Pacific-Basin Finance Journal 20 (2012) 62–77

Contents lists available at SciVerse ScienceDirect

Pacific-Basin Finance Journal

journal homepage: www.elsevier.com/locate/pacfin

The effect of monetary policy on real estate price growth in China

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ARTICLE INFO

Article history:
Received 23 September 2010
Accepted 1 August 2011
Available online 16 August 2011

JEL classification:
G21
G15
G28

Keywords:
Monetary policy
Real estate
Home price
China

ABSTRACT

Using quarterly data from 1998:Q1 to 2009:Q4 and monthly data from July 2005 to February 2010, this paper examines the impact of key monetary policy variables, including long-term benchmark bank loan rate, money supply growth, and mortgage credit policy indicator, on the real estate price growth dynamics in China. Empirical results consistently demonstrate that expansionary monetary policy tends to accelerate the subsequent home price growth, while restrictive monetary policy tends to decelerate the subsequent home price growth. These results suggest that Chinese monetary policy actions are the key driving forces behind the change of real estate price growth in China. We also show that hot money flow does not have a significant impact on the change of home price growth after controlling for the money supply growth. Finally, a bullish stock market tends to accelerate subsequent home price growth.

To enhance portfolio return and achieve diversification, global investors have long been seeking opportunities in emerging real estate markets since the 1990s. Although international stocks, bonds and private equity have gained much more visibility, international real estate has played a significant role in long-term international investments [see Patterson (2008)].

With the world's largest population of 1.3 billion people, the fastest real GDP growth averaged over 9% for the past two decades, and an aggressive agenda of economic liberalization, asset privatization, market transformation, and global integration, China has progressed into the center stage of the global financial market and is positioned to be the world's second-largest economy. Two key milestones through China's market transformation were the development of the stock market since 1990 and the commoditization of residential real estate since 1998.

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0927-538X/$ – see front matter
doi:10.1016/j.pacfin.2011.08.001

In light of the primary role that China is playing in the global economy, the China perspectives of various financial market segments, such as stocks, bonds, futures and venture capital, have all been extensively studied by researchers.[1] However, despite its growing attention from investors, portfolio managers and policy makers around the world, research on the real estate market in China has been limited. Li (1996) discussed the valuation of real estate properties in China. Webb and Tse (2000) examined the market converging behaviors and the feedback effects among office prices and rentals in Shanghai, Guangzhou and Shenzhen. Barnett and Brooks (2006) showed that the amount of investments in residential real estate in China is weakly correlated with household income and mortgage rate. Zhang and Fung (2006) examined the linkages between real estate and stock market returns in China and the impact of hot money flow. Li and Ge (2008) found that housing properties in Shanghai do not provide adequate hedging for inflation. Deng and Liu (2009) examined mortgage prepayment and default behavior in China's forward housing market. The impact of monetary policy on real estate price growth in China has not been systematically examined. This paper intends to fill this gap using complete data on China home price growth and related policy actions since 1998.

In the United States, highly expansionary monetary policy, especially the aggressive policy rate reduction from 6.5% in 2000 to 1% in June 2003 through June 2004, was cited as one of the key reasons leading to the real estate price bubble that burst during the recent global financial crisis [Taylor (2007), Jarocinski and Smets (2008), and Bernanke (2010)]. In a study of house prices and monetary policy in eighteen major industrial countries, Ahearne et al. (2005) showed that house price booms are typically preceded by a period of easing monetary policy, and that central banks around the world have expressed different opinions on the use of monetary policy to control house prices during the crisis. Since the monetary policy goals of central banks around the world are typically to foster low and stable inflation, the asset price of real estate or equity is not part of the direct monetary policy target.[2]

In China, most banks are either state-owned or state holding, making monetary policy highly influential on asset prices. Monetary policy may affect real estate price adjustment through a variety of channels. First, the central bank's adjustment of the long-term benchmark bank loan rate will change the mortgage rate and the rate on real estate development projects, changing the demand for loans to the real estate sector and ultimately decelerating or accelerating real estate price growth.[3] However, since the mortgage rate is much lower than the return on real estate investments in China, interest rate policy alone is not sufficient in affecting the demand for real estate loans. Second, expansion or contraction in the growth of money supply may increase or decrease the loan-making ability of commercial banks, and change the supply of credit to the real estate sector. It can also change the public's inflationary expectation and the demand for real estate assets. Both channels will lead to a positive impact of money supply growth on the change in real estate price growth. Third, the central bank's real estate specific credit policy on mortgage down payment requirements may increase or reduce the supply of mortgage credit and change the home price growth. The central bank's monetary policy is expected to have a stronger impact on the home price growth in China relative to other more deregulated markets. Since the commoditization in 1998, the real estate sector has been identified as a strategic focus of China's economic development. The macro control of China's real estate sector, through general monetary policy and specific mortgage credit policy, has played an important role in the dynamics of the real estate price growth.

In addition, hot money flow into China was often cited as a key reason for the home price appreciation in China [see Martin and Morrison (2008)]. With rapid economic growth, anticipation of domestic currency appreciation, relatively higher interest rate, and robust domestic home price growth, foreign hot money has flown to China's real estate market through two major channels: direct purchase of residential and commercial real estate properties by foreign individuals or institutions; development of real estate projects or investment of real estate properties by foreign or Sino-foreign real estate development companies or real estate investment trusts. However, due to the managed-floating foreign exchange system, the People's

[1] See Poon et al. (1998), Xu and Fung (2002), Chen et al. (2010), and Li et al. (2011) on the Chinese stock markets, Li and Zhou (2008) on the Chinese bond markets, Fung et al. (2003) on the Chinese commodity futures markets, and Wang and Wang (2011) on the venture capital and private equity in China.

[2] Prices of real estate properties or stocks are excluded from the consumer price index definition, and therefore not reflected in the inflation measure.

[3] In U.S., the Federal Reserve System does not set the long-term mortgage rate. It can only target the short-term federal funds rate.