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**Bubbles in US Regional House Prices:**

**Evidence from House Price/Income Ratios at the State Level**

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**Abstract**

We investigate the presence of bubbles in the US house price-income ratio at the state level by applying the right-tailed unit root test of Phillips, Shi and Yu (2015, PSY) to data from January 1975 to December 2014. Based on a model specification with an intercept, we can identify ‘collapse’ episodes, ‘collapse and recovery’ episodes in addition to bubbles. The absence of an intercept in the null leads to identification of only potential bubbles. We find evidence of bubbles in several states in the 1980s (such as California, Hawaii, Massachusetts and New York), which coincides with some existing studies that investigate housing bubbles or booms and busts using a range of alternative approaches. Our results show the existence of a housing bubble that originates in the early 2000s and collapses in the mid-2000s in more than 20 States and the DC. We conclude that this housing bubble was localized and not a national phenomenon and that the bubbles of the 2000s were more widespread than the 1980s. We also found that the exclusion of an intercept in the unit root null hypothesis will affect the asymptotic theory and date-stamping outcomes for the PSY approach which translates empirically to evidence of ‘no exuberance’ in several of the states' house prices which otherwise would have suggested bubbles.

**Keywords**

bubbles

generalized sup ADF test

US regional house prices

house price-income ratio

**JEL Classifications**

C59; R19; R39

'We don’t perceive that there is a national bubble,

but it’s hard not to see that there are a lot of local bubbles'.

(Alan Greenspan, Economic Club of New York, 2005)