

# **Detecting Bubbles in the Hong Kong Residential Property Market: An Explosive-Pattern Approach**

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## **Summary**

Given the continuous rapid surge of housing prices since mid-2009, concerns have been raised regarding whether the risk of asset-bubble formation has emerged in the Hong Kong residential property market. This study applies the newly developed bubble detection method (Phillips, Wu and Yu, 2011) to identifying housing bubbles. Based on detecting explosive growth in the price-rent differential (which measures the price deviation from the fundamental and will exhibit an explosive feature if a housing bubble presents), our empirical results show that the method is capable of detecting the 1997 bubble and able to reveal the corresponding origination (in February 1997) and collapse (in November 1997).

There is no evidence of explosive behaviour in the price-rent differential in the mass market from June 2005 to mid-2009. However, since July 2009, the method detects explosive growth of the price-rent differential, indicating strong upward price pressure. During the first quarter of 2011, the result shows quite clear explosive behaviour of the differential which signals asset-bubble formation. Regarding the luxury market, the method reveals bubble-type behaviour in two short periods of time between July 2009 and June 2010 and a persistent tendency of explosive growth in the price-rent differential afterward, reflecting the risk of bubble formation even though the rent has increased with the rise in price in the luxury segment during the second half of 2010.

Our results show the potential of the method to be used for timely monitoring of bubble formation in asset markets since the method will provide updated indications of bubble formation once new data are available, i.e., with a time lag of about six weeks.