A REGIME-SWITCHING PRESENT VALUE MODEL FOR THE UK HOUSING MARKET

Jan R. Kim
Dept. of International Economics and Law, Hankuk University of Foreign Studies, Seoul, Korea

Abstract

The non-stationarity of the price-rent ratio is frequently interpreted as evidence of bubbles and invalidating the present value model. This paper seeks an alternative explanation by introducing Markov regime switching in the standard present-value model. By allowing the expectations of housing market investors to switch between distinctive regimes. , we derive a present value formula for the price-rent ratio whose mean is regime-dependent. Applied to the U.K. housing market, our model successfully identifies two distinctive regimes in the expectations of the investors and the mean of the price-rent ratio. Once the regime-specific mean of the price-rent ratio is taken into account, the ADF test clearly rejects the presence of unit roots in the price-rent ratio. It also turns out that the higher mean of the ratio in one regime does not reflect higher rates of expected rent growth. Rather, it is because the rate of discount for future payoffs is lower in that regime than in the other.

Keywords: Present-value model, price-rent ratio, regime-switching