Trend Dominance in Macroeconomic Fluctuations [*]

Katsuyuki Shibayama [†]

School of Economics

University of Kent

Sep 2015 (First Draft: Dec 2014)

Abstract

This paper investigates multivariate Beveridge-Nelson decomposition of key macro aggregate data. We find (a) inflation seems to be dominated by its trend component, and, perhaps as a result of this, the short-term interest rate is also trend dominated; and (b) consumption also seems to be dominated by its trend component perhaps as the permanent income hypothesis suggests. What is new here is that, although the difficulty of rejecting a unit root for these variables has been long recognized, we show that these unit root processes account for a large share of the variable fluctuations. This result raises a concern about the convention that the non-stationary data is detrended in standard DSGE-type structural estimation, in the sense that a significant portion of data variation actually may come from the trend components.

KEYWORDS: Beveridge-Nelson Decomposition; DSGE; VECM; Detrending

JEL CLASSIFICATION: C32; E21; E31; E32; E52

[†]**Corresponding author**: School of Economics, University of Kent, Canterbury, Kent, CT2 7NP, U.K. Phone: +44(0)122782-4714. E-mail: k.shibayama@kent.ac.uk