

The Impact of Changes in China's Population Structure on Consumption Patterns

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Abstract: Consumer spending is the key engine driving economic growth in China. However, in recent years, the overall consumption pattern in China has been affected by domestic epidemics, leading to an increase in unemployment rates among residents and a decrease in consumer willingness. As a result, the annual changes in final consumption expenditure have tended to stabilize, with almost no upward trend. Consequently, numerous studies have emerged based on the current consumption situation in China, providing recommendations to promote consumption. This paper, using data from the World Bank and China's National Statistical Yearbook, conducts research on the impact of demographic changes on consumption structure and proposes relevant suggestions to boost consumption in China. Researching the development of China's population structure reveals several notable trends. These include a decrease in the working-age population accompanied by a significant aging trend, improvements in population quality due to enhanced human capital, and a noticeable trend towards urbanization and increased population mobility. Therefore, this paper provides a series of recommendations, encourages national policies and corporate innovations that promote consumption, and offers solutions to potential issues arising from changes in population structure.

Keywords: consumption structure, population structure, data analysis.

1. Introduction

Consumer spending is the primary driving force behind economic growth in China. However, in recent years, Chinese consumption has been affected by COVID-19, leading to a decrease in residents' willingness to consume. Consequently, the annual changes in final consumption expenditure have tended to stabilize, indicating that the contribution of consumption to economic growth has not significantly increased. Therefore, promoting consumption and enhancing the quality of goods and services consumed is crucial and holds research significance.

Consumption structure refers to the proportion of consumer spending on various goods and services relative to their total consumption expenditure, reflecting the types of consumption and consumer choices [1]. Categories of consumption included in China's National Statistical Yearbook primarily cover food, clothing, housing, transportation, communication, education, culture, entertainment, and healthcare. Among these, expenditures on food, clothing, and housing can be classified as basic consumption since they represent people's basic living standards. By contrast,

expenditures on transportation, communication, culture, and entertainment that enhance quality of life are categorized as higher-level consumption.

Population structure encompasses age distribution, urban-rural distribution, industrial structure, cultural levels, and other social structures [2]. In recent years, China's population composition has shown trends of increasing aging, widespread improvements in cultural levels, and continuous urbanization. These changes indirectly or directly impact China's consumption structure [3].

Based on the background provided above, this paper explores the impact of these three types of population structure changes on China's consumption structure using relevant statistical data from the National Bureau of Statistics and the World Bank. By analyzing the changing trends in population structure, the current consumption patterns among different population groups, and the underlying causes, consumption patterns for various demographic segments can be identified. Also, this analysis aims to understand how trends in population changes impact consumption choices and proposes relevant recommendations to promote consumption in China based on these trends.

2. Analysis on the Problems

2.1. The Impact of China's Age Structure Changes on Consumption

According to the Population Census Bulletin issued by the National Bureau of Statistics, the age composition of the population can be roughly divided into three stages: 0-14 years old, 15-64 years old, and 65 years old and above, representing children, adults, and seniors, respectively (children and seniors are non-working-age populations that need to be supported by the working-age population) [4].

Different age groups influence people's consumption behaviors and choices. According to the results of the seventh population census, the proportion of the population aged 0-15 years old in China is approximately 17.8%, the working-age population (15-64 years old) accounts for about 68.6%, and the population aged 65 years and above accounts for approximately 13.5%, surpassing the global aging standard (where the population aged 65 years and above accounts for 7%) [5].

The children's economy, focusing on children aged 0-15 as the main consumers, includes expenditures on children's products, toys, entertainment, education, and healthcare. Additionally, with the increasing competition in education and employment in China, parents will pay more attention to education, leading to an increase in the proportion of expenditure on urban education and training [6].

For the population aged 16-64, consumption structure varies significantly due to age and income levels. Typically, as income levels rise, consumption levels also increase. However, due to increased demand, the quantity and quality of goods purchased increase, leading to higher liabilities (such as mortgages, car loans, etc.). Furthermore, with higher incomes, people start to plan their finances, increase savings. According to World Bank data, China's savings rate was around 43.9% in 2019, rising to 46.5% in 2022, with forecasts of further growth [7].

The income sources for the elderly decrease, and as they age, their demand for conventional consumption decreases (e.g., compared to middle-aged individuals, the elderly reduce their pursuit of fashion trends and focus more on durable clothing, leading to reduced clothing expenditure). Additionally, influenced by tradition, the older generation of Chinese tends to be frugal, resulting in lower consumption demand among seniors. However, the demand for healthcare and nursing among the elderly increases with age.

In summary, different age groups influence people's consumption choices. The children's economy primarily includes expenditures on children's products, toys, and entertainment. With improved living standards and intensified competition, future major consumption categories are expected to focus on extracurricular education and training. The consumption structure of young adults varies significantly

due to age, culture, and geographical backgrounds. However, influenced by Chinese traditions, increased income may lead to higher savings rates and reduced consumption. For the elderly, conventional consumption demand will decrease, while healthcare and wellness-related demands will continue to increase.

2.2. The Impact of Changes in Education Level on Consumption

According to the Seventh National Population Census Bulletin issued by the National Bureau of Statistics, from 2010 to 2020, China's average years of education increased from 9.08 years to 9.91 years. Among the national population, there were 37,750,200 illiterate individuals (aged 15 and above). In comparison to the Sixth National Population Census in 2010, there was a reduction of 16,906,373 illiterate individuals. The illiteracy rate decreased from 4.08% to 2.67%, a decline of 1.41 percentage points. In tier-one cities like Beijing and Shanghai, the average years of education are nearly over 10 years [5].

Generally, groups with higher levels of education also tend to have higher income levels. Higher education provides a wider range of employment options and easier access to high-paying job opportunities, such as professional technical positions and management roles, which often come with higher incomes. For instance, according to the 2023 Beijing Statistical Yearbook, residents in cities with the highest levels of education have an average disposable income of 77,415 yuan, significantly higher than the national average income level of 36,883.3 yuan [3]. Higher income levels imply higher consumption levels. This is due to several reasons: firstly, higher income allows people to choose a higher quality of life, especially in categories with significant price differences such as food and clothing. Secondly, higher-income individuals not only fulfill basic needs but also seek various services or experiences such as travel and extreme sports, which come with higher expenses. Thirdly, high-income groups may be influenced by consumption habits or social circles, opting for luxury goods and participating in high-end activities to enhance status and showcase identity. For example, in Beijing, due to varying income levels, the consumption levels far exceed the national average. In 2022, the national average was 31,718 yuan, while Beijing's average consumption level was 70,592 yuan [3].

In summary, China's education level is steadily improving, which may indicate higher income levels. Higher income levels result in higher consumption levels because people's lifestyles and pursuit of services and experiences increase with income.

2.3. The Impact of Urban-rural Population Changes on Consumption

According to the National Statistical Yearbook, the proportion of rural population has been decreasing annually, while the urban population has been increasing, reflecting China's urbanization trend.

Based on data from the China National Statistical Yearbook, analyzing the impact of changes in China's population structure on consumption patterns.

There are significant differences in consumption habits between urban and rural residents. As per the China National Statistical Yearbook, rural residents generally consume fewer durable goods compared to urban residents, indicating a higher consumption level among urban residents. However, there are specific goods such as motorcycles, electric bikes, and mobile phones where rural consumption exceeds urban consumption. This difference could stem from economic or environmental factors. For instance, motorcycles and electric bikes are more affordable compared to cars. Additionally, the rural lifestyle tends to be simpler and traditional, with more rugged terrain, making motorcycles and electric bikes more practical than cars in those areas. In terms of food consumption, overall, rural residents consume more grain (i.e., raw grains) than urban residents

(164.6 kg compared to 116.2 kg) [3]. In other categories such as meat and vegetables, rural consumption is lower than urban consumption. This disparity is partly due to the needs of rural residents who engage in agricultural work and require higher carbohydrate and energy intake to sustain their daily physical exertion.

Specifically regarding meat consumption, rural residents consume more pork than urban residents, with rural pork consumption in 2022 at 28.1 kg compared to urban consumption at 26.0 kg. However, their consumption of beef and lamb is less than that of urban residents. Moreover, demand for various food items is increasing for both urban and rural residents. However, the growth in urban demand for pork is gradually decreasing (The consumption in 2020 was 19.0 kilograms, in 2021 it was 25.1 kilograms, and in 2022 it was 26.0 kilograms), while rural demand for pork is increasing (The consumption was 17.4 kilograms in 2020, 25.4 kilograms in 2021, and 28.1 kilograms in 2022) [3]. This could be due to urban residents' emphasis on health factors, leading to a higher demand for vegetables, beef, and lamb, which are rich in dietary fiber, high-quality protein, and have lower fat content. Another factor could be the affordability of pork for rural residents.

In summary, urbanization will impact China's consumption trends. There will be increased demand for durable goods, and the demand for high-priced durable goods may rise. Additionally, there will be changes in food consumption choices, with an increased demand for high-quality and high-priced food items.

3. Suggestions

3.1. Responding to the Aging Trend Recommendations

Given the increasing aging trend and the larger market for products related to the elderly, governments can invest in technology innovations that benefit the lives and development of seniors [8]. For example, Smart home technology can be leveraged to enable seniors to live healthier and more comfortable lives at home. This includes utilizing medical health monitoring devices to help seniors track health indicators, promptly identify potential illnesses, and enhance their safety. Additionally, telemedicine services can be used for remote consultations through video calls and online consultations to ensure seniors receive timely medical care.

Additionally, new service industries tailored to the needs of the elderly can be developed by businesses. This includes health management, social interaction, and healthcare services. For instance, businesses can promote health guidance and management to ensure seniors maintain a healthy lifestyle. They can also organize community activities tailored for seniors to address their psychological well-being and help them find companionship. Furthermore, businesses can offer home care services to assist seniors in their daily activities, reducing the burden and stress on their children. Moreover, businesses should heavily invest in developing products suitable for seniors, focusing on leisure, entertainment, and health, such as food and clothing, to attract senior consumers and stimulate the development of the aging market economy [8].

3.2. Addressing the Trend of Increasing Education Levels

The rise in cultural levels to some extent impacts the average income level. Therefore, China needs to continue improving people's education levels on one hand. On the other hand, it also needs to provide corresponding consumer goods in response to the income increase trend.

For the improvement in China's average cultural level, the following recommendations are proposed: focus on improving the quality of education in lower-income areas, allocate more education subsidies, especially in rural areas, to narrow the national education quality gap. Government can expand the scale of education by increasing the number of higher education institutions or developing vocational and technical education to boost employment and raise income levels [9]. For the market

of higher-income individuals, businesses and platforms can make the following changes: due to the rise in income levels, people are not satisfied with meeting basic needs only; their pursuits become more diversified. Businesses need to provide personalized services and products. For example, firms can offer customized clothing, home furnishings, and food services and products to meet customers' pursuit of personalized needs.

Businesses can also opt to create high-quality consumption experiences, such as offering refined and creative dining experiences, unique and luxurious travel experiences, and thrilling extreme sports experiences [10]. Additionally, online service platforms should provide suitable goods and services based on different consumption levels. For instance, Digital shopping platforms can display food calorie information, meeting people's demand for healthy diet.

3.3. Addressing the Urbanization Trend

As mentioned earlier, rural consumption levels are lower than urban consumption levels. Therefore, while adapting to urbanization, there is also a need to develop the rural consumption market to stimulate consumption.

Given the issues with rural environments mentioned earlier, it is recommended to first revamp rural infrastructure, such as road conditions. Improving roads not only enhances rural transportation convenience but also facilitates the connection between urban and rural areas, promoting goods circulation. Additionally, the construction of facilities like courier points, convenience stores, and large supermarkets is crucial to enhance the convenience and accessibility of goods and services for consumers [11]. By increasing sales points, the traditional self-sufficiency consumption pattern in rural areas can be changed, guiding residents to participate more in urban market consumption, online shopping, and inter-farm trade.

Infrastructure construction helps reduce the costs of product sales and promotion, expanding the sales area for online consumption [12]. For example, constructing more courier points and convenience stores can make goods more conveniently delivered to rural residents, reducing logistics costs and lowering product prices.

Moreover, rural residents often prioritize price factors when purchasing goods. Therefore, businesses should focus on developing cost-effective products to meet the needs of rural residents. The government can directly reduce the cost of goods through subsidies or invest in technological research and development to improve product quality and reduce production costs.

4. Conclusion

This paper is based on relevant statistical data from the National Bureau of Statistics and the World Bank. It explores the impact of demographic changes in age structure, urban-rural distribution, and educational levels on the evolution of consumption patterns. The conclusion is that children aged 0-15 can drive consumption in children's products, toys, entertainment, etc., and the future main consumption category should focus on extracurricular education and training. The consumption levels of young adults aged 16-64 vary significantly due to different backgrounds. With rising incomes in the future, people may purchase more durable goods, but this could also lead to an increase in savings rates. China's aging population, on the other hand, may reduce conventional consumption demands but will continue to see increasing demands in healthcare and other areas. China's educational level is steadily increasing, leading to higher income levels and, consequently, higher consumption levels. Higher-income groups seek higher quality lifestyles and service experiences.

Urban residents tend to consume high-priced durable goods, while rural residents, influenced by their living environment and consumption habits, prioritize affordable goods. Additionally, there are differences in food consumption choices between urban and rural residents; urban residents prioritize

healthy and high-quality food, while rural residents are more concerned about food prices and meeting basic needs.

This paper also proposes solutions to the above issues from the perspectives of both businesses and the government, aiming to optimize and promote consumption in China. For the aging population, the government can invest in technological innovations beneficial to the elderly's lives and development, while businesses can develop new services and products tailored to elderly needs. Regarding educational levels, the government should continue to promote educational equality and raise national educational standards. Meanwhile, businesses and sales platforms should prepare for the rising trend in China's average cultural level by offering personalized services. To promote rural consumption, improving rural infrastructure is crucial, and the government can reduce product costs through subsidies, control prices, and meet rural residents' needs.

While this paper analyzes three major demographic structures affecting consumption, there are also several issues. Firstly, the analysis is not comprehensive as it does not address other demographic categories such as gender structure and industry structure, nor does it evaluate their potential impacts. Moreover, relying solely on data from the National Bureau of Statistics for analysis may not ensure data reliability through comparison with different sources. Additionally, the correlation between argumentation and conclusions also requires further examination. Finally, the feasibility of the suggestions proposed needs to be rigorously assessed.

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