

**Government intervention in land markets and its impacts on
residential land supply, new housing supply and housing price:
evidence from major Chinese markets**

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CERTIFICATE OF ORIGINAL AUTHORSHIP

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

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Publications

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List of abbreviations

CBD	Central Business District
C-GARCH	Component-generalized Autoregressive Conditional Heteroscedasticity
CH	Critical Habitat
CPI	Consumer Price Index
FAR	Floor Area Ratio
GARCH	Generalized Autoregressive Conditional Heteroscedasticity
GDP	Gross Domestic Product
GMM	Generalized Method of Moments
GNP	Gross National Product
LPAs	Local Planning Authorities
LURs	Land Use Rights
MLE	Maximum Likelihood Estimation
MSAs	Metropolitan Statistical Areas
MSOAs	Medium-level Super Output Areas
OLS	Ordinary Least Squares
PBC	People's Bank of China
PDL	Previously developed land
PRC	People's Republic of China
SOEs	State-owned Enterprises
SSE	Explained Sum of Squares
SST	Total Sum of Squares
UK	United Kingdom
UN	United Nations
US	United States

VAR	Vector Autoregressive
VEC	Vector Error Correction

Abstract

Government intervention in land markets can have profound impacts on the operation of housing markets. Although many empirical studies have examined the impact that government intervention in land markets has on housing price, only a limited number of studies have examined the impact that government intervention in land markets has on housing supply. In addition, the vast majority of existing studies were conducted in developed countries, and relatively little attention has been devoted to developing countries. Having identifying the research gaps, this study investigates the process leading to stronger government intervention in the land markets in China, and examines the impacts that government intervention in the land markets has on residential land supply, new housing supply and housing price using data for 16 major Chinese cities for the period 2001-2011.

The process of the 2004 reform which led to stronger government intervention in the land markets in China was examined by reviewing the literature and government policy documents. The change in residential land supply before and after the 2004 reform was also investigated. The impacts that the decline in land supply has on new housing supply and housing supply elasticities were examined by developing and estimating econometric models of new housing supply, and the impact that the decline in land supply has on housing price was examined by developing and estimating the model of housing price.

The findings of this study suggest that there was a decline in residential land supply in the 16 major Chinese cities after the 2004 reform. Land supply is found to be positively related to new housing supply, and thus the decline in land supply after the

2004 reform has put downward pressure on new housing supply. It is also found that there was a decline in housing supply elasticities after the government strengthened the intervention in the land markets. Land supply is found to be negatively related to housing price, and thus the decline in land supply after the 2004 reform has put upward pressure on housing price. The major policy implications are that promoting the redevelopment of existing urban land and adjusting the allocation of new urban land among different uses can help ensure an adequate supply of residential land in regions where there is a strong demand for housing.