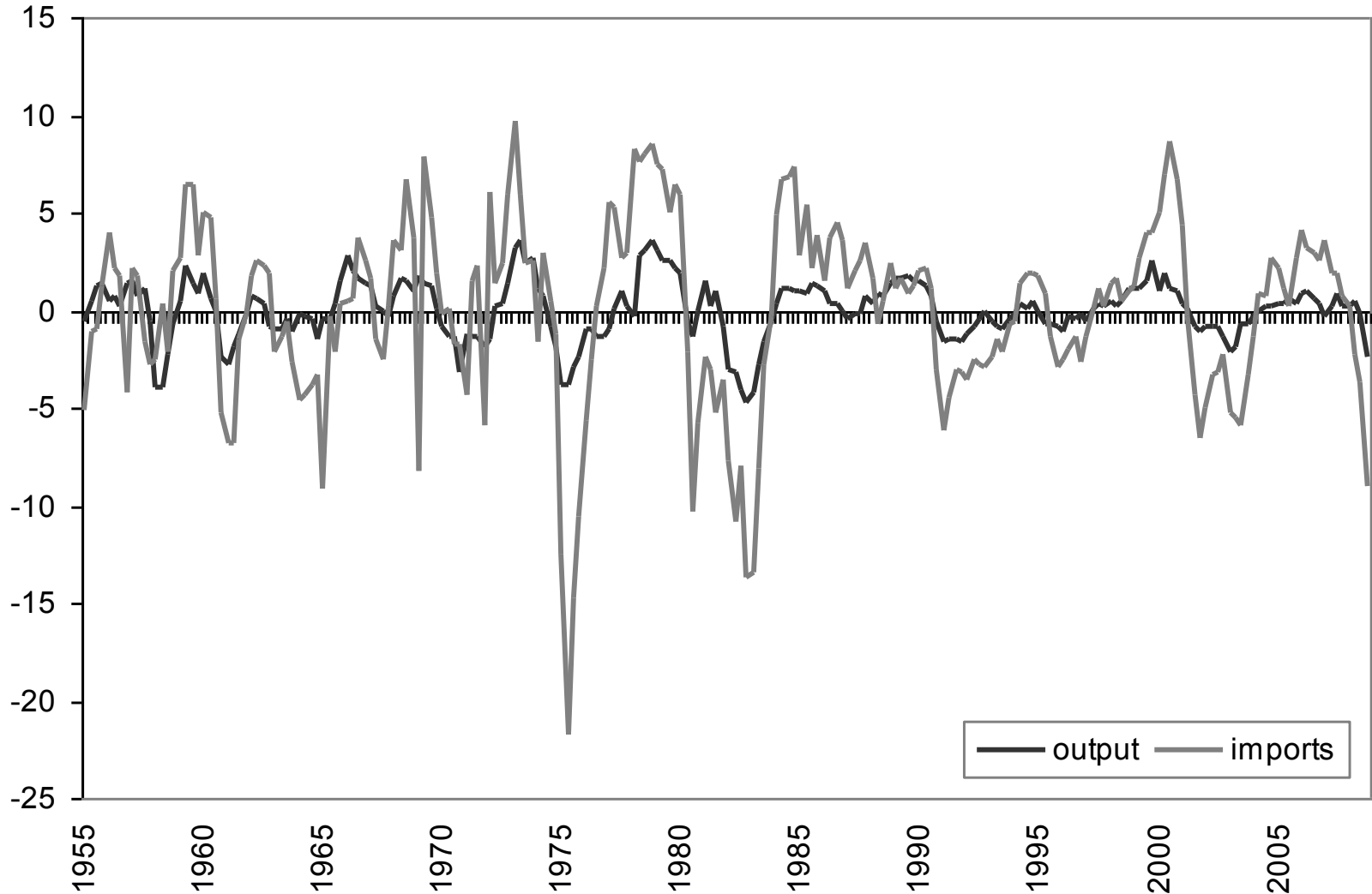
(HP-detrended variables)



Source: BEA, BLS

# Output and imports in the U.S.

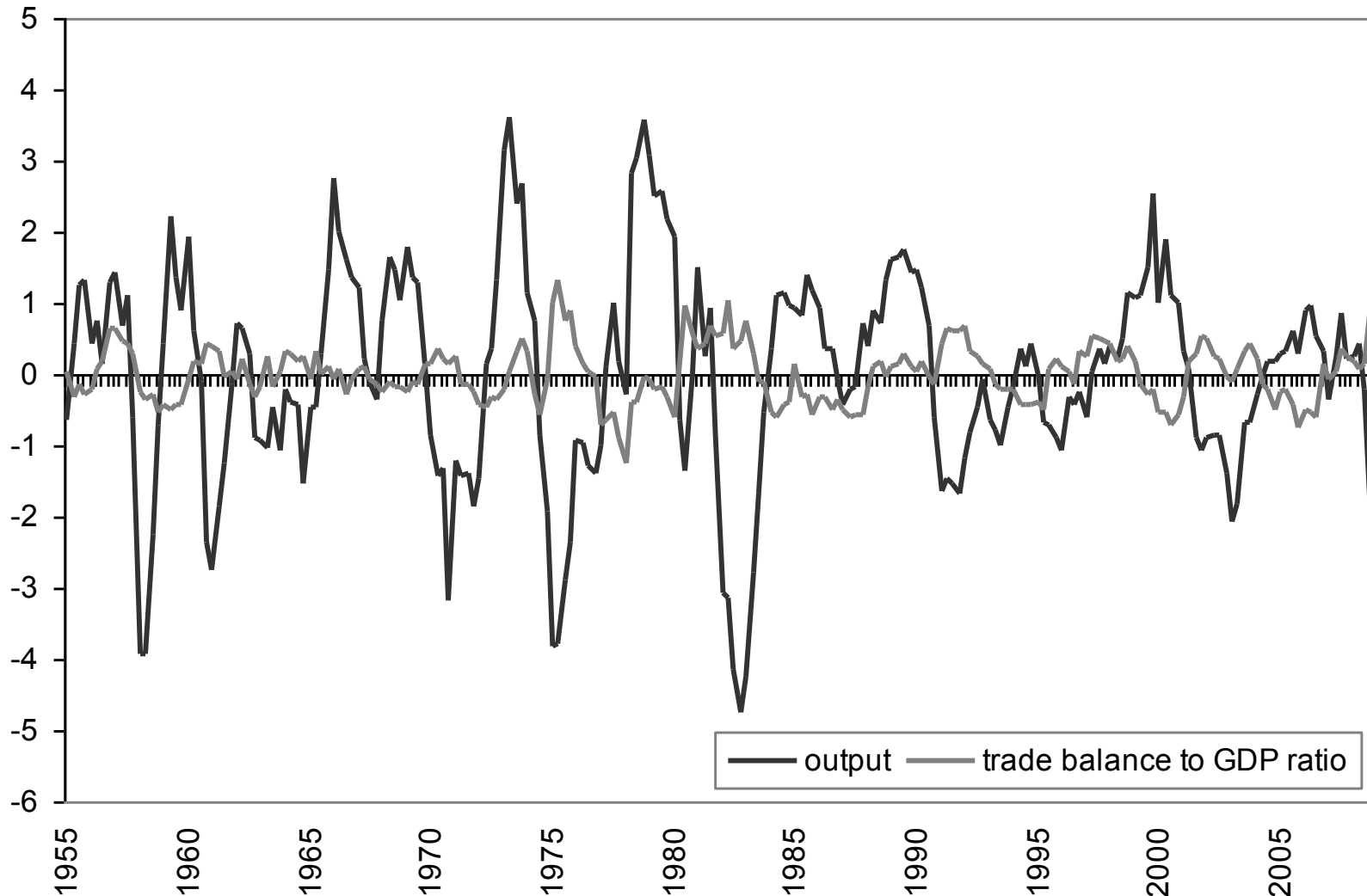
(HP-detrended variables)



Source: BEA

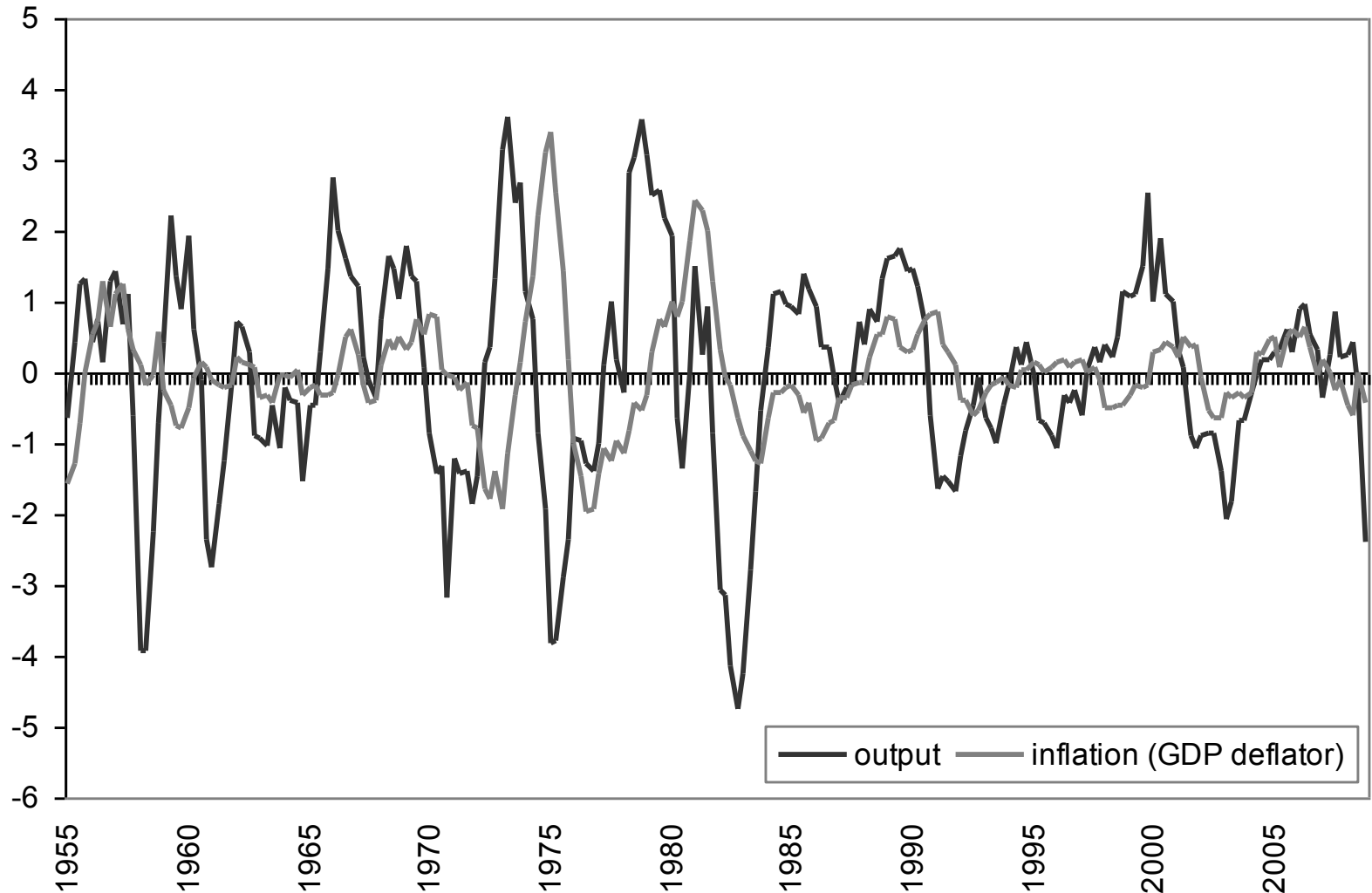
# Output and trade balance in the U.S.

(HP-detrended variables)



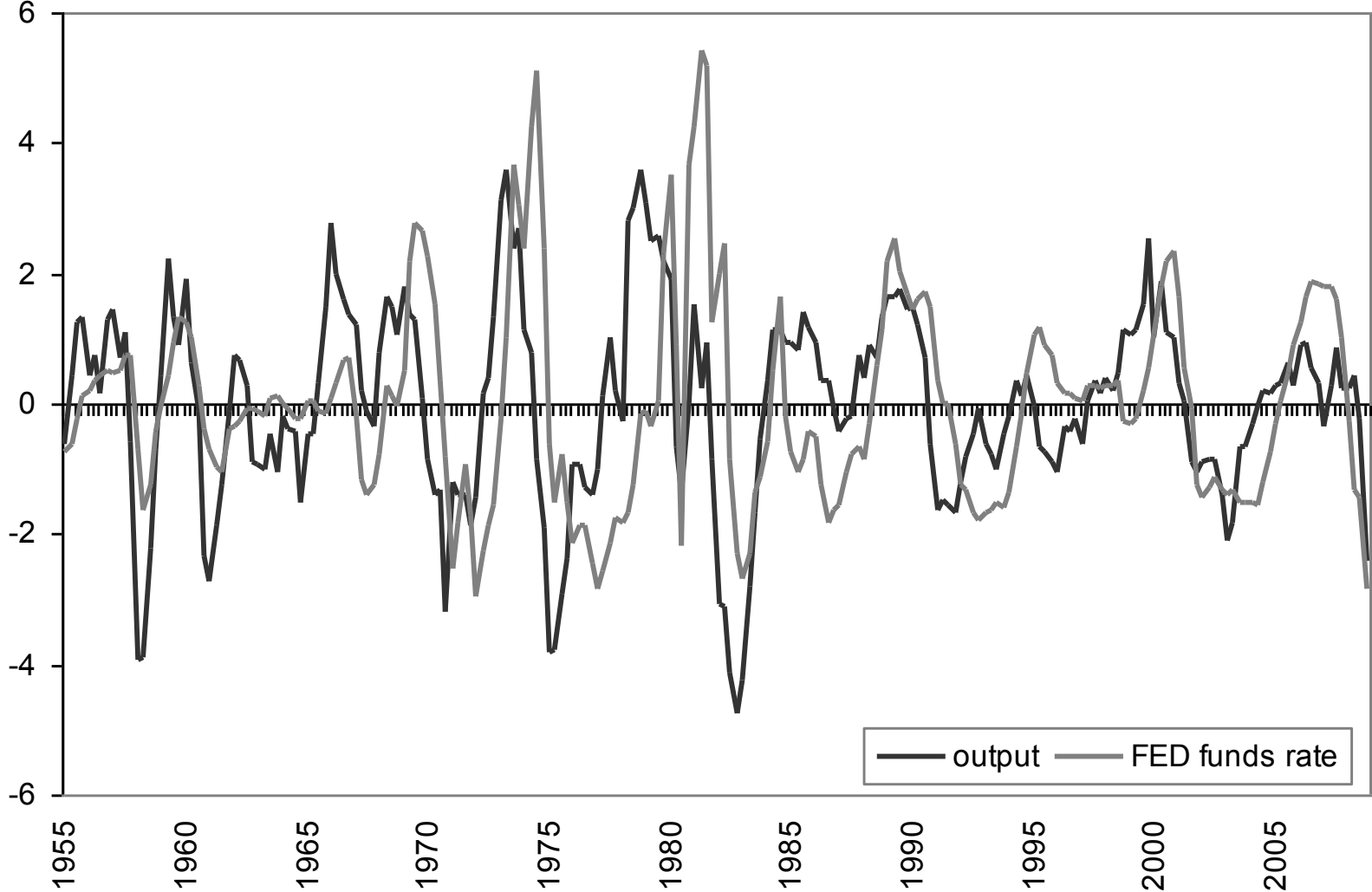
# Output and inflation in the U.S.

(HP-detrended variables)



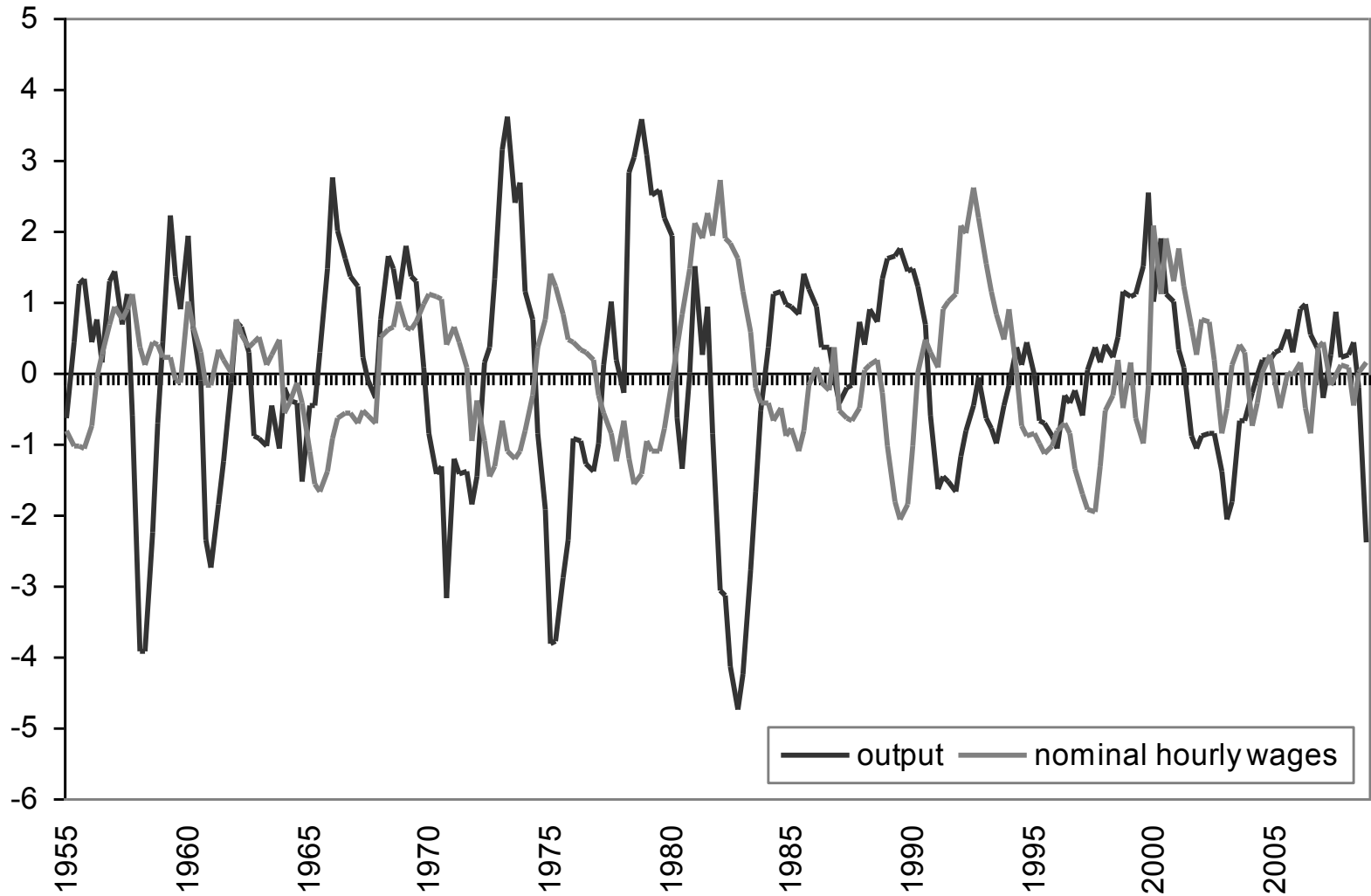
# Output and short-term interest rates in the U.S.

(HP-detrended variables)



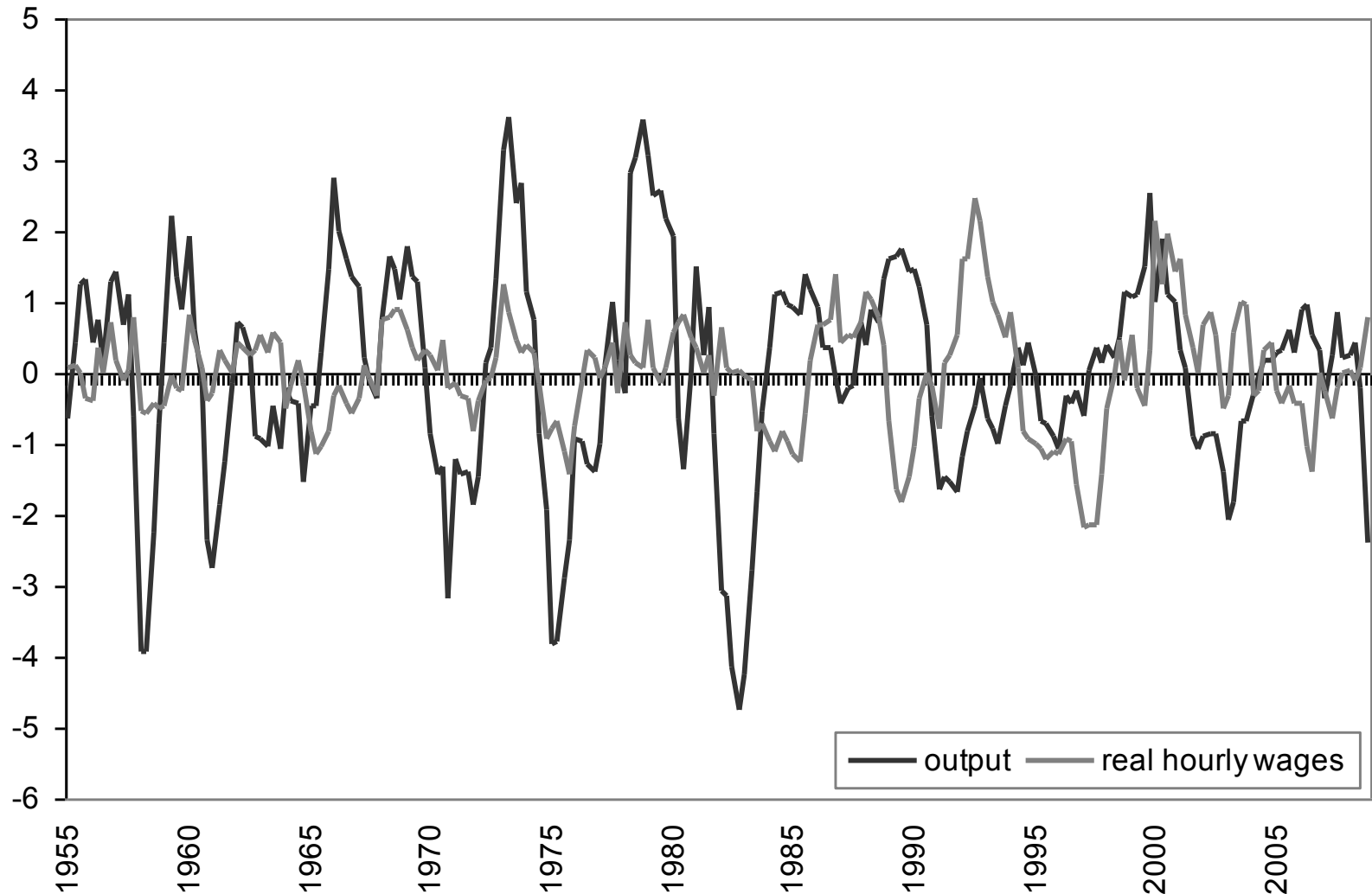
# Output and nominal wages in the U.S.

(HP-detrended variables)



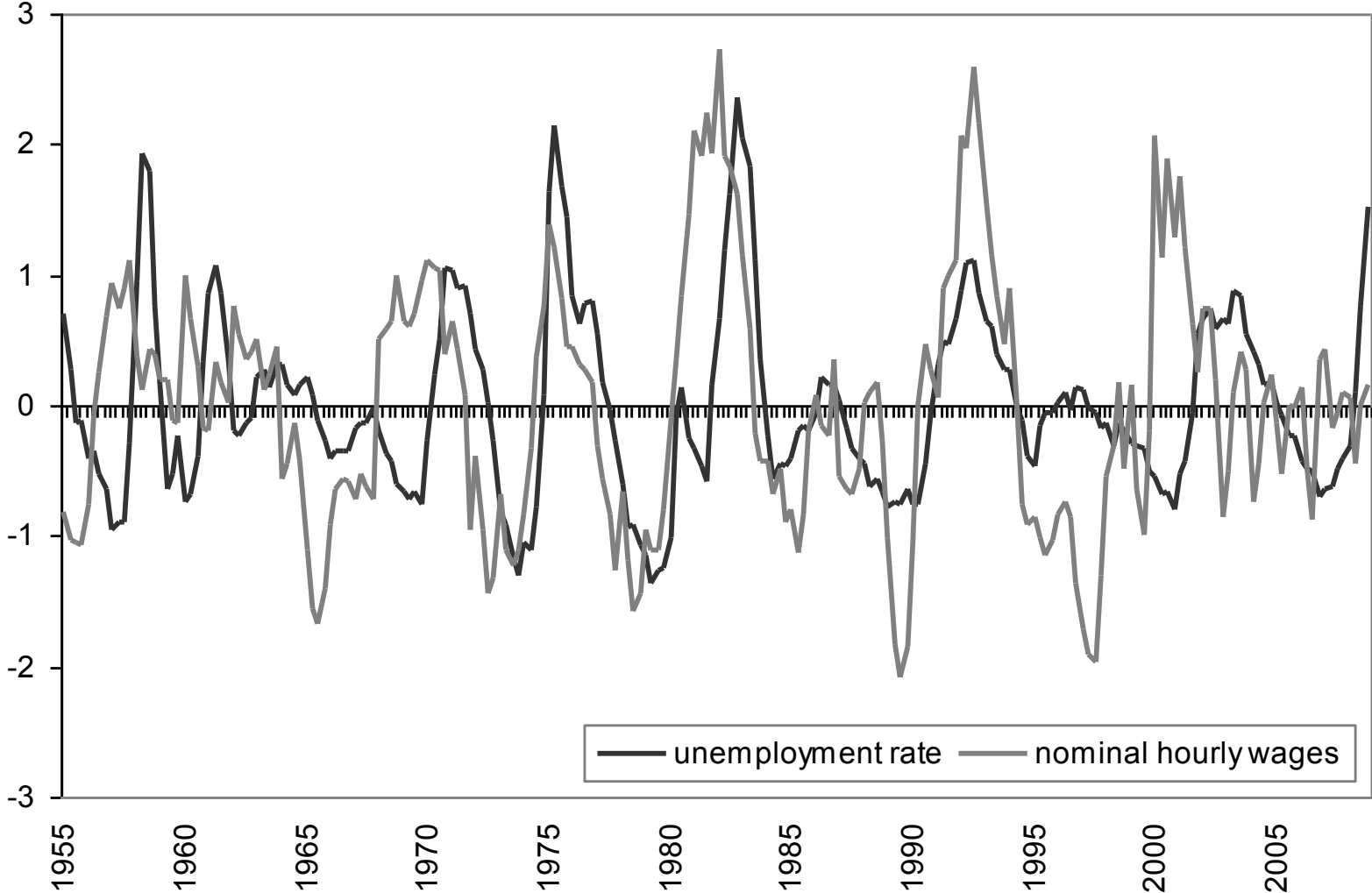
# Output and real wages in the U.S.

(HP-detrended variables)



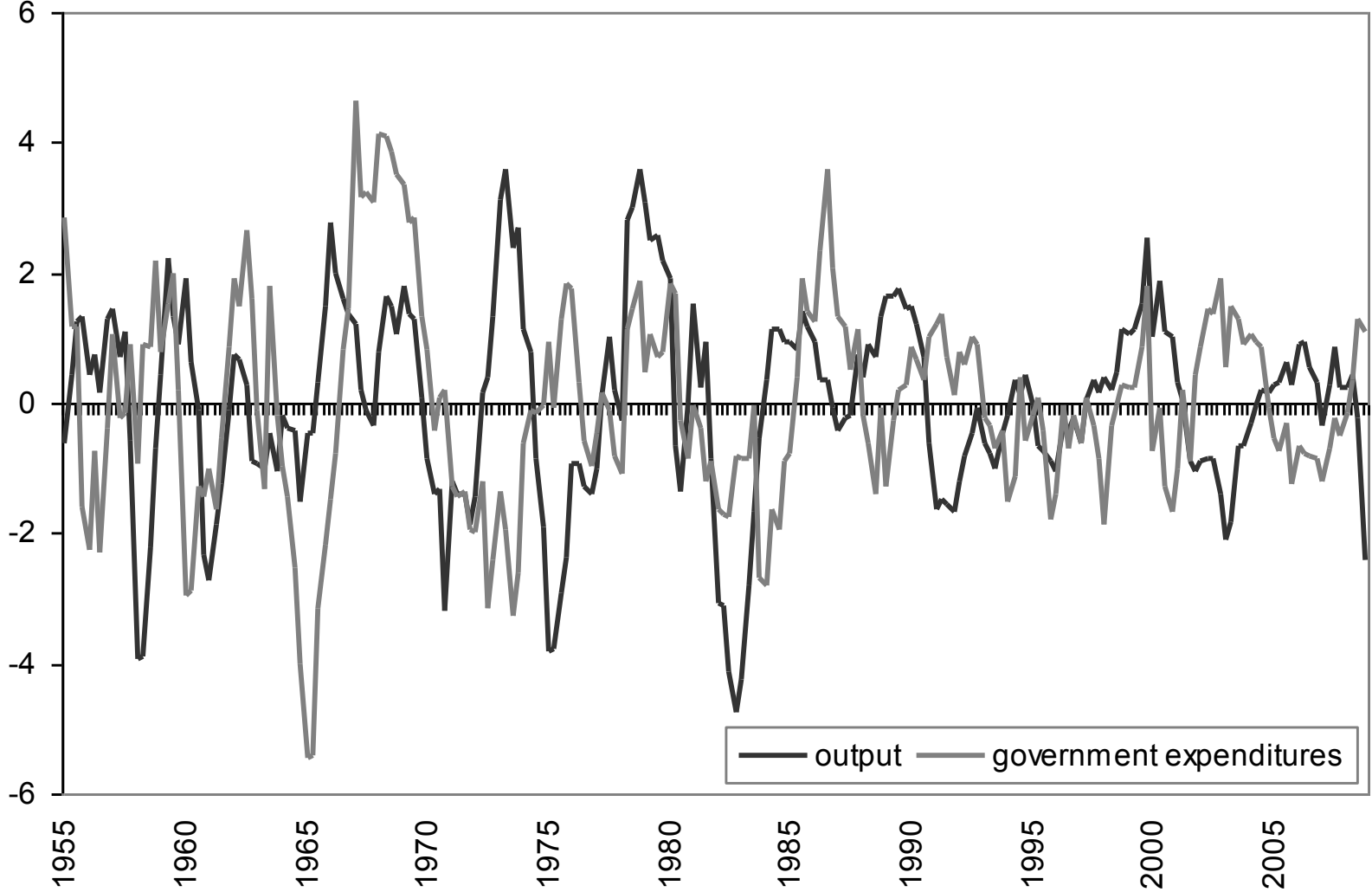
# Unemployment and wages in the U.S.

(HP-detrended variables)



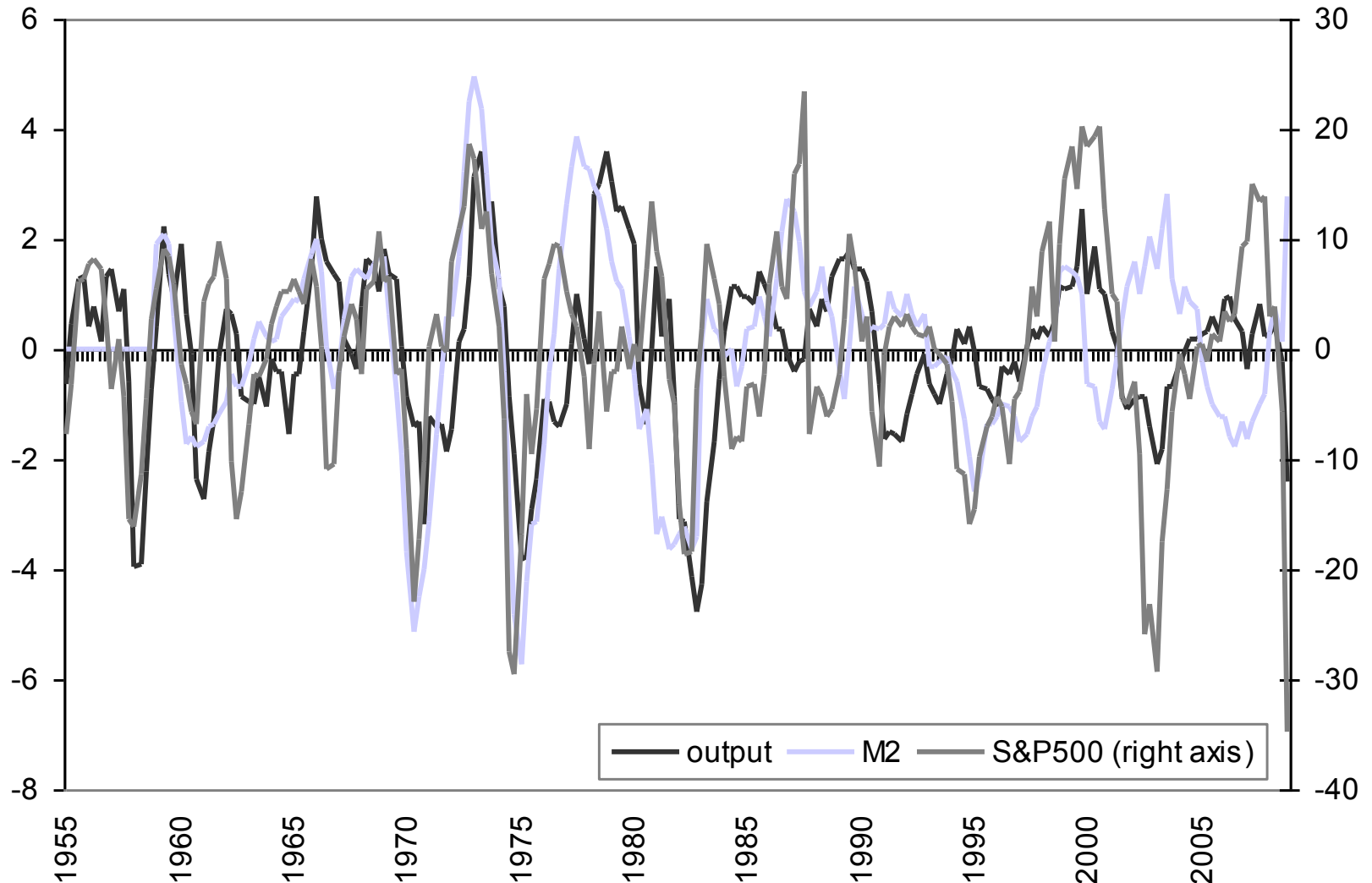
# Output and government expenditures in the U.S.

(HP-detrended variables)



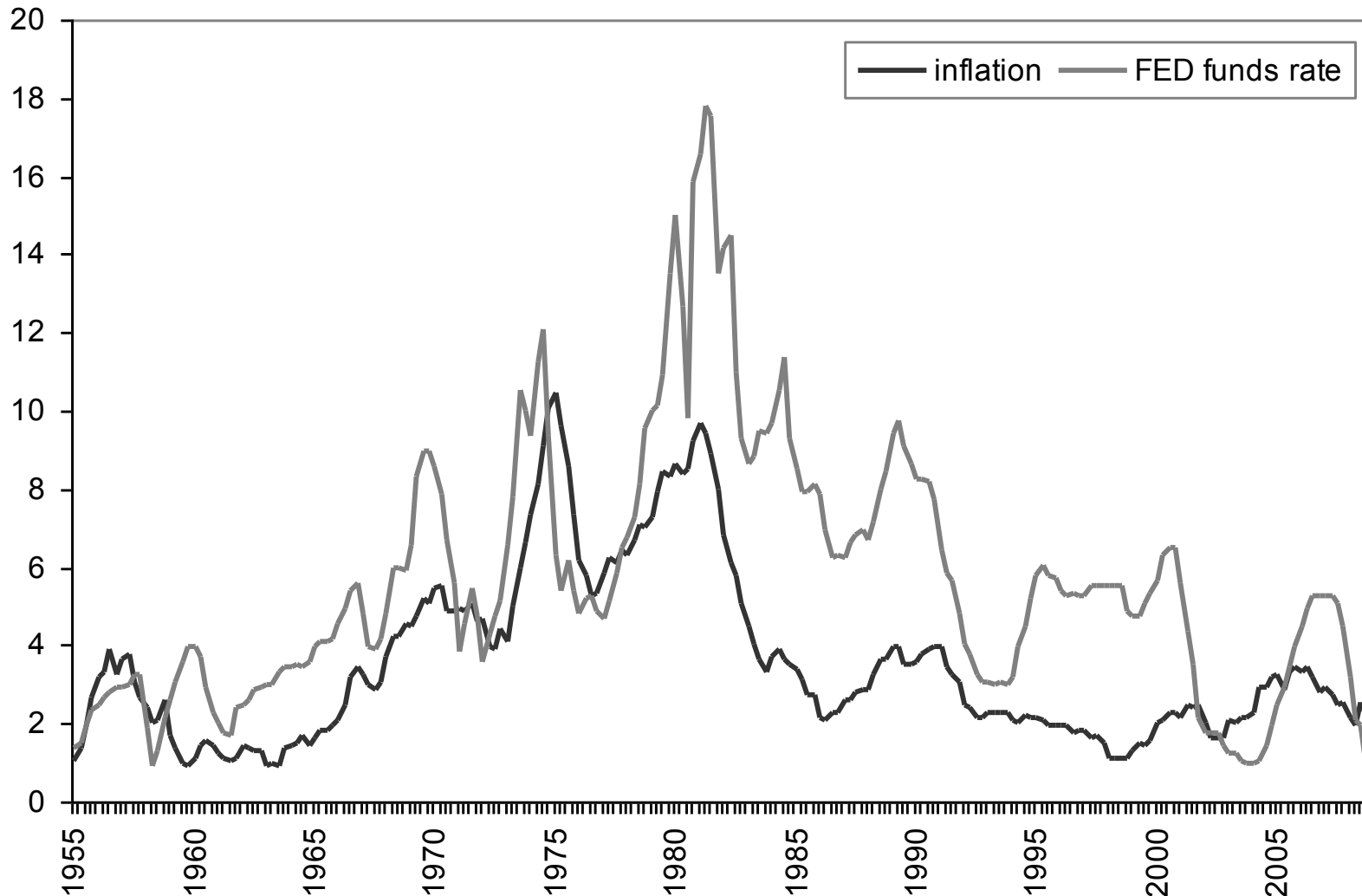
# Output and financial variables in the U.S.

(HP-detrended, deflated with the GDP deflator)



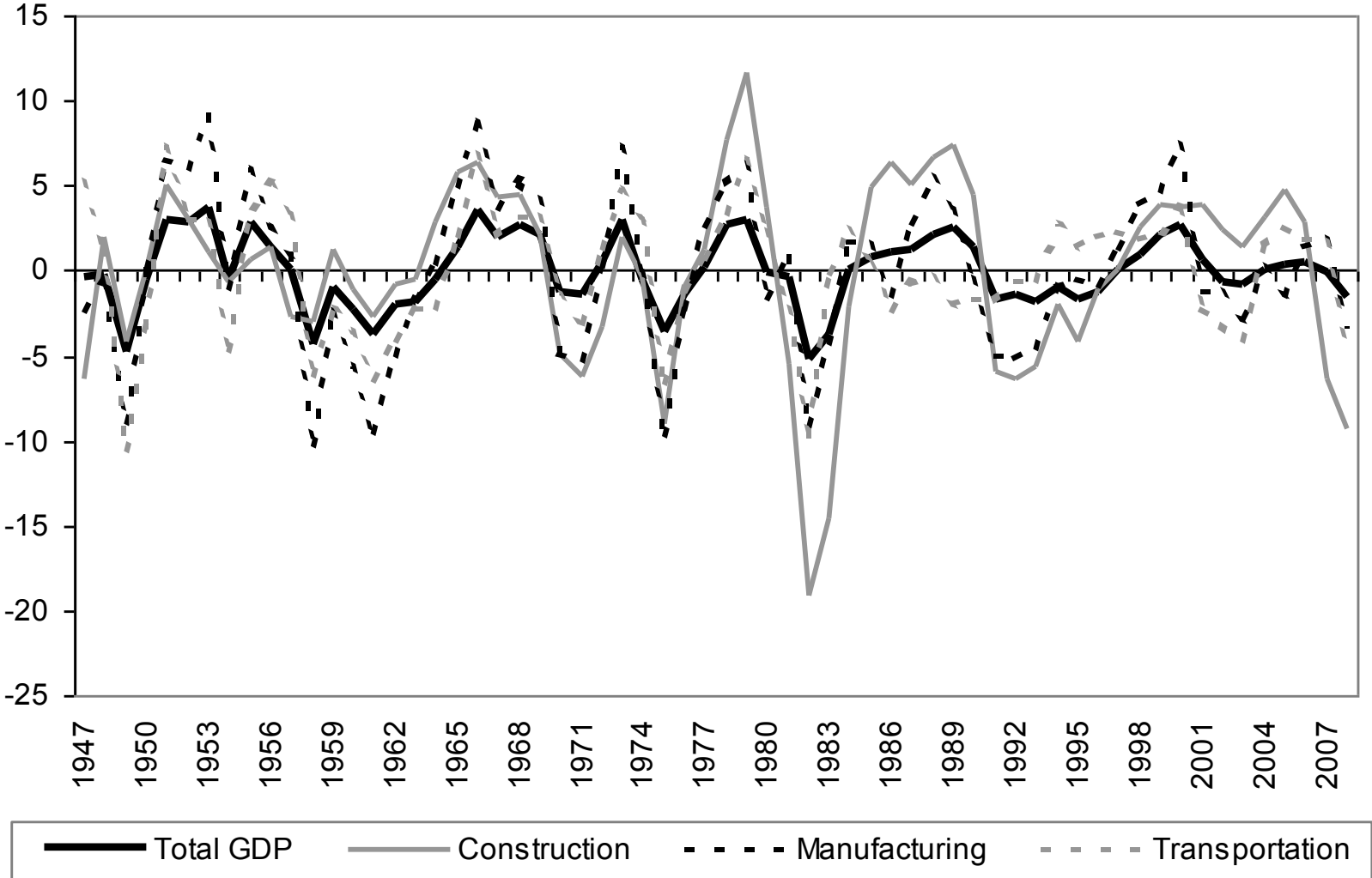
Source: BEA, FED, S&P 17

# Inflation and short-term interest rates in the U.S.



# GDP in traditional industries in the U.S.

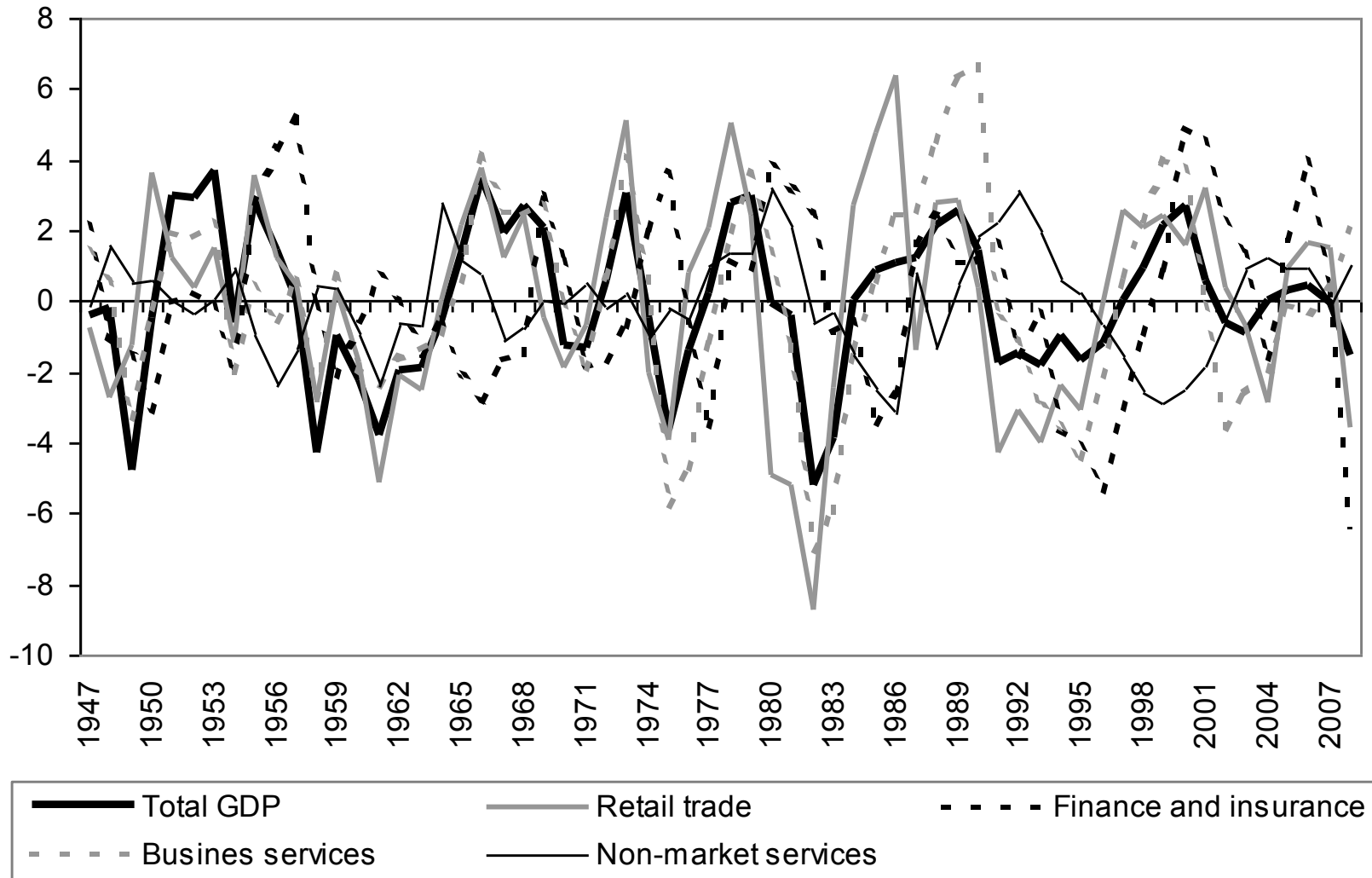
(HP-detrended)



Source: BEA

# GDP in services in the U.S.

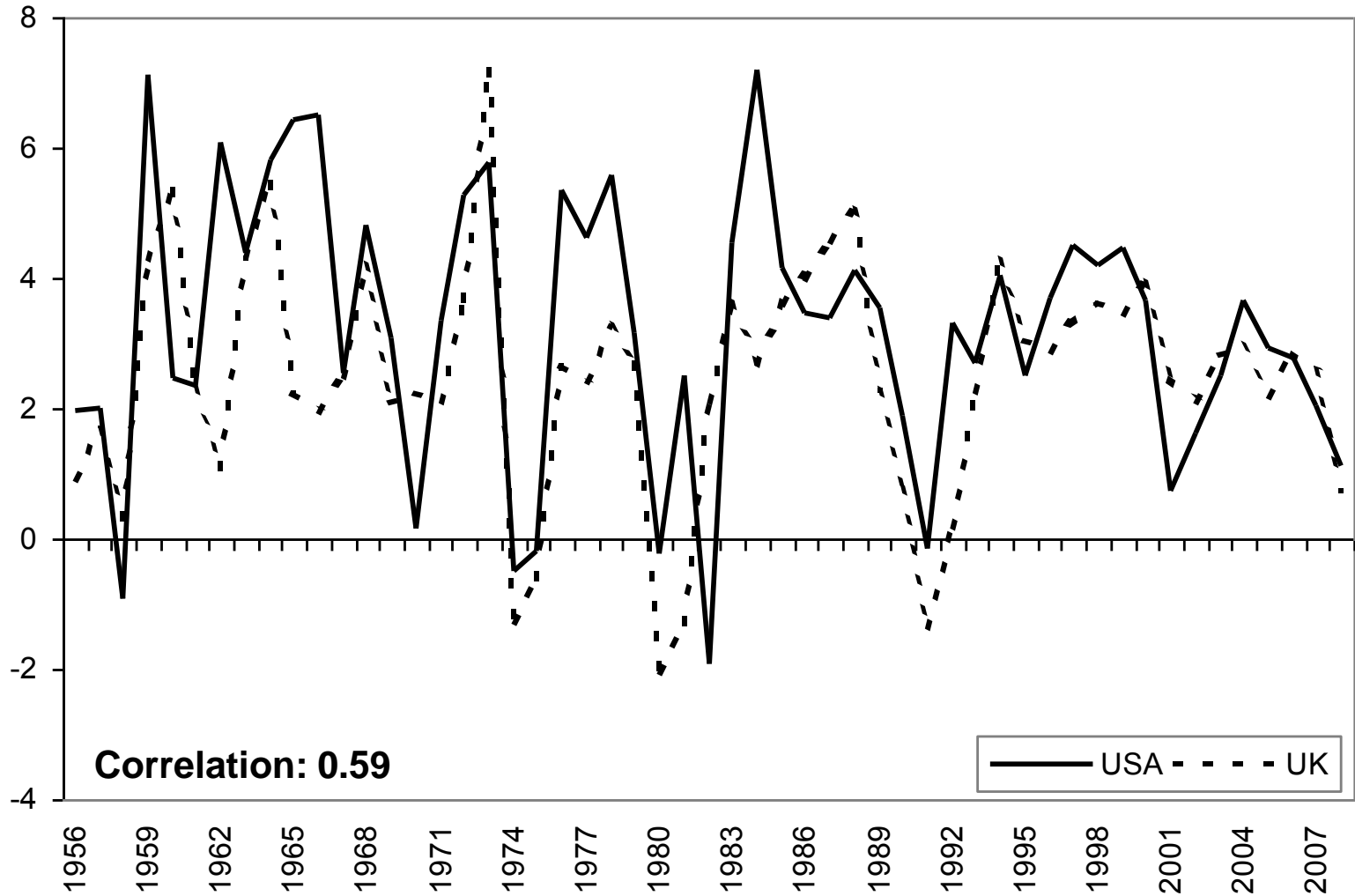
(HP-detrended)



Source: BEA

# Cross-country output comovement 1

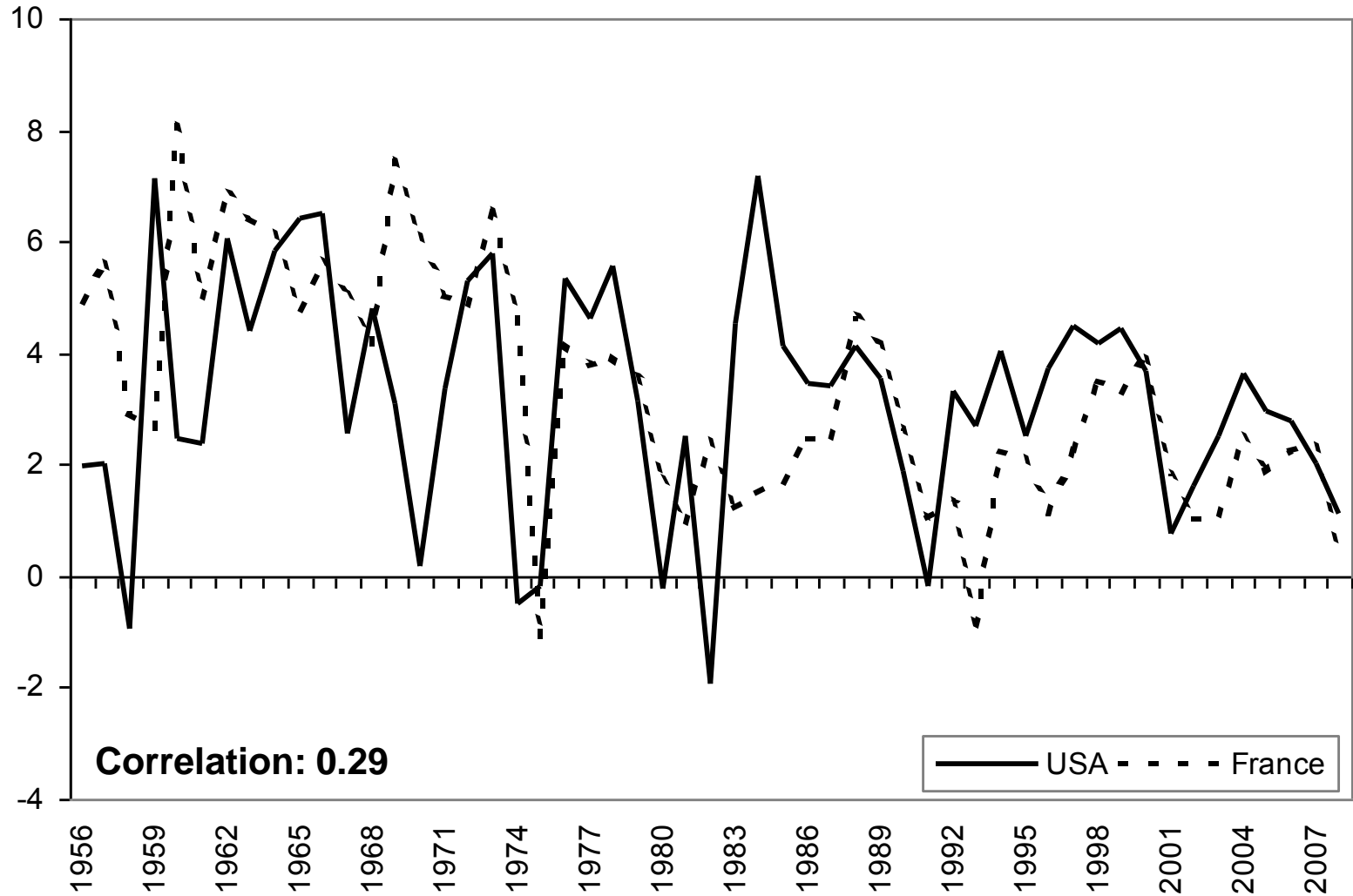
(annual GDP growth rates)



Source: OECD

# Cross-country output comovement 2

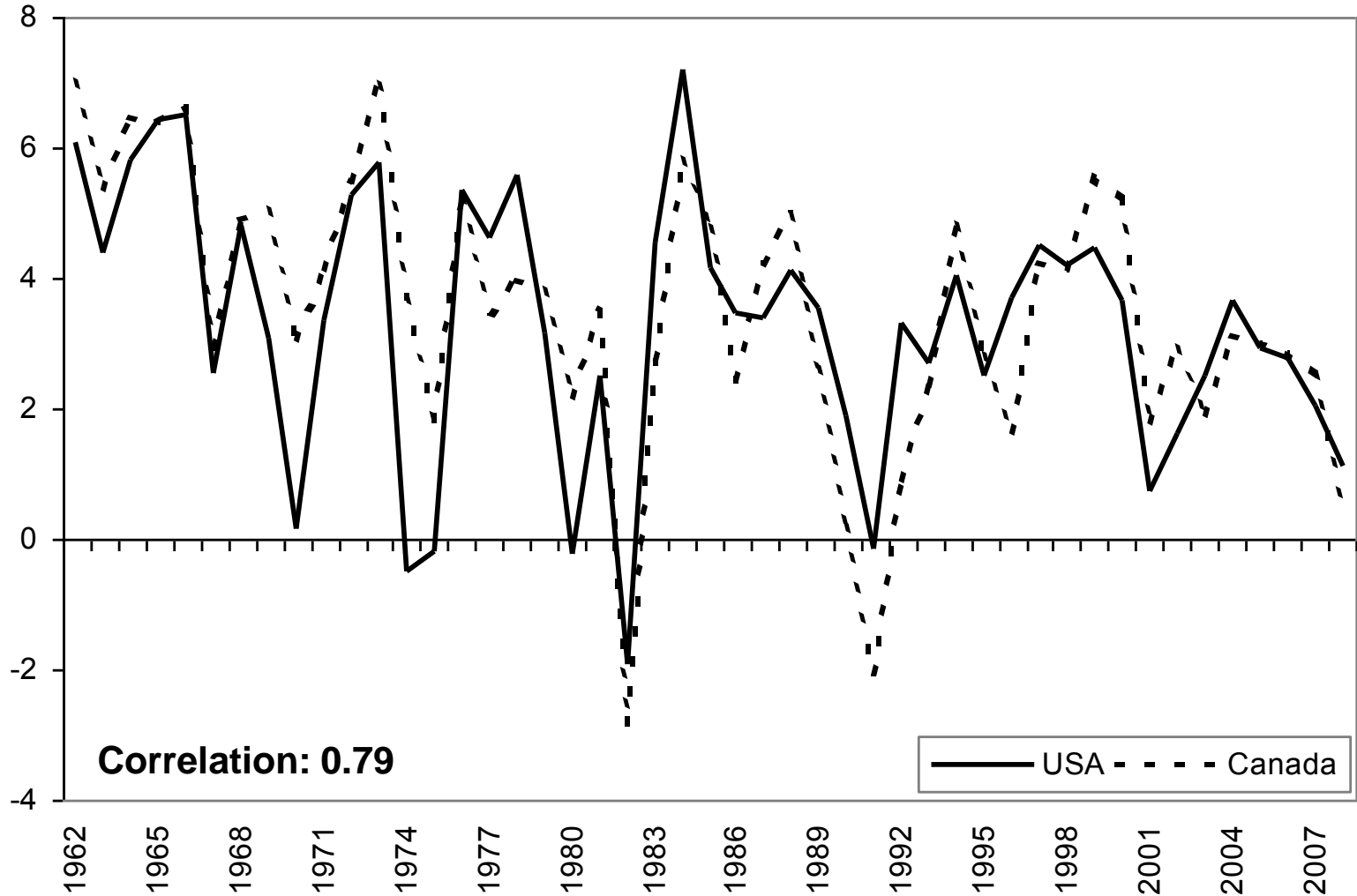
(annual GDP growth rates)



Source: OECD

# Cross-country output comovement 3

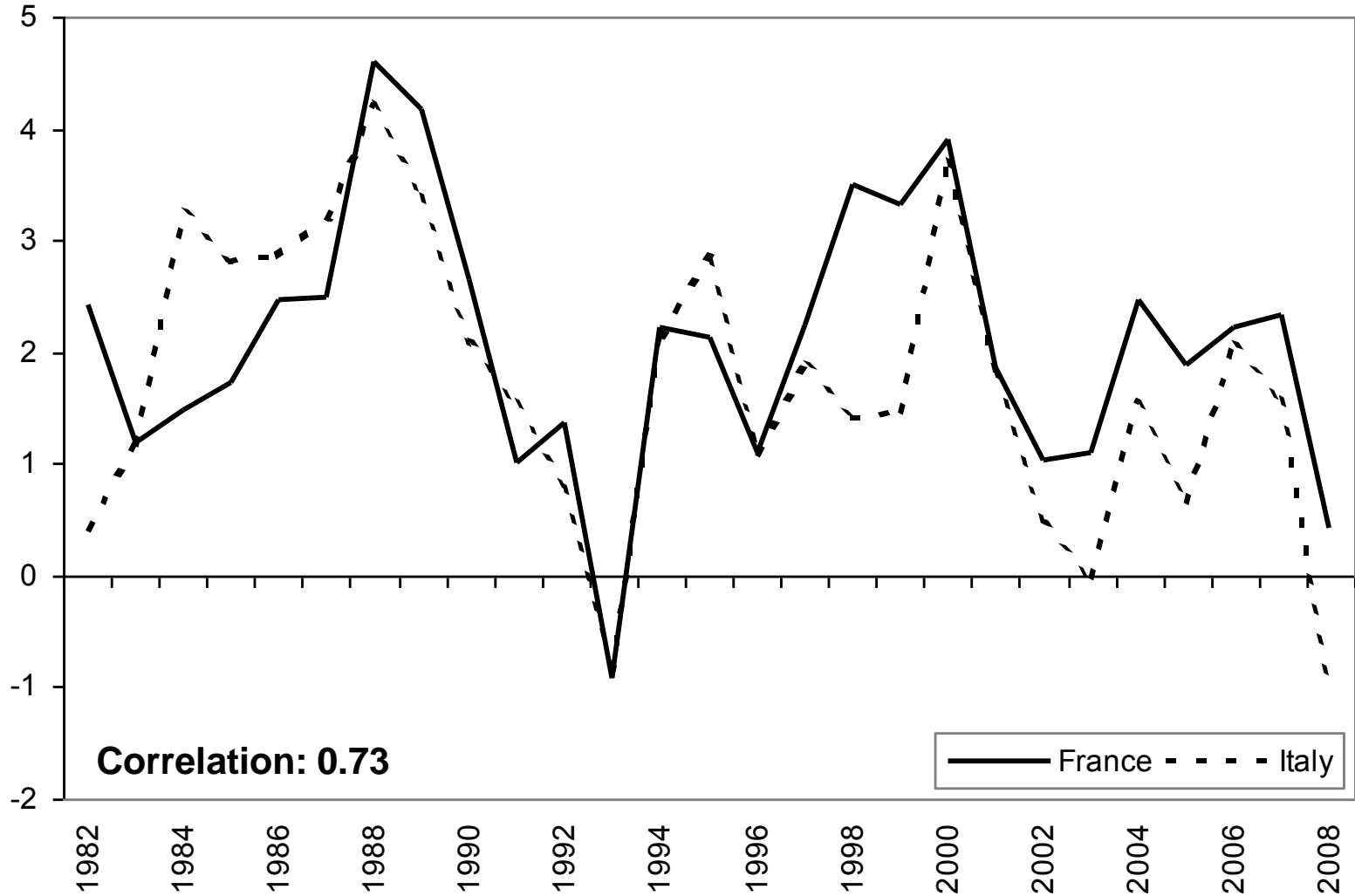
(annual GDP growth rates)



Source: OECD

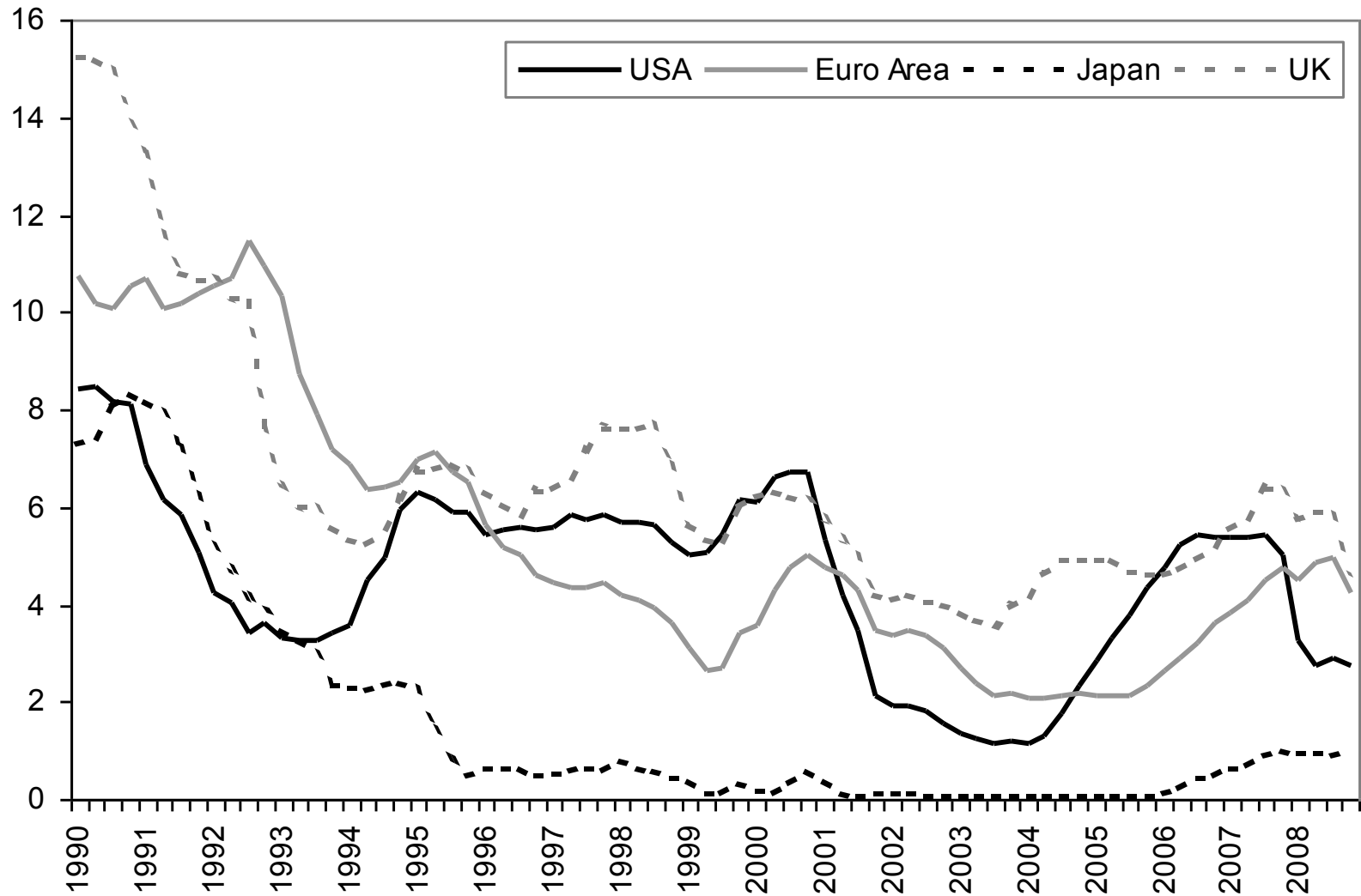
# Cross-country output comovement 4

(annual GDP growth rates)



Source: OECD

# Short-term (1-month) interest rates



# Stylized facts about business cycles

(based on HP-detrended variables for the U.S. economy)

	Volatility (% of output)	Persistence (autocorrelation)	Correlation with output	Lead / Lag
Output	100.0	0.84	1.00	-
Consumption	78.6	0.85	0.86	coincident
Private investment	459.4	0.80	0.90	coincident
Hours worked	84.2	0.87	0.86	coincident
Unemployment rate	46.6	0.89	-0.87	lagging
Labour productivity	50.6	0.61	0.54	coincident
TFP (Solow residual)	77.1	0.75	0.73	coincident
Real wage	51.6	0.80	0.10	?
Real interest rate	82.4	0.74	0.49	lagging
Nominal wage	63.3	0.87	-0.39	lagging
Inflation (GDP def.)	52.6	0.90	-0.04	lagging
Nominal interest rate	102.9	0.83	0.37	lagging
Exports	307.2	0.67	0.36	?
Imports	312.4	0.75	0.73	coincident
Trade balance (% GDP)	26.7	0.76	-0.38	?