

# **Housing Market and Population Dynamics in Urban China—an DSGE Framework**

**Yi Ding<sup>1</sup>**

## **Abstract**

Empirical evidence demonstrates that the increase in the number of migrants from rural areas to large cities has an important effect on the housing price dynamics in urban China. However, the DSGE framework related to the housing market does not consider the population setting. This research addresses this gap. I build a new dynamic stochastic general equilibrium (DSGE) model to research the influence of population on housing price dynamics, and apply this model to urban China. I incorporate the population setting into the model of Iacoviello and Neri (2010). I focus on the effect of population growth in relation to the housing price trend and the effect of population shock on housing price fluctuation. The theoretical result shows that the share of land in construction is crucial to determining the contribution of population to housing price dynamics. The data in urban China indicate that the high population growth rate contributes to approximately 1/10 of the upward trend in real housing price. Furthermore, it can be noted that population shock has a negligible effect on the cycle of the housing price. Housing technology shock and housing preference shock are responsible for most of the housing price fluctuation.

**Keywords:** Housing, population, DSGE

**JEL Kodları:** C32, E32, Q40

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<sup>1</sup> University of New South Wales, Australia, [yi.ding3@unsw.edu.au](mailto:yi.ding3@unsw.edu.au)