

The Impact of Population and Fertility Policy of China on the Real Estate Market

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Abstract: The population structure and development model of China have undergone significant changes, i.e., the new population is decreasing and the aging population is increasing. Meanwhile, population policies and supporting measures have also changed. The implementation of the three-child policy has also triggered discussions in the industry and the academic community has also carried out in-depth research on the relationship between the real estate market based on demographic changes. This paper will compare the results of the implementation of the two-child policy and the three-child policy. To be specific, this study will explore the impact of the population birth policy on the urban real estate market through urban classification, as well as the demographic dividend brought by the birth policy and changes in the structural demand for real estate. According to the analysis, real estate companies in the implementation of the two-child policy have faced new challenges and new opportunities. In the future, the birth policy will affect the family structure. This will further influence the development direction and project development of the real estate market.

Keywords: real estate, fertility rate, population structure, fertility policy

1. Introduction

In the past two years, there has been a clear deviation between the birth population and housing prices in China, and the population fertility policy has changed twice in just seven years. In 1978, the central government proposed that a couple have one child, with a maximum of two children, and local governments have already started implementing family planning policies. In 1982, in order to control population growth by 2000, family planning became one of the obligations of citizens. In 2014, China relaxed its population policy and implemented a two-child birth policy. In 2021, China will once again relax the population fertility policy, and implement three-child and supporting measures. In other words, the government will help reduce the burden of parenting and provide financial support [1].

China's family planning policy has lasted for 40 years, but two consecutive birth plans has been implemented for 7 years. Contemporary social phenomena (e.g., the rising number of people and the sharp rise in the elderly dependency ratio) have led to the birth rate of 7.52% in 2021 as shown in Fig. 1, the lowest since 1949, and the national marriage registration rate in 2021 will be the lowest since 1986 [2].

The decline in the number of births means that the growth rate of the total population will decline. Besides, it also means that the incremental space for real estate will gradually decrease, but this does

not mean that housing prices have peaked. The demand is more prominent in first- and second-tier cities with higher housing prices and raising costs [3]. However, the willingness of society to respond to population policies has gradually weakened, so only opening the fertility policy has little effect on boosting the fertility rate [4]. Besides, due to the high cost of survival and marriage and childbirth, the fertility rate of first- and second-tier cities is lower, and population growth has become an intractable problem. These social challenges can only be confronted by continuous regulation and control of population and fertility supporting policies. Meanwhile, they must be adapted to local real estate policies. The results of this study will have a huge impact on China's marriage and childbearing rate in the future, which will also have a boosting effect on the real estate market.

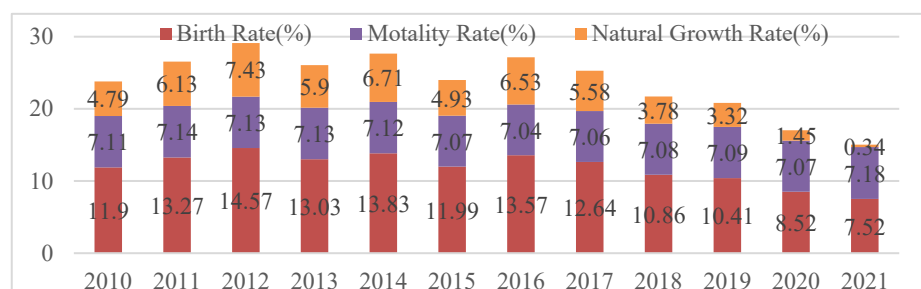


Figure 1: The birth rate, death rate & natural growth rate in China 2010-2021.

2. Theorem & Literature Review

Forty years since the reform and opening, the birth control policy, as the basic national policy of China's population and fertility, has had a profound impact on China's economic development. In the early stage of policy implementation, family planning promoted economic development to a certain extent. On the one hand, many laborers poured into the market, especially the female labor force was liberated from the family to social production, which increased the supply of labor resources and reduced the labor cost of enterprises. The cost of capital has dropped, the national economic development has grown, and the disposable income of residents has also risen.

However, the family planning policy has had some adverse effects on China's population structure. Firstly, family planning has distorted the intergenerational structure of the population. The problem of "getting old before getting rich" is prominent, and China is rapidly entering an aging society [5]. At the national level, the aging of the population has brought about a shortage of labor and a huge pressure on social security. At the family level, the distorted intergenerational structure makes "4-2-1" (4 elders, 2 parents, 1 child) main family structure [6], and the soaring population dependency ratio means that young people have to bear extremely heavy burdens. Secondly, family planning has led to distortions in the intra-generational structure, and the sex ratio of men and women in China is seriously unbalanced (seen from Fig. 2).

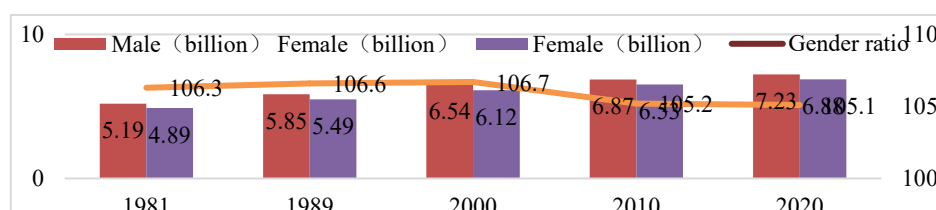


Figure 2: Gender ratio.

3. The Impact of the Second-Child Policy

Following the "single two-child" policy proposed at the Third Plenary Session of the 18th Central Committee in 2013, the demographic dividend has gradually emerged [7]. By 2015, the policy effect had diminished, the birth rate began to decline, and the growth rate of the total population slowed down. In particular, the proportion of the labor force is gradually declining, which has a huge impact on the growth rate of social and economic development. In the meantime, the old-age dependency ratio also reached a high level of 13.7% [8]. Against the background of accelerating aging and weakening demographic dividends, the fertility policy has been adjusted again.

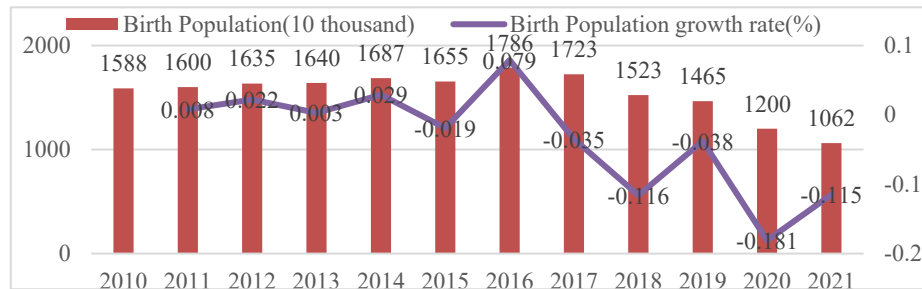


Figure 3: China's birth population and growth rate from 2010 to 2021.

In the end of 2016, in the five years since the two-child policy evolved from the dual-one-two-child policy to the comprehensive two-child policy, China has achieved the goal of expanding its population size and increasing its natural population growth rate. In 2016, China's birth population reached its peak in nearly a decade (2010-2021), as depicted in Fig. 3. At this time, the demographic dividend has reached a high level. The increase in the total social population and the increase in the per-household population has spawned new housing needs, i.e., high ancillary facilities requirements and new family room designs. At the same time, this also drives the cyclical changes in the real estate market. Real estate enterprises usher in new challenges and new opportunities.

3.1. New Challenge

In the short term, due to the comprehensive liberalization of the two-child policy, the number of newborns has increased, and the child dependency ratio has also increased. Besides, the cost of parenting has increased, and the pressure of life has increased. Overspending will not be considered by many families. In the long run, owing to the diminished fertility accumulation effect of the two-child policy, the fertility rate has slowed down, and the old-age dependency ratio is also rising every year. Seen from Fig. 4, the growth rate of the old-age dependency ratio is faster than that of the child dependency ratio. In the future, more old-age support burdens will be added at the same time. If the rate of deepening aging and the rate of declining fertility cannot be effectively alleviated, the scale of labor supply will decrease in the future. The elderly has no rigid demand for real estate, and the age of loan buyers is generally no more than 65 years old [9]. In addition, ascribed to the low proportion of elderly buyers without loans, the deepening of aging will affect the vitality of the real estate market.

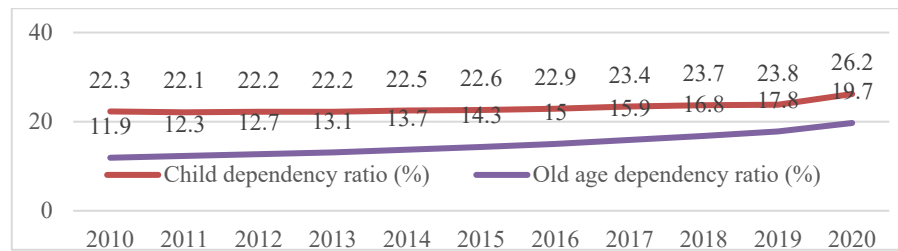


Figure 4: Child dependency & old age dependency ratio in the year of 2010-2020.

The 2018 survey on reproductive willingness of women of childbearing age shows that women of childbearing age plan to have an average of 1.76 children [10]. From a geographical point of view, on account of the high cost and high pressure of childbirth and maintenance costs, the willingness of women to have children in first- and second-tier cities is relatively lower than the others. From the perspective of urban and rural areas, urban women's willingness to regenerate is also relatively lower than that of rural women. Although the urbanization process is developing rapidly, rural women are more willing to give birth than urban women. Nevertheless, since the disposable income is lower than that of the urban population, the willingness to buy a home is not very strong.

3.2. New Opportunities

The increase in the number of newborns increases the rigid demand for house purchases. In order to meet the space for raising a second child in the future, the demand for early purchases or replacements has increased. In addition, most cities have opened preferential purchase conditions such as purchase restrictions, and there will be demand for replacement or large-sized houses in the short term. As illustrated in the Fig. 5, China's residential sales area in 2013 and 2016 showed a clear growth trend.

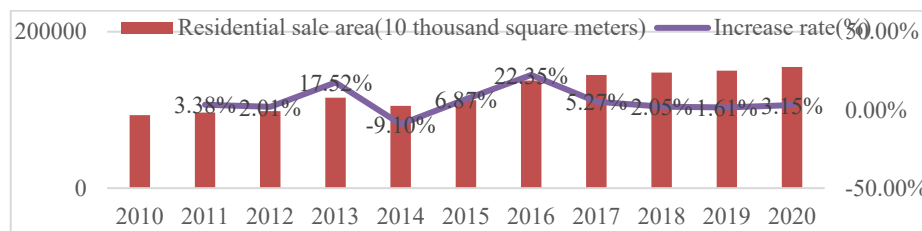


Figure 5: China residential sale area from 2010-2020.

In the long run, the second child born under the two-child policy will become a marriageable population in 20 to 25 years. Even if there are no children yet, the demand for early home purchase still exists and increases. Although the population per household decreased, it did not affect the increase in the total number of households. Therefore, small units will be chosen by couples or families preparing for marriage to buy homes in advance. As depicted in Fig. 6, with the deepening of the degree of aging, it is common for families with two children to have the elderly living together. This will drive demand for four or even five rooms. This type of family structure will increase the requirements of home buyers for house design. Some elderly people who have accumulated wealth in the early stage have higher configuration requirements for housing, including surrounding environment, property services, comfort, convenience. Older-friendly communities with simple units and well-equipped facilities will be popular.

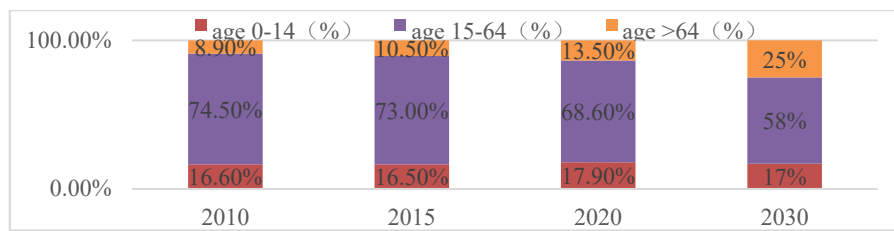


Figure 6: Population age structure.

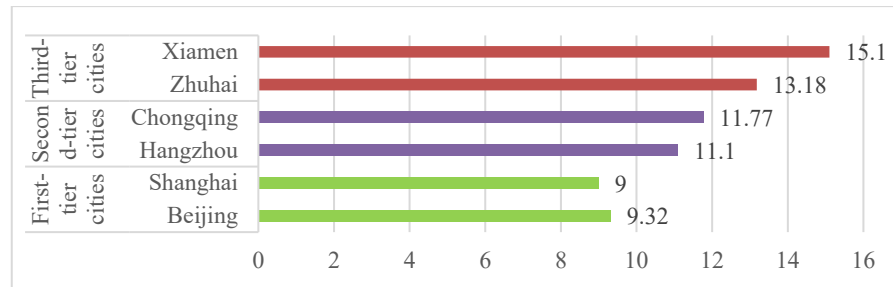


Figure 7: Birth rate.

The development potential of the third- and fourth-tier small and medium-sized cities are higher than the first- and second-tier key cities. As exhibited in the Fig. 7, the fertility rate of first- and second-tier cities in 2016 was lower than that of third-tier cities. In the same region and under the same conditions, the less working hours and the pressure on economic life, the higher the willingness to have children, and the stronger the demand for replacement or repurchase. Business, housekeeping, medical care, education and other supporting resources have increasingly become one of the key concerns of family home buyers. Families with multiple children have higher and higher requirements for children's education and supporting services. Hence, the housing prices in the school district are "rising all boats" in the pursuit. The small peak of childbearing brought about by the opening of the two-child policy has led to an increase in school-age children, and high-quality educational resources are very popular. Therefore, first-hand and second-hand school district houses around high-quality kindergartens, primary and secondary schools are sought after.

4. The Impact of the Three-Child Policy

In 2019, China's total fertility rate was less than 1.5, while the world's average fertility rate was 2.4 [11], which is enough to show that the fertility rate has fallen below the warning line. Due to the gradual weakening of the fertility stacking effect and the continued decline in the number of women of reproductive age. Seen from the Fig. 1, the number of births may continue to shrink in the future according to this trend.

Judging from the results of a recent survey of more than 10,000 questionnaires collected by the China Index Academy across the country, 58% of married families have a single child, and 30% of families with two children. Nearly 55% of families with two children are willing to have three children. In Gansu and Guangxi Province, the willingness to have three children is relatively strong, and the proportion of the willingness to have children exceeds 50%. The willingness to have children in Hebei, Fujian and other provinces is also above 40% [12]. In the first-tier key cities with high living costs and high fertility pressure, the problem of "inability to reproduce" occurs.

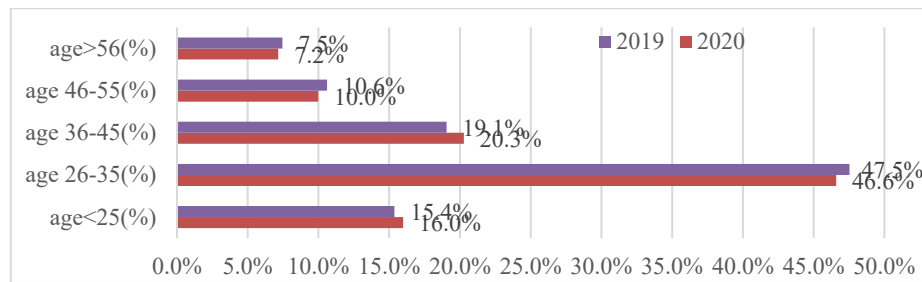


Figure 8: Age comparison of home buyers in 2020 and 2019.

From the perspective of real estate, the most profitable cities for the three-child policy are second-tier cities. First-tier cities have high parenting costs and low willingness to give birth, but second-tier cities have infrastructure, living conditions and cultural environment comparable to first-tier cities. The three-child policy has brought an increase in family members, and the demand for house replacement will increase and bring some incremental house replacement customers, which also indirectly brings about an increase in the demand for house purchases.

Second, as shown in the Fig. 8, the growth rate of per capita living area in rural areas is higher than that in urban areas. For rural families with multiple children, the cost of replacement or repurchase is lower. Because the willingness to have children is much higher than in cities, the future demand will also further increase. According to the results, future home buyers are still people in the marriageable and childbearing age group of 25-36 years old.

5. Suggestions & Prospects

The single boom phase in China began with the 1950 Marriage Law, which denied the feudal marriage system. Later in the 1970s, when the educated youth returned to the city, a cultural generation gap began to appear in the society, and the cultural quality of the family was uneven. In 1990, the Marriage Law was amended, and the law recognized freedom of marriage [13]. Nowadays, economic living standards and education levels are constantly improving, and people's views on marriage and fertility are gradually changing. First, with the decline in the birth rate and the deepening of the aging population in recent years, the number of people who are eligible for marriage and children is also declining. Meanwhile, the persistent problem of the imbalance between males and females has not been effectively addressed. It prolongs the mate selection time. The probability of male and female pairing is relatively reduced. In addition, population mobility leads to the flow of talent to big cities.

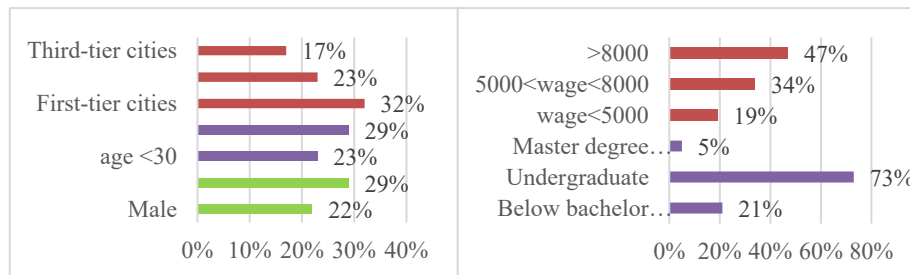


Figure 9: Percentage of unmarried people as functions of different social demographics.

While the cost of living and home ownership in key first-tier cities is high, but there are many opportunities for personal development, young people prefer to enjoy free time and money after struggle. As presented in the Fig. 9, Kochi female unmarried people in first-tier cities are typical. Moreover, the continuous improvement of education level has allowed more young people to have more ways to realize their self-worth, not just marriage and childbirth. Besides, the non-marriage rate of high-

income and highly educated groups is relatively high. The time of higher education delays the time of marriage registration.

Since the willingness, concept and pursuit of those who take the initiative to not marry conflict with marriage and childbearing. Thus, the two-child and three-child policy does not have the effect of promoting marriage for such people. The single apartment, small-sized properties in first- and second-tier cities and the rental market of serviced apartments will generate more demand. Passive non-marriage is often unable to pay for the cost of marriage and childbirth due to economic conditions, but because of traditional ideas, marriage has become a rigid need. The two- and three-child policies plus supporting measures are more effective for such groups. Especially for people who migrate from rural areas to cities, housing subsidies and other factors can further stimulate the needs of such people to settle down in third- and fourth-tier cities.

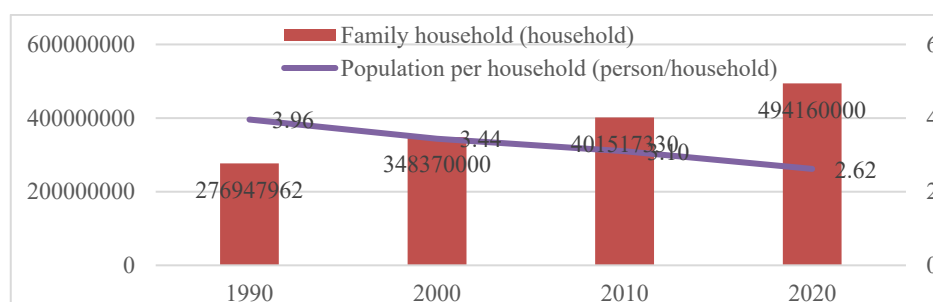


Figure 10: China's population per household from 1990-2020.

As illustrated in the Fig. 10, owing to the declining effect of the universal two-child policy, the per-household population has also continued to drop to 2.62 in 2020 in recent years. The seventh census data shows that there are 494 million households in China. The average household population of 2.62 in 2020 is 0.48 less than the 3.10 in the sixth national census in 2010. The trend of family miniaturization is accelerating. Since the number of pregnant women is also shrinking, the fertility rate may continue to decline. Unmarried and late childbearing have become social trends. Thus, some family types (e.g., DINK or young couples) will choose to live in high-end small apartments. The fission of the family (from parents + children to children or lovers) will generate new demand for housing. Moreover, the increasingly small family will increase the market attention of small units. In first- and second-tier cities with high housing prices, small units will be more popular among young people.

Life in key first- and second-tier cities is still pursued and longed for. The first- and second-tier cities have better commercial, medical, service, education and other resources. After graduating from colleges and universities, young people choose to struggle and develop in the city, and the demand for rental of small-sized real estate and serviced apartments in the central area will only increase. The third- and fourth-tier livable cities will have huge development potential. Owing to the high pressure and high cost of living in key first- and second-tier cities, most people choose to retreat to other cities to enjoy living conditions and resources similar to the original cities at a lower cost. In third- and fourth-tier cities, medium-to-large units will become the mainstream, and the main target buyers are families with multiple children.

6. Conclusion

In summary, this article examines the impact of the past two-child policy and today's three-child policy on real estate. China has been enjoying the demographic dividend during the implementation of the two-child policy. Since 2016, the effects of the demographic dividend and the fertility policy

have weakened accordingly. It is a huge challenge for real estate due to declining fertility rates and a deepening aging population. Nowadays, the changes in the concept of marriage and childbirth and the progress of social and cultural thinking have led to changes in the family structure, i.e., the per capita population is getting smaller and smaller. This will bring new opportunities for real estate. Third- and fourth-tier cities are more affected by birth policies and are more suitable for the development of multi-child family housing. The first- and second-tier cities are more suitable for the development of single-unit apartments and small family units. This paper synthesizes China's past birth policies and summarizes China's population structure in the past two decades, thereby analyzing the impact on the real estate market and proposing real estate development directions based on relevant data. This paper also overturns the development concept of "bring new baby to save the market" in the field of real estate research in the past. Overall, these results offer a guideline for policy implementation regarding to population policy for real estate market.

References

- [1] Goldman, R.: *From one child to three: How China's family planning policies have evolved* (Published 2021). *The New York Times - Breaking News, US News, World News and Videos*. Retrieved from: https://www.nytimes.com/2021/05/31/world/asia/china-child-policy.html?_ga=2.82373526.1463110195.1666200366-833250925.1666200366, last accessed 2022/10/21.
- [2] 2021 China Statistical Yearbook. (n.d.). National Bureau of Statistics, <https://www.stats.gov.cn/tjsj/ndsj/2021/indexch.htm>, last accessed 2022/10/21
- [3] Chen, H. J., Li, X., Wu, M. H.: *Births and housing prices drifting apart*. CICC Research Institute, 2021.
- [4] China allows three children, netizens say "the problem is that they don't want to have one". (2021, May 31). *BBC News*. <https://www.bbc.com/zhongwen/simp/chinese-news-57305871>, last accessed 2022/10/21.
- [5] Cao, W. J.: China will enter the post-"demographic dividend" era, facing the challenge of getting old before getting rich. (2009, May 22). Retrieved from: https://cn.chinagate.cn/population/2009-05/22/content_17821263.html, last accessed 2022/10/21.
- [6] Chen, W.: "421" family structure assumption and family pension pressure facts. *Humanities and Social Sciences Edition*, (2013, January).
- [7] Communiqué of the Fifth Plenary Session of the Eighteenth Central Committee of the Communist Party of China (full text). *Caixin*. <https://www.caixin.com/2015-10-29/100867990.html>, last accessed 2022/10/21.
- [8] 2014 China Statistical Yearbook. National Bureau of Statistics. <http://www.stats.gov.cn/tjsj/ndsj/2014/indexch.html>, last accessed 2022/10/21.
- [9] What effect does age have on taking out a home loan? (2022, April 26). *Real Estate Network*. <https://www.loupan.com/bk/113462.html>, last accessed 2022/10/21.
- [10] Zhang, L.: *A study on the willingness of professional women to have a second child and its influencing factors*. National Bureau of Statistics Institute of Statistical Sciences, 11, 3705 (2018).
- [11] Total fertility rate (births per woman). (n.d.). World Bank Open Data | Data, <https://data.worldbank.org.cn/indicator/SP.DYN.TFRT.IN>, last accessed 2022/10/21.
- [12] "Three-child" liberalization and survey on housing demand. (n.d.). CREIS middle finger cloud research platform, <https://www.cih-index.com/>, last accessed 2022/10/21.
- [13] *People's Daily*. (2019, September 4). Marriage is your own. *people.cn*. Retrieved from: <https://politics.people.com.cn/n1/2019/0904/c1001-31334846.html>, last accessed 2022/10/21.