THE IDENTIFICATION OF STRUCTURAL BREAK AT TIME SERIES DATA ON INDONESIAN ECONOMY 1990Q1-2008Q4: THE APPLICATION OF ZIVOT AND ANDREWS' EXPERIMENT

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ABSTRACT

Before the 1997/1998 economic crisis that enhanced the fluctuation of some Indonesian macroeconomic indicators, Indonesian economic indicators seemed to run quite well as to make it attractive as business destination. The economic turbulence has brought about the enhancement of its macroeconomic indicators fluctuation: the depreciation of Indonesian Rupiah's exchange rate, the sharp contraction of GDP, the ever-increasing inflation pressure, and the interest rate hike.

The objective of this paper is to identify the right timing of the major structural break on Indonesian economy through the application of Zivot and Andrew's procedure (ZA) (Zivot and Andrews, 1992), with time series data in the period of Q1 1990-Q4 2008. The ZA model empirical test outcome shows that endogenously the significance of structural break for most macroeconomic variables necessitates at least one hypothesis of null unit root that can be rejected for most of the investigated variables. The potential structural break in series (ADF-test) also allows some originally non-stationary-unit contained variables to turn into a stationary ones. These results are statistically significant as the endogenously appropriate break (ZA-test) coexisted with the Indonesian financial-crisis shocks in 1997/1998.

Keywords: structural break, unit root test, macroeconomic time series and Indonesian economy