

# Modelling house price volatility states in Cyprus with switching ARCH models

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## Abstract

A switching ARCH model is used to estimate the dynamics of the housing market price change volatility in Cyprus during the period 2001q1-2016q2. The results indicate that two states exist: one with high and one with low volatility. Both volatility states exhibit a high degree of persistence. The probability of being in the high volatility state is close to one in the early stages of the sample, and started its decrease when the Cypriot housing boom was peaking around 2008-2010. The findings suggest that booms could be re-enforcing, given the degree of persistence. In addition, higher volatility can be associated with higher credit growth during the period, suggesting that credit expansion can bring more investors to the housing market and increase speculation therein. As overall higher housing volatility increases systemic risk in the economy, the results point out that more regulation would perhaps be advisable.

**Keywords:** Housing prices; volatility; SWARCH

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