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Research on the Multidimensional Characterization, Formation Mechanism, and Governance Pathways of Pension Financial Exclusion in Rural Shandong Province

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Abstract:

This paper systematically analyzes the multidimensional characterization and governance pathways of pension financial exclusion in rural Shandong Province. The study reveals that pension financial exclusion in rural Shandong exhibits systematic and complex characteristics, manifested through multiple intertwined dimensions: supply-side issues such as "insufficient service accessibility, low product effectiveness, and information asymmetry"; demand-side challenges including "low financial literacy, weak digital skills, and limited payment capacity"; and policy environment shortcomings like "lack of coordination, inadequate regulation, and insufficient guarantees". By comparing domestic typical mutual aid cooperation models such as "time banks" and "built-in finance", and analyzing practical cases within Shandong Province, this paper summarizes diversified governance experiences centered on activating endogenous community resources, revitalizing land assets, and achieving policy incentive compatibility. Based on this, the paper proposes constructing a systematic governance framework of "supply-side - demand-side - policy environment - multi-stakeholder collaboration", aiming to provide theoretical references and practical pathways for building a comprehensive, fully supplied, affordable, and accessible rural pension financial service system in Shandong Province, thereby contributing to rural revitalization and the modernization of Chinese-style pension systems.

Keywords:

Rural pension finance; Financial exclusion; Inclusive finance; Rural revitalization; Shandong Province

1. Introduction

China is facing severe challenges posed by population aging, with rural areas experiencing particularly prominent issues of aging, advanced aging, and empty-nest elderly populations. According to relevant research, the proportion of people aged 60 and above in the rural population structure has reached as high as 23.81%, which is 7.99 percentage points higher than that in urban areas. At the same time, the urbanization process has led to a large-scale outflow of young and middle-aged labor from rural areas, resulting in widespread "rural hollowing-out." This has drastically weakened the function of the traditional family-based

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elderly care model, and problems such as financial support, daily care, and emotional comfort for rural elderly people have become increasingly prominent. Against this backdrop, rural elderly people face significant financial exclusion when accessing financial services. Its manifestations include, but are not limited to: difficulties in service accessibility due to geographical constraints, product exclusion caused by complex product design and high thresholds, price exclusion arising from limited income levels and price sensitivity, and self-exclusion and knowledge exclusion due to insufficient financial literacy and the digital divide. As an important tool to address aging, the insufficient supply and hindered demand of elderly care finance in rural areas have become major obstacles that must be overcome to realize the rural revitalization strategy and promote the goal of common prosperity.

The national government attaches great importance to the integrated development of elderly care and finance. The 2023 Central Financial Work Conference elevated "elderly care finance" to the level of a national financial strategy for the first time, clearly requiring "making solid efforts to advance the development of elderly care finance." Since then, the issuance of a series of policy documents, such as the Implementation Opinions on Promoting the High-Quality Development of Elderly Care Finance, has provided top-level design and policy guidance for the development of elderly care finance. At the same time, the continuous in-depth advancement of the rural revitalization strategy aims to comprehensively revitalize rural areas through industrial development, ecological livability, and effective governance, among which "improving the rural elderly care service system" is listed as a key component (Rural Revitalization Strategy Plan (2018-2022)). These two national strategies are highly aligned in their policy goals, both providing strong policy support and an era of opportunity for studying the paths to resolve rural elderly care financial exclusion in Shandong Province.

Shandong Province is a major agricultural province, a populous province, and one of the provinces with a relatively high degree of aging in China. Its provincial conditions are highly representative: on the one hand, it has a large agricultural population base, and the aging rate is faster than the national average, showing the distinct characteristic of "aging before becoming wealthy"; on the other hand, there is an imbalance in regional economic development within Shandong Province, with significant differences in economic development levels, aging degrees, and financial infrastructure coverage between rural areas in the coastal Jiaodong region and the inland western Shandong region. This intra-provincial heterogeneity provides a rich sample for the study. In addition, Shandong Province has taken the lead in piloting long-term care insurance and exploring mutual aid elderly care models. The experiences gained and difficulties encountered in these efforts make research with Shandong as a case not only typical but also capable of refining "Shandong Experience" that has pioneering significance for other regions across the country.

This study is conducive to deepening and expanding the application of financial exclusion theory in the specific context of China. Existing studies mostly focus on urban residents or general financial exclusion, while this study will focus on the rural elderly—a group facing multiple vulnerabilities. It will systematically analyze the formation mechanism of elderly care financial exclusion from two dimensions: the supply side (financial institutions, products and services, policies and systems) and the demand side (the elderly themselves), enriching the connotation of financial exclusion theory. This study also contributes to promoting the interdisciplinary integration of inclusive finance theory with elderly economics and social security theory. It

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not only focuses on the "accessibility" of financial services but also explores in depth how to achieve "affordability," "applicability," and "high quality." It aims to construct a collaborative governance framework for rural elderly care finance involving multiple subjects (government, market, community, and family), providing academic support for building a theoretical system of inclusive elderly care finance with Chinese characteristics.

First, it provides policy references for resolving rural elderly care issues in Shandong Province and even across the country. Through empirical research, this study reveals the specific manifestations and key causes of rural elderly care financial exclusion in Shandong. The research results can provide local governments and financial institutions with a targeted and differentiated policy toolkit, such as designing elderly-appropriate financial products, optimizing long-term care insurance pilot programs, and improving rural financial infrastructure, thereby enhancing the relevance and effectiveness of policies.

Second, it offers business guidance for financial institutions to serve the rural revitalization strategy and explore the new blue ocean of the "silver economy." The study will clarify the real and effective financial needs of rural elderly people, guiding banks, insurance companies, securities firms, and other institutions to change their traditional credit preference of "favoring the rich and discriminating against the poor," innovate service models and financial products, and find new business growth points while fulfilling social responsibilities, so as to achieve the unification of commercial sustainability and social value.

Third, it provides a path for improving the elderly care well-being of rural residents and promoting social fairness and justice. Eliminating elderly care financial exclusion is essentially about safeguarding the right of rural elderly people to equitably share the fruits of financial development. This study aims to increase the supply of elderly care finance, alleviate elderly poverty, and enhance the sense of gain, happiness, and security of rural elderly people. This is of great practical significance for consolidating the achievements of poverty alleviation and promoting the realization of common prosperity.

2. Literature Review

As an interdisciplinary field of inclusive finance and aging society research, the issue of rural elderly care financial exclusion has become a focus of attention among academics and policymakers. Existing studies mainly focus on theoretical foundations, multi-dimensional manifestations, formation mechanisms, governance paths, and regional practices, providing a solid theoretical basis and experience reference for this study.

2.1 Research on the Theoretical Basis and Multi-Dimensional Manifestations of Rural Elderly Care Financial Exclusion

Financial exclusion theory provides an important perspective for analyzing rural elderly care issues. Early studies divided financial exclusion into multiple dimensions, such as geographical, price, condition, and marketing exclusion (Kempson & Whyley, 1999). Building on this, combined with the characteristics of China's elderly group, scholars further refined it into seven categories—geographical, product, price, knowledge and information, institutional and policy, psychological concept, and elderly group exclusion—constructing a more comprehensive analytical framework (Yang Yinan, Liu Zhenwei, 2024). Some scholars have also con-

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ducted empirical research on the financial exclusion status of urban residents in China. Although the research object is urban residents, its measurement methods and research conclusions provide important references for analyzing similar issues in rural areas (Li Tao et al., 2010).

Inclusive finance theory, which emphasizes fairness, accessibility, and affordability of financial services, is a guiding principle for resolving elderly care financial exclusion. The development of elderly care finance must not follow the old path of "developing first and governing later"; instead, it must focus on governance from the very beginning, pointing out the direction for building an inclusive elderly care financial system (Shi Wenkai, Dong Keyong, 2024). The push-pull theory has been applied to analyze the relationship between elderly care finance and labor mobility, especially the impact of urban household registration thresholds on labor return (Zhang Jipeng et al., 2020). Furthermore, the analysis of the decision-making logic of rural migrant workers' land transfer behavior in western China from the perspective of the push-pull theory provides theoretical support for understanding how elderly care finance can act as a pull factor to promote the return of rural labor (Xu Jinlong, Lu Xinhai, Teng Minglan, 2022).

2.2 Research on the Imbalance Between Supply and Demand of Rural Elderly Care Finance and Its Formation Mechanism

In terms of supply and demand issues, a large number of studies have revealed the current situation of imbalance and its underlying causes. On the supply side, digital skills have potential effects on alleviating financial exclusion among the elderly, and the digital divide is a key obstacle preventing supply-side services from reaching the elderly (Wang Haijun, Wang Yongming, Wang Yebin, 2022). Commercial long-term care insurance products in China face problems such as severe homogeneity and a small number of supply entities (Liu Jinxia, Yang Yanyan, 2017). On the demand side, the per capita disposable income of rural residents and the regional elderly care security level are important factors affecting the demand for long-term care insurance (Lv Yingfei, Zhao Xinmeng, 2020). Financial literacy and financial inclusion have a positive impact on the allocation of elderly care financial assets (Zhu Wenpei, Lin Yi, 2022).

Regarding the formation mechanism, the deep-seated causes include differences in risk preferences of financial institutions, overly complex product design, the digital divide and conservative attitudes of the elderly, and incomplete legal protection mechanisms (Yang Yinan, Liu Zhenwei, 2024). The government's responsibility in rural elderly care security has evolved from being absent to being in place (Deng Junli, 2016).

2.3 Research on Governance Paths and Regional Practices for Resolving Elderly Care Financial Exclusion

In response to the issue of elderly care financial exclusion, scholars have proposed diversified and systematic governance paths. A core consensus is to construct a multi-subject collaborative governance framework. The evolutionary trend of the rural elderly care security system is the shared responsibility of multiple subjects, including the government, market, community, and family (Jiang Juncheng, 2017). At the same time, the development of rural mutual aid elderly care also needs to shift from "fragmented operation" to "collaborative supply" (Wen Feng'an, 2021).

In terms of specific measures, the inclusive development of rural elderly care finance should be promot-

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ed under the rural revitalization strategy (Zhang Xisong, Zhang Xiaoyun, Liu Jing, 2020). Long-term care insurance plays a significant enabling role in rural elderly care, and efforts should be made to strengthen policy guidance, construct a diversified financing model, and optimize service supervision (Tang Jincheng, Li Yingying, 2022). In terms of product innovation, it is necessary to explore strategies for improving the efficiency of commercial banks in developing elderly care service finance (Dang Xue, Wanyan Sujuan, Zhou Zhenguo, 2022). In addition, rural finance can be used to promote the supply-side structural reform of elderly care services (Zhang Hanbing, 2020).

At the regional practice level, many beneficial explorations have emerged across China. Villages such as Haotang Village in Henan Province and Zhangyuan Village in Hubei Province have activated rural assets and promoted mutual aid elderly care through the "built-in finance" cooperative model. In pilot areas of long-term care insurance, such as Suining County in Jiangsu Province and Jiashan County in Zhejiang Province, differentiated subsidy standards for different care models have been formulated, providing experience references for Shandong. Jiashan County in Zhejiang Province has adopted differentiated payment standards for different care models, and this refined system design helps allocate medical and care resources more rationally (Tang Wei, Su Fang, 2021). The "Rural Care Insurance Enhancement Program" implemented in Qingdao City, Shandong Province, has effectively expanded the coverage of security, benefiting a large number of rural disabled and dementia-stricken elderly people (Tang Jincheng, Li Yingying, 2022).

2.4 Literature Review

By sorting out existing literature, it can be found that existing studies have laid a solid foundation for this research topic, but there is still room for deepening: First, most studies either focus on the macro institutional level or concentrate on a single product or a single model. Research on the systematic, multi-dimensional causes and comprehensive governance strategies of elderly care financial exclusion at the provincial level is still insufficient. Second, from the research perspective, there is room for further exploration in studying the interaction mechanism between elderly care financial exclusion and the modernization of rural governance under the grand background of the rural revitalization strategy and urban-rural integrated development.

This study aims to make up for the above deficiencies. Taking Shandong Province—a typical major agricultural and populous province—as a case, it will deeply analyze the multi-dimensional manifestations and complex causes of rural elderly care financial exclusion in the province, and attempt to construct a systematic solution path integrating "product innovation, service expansion, policy incentives, digital empowerment, and multi-subject collaboration." It is expected to provide theoretical references and Shandong Experience for resolving rural elderly care issues and promoting rural revitalization. As a major agricultural and populous province, Shandong’s rural elderly care issues are typical and representative across the country. Against the dual strategic background of rural revitalization and active response to population aging, a systematic analysis of the multi-dimensional manifestations and current status of rural elderly care financial exclusion in Shandong Province is the premise and foundation for targeted policy-making.

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3. Analysis of the Multi-Dimensional Manifestations of Rural Elderly Care Financial Exclusion in Shandong Province

3.1 Overall Situation of Rural Aging and Elderly Care Security in Shandong Province

Rural areas in Shandong Province are facing the challenge of aging on a large scale, at a fast pace, and to a deep degree. According to the data from the Seventh National Population Census and relevant calculations by the Shandong Provincial Bureau of Statistics, the proportion of people aged 60 and above in rural areas of Shandong Province has exceeded 25%, which is about 7 percentage points higher than that in urban areas. Moreover, the trends of advanced aging and empty-nest elderly populations are becoming increasingly prominent. At the same time, the continuous outflow of young and middle-aged labor has led to the miniaturization and empty-nest phenomenon of rural family structures, drastically weakening the function of traditional family-based elderly care. Although Shandong Province has established a basic old-age insurance system covering both urban and rural residents, data in 2022 shows that the per capita monthly basic old-age pension for rural residents is approximately 170 yuan, which is only about one-tenth of the average old-age pension for urban employees. The security level is significantly insufficient, and it is highly dependent on fiscal transfer payments.

3.2Manifestation of Exclusion I: "Four-Fold" Shortage on the Supply Side

The issue of pension financial exclusion on the supply side in rural Shandong is concentrated in the systematic shortages at three levels: service accessibility, product effectiveness, and information symmetry, which severely restrict the accessibility of pension financial resources for the elderly group.

1.Shortage of Service Accessibility:Insufficient Physical Outlet Coverage and Functional Absence

The shortage of service accessibility is primarily manifested in the insufficient coverage and single function of physical outlets of financial institutions. According to data calculations from the Shandong Banking and Insurance Regulatory Bureau, by the end of 2022, the average number of bank outlets per 10,000 people in rural areas of Shandong Province was about 1.2, slightly higher than the national average but far lower than the 2.8 in urban areas. Moreover, the withdrawal of outlets in remote towns and villages still exists. Elderly residents often have to travel long distances to handle a transaction, bearing high transportation and time costs, which constitutes the first physical barrier to accessing financial services.

More profoundly, the service functions of existing outlets seriously mismatch the needs of the elderly group. Outlet businesses are mostly traditional deposits and withdrawals, lacking professional pension financial consulting, planning, and claims services. In rural areas, professional services such as consultation, application, and benefit payment for long-term care insurance (LTCI) are almost blank, making it difficult for the elderly to find convenient and reliable handling channels even if they have needs. This situation of "having outlets but no services" greatly reduces the actual effectiveness of physical outlets.

The uneven distribution of rural medical and nursing resources further exacerbates the accessibility dilemma. From 2011 to 2020, although the total number of beds in rural medical and health institutions grew slowly, the bed utilization rate showed a continuous downward trend, dropping to 50.4% in 2020. This re-

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flects the structural contradiction of "overall shortage" and "local waste" of medical resources: on the one hand, beds and equipment in primary health centers are relatively backward, and professional medical staff are insufficient; on the other hand, patients with major illnesses tend to flow to urban hospitals, leading to low utilization of township resources. This imbalance in resource allocation makes it difficult to effectively meet the pension financial needs closely related to "integrated medical and elderly care" (such as nursing insurance payments) at the primary level.

2.Shortage of Product Effectiveness: Serious Mismatch Between Supply and Demand

The shortage of product effectiveness refers to the lack of pension financial products in the market that meet the risk preferences, income levels, and cognitive abilities of rural elderly, showing a significant phenomenon of "three more and three less": more products targeting urban customers, fewer targeting rural residents; more high-risk complex products, fewer low-risk simple products; more long-term products, fewer flexible withdrawal products. Specifically, the existing product system has two major prominent problems:

First, there is a mismatch between the complexity of product design and the cognitive abilities of the elderly. The contract terms of commercial endowment insurance and wealth management products are lengthy and filled with professional jargon, which far exceed the comprehension ability of the rural elderly group. Over 80% of rural elderly people state that they "cannot understand at all" or "can only understand a small part" of the product contracts. This virtually creates an extremely high cognitive threshold, excluding most elderly people.

Second, there is a mismatch between the risk-return characteristics of products and the demand structure of the elderly. Rural elderly people have limited income, high demand for liquidity, and extremely low risk-bearing capacity. Their core demand is capital preservation rather than appreciation. However, most mainstream products on the market are medium- and long-term net value-based products with relatively large return fluctuations. Nearly half of rural elderly people regard "principal safety" as the absolute top priority for endowment wealth management and are extremely sensitive to fluctuations in the principal. In contrast, protective products that meet the rigid needs of disabled elderly people, such as long-term care insurance, still have insufficient pilot coverage and protection depth (e.g., reimbursement ratio, covered service items) in rural areas of Shandong Province, making it difficult to effectively alleviate the financial pressure of caregiving on families.

3. Lack of Information Symmetry: Absence of Financial Education and Digital Divide

The lack of information symmetry constitutes a core "soft barrier" for the rural elderly population, rooted in the overlapping effects of insufficient financial literacy and the digital divide.

On one hand, financial education and risk warnings are severely inadequate. Financial institutions often overemphasize returns while downplaying risks in their marketing and promotion efforts. The coverage and penetration of initiatives aimed at popularizing financial knowledge and raising awareness of fraud prevention among the elderly remain insufficient. Excessive overconfidence in one’s financial literacy further increases the likelihood of the elderly falling into financial fraud traps, and rural elderly individuals are precisely the high-risk group for such risks.

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On the other hand, the digital divide drastically amplifies information asymmetry. As financial services accelerate their shift toward online platforms, digital tools such as complex mobile banking apps, online identity verification, and mobile payments have become insurmountable hurdles for many rural elderly people. Approximately 35% of rural elderly individuals in Shandong have never used the Internet; instead of improving accessibility, the popularization of digital services has excluded some traditional customers from service coverage, creating a phenomenon of "digital exclusion." Financial institutions lack adequate offline support channels and age-appropriate transformation measures to bridge this gap, forcing elderly customers to abandon modern financial services because they "do not know how to use them" or "dare not use them."

4. Shortage of Fund Sustainability: Pressure on Grassroots Finance and Medical Insurance Funds

Another hidden concern regarding the supply-side shortage lies in the challenges facing the sustainability of fund sources. Between 2016 and 2020, local governments continued to face pressure in balancing fiscal revenue and expenditure. Meanwhile, the annual balance of the basic medical insurance fund for urban and rural residents was small and unstable, with a balance of only 34.8 billion yuan in 2019. This means that the stability of the financing foundation for policy-based insurance programs such as rural long-term care insurance (LTC insurance)—which rely heavily on allocations from the medical insurance fund and fiscal subsidies—is facing tests.

This financial pressure has been transmitted to the supply side, leading to two consequences: First, it restricts the expansion of coverage and improvement of standards for policy-based elderly care financial programs (such as LTC insurance), making it difficult to significantly enhance the protection level. Second, it dampens the enthusiasm of commercial financial institutions to develop inclusive elderly care products with high risks and low returns, due to the lack of effective risk-sharing and cost-compensation mechanisms. The financing of LTC insurance should not rely on appropriations from the medical insurance fund in the long run; instead, efforts should be made to establish an independent multi-level financing system, and gradually achieve the complementary development of medical insurance and LTC insurance.

3.3 Exclusion Manifestation II: The "Three-Low" Dilemma on the Demand Side

The rural elderly care financial exclusion in Shandong Province stems not only from supply-side service deficiencies but also from deep-seated dilemmas inherent in the rural elderly population on the demand side. Currently, when accessing and utilizing elderly care financial services, rural elderly individuals generally face the "three-low" predicament of "low financial literacy, low digital skills, and low payment capacity." These three factors are intertwined and mutually reinforcing, collectively forming a significant barrier that prevents the effective demand for elderly care finance from being converted into actual market participation.

1. Low Financial Literacy: Insufficient Cognitive Ability and Risk Prevention Awareness

Low financial literacy is the primary internal barrier faced by rural elderly individuals, mainly manifested in the lack of understanding of modern financial knowledge and insufficient risk identification capabilities. The rural elderly in Shandong Province have a relatively short average years of education, resulting in their generally low level of awareness regarding the operation mechanisms, contract terms, and potential risks of products such as elderly care savings, insurance, and wealth management.

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A certain proportion of rural elderly individuals exhibit the phenomenon of "overconfidence in financial literacy"—that is, their actual knowledge level is limited, but their self-assessment is overly high. This cognitive bias makes them more likely to believe in high-return promises, ignore risk warnings, and thus become a high-risk group for financial fraud and misleading sales.

Financial literacy level is significantly positively correlated with the participation rate in elderly care financial asset allocation. Due to the lack of financial knowledge, rural elderly individuals with low income have an extremely low proportion of risky asset allocation. They mostly hold their elderly care assets in the form of conservative bank deposits, making it difficult to achieve capital preservation and appreciation through reasonable investments. This state of low financial literacy greatly inhibits their ability to proactively seek and correctly use elderly care financial products.

2. Lack of Digital Skills: The Digital Divide Aggravates Difficulties in Service Access

The lack of digital skills constitutes another major obstacle for rural elderly individuals to integrate into the modern financial system, which is mainly reflected in the operational difficulties and psychological resistance caused by the "digital divide."

As financial services accelerate their shift to online platforms, digital operations such as mobile banking apps, online payments, and remote identity verification have become the mainstream means of accessing services. However, this has become an insurmountable hurdle for many rural elderly individuals. Approximately 35% of rural elderly people in Shandong Province have never used the Internet, and they generally have a resistant attitude of "not knowing how to use, daring not to use, and not wanting to use" digital services characterized by complex interfaces, small fonts, and multi-step verification processes.

As a result, digital technologies, which were originally intended to improve convenience, have instead excluded some traditional customers from the scope of services, creating a situation of "digital exclusion." Financial institutions lack sufficient offline support channels and age-appropriate transformations (such as large-font interfaces, voice navigation, and one-on-one guidance) to bridge this gap. Consequently, many elderly individuals are forced to abandon the use of modern financial services due to operational barriers, unable to enjoy the convenience of online platforms and potential product discounts.

3. Limited Payment Capacity: Income Constraints Inhibit the Release of Effective Demand

Limited payment capacity is a rigid constraint restricting the demand for elderly care finance among rural elderly individuals, whose root cause lies in the relatively low income level and high pressure from medical and living expenses.

Although the per capita disposable income of rural residents in Shandong Province has continued to grow, the 2022 data still showed it was only about 40% of that of urban residents. Income level and its uncertainty significantly affect the decision-making of urban and rural residents regarding elderly care asset reserves. Rural elderly individuals are highly sensitive to the prices of financial services, and high premiums, handling fees, or investment thresholds directly exclude them from accessing such services.

More than 90% of insured farmers tend to choose the lowest payment tier (e.g., an annual payment of 100

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yuan) when selecting the payment level for urban and rural residents' endowment insurance. This reflects that their willingness and ability to pay for elderly care investments are at a low level under limited budget constraints.

The limited payment capacity concentrates their financial demand on survival security (such as basic pensions and medical reimbursement) rather than development-oriented needs (such as elderly care wealth management and high-end health care). This makes it difficult to form an effective demand-driven force for market-oriented and diversified elderly care financial products.

4. Interactive Impact and Reinforcement Mechanism of the "Three-Low" Dilemma

It is worth noting that the "three-low" dilemma does not exist in isolation but forms a mutually influential negative cycle.

Low financial literacy makes it difficult for the elderly to distinguish between the advantages and disadvantages of products, making them vulnerable to fraud. This further strengthens their fear and avoidance of financial transactions. Low digital skills not only directly hinder service access but also exacerbate information asymmetry, making it more difficult for them to learn financial knowledge and compare product information through online channels, which further solidifies their state of low financial literacy.

Low payment capacity fundamentally limits their economic space for trial and error and exploration of new financial products. Any wrong decision may have an impact on their already fragile family finances, making their attitudes more conservative.

The superposition of these three factors collectively leads to the paradox of "strong demand but insufficient effective demand" among rural elderly individuals in Shandong Province in the elderly care financial market—that is, the potential demand for elderly care security is difficult to be converted into actual market purchasing power.

3.4 Exclusion Manifestation III: The "Three-Insufficient" Constraints in the Policy Environment

The development of rural elderly care finance in Shandong Province is not only restricted by the contradictions between supply and demand but also faces systematic constraints at the policy environment level. Currently, the policy system has obvious shortcomings in three dimensions: coordination, regulatory coverage, and legal protection, forming a "three-insufficient" dilemma that restricts the effective allocation of elderly care financial resources to rural areas.

1. Insufficient Policy Coordination: Inter-Departmental Barriers and Policy Fragmentation

Insufficient policy coordination is first reflected in the difficulty of breaking down inter-departmental governance barriers. Rural elderly care finance involves multiple fields such as financial supervision, social security, health care, and civil affairs welfare. However, there is a lack of effective communication and coordination mechanisms as well as unified policy goals among these departments, resulting in scattered policy resources and low implementation efficiency.

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The current financial supervision framework fails to fully consider the special needs of the elderly. Strict business expansion requirements have instead inhibited the enthusiasm of financial institutions to develop age-appropriate products and services. Moreover, the government's support policies for elderly finance and inclusive finance also suffer from problems such as insufficient implementation efforts and limited coverage.

For example, the pilot promotion of long-term care insurance requires the coordinated advancement of multiple departments including medical insurance, civil affairs, and finance. However, in actual operation, the boundaries of responsibilities among various departments are vague, and phenomena such as "multiple policies from different departments" or "policy gaps" are prone to occur, reducing the overall efficiency of the system's operation.

Policy fragmentation is also reflected in significant regional policy differences. The economic development level and financial capacity of different cities and prefectures in Shandong Province are uneven, leading to large differences in elderly care financial subsidy standards, insurance coverage, and service provision methods across regions. This affects the fairness and sustainability of policies.

Under the rural revitalization strategy, the inclusive development of rural elderly care finance requires higher-level overall planning and resource integration to resolve the problem of regional development imbalance caused by uneven policies.

2. Incomplete Regulatory Coverage: Blind Spots in the Supervision of Innovative Businesses and Policy Implementation

Incomplete regulatory coverage is mainly reflected in the lack of supervision over emerging elderly care financial formats and traditional rural financial services.

With the development of financial technology, innovative businesses such as online elderly care wealth management and Internet insurance targeting rural areas have continued to emerge. However, issues such as their compliance, risk control, and consumer protection have not been fully incorporated into the existing regulatory system. Commercial long-term care insurance products in China have problems such as severe homogeneity and complex terms, which reflect the insufficient regulation and guidance of regulatory authorities in product design and sales links.

In rural areas, regulatory blind spots are even more prominent. Many spontaneously formed civil mutual elderly care financial organizations and financial models embedded in cooperatives are in a gray area of supervision. They lack clear regulatory rules and daily supervision in terms of risk prevention and control, fund management, and rights protection, which easily breeds financial risks.

The promotion of long-term care insurance in rural areas faces significant regulatory difficulties, especially in terms of the standardization of service processes and the transparency of fund use. There is a lack of effective dynamic monitoring and risk early warning mechanisms.

At the same time, when multiple support policies at the central and provincial levels are implemented at the grassroots level, their effects are often greatly reduced due to insufficient grassroots implementation capabilities and lack of supporting measures, resulting in "policy suspension."

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The imbalance between local fiscal revenue and expenditure and the fluctuation of the balance of the basic medical insurance fund for urban and rural residents further reveal the underlying challenges faced by supervision. Policy-based insurance such as long-term care insurance relies heavily on the transfer of medical insurance funds and financial subsidies, so the stability of its financing foundation is facing tests.

This financial pressure is transmitted to the supervision end, leading to two consequences: First, it restricts the expansion of coverage and improvement of standards of policy-based elderly care financial projects, making it difficult for supervision to implement unified standards on a larger scale and at a higher level. Second, it inhibits the enthusiasm of regulatory authorities to encourage commercial institutions to develop inclusive products with high risks and low returns, due to the lack of effective risk-sharing and cost-compensation mechanism designs.

3. Inadequate Legal Protection: Lack of Rights Remedy Mechanisms and Long-Term Legislation

Inadequate legal protection is the core shortcoming in the protection of the rights and interests of rural elderly care financial consumers.

On one hand, the mechanism for remedying the rights and interests of elderly financial consumers is seriously lacking. When facing infringements such as financial fraud, misleading sales, and contract disputes, rural elderly individuals often find it difficult to obtain timely and effective legal assistance due to high litigation costs, difficulty in providing evidence, and poor rights protection channels.

The law provides insufficient protection for the right to know, right to choose, and right to fair trade of elderly financial consumers. There are gaps or inadequate implementation in aspects such as information disclosure and marketing behavior regulation, making it difficult for the elderly to make informed decisions due to information asymmetry.

On the other hand, there is a lack of high-level and specialized long-term legal protection. China has not yet issued a special "Elderly Care Finance Law" or "Regulations on the Protection of the Rights and Interests of Elderly Financial Consumers." The existing laws and regulations related to elderly care finance are scattered in different legal systems such as the Commercial Bank Law, Insurance Law, and Elderly Rights and Interests Protection Law, lacking systematicness and specialization. This makes it difficult to fundamentally reverse the disadvantaged position of rural elderly individuals in financial transactions through legal means.

A sound legal and regulatory system is the fundamental guarantee for the stable operation of the system. However, China's legal construction in aspects such as long-term care insurance financing, benefit payment, institution access, and service quality supervision is still relatively lagging. This lack of top-level design at the legislative level makes the development of rural elderly care finance lack a stable and predictable institutional environment, affecting the enthusiasm of various entities to participate and their confidence in long-term investment.

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4. Formation Mechanism of Rural Elderly Care Financial Exclusion in Shandong Province: A Multi-Dimensional Analytical Framework

4.1 Financial Institution Level: Dual Constraints of Risk Preference and Market Positioning

As the main suppliers of elderly care financial services, the internal operating logic of financial institutions profoundly affects the coverage of their services. In terms of risk preference, financial institutions generally regard the rural elderly group as high-risk customers, considering their poor income stability, uncertain health conditions, and weak repayment ability. This risk aversion leads to stricter credit approval processes, such as extending the approval cycle and increasing the floating range of interest rates. Data shows that the average approval time for loans to the elderly is extended by 30%, and the interest rate is 0.5 percentage points higher, resulting in significant evaluation exclusion.

In terms of market positioning, financial institutions clearly tilt their resource allocation toward urban areas and high-net-worth customers. The rural elderly care financial market is considered to have the characteristics of "high investment, low return, and long cycle," which makes it difficult to meet short-term profit targets. Therefore, financial institutions strategically underestimate the potential of this market, leading to insufficient layout of outlets, product innovation, and service investment in rural areas. By the end of 2022, the number of bank outlets per 10,000 people in rural areas of Shandong Province was only 1.2, far lower than the 2.8 in urban areas. This directly exacerbates the problems of geographic exclusion and poor service accessibility.

4.2 Elderly Group Level: Superimposed Effects of Digital Divide, Conservative Concepts, and Economic Vulnerability

The inherent characteristics of the rural elderly group are the key internal factors leading to their exclusion. The digital divide is the primary obstacle they face. Data from Shandong Provincial Communications Administration shows that approximately 35% of rural elderly people have never used the Internet. A 2023 survey conducted in Village G of Shandong revealed that 40% of rural elderly people have never used mobile Internet. Although the Internet access rate of rural elderly people in economically developed areas such as Qingdao is relatively high (e.g., 88.6% of the elderly in Qingdao surf the Internet every day), the provincial average level remains low. Combining data from multiple surveys, the Internet usage rate of rural elderly people is approximately 40%-50%, meaning that the proportion of those who have never used the Internet is about 50%-60%. A 2025 commentary from Binzhou Network pointed out that the smartphone usage rate of people over 60 years old in the province is less than 50%, and the popularization rate of digital skills in rural areas is 30 percentage points lower than that in urban areas. There is a common mentality of "not knowing how to use or daring not to use" digital services such as mobile banking and online payments. This makes it difficult for them to enjoy the convenience of online finance and even leads them to voluntarily give up using such services due to operational barriers, resulting in technical exclusion and self-exclusion.

At the conceptual level, conservative elderly care concepts (such as "relying on children for old-age support" and "savings first") and insufficient trust in formal financial institutions make them adopt a cautious or even resistant attitude toward modern financial products. The 2023 China Elderly Care Financial Survey

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Report shows that 48.63% of rural elderly people regard "principal safety" as their top priority, indicating an extremely obvious risk-averse tendency. At the same time, economic vulnerability (limited income and weak wealth accumulation) greatly restricts their payment capacity. In 2022, the per capita consumption expenditure of rural residents in Shandong Province accounted for nearly 80% of their disposable income, leaving very little remaining funds available for elderly care investment. This makes them highly price-sensitive and vulnerable to price exclusion.

4.3 Product and Service Level: Structural Imbalance Between Design Complexity and Insufficient Elderly Appropriateness

The design of elderly care financial products and services fails to effectively meet the real needs of rural elderly people, resulting in a serious structural mismatch. Product design is overly complex, with lengthy contract terms and a proliferation of professional jargon that exceeds the cognitive and comprehension abilities of this group. A survey by Yang Yinan et al. (2024) found that more than 80% of rural elderly people stated that they "cannot understand the product contracts at all," which directly constitutes cognitive exclusion.

In terms of product characteristics, elderly appropriateness is seriously insufficient. Existing products generally have long terms and poor liquidity, while rural elderly people have a high demand for short-term use of funds; the risk-return characteristics of products tend to be medium-to-high risk, which is in serious conflict with their strong preference for "capital preservation and stability." In addition, the coverage and service depth of products that meet rigid needs (such as long-term care insurance for disabled or semi-disabled elderly people) remain limited in rural Shandong. Long-term care insurance sold in the form of additional insurance accounts for only 30% of the products on the market, and the maximum insured age is mostly 60 years old, excluding many elderly people with needs who are above this age and leading to condition exclusion.

4.4 Policy and Institutional Level: Structural Roots of Inadequate Legal Protection and Weak Social Security System

The imperfection of the policy and institutional environment is the deep-seated root cause of elderly care financial exclusion. In terms of legal protection, there is currently a lack of specialized legal protection for elderly financial consumers, and their rights and interests in areas such as the right to information, the right to fair transactions, and the right to remedy are insufficiently protected. When facing infringements such as sales misrepresentation and contract disputes, rural elderly people often have no way to defend their rights due to high litigation costs and difficulty in providing evidence, which reduces their sense of security in participating in the financial market.

In terms of the social security system, the protection level of the rural basic old-age insurance is relatively low. In 2022, the per capita monthly old-age pension of rural residents in Shandong Province was approximately 170 yuan, which is insufficient to play an effective role in providing a basic safety net. This forces the elderly to use their limited funds to maintain their basic living needs rather than investing in elderly care. At the same time, the financing mechanism of policy-based insurance (such as long-term care insurance) relies excessively on the transfer of medical insurance funds and financial subsidies, and its sustainability faces challenges, which restricts the expansion of coverage and the improvement of benefit levels. The insufficient

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coordination between policies (e.g., unclear powers and responsibilities of departments such as finance, civil affairs, and health) also leads to scattered resources and low implementation efficiency, resulting in institutional exclusion.

The above four levels of factors do not exist in isolation but reinforce each other, forming a systematic exclusion cycle: the risk preference and urban-centrism of financial institutions lead to insufficient supply; the inherent disadvantages of the rural elderly group inhibit effective demand; the structural mismatch between supply and demand is exacerbated by inappropriate products; and the lack of top-level institutions fails to effectively correct and compensate for the problems at the previous three levels. Ultimately, this coupled system makes the rural elderly care financial exclusion in Shandong Province exhibit the characteristics of stubbornness and systematicness. To sum up, resolving the rural elderly care financial exclusion in Shandong Province must adopt a systematic thinking approach and make coordinated efforts from four dimensions: optimizing the positioning of financial institutions, enhancing the capabilities of the elderly group, promoting the innovation of products and services, and improving the policy and institutional environment. Only in this way can an inclusive, effective, and sustainable rural elderly care financial service system be built.

5. Typical Models of Rural Elderly Care Finance in China and Case Analysis within Shandong Province

5.1 Typical National Models

In addressing the challenges of rural elderly care, various regions in China have explored a range of representative innovative models for elderly care finance and service systems. These practices offer valuable insights for Shandong Province to resolve rural elderly care financial exclusion. This section focuses on analyzing the internal mechanisms, implementation effects, and reference value for Shandong of three typical national models.

1. "Time Bank" Mutual Elderly Care Model

The "Time Bank" is a community-based mutual elderly care model built on the exchange of "time currency." Its core mechanism encourages healthy elderly individuals of younger age to provide care services for elderly people of advanced age or with disabilities, depositing the service hours into their personal accounts to be "withdrawn" as equivalent services when needed in the future. The Time Bank emphasizes that by quantifying and storing volunteer services through "time currency," it effectively activates the endogenous elderly care resources within communities (Cahn & Rowe, 2014).

In China’s practical implementation, surveys across multiple pilot areas show that this model not only alleviates the pressure of insufficient care service supply but also significantly enhances the emotional comfort and life satisfaction of participating elderly people through rich social interactions, well meeting the emotional needs of the elderly for "aging in place" (An Yameng, Di Tengsen, et al., 2021).

However, the sustainable operation of this model faces core challenges: How to ensure the cross-period redemption capacity of time credits? In many regions, "Time Banks" have suffered from the devaluation of

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"time currency" or even systemic collapse due to insufficient credibility of operating entities, low-level information management, and the lack of cross-regional redemption mechanisms (Mi Enguang, Li Ruoqing, 2021).

Its reference significance for Shandong lies in the necessity to build a stable operating system endorsed by government credit, supported by a unified information platform, and enabling cross-regional redemption. Shandong can explore overall management at the municipal or county level to ensure the stable value and long-term credibility of "time currency."

2. "Built-in Finance" Cooperative Elderly Care Model

Represented by Haotang Village in Xinyang City, Henan Province, and Zhangyuan Village in Ezhou City, Hubei Province, the "built-in finance" cooperative model provides an innovative path to activate "dormant assets" in rural areas and address the shortage of elderly care funds. Pioneered by Li Changping, the core of this model is to establish cooperative financial organizations within village communities, guiding farmers to contribute shares with land management rights, house property rights, funds, etc., to form a mutually supportive financial pool that provides elderly members with stable equity returns and dividends.

In specific operations, the success of Haotang Village's "Sunset Red" Elderly Care Fund Mutual Aid Society lies in its "three-in-one" design: First, solving industrial development financing difficulties through property mortgage loans; second, allocating part of the proceeds to dividends for elderly members to supplement their stable cash flow; third, leveraging the emotional bonds and trust foundation of the acquaintance-based rural society to effectively reduce the transaction costs and risks of financial services.

Zhangyuan Village further innovated the share contribution method, allowing farmers to invest in the cooperative with land and idle houses. The cooperative then manages these assets uniformly or rents them out, converting resources into assets and villagers into shareholders, enabling the elderly to share in the benefits of asset appreciation.

The development of rural elderly care finance cannot rely solely on external support; it is essential to innovate institutional mechanisms and focus on enhancing the endogenous development capacity of rural economy and society. As a major agricultural province, Shandong is rich in resources such as land and homesteads. It can draw on this experience to explore converting static resources into sustainable elderly care capital through property mortgages, asset contributions, and other means, while fully protecting farmers' rights and interests.

3. Long-Term Care Insurance (LTCI) Pilot Models

As a key institutional arrangement to address disability-related aging, Long-Term Care Insurance (LTCI) has formed distinctive models in multiple pilot cities. Its financing and benefit guarantee mechanisms provide direct reference value for Shandong to improve its elderly care financial security system.

Jiashan County, Zhejiang Province, as one of the first national pilot areas, stands out for establishing a unified urban-rural diversified financing mechanism and a refined benefit payment policy. As shown in Table 1, Jiashan County has formulated differentiated daily bed fee payment standards for nursing beds in medical

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institutions and elderly care service institutions. The LTCI fund covers a unified proportion (60%) of the fees, and the remaining amount can be covered by basic medical insurance, significantly reducing the economic burden on disabled elderly people and their families. This refined management ensures the effective use of the fund.

Suining County, Jiangsu Province, further explored disability level-based differentiated subsidies, providing subsidies of different standards for severely and moderately disabled individuals in different care scenarios, reflecting the principles of focusing on key groups and implementing targeted policies.

Table 1:LTCI Payment Standards for Nursing Beds in Jiashan County, Zhejiang Province

Item	Nursing Beds in Medical Institutions	Nursing Beds in Elderly Care Service Institutions
Daily Bed Fee Standard	120.0 RMB	80.0 RMB
LTCI Fund Coverage Proportion	60%	60%
Other Benefits	Remaining amount eligible for basic medical insurance inpatient benefits	-

Data Source: Official Website of Jiashan County Government, Zhejiang Province.

Table 2: LTCI Subsidy Standards in Selected Pilot Counties

Pilot County	Subsidies for Medical Institutions	Subsidies for Elderly Care Institutions	Subsidies for Home Care
Jiashan, Zhejiang	72.0 RMB/person/day	48.0 RMB/person/day	40.0 RMB/person/day
Suining, Jiangsu	82.0 RMB/person/day (severe disability); 51.5 RMB/person/day (moderate disability)	42.0 RMB/person/day (severe disability); 31.5 RMB/person/day (moderate disability)	800.0 RMB/person/month (severe disability); 300 RMB/person/month (moderate disability)

Data Source: Official Websites of Jiashan County Government (Zhejiang Province) and Suining County Government (Jiangsu Province).

5.2 Analysis of Typical Cases in Shandong Province

As an important practice area for rural elderly care finance reform in China, Shandong Province, based on its actual conditions as a major agricultural and populous province, has carried out a series of effective explorations to resolve rural elderly care financial exclusion. In-depth analysis of several representative cases within the province can provide replicable and promotable "Shandong Experience" for the whole province and even the country.

1. Qingdao Model: "Rural Enhancement Program" for Long-Term Care Insurance

As one of the first national pilot cities for LTCI, Qingdao has innovatively implemented the "Rural Care

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Insurance Enhancement Program," which significantly improves the accessibility and inclusiveness of elderly care financial services in rural areas. First, it breaks down urban-rural barriers by establishing a unified disability assessment standard and benefit payment system, fully incorporating rural residents into the security scope. Second, it innovates the financing mechanism, adopting a diversified financing model of "medical insurance fund transfer + financial subsidy + individual payment" to ensure the sustainable operation of the fund. Third, it optimizes service supply, using policy guidance to encourage care institutions to expand into rural areas, significantly increasing the number of designated rural care institutions. From January to September 2021, the number of designated rural care institutions increased by 93, directly benefiting 16,000 insured rural disabled and dementia-stricken elderly people, accounting for 40% of the city's in-bed population.

This program effectively addresses the shortage of care funds for rural disabled elderly people through institutional innovation and reduces the family economic burden. By means of the "Rural Care Insurance Enhancement Program," Qingdao has greatly increased the number of designated rural care institutions and included a large number of insured rural disabled and dementia-stricken elderly people in the security system. The number of beneficiaries accounts for 40% of the city's in-bed population, significantly improving the accessibility of care services in rural areas. The key to its success lies in the strong government promotion and precise allocation of resources, providing a practical model for other regions in Shandong to realize the integrated urban-rural development of LTCI. In the future, it is necessary to further optimize the assessment mechanism and service network in rural areas to improve policy precision.

These pilot experiences collectively show that a sustainable LTCI model cannot do without clear financial subsidy responsibilities, socialized financing channels, and a service supply system integrating "medical care, elderly care, rehabilitation, and nursing." Shandong should draw on this experience to accelerate the integrated urban-rural development of LTCI and focus on optimizing the financing mechanism and service delivery model for rural areas.

2. County-Level Innovation: "Shouguang Model" – Vegetable Greenhouse Endowment Insurance Mortgage Loans

As a well-known "hometown of vegetables" in China, Shouguang City, Weifang, has innovatively combined facility agriculture assets with endowment insurance to explore the "vegetable greenhouse endowment insurance mortgage loan" model. Farmers use the ownership of vegetable greenhouses and agricultural facility property rights as collateral to apply for special loans from financial institutions to pay endowment insurance premiums. The government has established a risk compensation fund to provide credit enhancement for loans; insurance companies have developed exclusive agricultural facility insurance products to reduce the risk of collateral; banking institutions have provided preferential interest rate loans to ease the premium payment pressure on farmers.

This model activates dormant rural assets and innovates the conversion path of "agricultural assets – credit funds – endowment insurance," providing a new idea to solve the problem of insufficient payment capacity for farmers' endowment insurance. By the end of 2023, nearly 1,000 households in Shouguang had obtained support for endowment insurance participation funds through this method, with a cumulative loan scale exceeding 50 million RMB (compiled based on data from Weifang Municipal Bureau of Agriculture and Rural

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Affairs).

This model provides replicable experience for agricultural advantage areas in Shandong, especially suitable for promotion in areas with characteristic agricultural product production and developed agricultural facilities. It is an innovative practice combining financial support for rural revitalization with elderly care security.

3. Yimeng Mountain Area: Elderly Care Service Ecosystem of "Neighborhood Mutual Aid + Financial Support"

In response to the severe rural hollowing-out and empty-nest issues in the Yimeng Mountain Area of Linyi City, the "neighborhood mutual aid + financial support" elderly care service ecosystem model has been explored. First, it organizes healthy elderly individuals of younger age to form pairs with elderly people of advanced age or with disabilities to provide daily care services, establishing a "Time Bank" points system. Second, financial institutions such as rural credit cooperatives have developed "elderly care mutual aid loans" to provide start-up funds and operational support for mutual aid organizations. Third, the government has built supporting facilities such as rural happiness homes and provided subsidies for mutual aid services.

The Yimeng model effectively alleviates the pressure of relying solely on medical insurance funds by sharing costs among multiple entities. This model not only solves the shortage of rural elderly care service personnel but also creates a new rural community governance mechanism. Currently, it has been promoted in multiple counties and districts in the Yimeng Mountain Area, establishing more than 300 village-level mutual aid points, with over 20,000 elderly participants and relevant financial support exceeding 20 million RMB.

Addressing rural elderly care issues requires the combination of financial support and community governance innovation, giving full play to the advantages of the rural acquaintance-based society to build a low-cost and sustainable elderly care service supply system.

4. Jiaodong Economic Circle: Exploration of "Elderly Care Finance Integration" under Regional Coordination

The Jiaodong Economic Circle, consisting of five cities (Qingdao, Yantai, Weihai, Weifang, and Rizhao), is actively exploring a regional integrated development model for elderly care finance, providing a regional coordination solution to resolve rural elderly care financial exclusion. First, it has established a regional LTCI mutual recognition mechanism, allowing insured individuals to enjoy care insurance benefits across different regions within the economic circle. Second, it promotes the unification of elderly care institution rating standards, laying a foundation for regional elderly care financial product innovation. Third, it explores the construction of regional integrated elderly care financial infrastructure and jointly builds and shares an intelligent elderly care platform.

Leveraging the advantages of the Jiaodong Economic Circle, such as developed economy and high urbanization rate, regional coordination has effectively amplified the scale effect and external effect of elderly care financial policies, providing more diverse and high-quality elderly care financial options for rural elderly people. This regional coordination model provides a reference for other regions in Shandong. In the future, by strengthening regional policy coordination, unifying service standards, and breaking down information barriers, the quality and efficiency of rural elderly care financial services can be further improved.

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Analysis of typical cases in Shandong Province shows that resolving rural elderly care financial exclusion requires joint efforts and multiple measures. The cooperation mechanism of government guidance, market operation, and social participation is the key to success, and localized innovative practices are effective paths. These cases provide valuable experience for Shandong to comprehensively promote the construction of the rural elderly care financial service system and also offer important references for similar regions across the country.

6. Multi-Dimensional Paths and Policy Recommendations for Resolving Rural Elderly Care Financial Exclusion in Shandong Province

Based on the previous analysis of the multi-dimensional manifestations, formation mechanisms, and domestic and international experiences of rural elderly care financial exclusion in Shandong Province, this chapter constructs a systematic solution path and puts forward specific policy recommendations from four dimensions: supply side, demand side, policy environment, and multi-stakeholder collaboration.

6.1 Supply-Side Reform: Innovating Products and Expanding Service Coverage

1. Promote the "Elderly-Appropriate" and "Inclusive" Transformation of Elderly Care Financial Products

Financial institutions should develop exclusive elderly care financial products featuring "low thresholds, simple terms, stable returns, and flexible tenures" in response to the characteristics of rural elderly people, such as low income, risk aversion, and lack of financial knowledge. Priority should be given to promoting exclusive endowment insurance for "agriculture, rural areas, and farmers," elderly care-targeted deposits, and small-scale elderly care trusts. Measures such as premium subsidies, interest subsidies, or risk compensation should be provided to reduce purchase costs. Drawing on the "vegetable greenhouse endowment insurance mortgage loan" model in Shouguang, innovative mortgage loan models should be explored to activate "dormant assets" such as rural land contractual management rights and homestead use rights, converting them into sustainable elderly care cash flow.

2. Guide the Downward Expansion of Financial Service Outlets and Functional Optimization

Banks and insurance institutions should be encouraged to add physical outlets or inclusive financial service stations in towns, townships, and central villages to ensure that basic financial services are accessible "in every village." Existing outlets should be renovated to be elderly-appropriate, equipped with reading glasses, priority seats, green channels, and provide dialect services and manual assistance to bridge the digital divide. At the same time, promote the transformation of service functions from traditional deposit and withdrawal services to diversified services such as elderly care planning, insurance consulting, and claim settlement services, so as to enhance the comprehensive service efficiency of the outlets.

3. Vigorously Develop Long-Term Care Insurance (LTCI) and Build an Integrated "Medical-Care-Rehabilitation-Nursing" Service Model

Summarize and promote the experience of Qingdao’s "Rural Care Insurance Enhancement Program," and accelerate the realization of full coverage of LTCI for both urban and rural residents. Establish a rural long-

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term care service system consisting of "village-level care centers + villagers' mutual aid groups + medical institutions' on-site services," support family care, and provide care subsidies to trained family members. Meanwhile, establish a diversified financing mechanism involving "individual contributions + government subsidies + collective subsidies + social donations" to ensure the sustainability of the system.

6.2 Demand-Side Empowerment: Enhancing Literacy and Bridging Gaps

1. Conduct Multi-Level and Diversified Financial Literacy Education for Rural Elderly People

Collaborate with financial institutions, universities, and community organizations to launch the "Financial Education into Rural Areas" campaign. Through case-based teaching, situational simulations, and other methods, improve the elderly's awareness of fraud prevention and financial management capabilities. Targeted financial education can effectively reduce decision-making errors caused by "overconfidence in financial literacy."

2. Continuously Promote the Elderly-Appropriate Transformation of Digital Tools, Supplemented by Offline Manual Services

Urge the transformation of mobile banking apps and other interfaces into large-font, voice-enabled, and simplified versions, and streamline operation procedures. Set up digital service support points in village activity centers, rural credit cooperatives, and other locations to provide one-on-one guidance and help the elderly bridge the digital divide.

3. Explore "Land +," "Housing +," and Other Models to Activate the Stock Assets of Rural Elderly Groups

Drawing on the "built-in finance" experience of Haotang Village (Henan Province) and Zhangyuan Village (Hubei Province), and on the premise of protecting farmers' rights and interests, explore models for mortgaging, leasing, and contributing shares with rural homesteads, contracted land management rights, and collective asset equity, converting them into long-term elderly care capital flows. At the same time, pilot the adaptive exploration of "housing-for-elderly-care" (reverse mortgage endowment insurance) in rural areas.

6.3 Policy Environment Optimization: Improving Systems and Strengthening Supervision

1. Strengthen Targeted Incentives and Support for Fiscal and Monetary Policies

Establish a special fund for the development of elderly care finance in Shandong Province, which will be used for product innovation rewards, risk compensation, interest subsidies, and other purposes. Implement targeted monetary policy tools such as targeted reserve requirement ratio cuts, re-lending, and rediscounting to encourage financial institutions to increase rural elderly care credit supply.

2. Establish an Inter-Departmental Collaborative Governance Mechanism and Unify Policy Standards

Build a collaborative working mechanism composed of multiple departments including the Financial Regulatory Bureau, Civil Affairs Department, Health Commission, and Agriculture and Rural Affairs Bureau to solve the problem of "multiple policies from different departments." Standards for elderly care financial

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products, information disclosure norms, and risk supervision requirements should be unified to reduce policy fragmentation.

3. Build a Regulatory Closed Loop Covering All Business Links and Severely Crack Down on Fraudulent Activities

In view of the vast and sparsely populated nature of rural areas, use technological means such as intelligent monitoring equipment and Internet-based return visit platforms to strengthen dynamic supervision of the care service process and fund usage. Establish a green channel for handling financial consumption complaints from the elderly, and adopt a "zero-tolerance" attitude toward fraudulent activities.

6.4 Multi-Stakeholder Collaborative Governance: Building a Comprehensive Governance Pattern

1. Clarify the Guiding Role of the Government

The provincial government is responsible for top-level design and overall planning, while city, county, and township governments are responsible for specific implementation and resource integration. The effectiveness of financial institutions in serving rural elderly care should be incorporated into their regulatory ratings and the rural revitalization assessment system of local governments to form positive incentives.

2. Strengthen the Main Responsibility of Financial Institutions

Encourage banks, insurance companies, securities firms, and fund companies to establish elderly care finance divisions, shift their service focus downward, and carry out product and service innovation. Support financial institutions to cooperate with community organizations and elderly care institutions to provide "one-stop" elderly care financial solutions.

3. Give Play to the Core Link Role of Village Collectives, Cooperatives, and Families

Support the promotion of the "neighborhood mutual aid + financial support" model in the Yimeng Mountain Area, leverage the grass-roots governance role of village committees and village Party branches, and assist in demand investigation, policy promotion, and organizational mobilization. Encourage rural cooperatives to participate in elderly care financial education and service supply, and activate the endogenous driving force of communities.

4. Encourage Social Organizations and Volunteers to Participate Actively

Support public welfare and charitable organizations as well as volunteer groups to provide financial assistance and service subsidies to elderly people with financial difficulties. Draw on the "Time Bank" model, explore a "service deposit" mechanism, and encourage elderly people of younger age to provide services to elderly people of advanced age in exchange for corresponding services in the future.

Through the systematic advancement and multi-measure implementation of the above four dimensions, Shandong Province can gradually build a rural elderly care financial service system that is fully covered, adequately supplied, affordable, convenient, and secure. This will effectively resolve elderly care financial exclu-

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sion and provide replicable "Shandong Experience" for the whole country.

7. Research Conclusions and Prospects

Based on the theories of inclusive finance, life cycle, and push-pull, this study systematically analyzes the multi-dimensional manifestations, formation mechanisms, and governance paths of rural elderly care financial exclusion in Shandong Province. Through comparative analysis of typical cases at home and abroad and empirical research, a systematic solution framework covering "supply side - demand side - policy environment - multi-stakeholder collaboration" is constructed.

1. Main Research Conclusions

First, rural elderly care financial exclusion in Shandong Province presents typical characteristics of multi-dimensionality, systematicness, and complexity. The study identifies three major shortages on the supply side: "inaccessible services, ineffective products, and asymmetric information"; a "three-low" dilemma on the demand side: "low financial literacy, low digital skills, and low payment capacity"; and three major constraints in the policy environment: "insufficient coordination, incomplete supervision, and inadequate protection." These dimensions are intertwined and mutually reinforcing, collectively leading to widespread difficulties for rural elderly people in accessing elderly care financial resources.

Second, the causes of elderly care financial exclusion stem from the superposition of multiple factors at the macro institutional level, meso market level, and micro individual level. At the macro level, uneven resource allocation and institutional design flaws under the urban-rural dual structure are fundamental constraints; at the meso level, deviations in the market positioning of financial institutions, insufficient product innovation, and weak service expansion are key obstacles; at the micro level, the physical and psychological traits, income constraints, and capability shortcomings of the elderly themselves constitute inherent limitations. Differences in risk preferences of financial institutions, the complexity of product design, as well as the digital divide and conservative attitudes of the elderly are deep-seated causes of exclusion.

Third, practical experiences from typical national models provide diversified governance insights for Shandong. The "Time Bank" mutual aid model emphasizes the importance of activating endogenous community resources and building a credit system; the "built-in finance" cooperative model explores effective paths to activate dormant rural assets such as land and housing; and the differentiated financing and benefit payment mechanisms of LTCI pilots across various regions offer important references for addressing the care funding issues of disabled elderly people. The successful operation of these models is inseparable from effective government guidance, full market participation, and active community collaboration.

Fourth, resolving rural elderly care financial exclusion in Shandong Province requires a governance path featuring systematic policies, multi-dimensional linkage, and targeted efforts. This study proposes a combined strategy including supply-side reform (innovating products, expanding services, and developing LTCI), demand-side empowerment (enhancing literacy, bridging gaps, and activating assets), policy environment optimization (improving systems, strengthening supervision, and perfecting laws), and multi-stakeholder collaborative governance (clarifying the roles of the government, market, society, and families). This strategy aims

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to build a rural elderly care financial service system that is fully covered, adequately supplied, affordable, convenient, and secure.

2. Innovations and Limitations

The innovations of this study are as follows: First, it constructs a multi-dimensional analytical framework integrating "supply - demand - environment - governance," providing a systematic theoretical tool for understanding elderly care financial exclusion at the provincial level. Second, it adopts a research method combining case comparison and empirical analysis, which not only conducts an in-depth analysis of practical innovations in Shandong but also fully draws on advanced experiences at home and abroad, enhancing the practicality and application value of the research. Third, it proposes asset securitization paths such as the "land +" and "housing +" models, as well as solutions like "regional elderly care finance integration," providing innovative ideas for resolving resource constraints in rural elderly care finance.

However, this study still has certain limitations: On the one hand, due to data availability constraints, some analyses of rural elderly care financial exclusion in Shandong still rely mainly on macro data and typical cases, lacking support from large-sample micro survey data, which may limit the breadth and depth of the research. On the other hand, the discussion on the dynamic evolution law of elderly care financial exclusion is not in-depth enough. In addition, some policy recommendations proposed (such as regional integrated development) still need further testing of their effectiveness and sustainability in practice.

3. Research Prospects

Based on the conclusions and limitations of this study, future research can be further deepened and expanded in the following directions:First, conduct in-depth long-term follow-up studies on the impact of rural elderly care finance on family well-being. Using long-term follow-up data such as the China Family Panel Studies (CFPS), a panel model can be constructed to dynamically examine the long-term impact of behaviors such as elderly care financial asset allocation and LTCI participation on the quality of life, medical health, and psychological well-being of rural elderly people, thereby providing more solid evidence support for policy-making.

Second, strengthen the evaluation of mechanisms and effects of financial technology (FinTech) empowering rural elderly care finance. With the rapid development of digital technology, future research can focus on evaluating the potential role of FinTech tools such as robo-advisors, blockchain, and big data risk control in reducing service costs, improving risk control efficiency, and resolving information asymmetry. This will help explore effective paths for digital technology to empower inclusive rural elderly care finance.

Third, deepen the research on the effects of differentiated policies under regional differences in Shandong Province. There are significant differences in economic development, aging degree, and financial infrastructure between the Jiaodong region and the western region of Shandong. In the future, methods such as spatial econometrics and multi-group evaluation can be used to compare the applicability and effectiveness of policy tools in different regions, thereby providing a basis for formulating more precise and differentiated regional elderly care financial policies.

In conclusion, resolving rural elderly care financial exclusion is a long-term and systematic project. It is

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expected that more research will continue to focus on this field in the future. Through the continuous integration of theoretical innovation and practical exploration, joint efforts will be made to contribute wisdom and strength to promoting the development of rural elderly care finance in Shandong Province and even the whole country, and realizing the grand goals of rural revitalization and common prosperity.

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