Time series data and macroeconomics

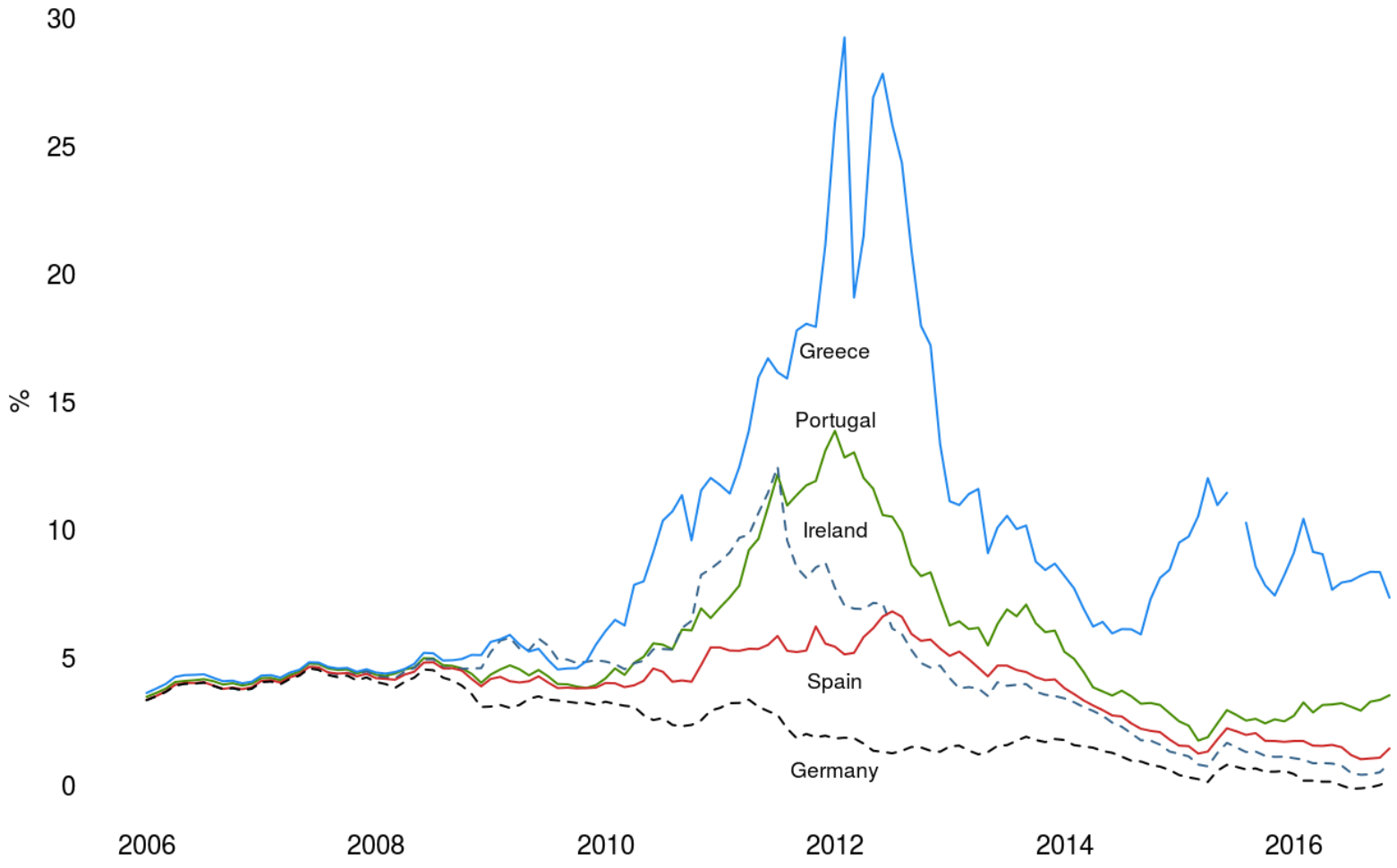
School of Economics, University College Dublin

Spring 2017

Before Economics.

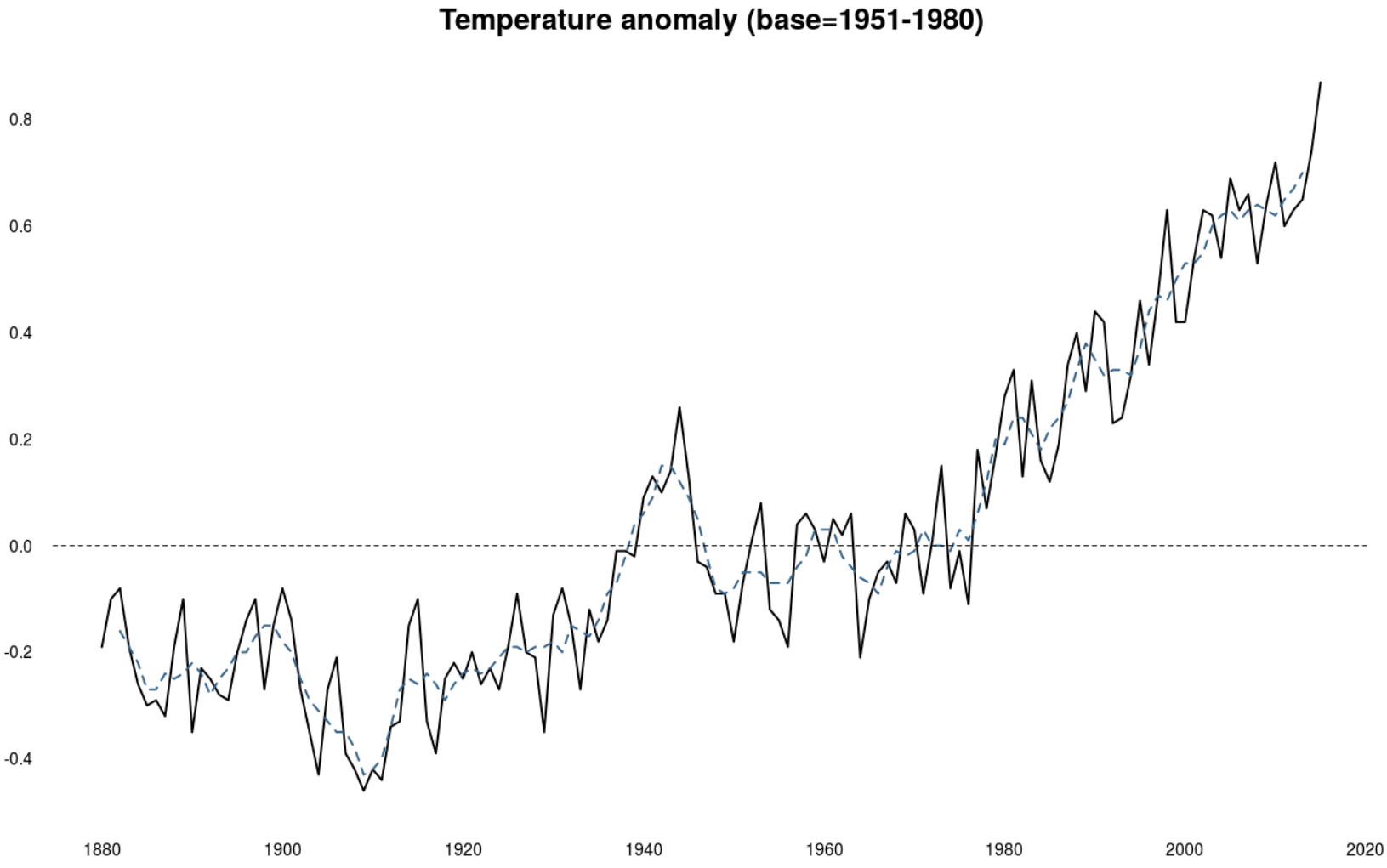
10-year government bonds interest rates

Data source: Eurostat



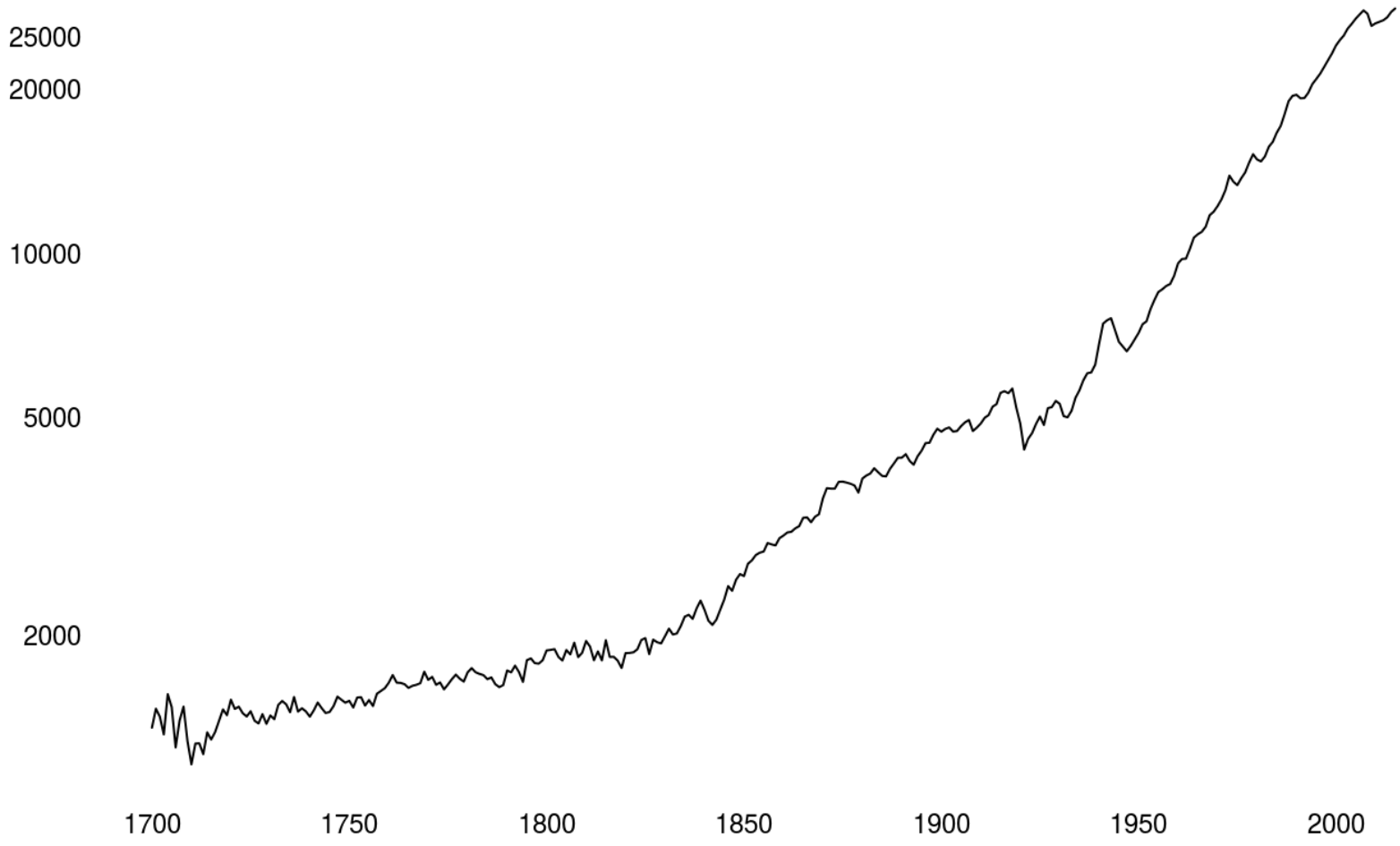
Global average temperature anomaly

Base period is 1951-1989. Data source: NASA



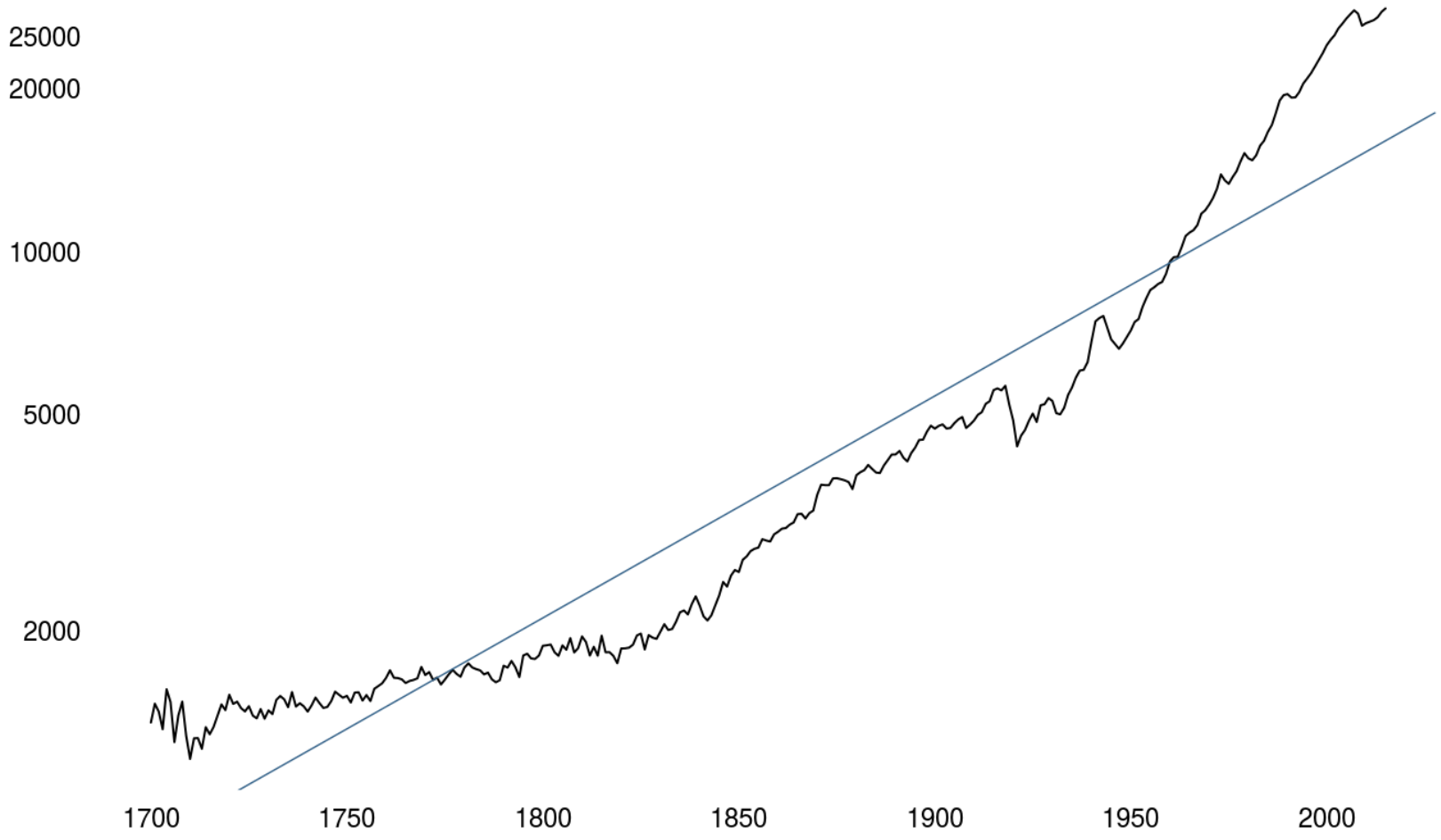
Trends and cycles in U.K. GDP per capita

Data source: Bank of England



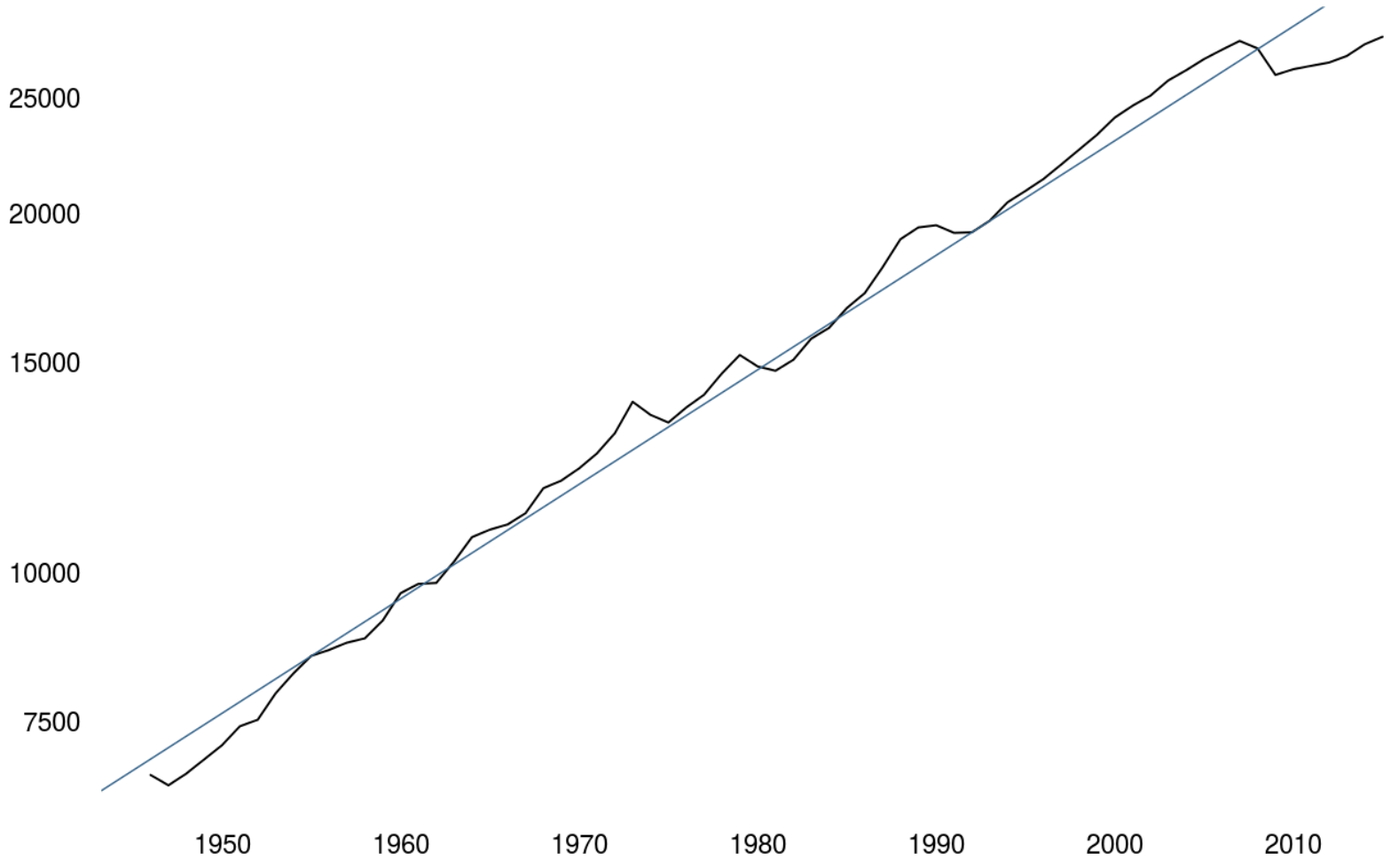
Trends and cycles in U.K. GDP per capita (log-linear trend)

Data source: Bank of England

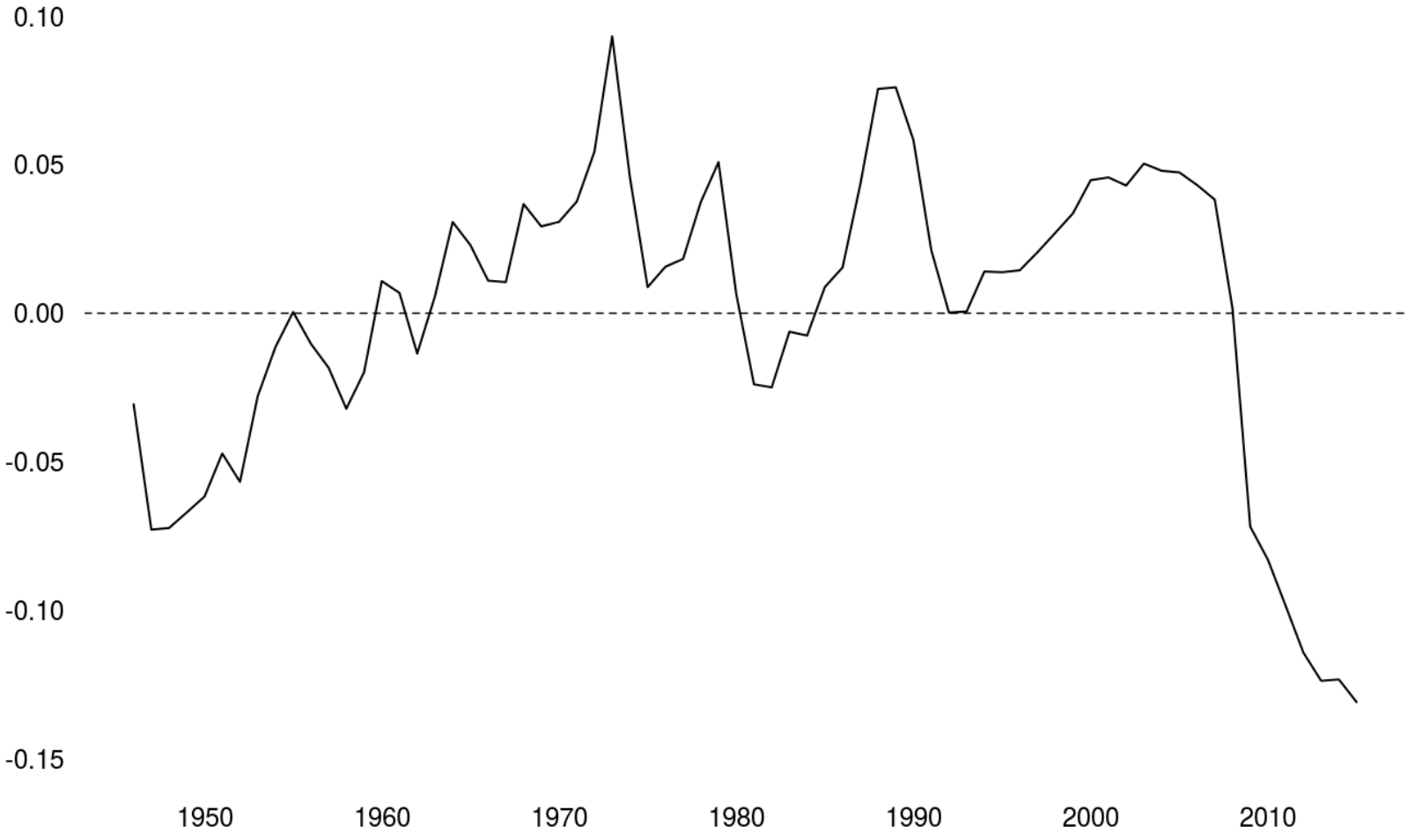


Trends and cycles in U.K. GDP per capita since 1946 (log-linear trend)

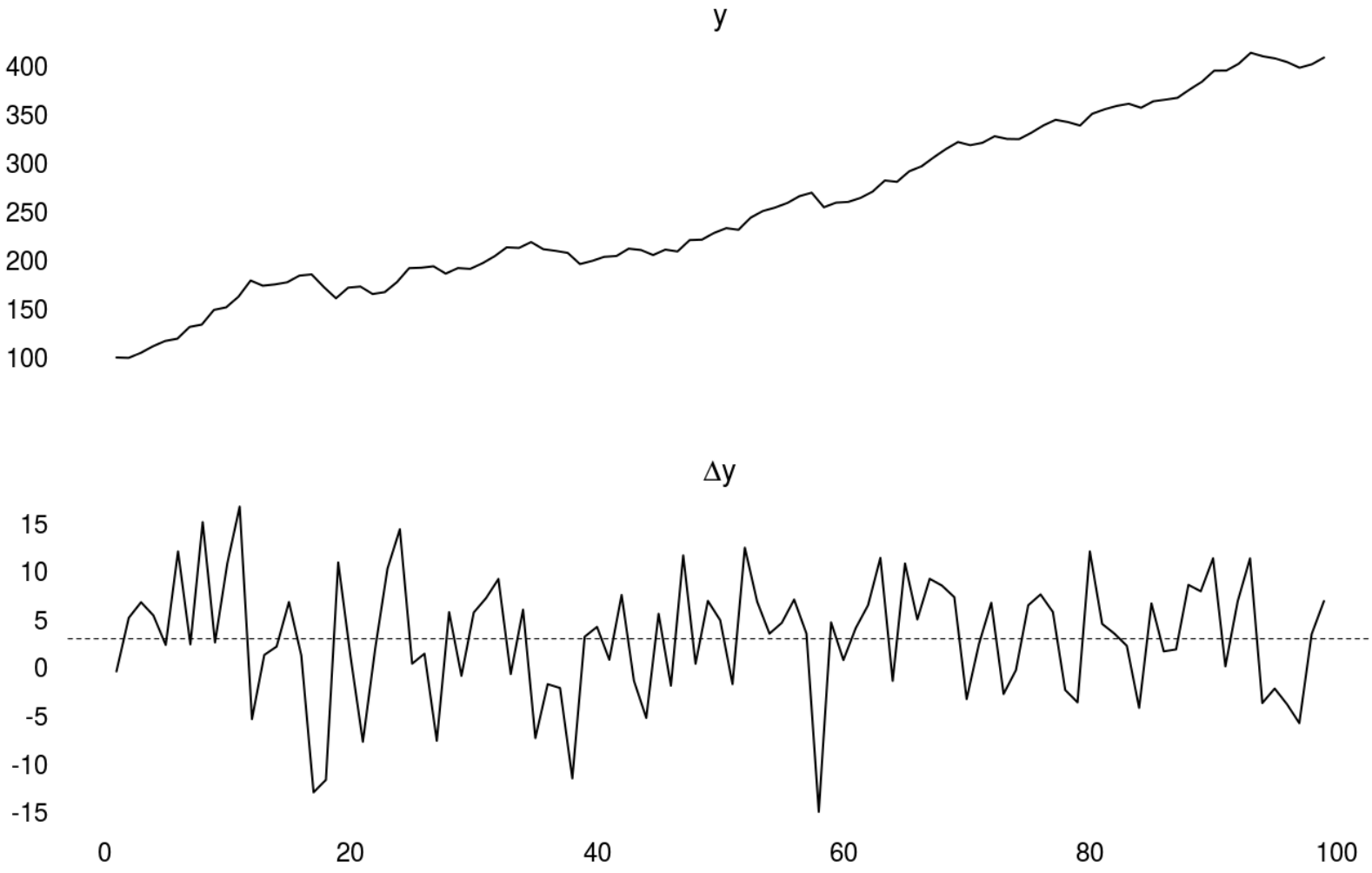
Data source: Bank of England



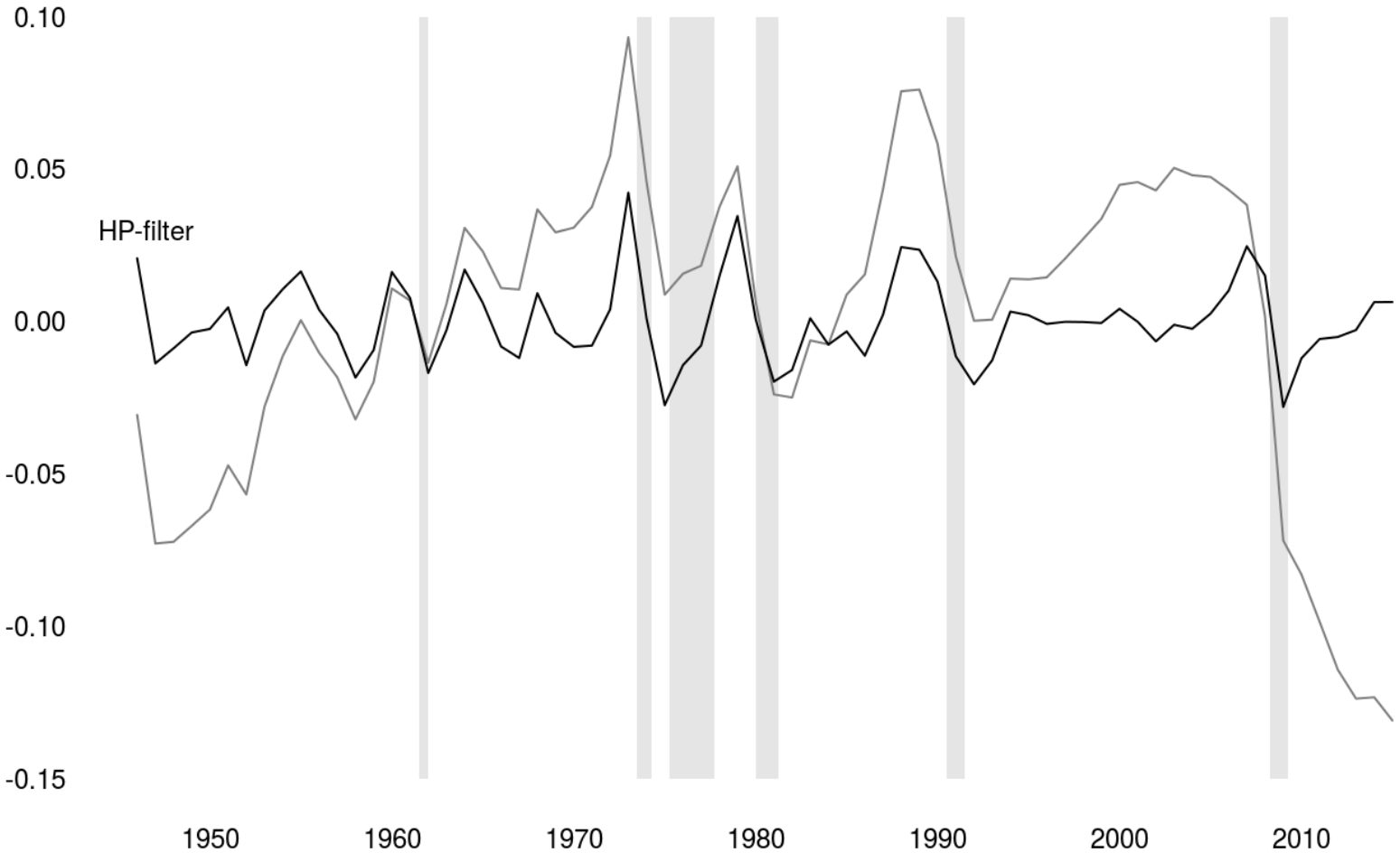
Cycles from log-linear model: U.K.



Example of a caveat with regard to linear detrending



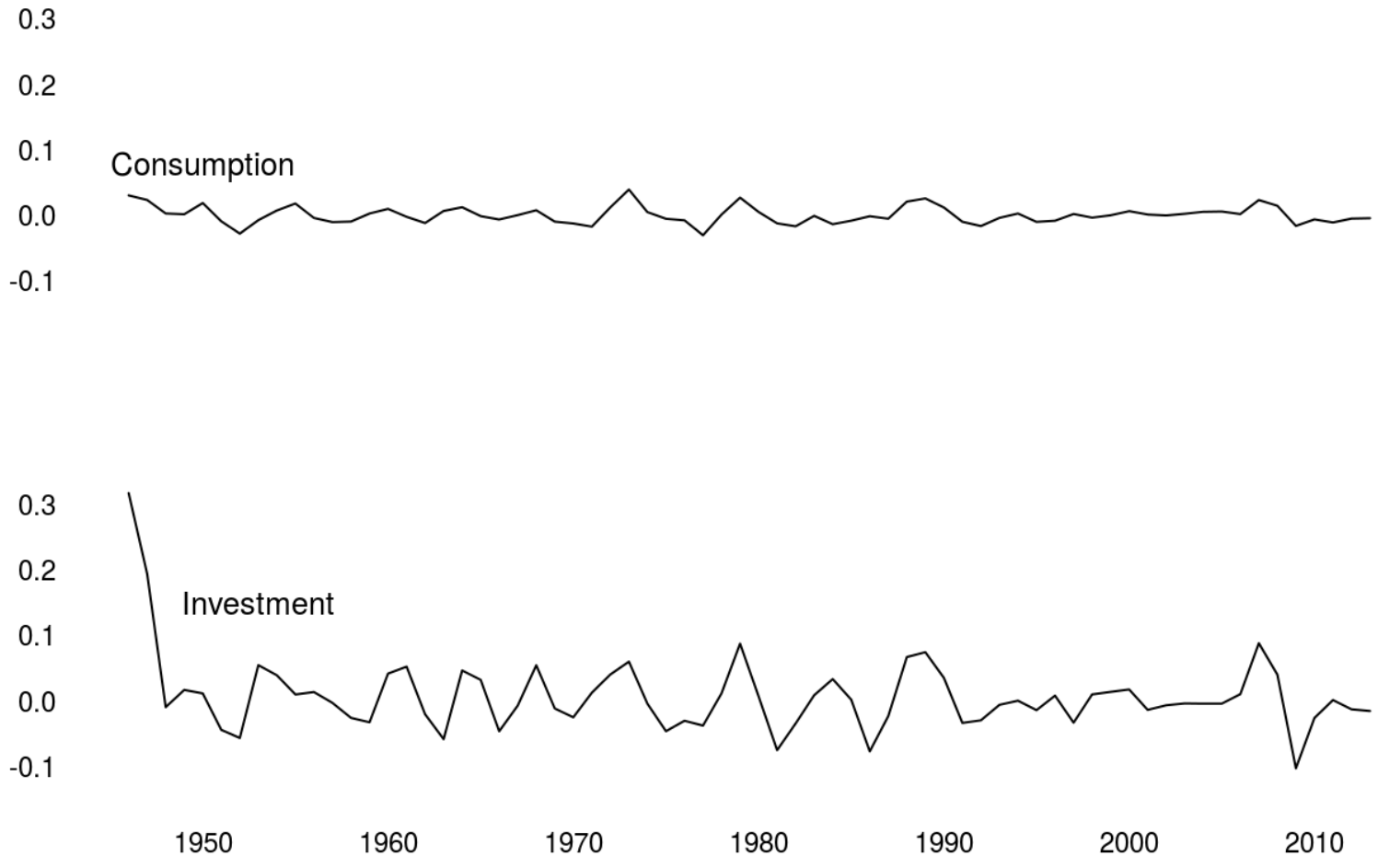
HP-filtered cycles: U.K



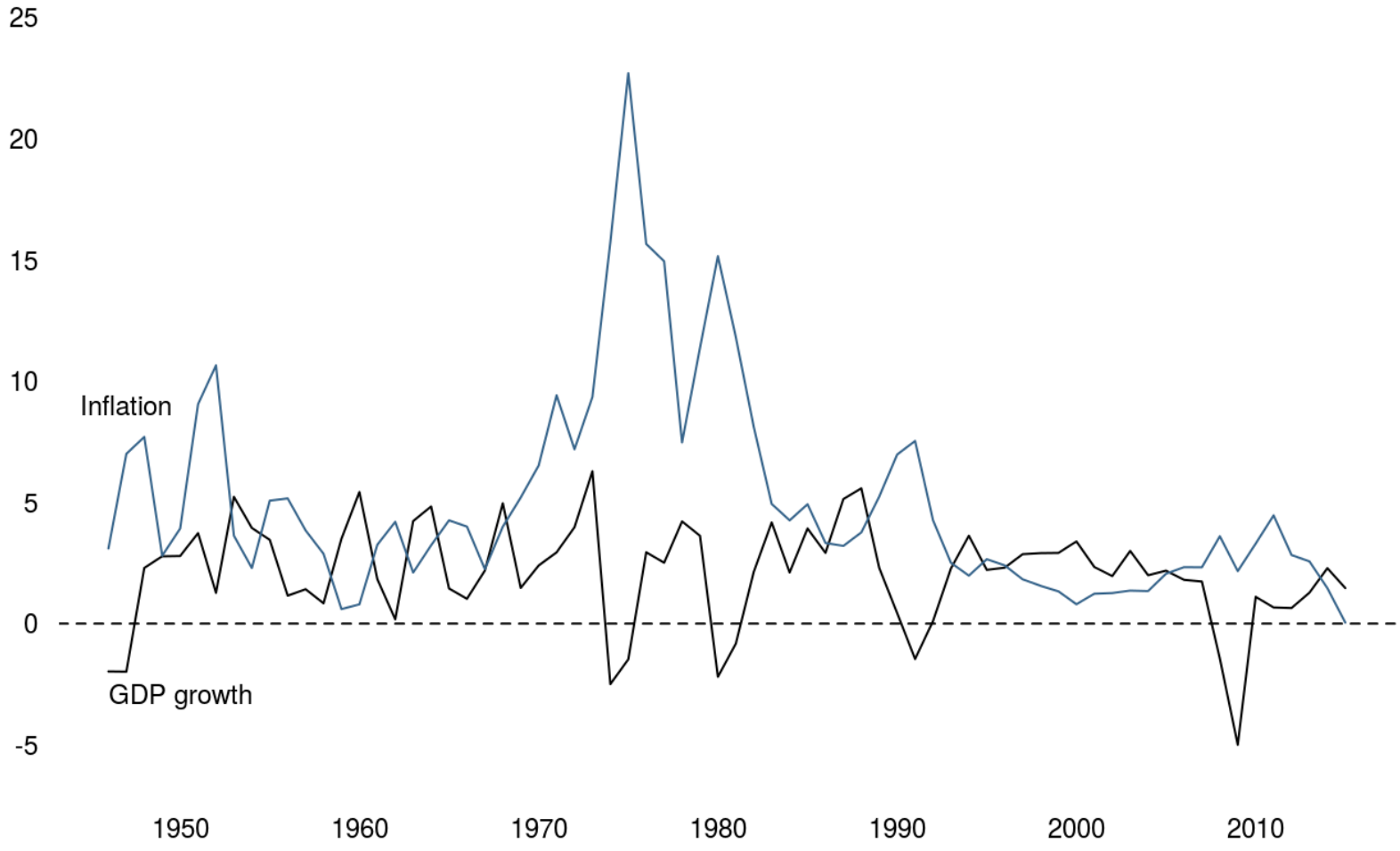
HP-filtered cycles: U.S.

Cycles in consumption and investment for the U.K.

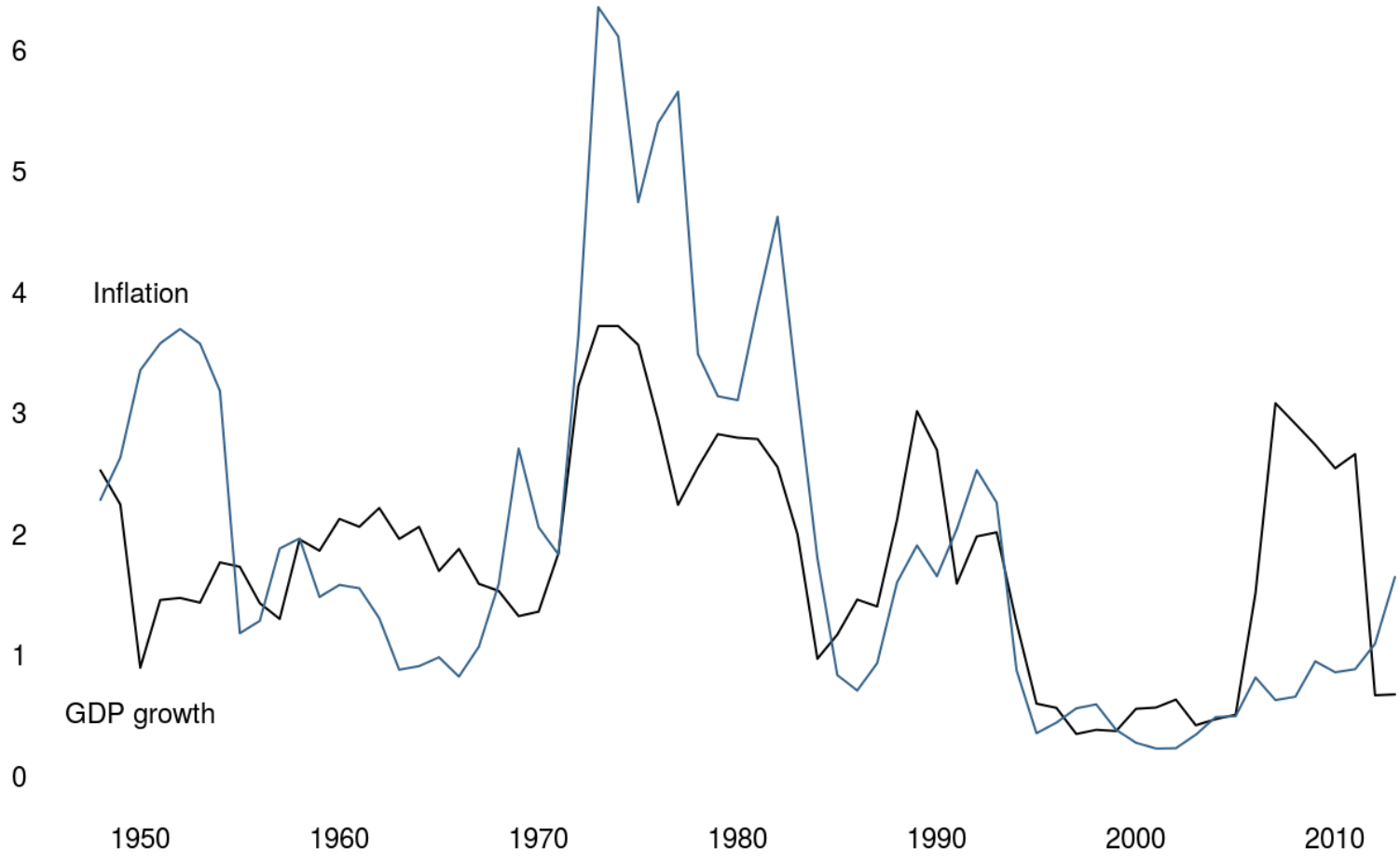
Data source: Bank of England



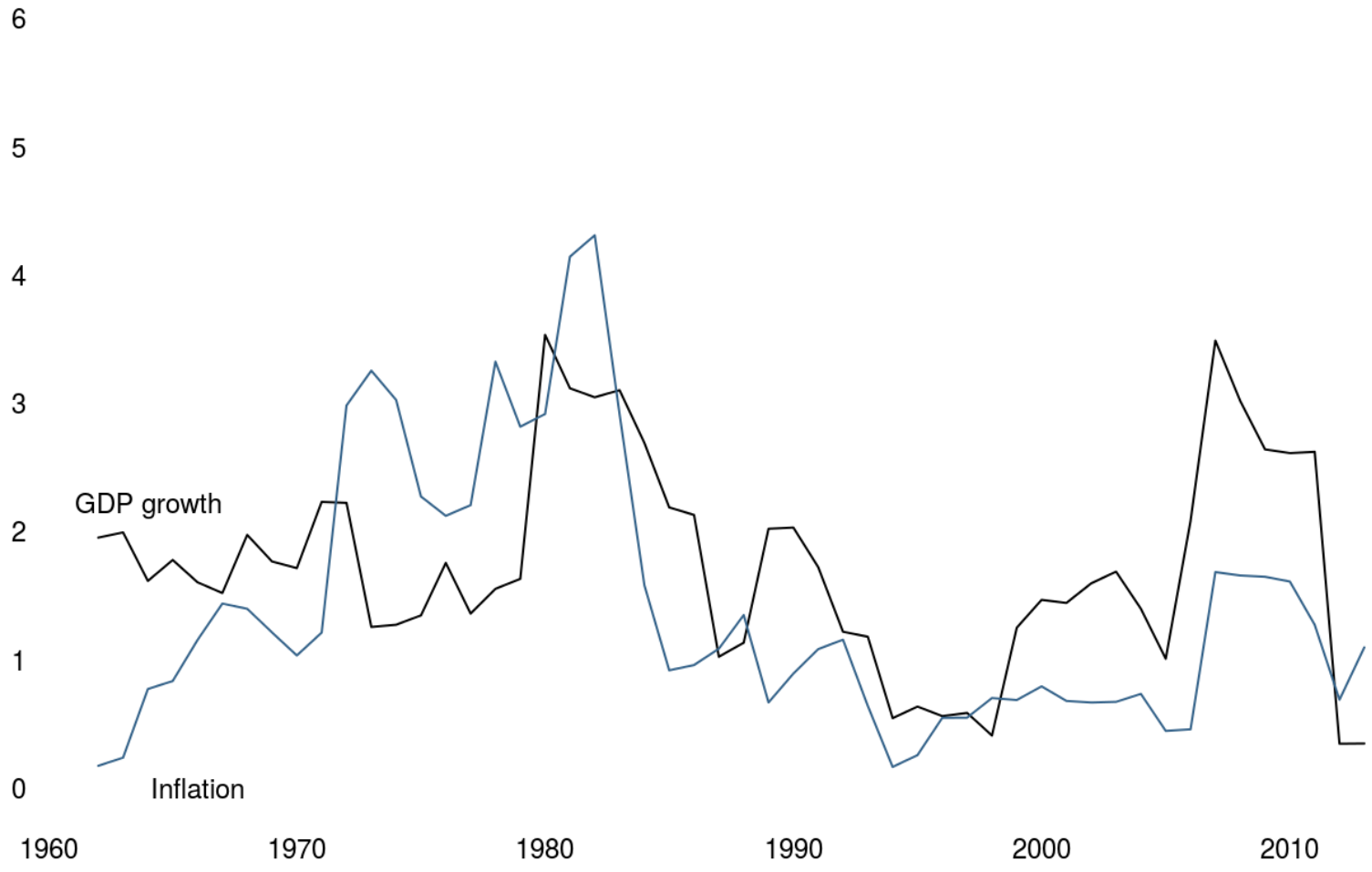
Cycles in growth and inflation



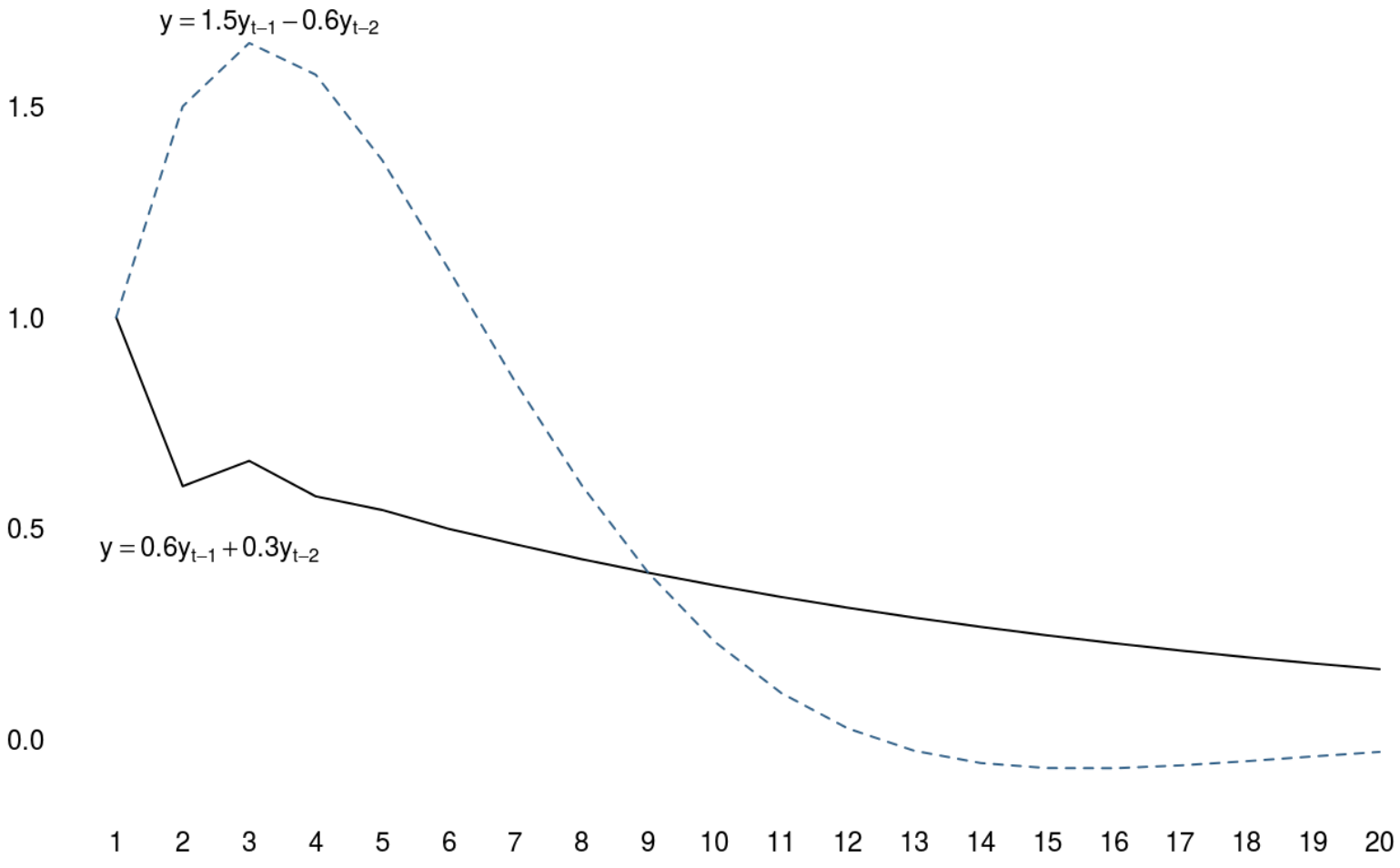
Volatility in economic growth and inflation: U.K. (standard deviation, 5-year moving average)



Volatility in economics growth and inflation: U.S. (standard deviation, 5-year moving average)

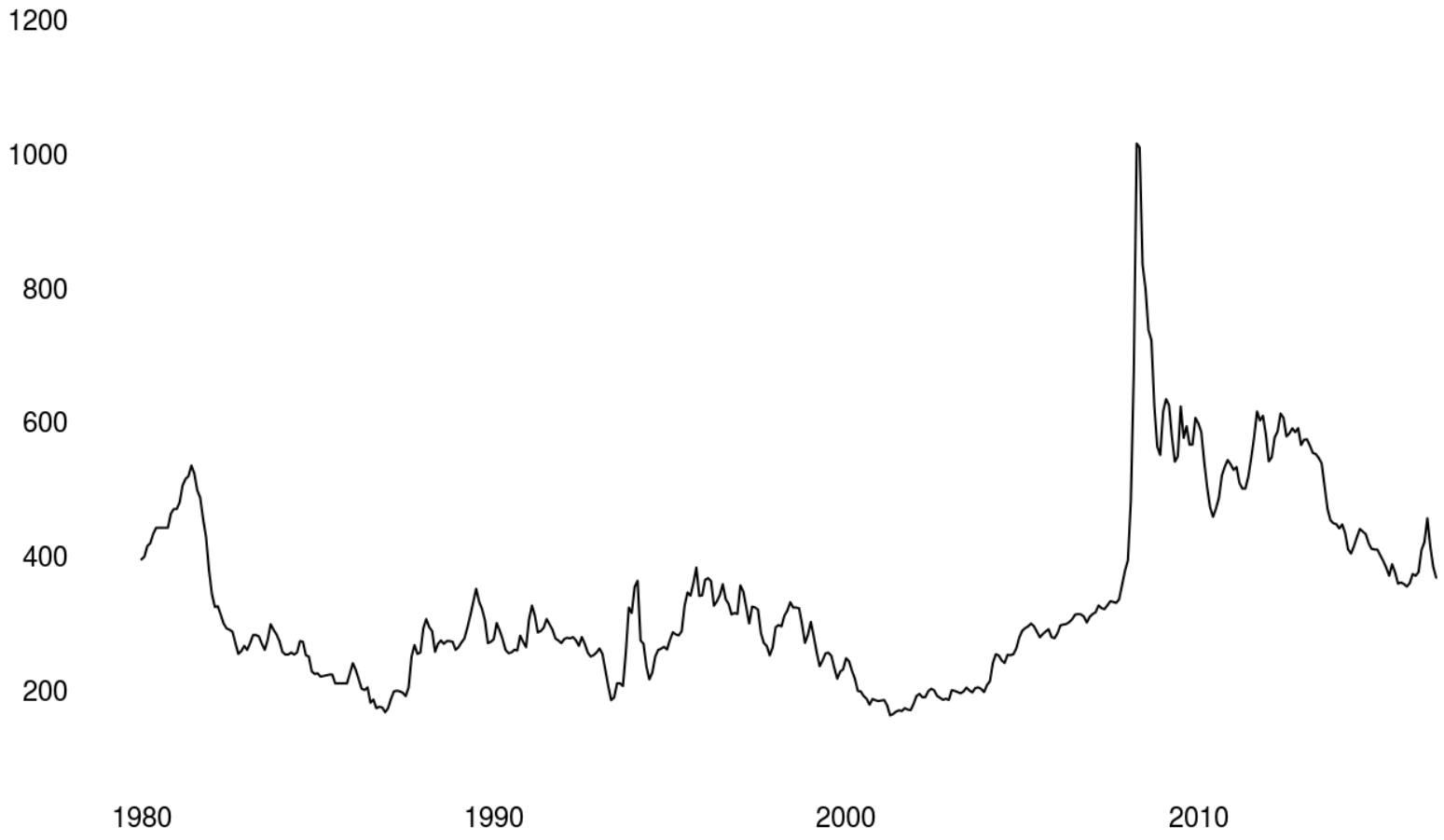


Example of the Impulse Response Function of two different $AR(2)$ models



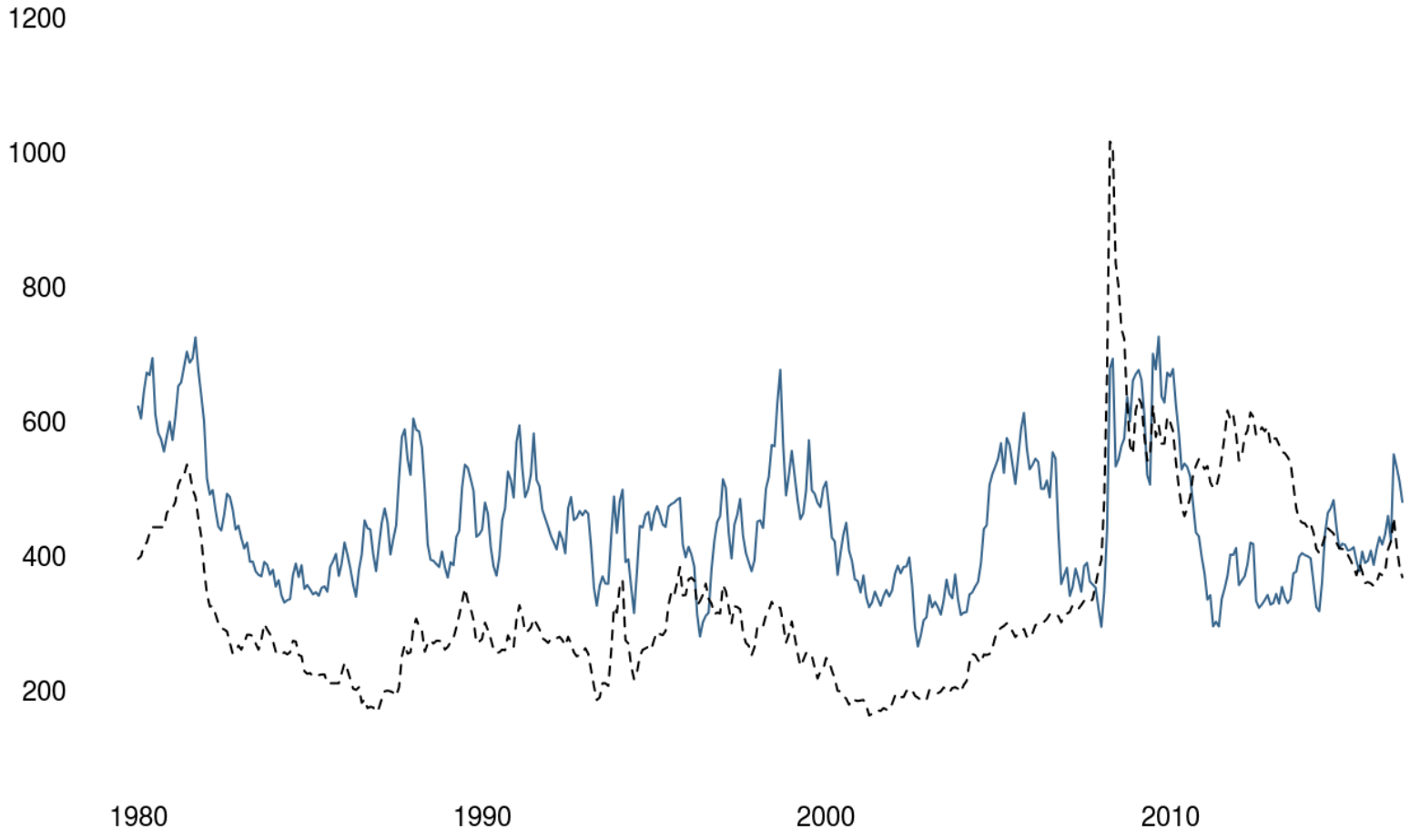
Nominal prices for rice

Data source: IMF



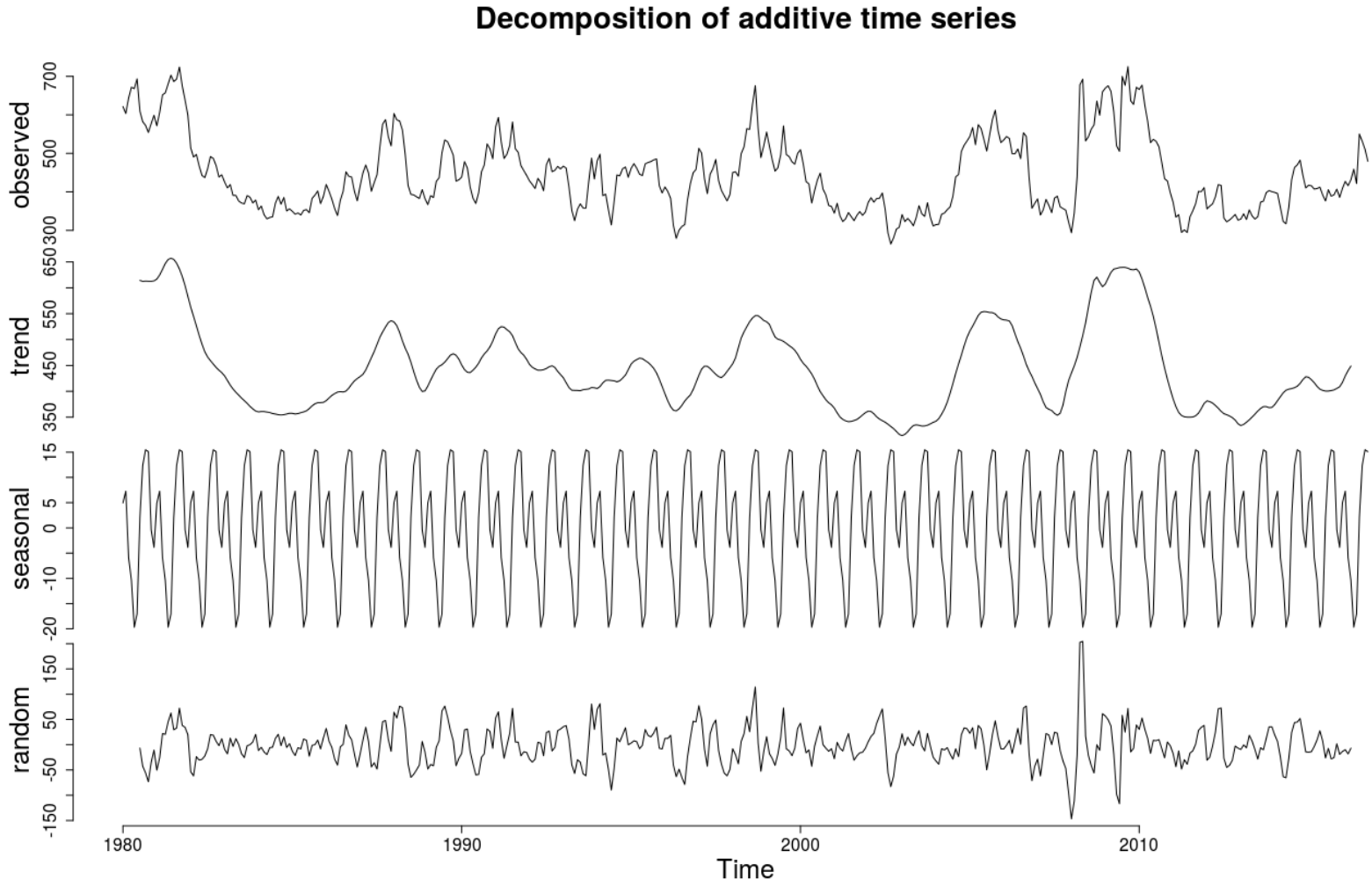
Real (in blue) and nominal prices (dashed, black) for rice

Data source: IMF, U.S. Buro for Labor Statistics



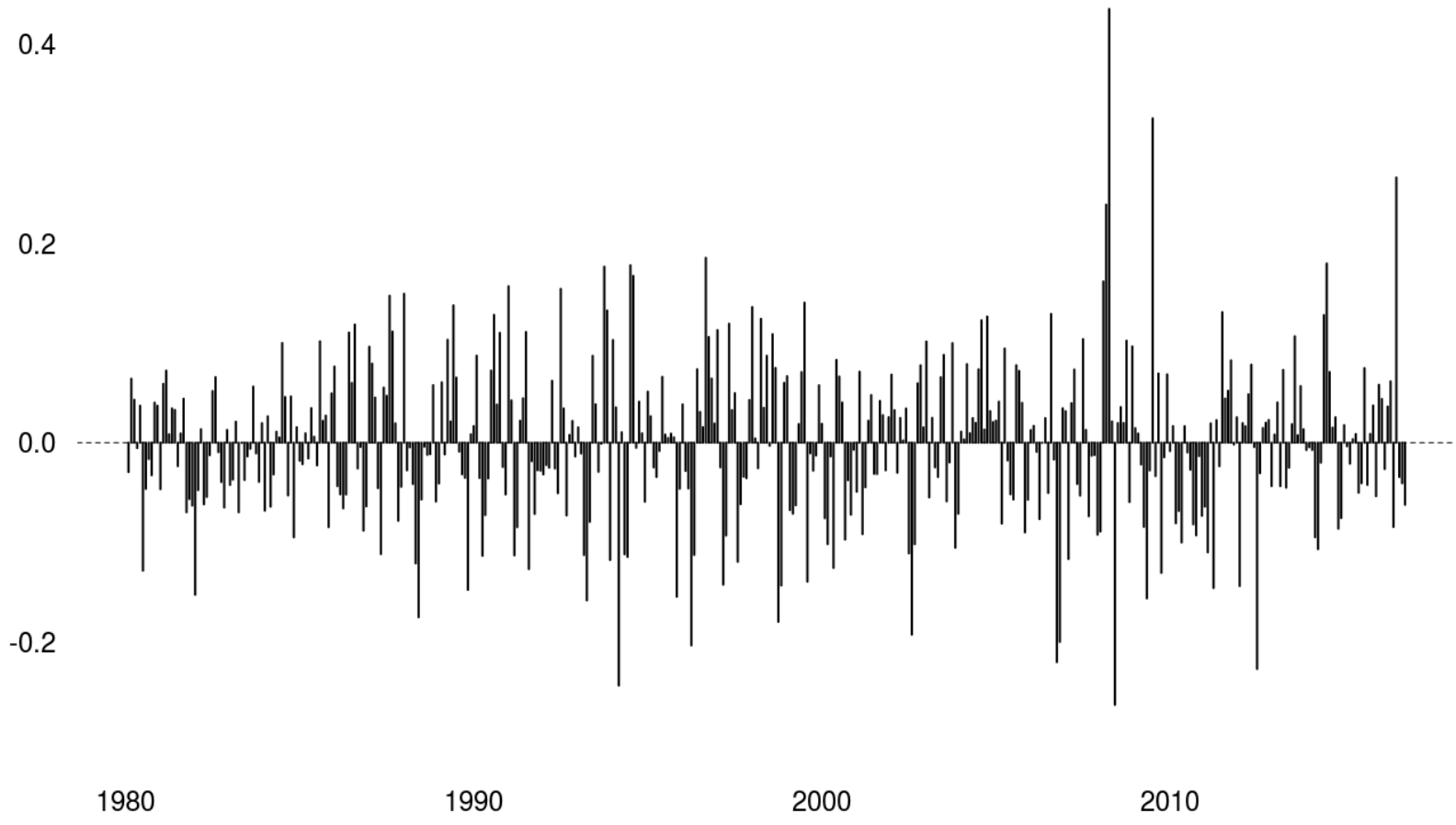
Decomposition of international rice prices

Data source: IMF, U.S. Buro for Labor Statistics



Volatility in international rice prices

Data source: IMF



Impulse Response Function based on $AR(4)$ model fitted to the rice prices

Shock is 1 at $Y = 1$