

房價與所得是否存在長期關係？

分量單根檢定之應用

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摘要

由於房地產泡沫破滅所造成的影響層面相當廣泛，且持續時間長再加上恢復的速度慢，因此在高房價的環境中是否存在泡沫化的可能性，為大家所關注的議題。過去文獻指出在長期均衡下，房價與所得增長速度應為一致，所得提高可帶動房價上升，房價與所得比值(Price and Income Ratio；PIR)應為穩定的數值。因此若房價成長與所得成長不一致，不存在長期關係時，房市可能存在泡沫化的危機。

據此，本研究以美國以及台灣之房價與所得比值(PIR)之數列作為實證對象，並透過 Koenker and Xiao(2004)所提出之分量單根檢定方法去檢驗在不同分量上房價與所得是否存在長期均衡關係。實證結果顯示，兩國 PIR 數列在低分量，受到負衝擊的影響導致 PIR 下降，此時，房價下降的幅度大於所得，人民買得起房地產，表示兩變數存在長期關係。相反地，當兩國 PIR 數列在高分量，受到正衝擊的影響使得 PIR 上升，此時，房價上漲的幅度大於所得，使人民買不起房地產，表示兩變數不存在長期關係，意謂著可能有房價泡沫化的疑慮。

關鍵字：住宅負擔能力、房價所得比、分量單根檢定

Does the long-run relationship exist between housing prices and income ?

Evidence from the quantile unit root test

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Abstract

Recently, housing prices have been not only booming over the world but also raising abnormally in many countries, if housing market is a bubble which has become an important issue for everyone. In housing studies, it has indicated that based on housing affordability household income and housing price should be integrated in the long-run, because effective demand for housing depends on household income. In other words, PIR is a stationary variable.

This thesis applies a new quantile unit root test developed by Koenker and Xiao (2004) to investigate whether or not the long-run relationship exist between housing price and household income in the US and Taiwan.

Our empirical results suggest that when the PIR is in lower quantiles that mean reversion behavior is found as the negative shock hits the PIR time-series, which is meaning income could afford for housing price, therefore, they have long-run equilibrium relationship. On the contrary, when the PIR is in upper quantiles positive shocks with large magnitudes induce unit-root behavior; on the other hand, growth in income appears to be unable to catch up with increased house prices, thence, indicating that both US and Taiwan seems to have sign of a bubble in this moment.

Keywords: Housing Affordability ; Price to Income Ratio ; Quantile Unit Root test

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