



Is insufficient land supply the root cause of housing shortage? Empirical evidence from Hong Kong



Juan Huang, Geoffrey Qiping Shen^{*}, Helen Wei Zheng

Department of Building and Real Estate, The Hong Kong Polytechnic University, Kowloon, Hong Kong

ARTICLE INFO

Article history:

Received 28 January 2015

Received in revised form

22 June 2015

Accepted 3 July 2015

Available online 14 July 2015

Keywords:

Land supply policy

Housing supply

Internal rate of return

Land price

ABSTRACT

As the current housing shortage in Hong Kong is a severe social issue, the government has put forward a plan to increase the supply of residential land in order to increase the housing supply. This paper examines the effectiveness of this policy and investigates the factors influencing developer's new completions. By analyzing time-series data, it is found that the new housing supply in Hong Kong is independent of the land supply by government, which means the policy of increasing land supply to increase housing supply may be ineffective. Unlike most of the previous studies on the housing supply from developers under the neoclassic economic framework, this study takes a micro approach by analyzing the factors influencing the internal rates of return on housing investments. The study finds that a decreasing internal rate of return on developers' housing investments, caused mainly by high land prices, has led to a reduction in housing supply. When the internal rate of return decreases, developers cut down on their projects and hold on to their land waiting for a better time to develop. Results from the study suggest that land in urban districts with high land prices, such as Hong Kong Island, are held approximately two and a half years longer than land in districts with low land prices, such as the New Territories. In view of this, it is advisable for the government to supply more land in districts with low land prices. However, simply increasing the land supply to developers will not solve the housing shortage in Hong Kong. Instead, the conditions surrounding the supplied land should be improved in order to increase the corresponding housing price to cover the reduction in the internal rate of return, which will motivate developers to supply new houses.

© 2015 Elsevier Ltd. All rights reserved.

1. Introduction

As one of the most densely populated cities in the world, Hong Kong's housing shortage has become a severe social issue, together with its high property prices and rents (Policy Address, 2014). In 2013, there was 76 square kilometers of residential land in Hong Kong, accounting for only 6.9% of the total land.¹ Given that the government is the monopoly supplier of land through schedules land auctions, a natural hypothesis is that Hong Kong is faced with the severe housing shortage because the government does not supply sufficient residential land. Hong Kong people apparently believe this and blame the government for its stringent land supply policy (Hui, Leung, & Yu, 2014). Under this

pressure, the government plans to increase the residential land supply both in the long and short term in order to increase the housing supply (Policy Address, 2014). Over the past few years, the residential land supply in Hong Kong experienced a dramatic growth, increasing from 58610.0 sq.m. in 2004–292216.2 sq.m. in 2013.² However, the new completions, which are decided by developers, have decreased and still remain very low³ in this period, dropping from 26036 units in 2004–8254 units in 2013 (see Fig. 1).

² In 2008, affected by the sub-prime mortgage crisis, the land supply fell to 191.4 sq.m.

³ In 2004, there were 26036 units of new completions, with 2122 units of Class A (less than 40 sq.m.), 18225 units of Class B (40–69.9 sq.m.), 3110 units of Class C (70–99.9 sq.m.), 2112 units of Class E (100–159.9 sq.m.), and 2112 units of Class E (more than 160 sq.m.). In 2013, the new completions dropped to 8254 units, with 1423 units of Class A (less than 40 sq.m.), 4688 units of Class B (40–69.9 sq.m.), 1207 units of Class C (70–99.9 sq.m.), 573 units of Class E (100–159.9 sq.m.), and 363 units of Class E (more than 160 sq.m.).

^{*} Corresponding author.

E-mail addresses: 14901520r@connect.polyu.hk (J. Huang), bsqpshe@inet.polyu.edu.hk (G.Q.P. Shen), zheng.wei@connect.polyu.hk (H.W. Zheng).

¹ Data source: Planning Department, Land Utilization in Hong Kong 2013.

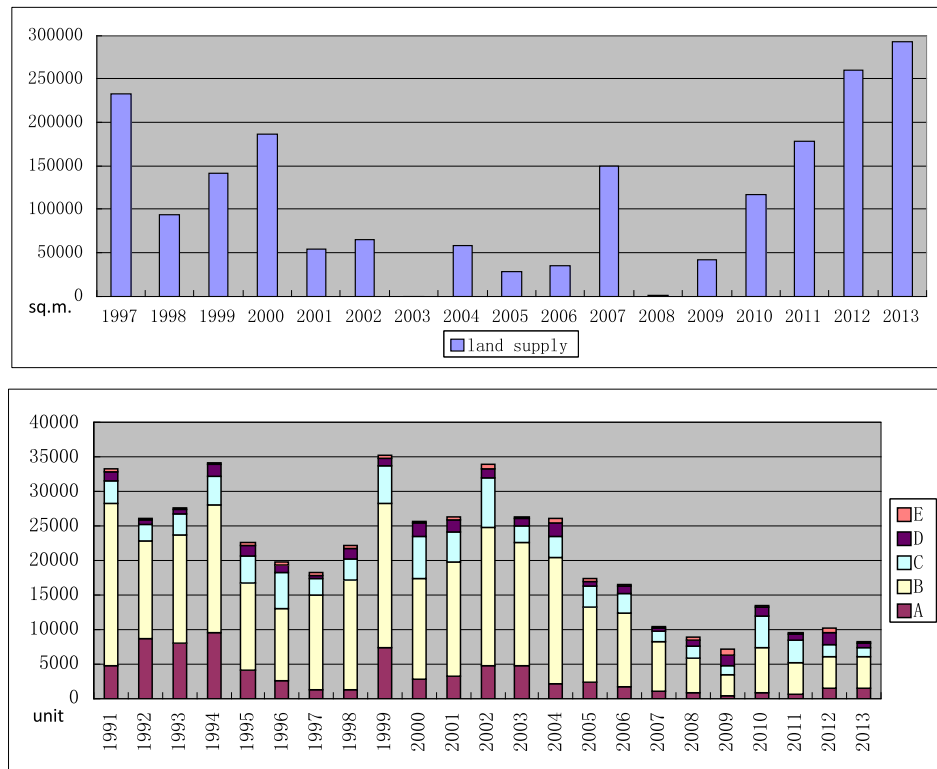


Fig. 1. Land supply and new housing.

The combination of the rising land supply and the declining new housing supply suggests that simply increasing the land supply may not solve the housing shortage in Hong Kong. In fact, there is no consensus over the impact of land supply policies on housing supply. While land regulation policies are believed to make the land less available for housing construction, thus resulting in lower housing supply (Barker, 2008; Costello & Rowley, 2010; Gyourko, Saiz, & Summers, 2008; Glaeser & Ward, 2009; Glaeser & Gyrko, 2002; Glaeser, Gyrko, & Saiz, 2008; Hui & Ho, 2003; Liu and Wang, 2009; Malpezzi & Mayo, 1997; Pendall, Puentes, & Jonathan, 2006), some studies show that land supply is independent of housing supply (An, 2005; Hui, 2004; Hui et al., 2014; Lai & Wang, 1999; Peng & Wheaton, 1994; Tse, 1998). Peng and Wheaton (1994) argued that due to the flexible control on building density in Hong Kong, more constrictive land supply policies do not cut down housing production; An (2005) reached the same conclusion with respect to the Korean housing market. But this still cannot explain why housing supply does not increase when land supply increases. Lai and Wang (1999), Tse (1998), Hui (2004), and Hui et al. (2014) attribute this kind of independent relationship between land supply and housing supply to developers' strategies of land banking. They took an indirect approach to analyzing the determinants of developers' land banking to support the argument that developers' housing supply is independent of land provided by government.

This paper takes a direct and micro approach to furthering our understanding of developers' housing supply. Although the model developed in this paper is very simple, it provides a clear understanding of developers' housing investment decisions. Unlike previous related studies of housing supply using a neoclassic framework that excludes land price, and inspired by behavioral economics, this paper focuses on the factors influencing the internal rate of return of developers' housing investments under a discounted future cash flow framework, which in turn affects their decision to develop new housing. The argument is that if land

supply cannot explain the decline in new housing supply, then the alternative hypothesis is that a decreasing internal rate of return caused by increasing costs, especially increasing land prices, reduces developers' motivation to build new houses.

The remainder of this paper is organized as follows: Section 2 reviews past land supply policies in Hong Kong and empirically tests the relationship between land supply and new housing supply; Section 3 proposes the study's hypothesis; Section 4 presents empirical tests to provide evidence that factors influencing the internal rate of return of developers' housing investments will affect their new housing supply (including a sample of recent new private developments and corresponding parcels of land); and the final section provides conclusions and recommendations.

2. Does insufficient land supply in Hong Kong lead to the shortage of houses?

2.1. Land supply policies and land supply in Hong Kong

As long ago as 1997, the Hong Kong SAR government had already pointed out that due to some entrenched policies and constraints, the supply of residential land had decreased, which caused a failure on the part of the government to meet public expectations (Policy Address, 1997). The government announced that before March 1999, the government would increase the residential land supply by providing an extra 260 ha of land for private houses and 285 ha for public houses (Policy Address, 1997). However, because of the Asian financial crisis and the depression of Hong Kong housing market, the housing market in Hong Kong experienced a depression from 1997 to 2003, and during this period the housing price decreased and remained very low. The real housing price index dropped from 160 in 1997 to 55 in 2003. Together with the low housing price was the high vacancy rate. During this period the vacancy rate in Hong Kong had increased from 3.8% in 1997 to 6.8%

Download English Version:

<https://daneshyari.com/en/article/7456349>

Download Persian Version:

<https://daneshyari.com/article/7456349>

[Daneshyari.com](https://daneshyari.com)