The Impact of Housing Price on Fertility in the Context of China's Three-child Policy - Taking Shanghai as an Example

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Abstract. In light of China's Three-child Policy, this paper gives a thorough investigation of the complex relationship between housing costs and reproductive choices using Shanghai as a case study. This study provides light on how housing costs affect family planning choices by taking into account a number of variables, including economic development, demographic trends, and housing market dynamics. The paper reveals the complex effects of high housing expenses on important elements of family life, such as family formation, marriage postponement, and parenting decisions. It does this through in-depth data analysis and instructive chart representations. These results highlight the pressing need for comprehensive policy changes targeted at reducing the financial stress placed on families. The research also advances the understanding of the complex effects that such measures might have on broader demographic issues. In essence, this study clarifies the link between housing costs and fertility rates while also highlighting the significance of evidence-based policymaking in creating a more sustainable and nurturing environment for families in light of shifting socio-economic dynamics.

Keywords: Housing price; fertility; Three-child Policy; affordability.

1. Introduction

China's demographic landscape has undergone significant transformations in recent decades, characterized by a rapidly aging population and a declining birth rate. In response to these challenges, the Chinese government implemented the Three-child Policy in 2021, aiming to stimulate a higher birth rate and achieve a more balanced age structure. With a focus on Shanghai, one of the most populous and economically vibrant cities in China, this study seeks to examine the correlation between housing prices and fertility choices under the Three-child Policy. Shanghai's unique economic landscape and rapid urbanization present an intriguing case for understanding how housing affordability influences family planning behavior.

While existing research explores the impact of policy measures on fertility, few studies have thoroughly examined how housing prices specifically interact with the Three-child Policy to affect family planning decisions in Shanghai. By occupying this research niche, a comprehensive understanding of how housing market dynamics and affordability challenges intertwine with demographic policies to influence fertility rates can be gained.

This paper endeavors to shed light on the intricate relationship between housing prices and fertility choices in Shanghai under the Three-child Policy. By analyzing historical housing price trends, affordability challenges, and their effects on family planning, the study aims to provide valuable insights for policymakers and researchers striving to tackle China's demographic challenges effectively. Understanding the impact of housing prices on fertility is essential in formulating targeted policies that support urban families' aspirations and foster sustainable population growth in the context of the Three-child Policy.

2. Literature Review

Recent years have seen a substantial increase in interest in the correlation between housing costs and fertility rates, especially in light of China's developing population policy. With Shanghai as a

case study, this literature review examines significant research and conclusions that offer insight on how housing costs affect fertility decisions.

Li et al. analyze the policy consequences of talent housing and family planning in Shanghai [1]. The study emphasizes how housing rules can affect residents' desire to settle down and start families even though fertility is not directly addressed. By addressing housing affordability issues, talent housing initiatives, which offer inexpensive housing to attract skilled people, indirectly influence family planning choices. As for fertility intentions under the Three-child Policy in China, Chen et al. report a cross-sectional study that focuses on the population of Central China who are of childbearing age under the Three-child Policy [2]. Their research sheds light on how the new regulation is affecting fertility goals, even if it is not specific to Shanghai. The study is especially important for comprehending how national policies generally affect family planning preferences. Yue et al. conduct a statewide online poll on China's Three-child Policy in order to assess intentions for a third child [3]. Their investigation focuses on Chinese adults' plans to have a third child. The effects of the policy on fertility must be understood in the context of the factors that affect this choice, including economic issues like housing expenses. As for China's Fertility change, Yang et al. use a variety of metrics to examine China's fertility change [4]. Despite not being unique to Shanghai, this study advances knowledge of China's fertility dynamics. It emphasizes the importance of taking into account a variety of elements, including economic ones like housing expenses, when analyzing fertility trends.

For China's population ppolicy and social impacts, the complete evaluation of China's population policy and their societal effects provided by Jiang et al. can be found here [5]. In addition to highlighting the extensive effects of laws like the One-Child Policy, this study also gives background for understanding the reasons behind the introduction of new laws like the Three-child Policy. Assessing the Impact of the "One-child Policy", Gietel-Basten et al. use a synthetic control approach to evaluate the effects of China's "One-Child Policy" in their assessment. Although their research is not particular to Shanghai, it offers insights into how a substantial population policy affects fertility choices, which might help in discussions regarding the Three-child Policy's possible consequences [6].

In terms of urban educational policies and social integration, Lv et al. explore the relationship between urban educational policies and the social integration of migrant children in China [7]. Even though it is unrelated to fertility, this study emphasizes the wider policy environment that can affect family planning choices in cities like Shanghai. Zhang et al. explore the prospects for China's population growth under the Two-Child Policy, which came before the Three-child Policy [8]. When predicting probable implications of the new legislation, taking into account elements like housing affordability, their insights into demographic transitions and family planning practices are invaluable.

In conclusion, the body of literature currently in existence offers insightful understandings into the intricate relationship between housing costs and fertility choices, particularly in the context of China's changing population plans. These studies provide a basis for comprehending the various elements impacting family planning decisions, with consequences for researchers and policymakers looking at demographic changes in Shanghai and elsewhere.

3. Housing Market and Fertility in Shanghai

3.1. Housing Market Dynamics

Due to Shanghai's housing market's phenomenal price growth over the past three decades, both economists and residents have been fascinated by and concerned about it. Numerous causes, including strong economic growth, urbanization, and population growth, have contributed to this surge.

3.1.1 Price growth over time

Housing prices in Shanghai, a vibrant metropolis and China's commercial hub, have increased dramatically over the past few decades. The Shanghai Real Estate Research Institute's research shows that from 2010 and 2021, the average price of a home in Shanghai climbed by over 150% (shown in

Figure 1). Rapid urbanization, rising urban housing demand, and a lack of available land are some of the causes of this huge price increase. Prospective parents are faced with rising affordability issues that influence their family planning choices as house prices continue to rise.

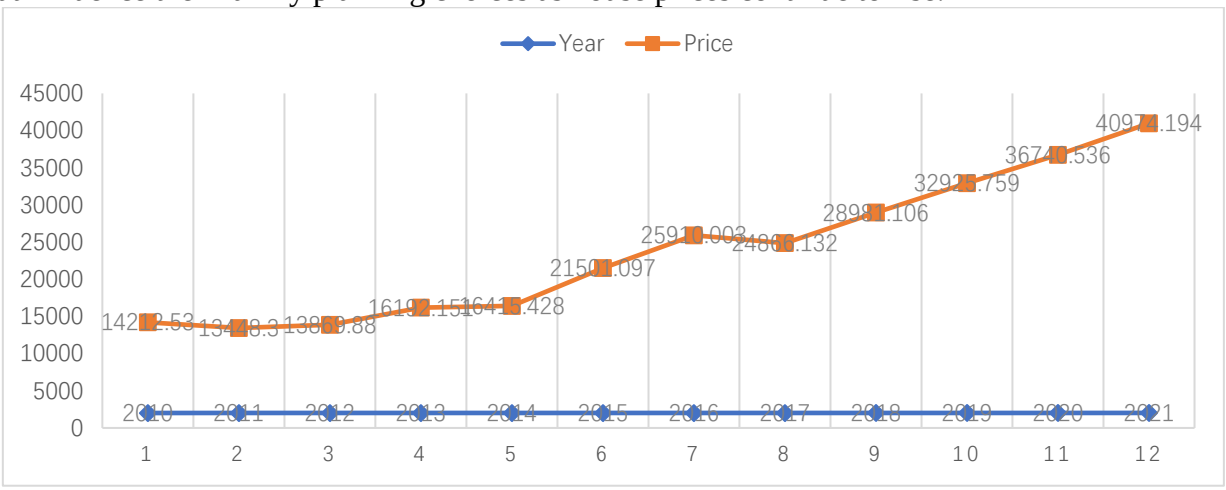


Fig. 1 Residential property price in Shanghai (2010-2021) (Photo credit: Original)

For many Shanghai residents, the rise in property costs has surpassed the rise in income. The National Bureau of Statistics of China reports that throughout the same time period, Shanghai's average yearly income growth increased by about 7%. However, the gap between income levels and property prices has widened as a result of home prices rising at a considerably quicker rate. Young couples who want to start families and become homeowners face a significant hurdle as a result of the gap between housing prices and income growth.

3.1.2 Price-to-income ratio

A key indication of Shanghai's housing affordability is the price-to-income ratio. This ratio shows how many years of salary are needed to purchase a home at the going rate on the market. In Shanghai, the average price-to-income ratio is around 27, meaning that it would take a person nearly 27 years of their entire income to buy a home entirely [1]. Such a high price-to-income ratio is a significant barrier for young couples trying to purchase a home and start a family.

It is necessary to contrast the price-to-income ratio with previous statistics to highlight the severity of the affordability crisis. The ratio was around 12 in 2010, indicating that the property market was somewhat more accessible ten years ago. However, the ratio has more than doubled in only twelve years, making many prospective parents' dreams of home-ownership even more out of reach. Many young couples are forced to postpone starting families or choose smaller living arrangements when the price-to-income ratio rises, which has an impact on their family planning choices. Furthermore, given that postponed family formation and smaller families are factors in the general drop-in birth rates, this trend may have long-term demographic repercussions. In order to promote family planning decisions and encourage sustainable population growth in the context of China's Three-child Policy, housing affordability issues must be addressed.

3.2. Affordability Challenges and Family Planning

3.2.1 Increased cost of child-rearing

The expense of raising children for families in urban locations, like Shanghai, is significantly and directly impacted by affordability issues, particularly those related to high housing prices. The skyrocketing housing costs not only translate into greater living expenditures but also into substantial mortgage payments, leaving families with little money left over to devote to other important facets of raising children [2]. Therefore, the added cost of home ownership may result in less money available for discretionary spending, making it much more difficult for parents to pay for requirements like a child's education, medical care, and other essentials.

A recent analysis from the YuWa Population Research Institute in Beijing found that the average cost of raising a child in China in 2019 was a startling 485,000 yuan for a first child, which helps to put these affordability issues into perspective. This sum is 6.9 times China's per-capita GDP during that year. China came in second place among the 13 countries studied, only behind South Korea, which has the world's lowest birth rate. Based on statistics from 2015, the cost of raising children in the United States was 4.11 times GDP per person, whereas Japan's figure was 4.26 using data from 2010.

It is important to highlight that the expenditures associated with raising children are much higher in China's main cities, with Beijing reaching 969,000 yuan and Shanghai over 1 million yuan. When compared to the national average, urban areas have higher prices and lower birth rates. The circumstance highlights the significant influence that high housing costs have on choices about family planning, making it crucial for policymakers to solve the affordability issues in order to support sustainable population growth and family well-being.

3.2.2 Delayed family formation

The timing of family formation for young couples in Shanghai is significantly influenced by housing affordability. Many would-be parents must decide between starting a family and choosing home-ownership as housing costs rise. Young couples frequently put off getting married and having children until they can find solid housing options that are inexpensive. The average age of first-time homeowners in the city has consistently risen over the past ten years, according to a poll by the Shanghai Municipal Bureau of Statistics. The average age was 28 in 2010; by 2022, it would have risen to 32. This increased trend is a reflection of how young couples' lifestyle decisions and the timing of family planning are being impacted by the rising cost of housing.

Delayed family formation affects not only specific households but also adds to China's overall demographic problems. Couples who put off having children see a drop in the birth rate as a whole as well as a possible long-term drop in the average number of kids per family. The overall fertility rate in China decreased significantly from 1.5 in 2015 to 1.3 in 2020, according to the country's National Health Commission, meaning that fewer children are being born per woman during the reproductive years [4]. Young couples could feel pressured to delay having children until they can afford suitable housing and give their kids a stable environment, which contributes to the drop in fertility rates.

Family planning choices in Shanghai are significantly impacted by the issue of housing affordability. High housing costs have fueled the trend of delayed family formation, which has resulted in a drop in the birth rate and creates serious problems for China's demographic situation. Targeted policies that improve housing affordability and support young families are crucial in promoting timely family formation and fostering sustainable population increase to address these issues. In urban areas like Shanghai, addressing housing affordability issues can significantly contribute to fostering family well-being and advancing the goals of China's Three-child Policy.

3.3. Other Influencing Factors on Fertility

Economic issues like housing costs are not the only ones that affect fertility rates. Other elements, like as governmental regulations and societal and cultural influences, also significantly impact fertility decisions. This study will examine how these elements in this part can either mitigate or worsen the effect of Shanghai's high housing prices on fertility by delving into two sub-points.

3.3.1 Government incentives and support

Government policies, particularly those intended to promote or discourage bigger families, rank among the most important external influences influencing fertility rates in Shanghai. Government incentives can be a potent instrument in influencing family planning decisions in a city with extravagant housing costs. Numerous governments, like that of Shanghai, have acknowledged the demographic difficulties brought on by aging populations and low fertility rates [9]. In response, they have put up a number of regulations intended to lessen the cost of raising kids. Housing subsidies,

financial incentives, tax breaks, and easier access to daycare and education are a few of these programs that are frequently used.

Given the high cost of real estate in Shanghai, housing subsidies are particularly crucial. Young couples' financial burden can be greatly reduced by the government's supply of inexpensive housing options or subsidies, making it more realistic for them to consider starting a family. Such initiatives can counteract the adverse effect of high home prices on fertility rates by tackling the issue of housing affordability directly.

Additionally, larger family incentives like monthly cash payments or tax benefits can encourage couples to have more kids. These financial incentives are intended to lessen the costs associated with having children, and they are especially useful in nations where the cost of living is a major concern.

When implementing such policies, it's crucial to maintain a balance. Excessively rich incentives may have unforeseen effects like population growth and a burden on public resources. To guarantee that these programs efficiently support families without causing economic imbalances, governments must carefully plan and assess them. In Shanghai's situation, government support and incentives are crucial for increasing fertility rates while reducing the effects of high housing costs. Young couples who are considering having children in the city may find these policies to be a welcome respite.

3.3.2 Social and cultural factors

Beyond monetary concerns and governmental regulations, social and cultural aspects have a significant impact on fertility decisions in Shanghai. The dynamics of family planning in the city are shaped by these variables, which are intricately linked to individual decisions and societal conventions.

In terms of women's workforce participation, over the past few decades, Shanghai has seen a substantial change in the position of women in the workforce. Women have increased their participation in the workforce and career pursuits, and frequently put off having children in order to concentrate on their professions. This delay in childbirth may affect reproduction rates since women may have more difficulty juggling job and family obligations. Flexible work schedules and maternity leave are two examples of policies that can encourage women to have children without endangering their careers.

As for gender norms, in Shanghai, decisions about fertility are still influenced by long-standing gender norms and expectations. Couples may be discouraged from having more children in some situations due to cultural pressure to uphold conventional family roles, since women may worry about being responsible for the majority of childcare duties. It is possible to foster a climate where couples feel more empowered to make decisions about fertility that are in line with their personal preferences by promoting gender equality and challenging established gender norms.

For traditional family values, fertility decisions are also influenced by cultural and familial expectations. The importance of family unity and filial piety is strongly emphasized in Shanghai, as it is throughout much of China. This can take the form of pressure to have at least one kid in order to maintain the family tree and help the elderly. However, the financial realities of raising children in a costly metropolitan environment often conflict with these expectations. Making decisions about fertility involves juggling these conventional beliefs with the real-world difficulties of raising children.

Shanghai's high housing costs are one factor in fertility decisions, but they are not the only one. The cost of having children can be lessened through government initiatives that offer housing subsidies and rewards for larger families. In addition, social and cultural aspects including women's employment rates, gender roles, and traditional family values have a significant impact on fertility decisions. Adopting a comprehensive strategy that takes into account economic and socio-cultural issues while developing policies that help families in their decision-making is crucial to addressing Shanghai's dropping fertility rates [10]. Despite the difficulties posed by high housing costs, balancing these forces can enable Shanghai and comparable urban areas establish a more conducive atmosphere for families to thrive.

4. Conclusion

In light of China's Three-child Policy, particularly in urban areas like Shanghai, the connection between housing costs and fertility choices is a complicated one. The research of the housing market's dynamics and issues with affordability draws attention to the possible effects that high housing costs may have on family planning decisions. Young couples may have trouble obtaining acceptable housing when housing costs rise, delaying the start of a family and lowering fertility rates.

Policymakers may need to investigate targeted housing subsidies or other measures to increase home affordability for young families to solve these issues. Additionally, in order to effectively handle the demographic difficulties and promote the goals of the Three-child Policy, a holistic approach that takes into account not only housing prices but also cultural elements and governmental regulations is crucial.

This study provides significant knowledge about how housing expenses impact decisions about having children in Shanghai to scholars and policymakers. By addressing the financial difficulties that young couples have, the research may promote sustainable family planning and population growth in the context of urbanization and the Three-child Policy.

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