

Aging-driven Market Mechanism Transformation in China: A Dialectical Analysis of Challenges and Opportunities in the Silver Economy

Yige Bie

*Wuhan University of Technology, Wuhan, China
264808736@qq.com*

Abstract. With the growth of the global aging population, the market economy has evolved into the form of a "silver economy" under this influence. This study ultimately shows that successfully coping with this demographic transition requires the adoption of collaborative strategies. Based on this, policy recommendations are put forward from three dimensions: the government, the market, and society. At the government level, it is necessary to improve top-level design and introduce supportive policies and regulatory norms; at the market level, attention should be focused on the consumption needs of the elderly to accelerate product and service innovation; at the social level, it is necessary to create an atmosphere of respecting and helping the elderly and improve the community elderly care service network. These recommendations aim to unlock the potential of the silver economy, achieve sustainable growth, enhance social well-being, provide elderly people with a more quality and convenient life, and promote the transformation and upgrading of enterprises.

Keywords: Population Aging and the Silver Economy, Core Connotation of the Silver Economy

1. Introduction

As global population aging accelerates, it has evolved from a social issue into a core challenge for economic development. According to UN Population Division projections [1], by 2025 the global population aged 60+ will exceed 1.42 billion (17.5% of total population), rising to 20% by 2050. China's National Bureau of Statistics [2] reports that in 2024, China's population aged 60+ reached 310.31 million (22.0% of total), with those aged 65+ at 220.23 million (15.6%). This demographic shift has ignited unprecedented demand for elderly products and services, catalyzing the emergence of the "silver economy".

The silver economy and market mechanisms have a dialectical relationship where traditional market mechanisms struggle to meet aging-related needs like mismatched elderly care investments, consumption, and personalized demands, yet aging pressures drive market innovation through resource reallocation, enterprise transformation, job creation, and talent attraction, injecting vitality into industries such as smart eldercare and financial innovation.

This paper employs a dialectical perspective to analyze the dual impact of population aging on market mechanisms, arguing that while aging presents significant challenges to existing economic structures, it simultaneously forces market transformation and innovation, creating substantial opportunities within the burgeoning silver economy. Strategies for leveraging these opportunities will be proposed from individual, societal (market), and governmental perspectives. Consequently, this paper will propose strategies and recommendations from three interconnected dimensions.

2. Literature review

The silver economy is defined as the aggregate of economic activities focused on supplying products or services to older adults and preparing for the aging process [3]. Also known as the elderly economy or silver-haired economy, it covers multiple fields such as health services, domestic services, daily necessities, insurance, financial management, tourism, and entertainment. It includes both public welfare-oriented public services that meet the elder's needs for dining, medical care, and care, as well as various market-oriented economic activities that cater to the multi-level and diversified needs of both the elderly population and the pre-elderly population.

From the perspective of planning guidance issued by the State Council of China [3], developing the silver economy fully responds to and implements the national strategy of actively addressing population aging.

From both an individual life cycle and societal intergenerational transmission perspectives, the elderly stage, pre-elderly stage, and the development of the silver economy are closely linked and require holistic planning.

3. Market analysis

While the silver economy encompasses a wide range of areas, its related industries are currently focused primarily on basic elderly care services, including catering, nursing, and health care. However, the diversified, differentiated, and personalized needs of the elderly are becoming increasingly strong and urgent, which have not yet been effectively met—this contains huge development opportunities. This misalignment signifies a failure of the current market configuration to adequately respond to evolving demands, highlighting the imperative for market mechanism transformation to unlock the silver economy's vast potential.”

The silver economy market in China is huge. According to projections by the National Information Center [4], China's silver economy market size is estimated at approximately 7 trillion RMB in 2025. Forecasts indicate that the market scale of the silver economy will likely expand to 30 trillion yuan by 2035, boasting a compound annual growth rate of 15.7%. It shows a trend of rapid growth, but also faces challenges [4]. There is a misalignment between supply and demand, the support policies for industrial development are still not perfect, and the income level and consumption power of the elderly population need to be improved.

3.1. Challenges faced by the silver economy

3.1.1. For individual

First, cognitive biases at the individual level (tendency to seek, focus on, and accept information consistent with one's existing beliefs, while ignoring or denying contrary evidence)

3.1.1.1. Savings preference

Inherent ideas of the elderly (habituated to saving rather than consuming) persist as a key characteristic of their economic behavior. In 2022, the population aged 20-39, accounting for 26.7% of the total population, contributed 29.1% of total consumption, solidifying their position as the current main consumers. In contrast, while the proportion of the population aged over 60 increased from 13.3% in 2010 to 19.9% in 2022, their consumption share only rose marginally from 12.7% to 18.6%. High savings rates: Household savings rates exceed 35% vs. OECD avg. 8% [5].

Consumption expenditure data reveals a high Engel coefficient among the elderly indicating a significant portion of their spending is allocated to basic necessities, with limited expenditure on services and leisure. Insufficient income further restricts the consumption power of the elderly.

Empirical evidence suggests a strong propensity for saving over discretionary consumption among many Chinese seniors. Spending on leisure or "enjoyment" is often perceived as less essential or even wasteful, driven by a desire to preserve wealth for inheritance purposes. Instead of allocating funds to such consumption, elderly individuals tend to prioritize saving money to leave for the next generation.

3.1.1.2. Digital divide

Failing to keep up with the pace of the technological era, the elderly distrust and reject the use of digital technology. 62% of Chinese seniors lack smartphone proficiency [6]. Barriers include: They believe that "older age means a duller mind, making it impossible to learn how to use smartphones or apps." Psychologically resistant to trying, some even refuse to be taught by their children, leading to disconnection from the digital society. The elderly equate "smart devices" with "complexity and danger," fearing accidental payments or privacy leaks. As a result, they prefer inefficient traditional methods (such as queuing to pay utility bills) over online services.

3.1.1.3. Vague requirements

Vague awareness of self – needs. They always prioritize family absolutely, regarding dedication to their children and grandchildren as the sole meaning of their old age, and thus voluntarily suppress their own hobbies. Fearing becoming a burden to their children, they refrain from actively expressing their emotional needs, which exacerbates their sense of loneliness.

3.1.2. For market

Challenges of the market mechanism (due to the cognitive biases of the elderly, the market demand of the silver economy presents characteristics of "large scale but insufficient release, numerous demands but unclear expression", which has multiple constraints on the market mechanism.)

3.1.2.1. Unreasonable allocation of market resources

Resource Misallocation: Market bias toward low-cost commoditized products neglects high-quality solutions:

Low-end hearing aids (<¥1,000) dominate 85% market share but offer limited functionality. High-end rehab equipment (¥100,000) remains inaccessible despite 34 million mobility-impaired seniors [5]. Assistive device coverage: Only 177/10,000 people vs. 500/10,000 in Japan [5]

Innovation Stagnation: Enterprises lack incentives to upgrade amid price-sensitive demand, risking "low-quality equilibrium" (e.g., generic health supplements vs. personalized nutrition tech).

3.1.2.2. Enterprises unable to accelerate transformation and upgrading

The conservative consumption of the elderly keeps current enterprises in a "high - volume" state, unable to promote enterprises to transform and upgrade to "high - quality". Enterprises lack the motivation for technological innovation and quality upgrading

3.2. Opportunities faced by the silver economy

3.2.1. Smart elderly care

Smart elderly care represents an innovative paradigm that integrates cutting-edge technologies—including the Internet of Things, big data, artificial intelligence, and mobile Internet—with elderly care service resources to deliver intelligent, personalized, and efficient care solutions for older adults [7]. A notable example is JD Health's Family Doctor Guardian Star, developed by JD.com, which empowers the elderly to use voice commands to initiate phone or video calls with family doctors for online consultations or to schedule offline appointments, thereby facilitating more convenient access to medical and health services.

3.2.2. Financial innovation

Financial innovation focuses on the core needs of the elderly population in areas such as elderly care, health, and consumption. Through innovations in product design, service models, and technological applications, it aims to build a financial support system adapted to an aging society. In the context of civil law and economy, the essence of financial innovation follows the logic of "demand adaptation + technological empowerment + risk control." Personalized elderly care savings and investment can align with the characteristics of the elderly, such as low risk preference and emphasis on stability, by launching relevant financial products suitable for them, thereby increasing the income of the elderly.

3.2.3. Age-friendly home adaptation

Home adaptation for the elderly refers to a series of adjustments and renovations made to their living environments, facilities, and equipment based on the elderly's physical conditions, living habits, and needs, aiming to improve the convenience, safety, and comfort of their daily lives.

To enhance the convenience and safety of their lives, it is therefore necessary to reasonably plan the spatial layout, select practical and economical materials, focus on detailed design, leverage smart home devices, pay attention to the mental health of the elderly, and conduct regular maintenance and safety inspections. Through the implementation of these measures, a safe, comfortable, and convenient living environment can be created for the elderly within a limited budget. For example, Midea's full range of home appliances feature voice control, and BYD offers barrier-free vehicle models.

4. Case evidence: transformative practices and lessons learned

In the process of addressing population aging and promoting the transformation and upgrading of elderly care services, markets across China have proactively explored a series of practical models. Meanwhile, they have also accumulated lessons and reflections, which provide references for improving the elderly care service system.

4.1. Suzhou model (success story)

4.1.1. Full coverage of long-term care insurance

Since its pilot in 2017 [8], Suzhou's long-term care insurance has covered 11.59 million people, achieving "full coverage" of the insured population. Since the pilot program, the cumulative number of people enjoying the benefits of the long-term care insurance has been about 130,000, the cumulative expenditure of the fund has exceeded 2.6 billion yuan, and it has also attracted about 550 million yuan of social capital into related industries, creating about 26,700 jobs.

4.1.2. Medical insurance settlement for home hospital beds

Suzhou promotes the construction of home-based elderly care and nursing beds. In 2023 [9], 100 new home-based elderly care and nursing beds were built, and "one household, one plan" was implemented to formulate plans according to the personalized needs of the elderly. More than 100 service agencies in the city have passed the review, nearly 5,000 people have signed contracts to provide services, and the cumulative number of services has exceeded 200,000 person-times. The medical insurance settlement for home hospital beds enables the elderly in home-based care to enjoy medical insurance benefits more conveniently and reduces the family's economic burden.

4.2. Market failure: elderly health product scams

4.2.1. Scams involving elderly health products

Market Distortion Amid Regulatory Gaps: Reports released by institutions such as the Beijing [10] Research Association for the Rule of Law in Food and Drug Safety show that the public opinion data on false advertising in live streaming sales of "three types of products and medical devices" (food, health products, cosmetics, and medical devices) reaches as high as 30.5%. Issues such as food being passed off as health products or drugs with illegal efficacy claims are relatively common. To evade review and supervision, some unscrupulous merchants have shifted to private-domain live streaming, conducting "brainwashing" propaganda targeting the elderly. They invite specific groups to watch by establishing WeChat groups or sending live streaming links via private messages, and avoid prohibited terms during the live broadcasts. Through false advertising and other means, they lure the elderly into purchasing health products, resulting in property losses and even health hazards for the elderly.

These cases collectively indicate that the transformation practice of China's elderly care services needs to balance "policy-based guaranteed support", "empowerment through technological innovation" and "market regulation and governance". Only by extracting replicable collaborative mechanisms from successful experiences and improving institutional design through reflections on lessons learned can a more caring and resilient elderly care service system be built.

5. Policy recommendations and mechanism design

5.1. Government level (system design and supervision)

- Improve the institutional framework: Promote the pilot program of long-term care insurance (such as the Suzhou model), improve the multi-level elderly care security system, and enhance the adequacy of pensions (indirectly boosting consumption capacity).
- Strengthen market supervision: Severely crack down on fraud targeting the elderly (such as health product fraud, financial fraud, etc.), establish a fast-track for protecting the rights and interests of elderly consumers, and formulate and enforce standards for elderly-friendly products/services (quality, safety, information transparency).
- Offer fiscal and R&D support for enterprises in smart elderly care, assistive devices, and age-friendly transformations.

5.2. Market level (innovation and supply upgrade)

Demand-oriented innovation: Enterprises need to conduct in-depth research on the real, diverse, and hierarchical (different ages, health conditions, income statuses) needs of the elderly group and break stereotypes. Develop products and services that truly solve pain points (such as the digital divide, loneliness, mobility inconvenience), like intelligent devices with minimalist interaction, companion robots, community-embedded services, and high-quality rehabilitation equipment.

- Technology empowerment: Make full use of technologies such as the Internet of Things, AI, and big data to improve service efficiency (such as remote medical monitoring, intelligent early warning, personalized service matching) and experience (such as VR social interaction, aging-suitable smart home).
- Business model innovation: Explore the "product + service" model (such as equipment sales + remote operation and maintenance/data analysis), the leasing model (reducing the threshold for using high-value assistive devices), and the community mutual-assistance elderly care model.

5.3. Social and individual level (capacity building and concept guidance)

- Enhance digital literacy: The government, communities, families, and enterprises cooperate to carry out digital skills training for the elderly (community classes, family feedback, simple enterprise tutorials) and design "aging-suitable" digital interfaces.
- Change consumption concepts: Advocate a positive view of aging. Through media publicity and community activities, guide the elderly to understand the significance of rational consumption for improving the quality of life and reducing the burden on their children, and encourage them to pursue personal value realization (culture, tourism, social interaction).
- Strengthen family support: Emphasize the role of families in spiritual comfort, auxiliary life care, feedback of digital skills, and encouraging social participation. Improve policies supporting family elderly care (such as care leave, respite services).
- Develop social forces: Encourage community organizations, volunteers, and NGOs to participate in providing informal support, organizing activities, and building social platforms.

6. Conclusion

With the surge in the number of elderly people (the "silver-haired population"), we should focus on this group. We can promote their better development from two aspects.

First, in terms of demand, we can better meet the material needs of the elderly group. For example, the quality upgrading of the elderly care industry can ensure that every elderly person has access to suitable elderly care products and can enjoy their later life.

Second, in terms of market supply, to provide high-quality elderly care services for the elderly, it is necessary to promote the transformation and upgrading of current enterprises. Efforts should be made in the market, government, and other aspects to facilitate enterprise development, enabling them to better adapt to the development of today's silver economy. In this way, we can actively respond to aging, foster the development of new industries, enhance people's sense of happiness, and improve their quality of life—ultimately satisfying the sense of happiness, contentment, and belonging of the silver-haired population.

References

- [1] UN DESA. (2022). World Population Prospects 2022.
- [2] National Bureau of Statistics. (2025). Statistical Communiqué on National Economic and Social Development 2024. [Data interpretation]https://www.stats.gov.cn/xxgk/jdsj/jdj2020/202501/t20250117_1958337.html
- [3] State Council. (2024). Opinions on Developing the Silver Economy. <http://www.gov.cn>
- [4] PBOC. (2023). China Household Finance Survey.
- [5] China Disabled Persons' Federation. (2022). Statistical Yearbook.
- [6] CAICT. (2024). Digital Inclusion for Senior Citizens.
- [7] World Health Organization. (2023). Global Report on Ageing and Health. Geneva: WHO Press.
- [8] Suzhou Medical Security Bureau. (2025). Response to the 0374th proposal of the 4th session of the 17th Municipal People's Congress (Su Medical Insurance Reply No. 20 [2025]).
- [9] Tang, Y. (2024). Jiangsu brings nearly 20, 000 elderly care beds into families, making home - based elderly care more reassuring. Xinhua Daily.
- [10] Shu, J., Yang, S., & Wu, W. (2024). Investigation into the chaos of health products in live broadcasts: Xinhua Viewpoint [Article].