

# THE ANALYSIS OF THE EFFECT OF THE STRUCTURAL CHANGE ON THE RESIDENTIAL ELECTRICITY DEMAND

**SunHoi Kim**

Pusan National University South Korea

**SuKwan Jung**

Pusan National University South Korea

**SangMok Kang**

Pusan National University. South Korea

*The 2008 financial crisis may have substantial effects on the entire economy system including residential electricity demand in South Korea. Even though the residential electricity demand in the South Korea has been studied extensively, little research is known for the effect of the structural change on the residential electricity demand. This paper analyzes the residential electricity demand controlling price, income, climate changes, and certain structural change using quarterly data from 2003 to 2013. For this the Zivot-Andrews unit root test is implemented, and the ARDL (Autoregressive Distributed Lag) approach is employed to estimate the residential demand by controlling the structural change. While the augmented Dickey-Fuller test shows that HDD (Heating Degree Days) and CDD (Cooling Degree Days) are non-stationary, the Zivot-Andrew test shows that these variables are stationary. The results of ARDL were expected: price has a negative sign, income has a positive sign, and HDD and CDD have positive signs. Also, the structural change has significant effect on the electricity demand.*