RESEARCH ARTICLE

Optimizing China's Private Pension Scheme via Experiences of Developed Countries

Shi Yao [1,*]

[1] School of Management, Universiti Sains Malaysia, Gelugor 11800, Malaysia

Abstract

At present, the aging process of China's population is accelerating very rapidly. As the third pillar of the pension security system, the private pension scheme has faced challenges such as low participation rates since its pilot launch in November 2022. Through analyzing its development history and current situation, this study has identified problems in China's private pension scheme, including insufficient coverage of the population, weak tax incentives, lack of investment consulting services, and poor account flexibility. Meanwhile, this study has reviewed the experiences of developed countries such as the flexible transfer of IRA accounts in the United States, differentiated subsidies for the Lister pension in Germany, exclusive pension plans for different groups in Japan, and the possibility of early withdrawal of account funds for specific purposes in New Zealand and Canada. Based on these, the study proposes an optimization path for China's private pension scheme that is in line with national conditions, from introducing fiscal subsidies and optimizing tax incentive models, strengthening investment education, enriching product supply, and enhancing account flexibility. Ultimately, this study provides theoretical and practical references for its sustainable development, aiming to improve the scheme's inclusiveness and sustainability and offer more reliable pension security for residents in China.

Keywords: private pension, policy reform, third pillar, developed country, optimization path.

1 Introduction

At present, China is experiencing the fastest and deepest aging process globally. The accelerated aging of the population and the decline in the birth rate have led to an increase in the dependency ratio, posing severe challenges to the financial sustainability of the pension scheme [1]. At the same time, people's requirements for the quality of life in old age are increasing day by day, and a single-level pension security can no longer meet the diverse, personalized, and multi-level pension needs.

In 1994, the World Bank proposed the "three-pillar" pension classification model, defining the private pension as the third pillar. Subsequently, most developed countries began to build relevant systems, which have become mature after years of development. Although China put forward the concept of "personal

Submitted: 11 July 2025
Accepted: 29 August 2025
Published: 19 December 2025

Vol. 2, **No.** 4, 2025.
10.62762/JSSPA.2025.825683

***Corresponding author:**
Shi Yao
seanshi@foxmail.com

Citation
Yao, S. (2025). Optimizing China's Private Pension Scheme via Experiences of Developed Countries. *Journal of Social Systems and Policy Analysis*, 2(4), 203–214.

savings-type endowment insurance" as early as 1991, it was not until November 2022 that the "Measures for the Implementation of Private Pensions" was officially issued. Since the scheme has been implemented for a short time, many problems that need to be solved urgently have emerged during the pilot process. Based on this, this study, based on the current situation of the scheme, explores the optimization path of the private pension scheme that suits China's national conditions through international comparative analysis.

2 Related Theories

2.1 Life-cycle Theory

The Life-cycle Theory was put forward by the economist Modigliani. This theory encourages individuals to adopt a comprehensive and long-term perspective when planning for their pension savings, taking their expected income as the core decision-making basis. Its core goal is to maximize personal utility over the entire life span and ensure that consumption needs are reasonably satisfied and balanced at each stage of life. Therefore, sensible consumers will carefully plan and allocate their consumption and savings plans at different life stages according to the expected changes in their life income [2].

This theory shows that when designing and optimizing the private pension scheme, it is necessary to pay attention to adapting to the fluctuations in personal capital needs within the life cycle. It is needed to guide long-term savings behavior and, at the same time, maintain a certain degree of flexibility in the system, so as to balance long-term pension planning and short-term liquidity needs, and improve the sustainability of personal participation. Especially in terms of the design of tax incentives for private pension, the Life-cycle Theory emphasizes that the design of tax incentives should fit the income characteristics and financial pressures of individuals at different stages. For young groups with low income and facing pressures such as house-buying or child-raising, the current participation cost can be reduced through stepped pre-tax deductions or phased subsidies. For middle-aged groups with steadily increasing income, the deferred tax amount can be appropriately expanded to strengthen the motivation for long-term savings. For retired people, differential tax rates can be set at the withdrawal stage to prevent the purchasing power of pensions from shrinking too much due to tax burdens. Ultimately, through dynamically adjusted tax policies, the coordination between pension savings and consumption needs in different life stages can be achieved.

2.2 Three-pillar Pension Insurance System

The three-pillar pension security system originated from the pension ideas of former US President Roosevelt, and was formally proposed and systematically constructed by the World Bank in 1994. The three pillars of the system are basic endowment insurance, enterprise (occupational) annuity, and personal savings-type endowment insurance and commercial endowment insurance [3]. Based on this theory, in designing and optimizing the private pension scheme, attention should be paid to clarifying the positioning of private pensions as the third pillar. It should not only complement the first two pillars and fill the gaps in the existing pension security system —for instance, covering groups not covered by the first two pillars— but also avoid functional overlap with other pillars. Therefore, it is necessary to explore a reasonable and effective coordinated development mechanism, enabling it to serve as a link to integrate the three pillars into an organic whole.

2.3 Overlapping Generations Model

The Overlapping Generations Model was put forward by the economist Samuelson. He assumed that an individual only experiences two periods, has no production activities, and consumption completely depends on innate resources. An individual has one unit of resources in the young period, but has no resources in the old period [4]. Therefore, in the Overlapping Generations Model, the private pension scheme is regarded as an important policy tool. In fact, it is a kind of income distribution among different generations, used to solve the pension gap problem brought about by population aging.

From the perspective of this theory, when designing and optimizing the private pension system, it's essential to balance intergenerational interest equilibrium and the system's sustainability. A flexible account management system can be adopted to meet the needs of different generations and it is essential to encourage current generations to save and reserve resources for the future, while also taking into account the flexible demands in specific circumstances to avoid an imbalance in intergenerational burdens, which ensures the long-term stability of the system while maintaining intergenerational fairness.

3 The Development Evolution and Current Situation of China's Private Pension Scheme

3.1 A Brief Account of the Development and Evolution of China's Private Pension

The exploration of China's private pension scheme began in the 1990s. In 1991, the State Council proposed to build a three-pillar pension scheme framework that includes personal savings-type endowment insurance, thus clarifying individuals' responsibilities in pension security.

Entering the 21st century, the private pension scheme gradually developed from an idea to practice. In 2008, Tianjin took the lead in piloting tax incentives for commercial supplementary endowment insurance. In 2018, Shanghai, Fujian, and the Suzhou Industrial Park carried out a pilot program for personal tax-deferred commercial endowment insurance. At the same time, the concept of the "third pillar" was clearly defined in an official document for the first time during this pilot.

Since then, the construction of the scheme has accelerated. In 2022, the private pension scheme was piloted in 36 cities. By December 15, 2024, the scheme was officially implemented nationwide, marking that China's private pension scheme has entered a new stage of development.

3.2 The Implementation Status of China's Private Pension Scheme

3.2.1 Coverage and Enrollment Scale

The private pension scheme is open to workers who participate in the basic pension insurance for urban employees or the basic pension insurance for urban and rural residents within the territory of China. As of December 10, 2024, the number of private pension accounts opened has exceeded 70 million, indicating that the scheme has received rapid attention after its national promotion. However, currently, the scheme has not yet covered flexible employees, farmers, and other groups who have not participated in the basic pension insurance. The policies for their enrollment and connection are still under exploration.

3.2.2 Details of Tax Incentive Policies

The tax model of China's private pension scheme adopts the "EET" model, that is, tax-free during the contribution and investment stages, and a 3% tax rate is levied during the withdrawal stage. Participants contribute 12,000 RMB of private pension per year. When contributing, it can be directly deducted from the taxable income. The investment income does not need to be taxed during the accumulation period within the account, and tax is only calculated when the pension is withdrawn after retirement. The scheme clearly stipulates that the annual contribution ceiling is 12,000 RMB, and this amount can be fully deducted before tax. Taking a taxpayer with a monthly income of 10,000 RMB and no other special additional deductions as an example, after contributing 12,000 RMB of private pension, the individual income tax expenditure can be reduced by about 360 RMB per year. The policy applies to residents who pay personal income tax. For those who do not reach the personal income tax threshold (monthly income of 5,000 RMB or less), although they cannot enjoy the tax deduction during the contribution stage, they can still participate in the scheme and enjoy the tax-free policy during the investment stage.

3.2.3 Product Supply and Market Layout

The private pension product system covers four categories of financial products. There are 466 savings products, mainly specific pension savings deposits, provided by large state-owned banks and some joint-stock banks. The term is mainly long-term (5 - 10 years), and the interest rate is slightly higher than that of ordinary time deposits. Among the 200 fund products, there are pension target funds (FOF), pension-themed funds, etc. The investment scope covers stocks, bonds, and money market instruments, and the risk levels are set in layers from low to high. Among the 144 insurance products, exclusive commercial pension insurance and pension annuity insurance are the main ones. Some products offer a "guaranteed return + floating return" model, which has the potential for value-added while ensuring the safety of funds. The 26 wealth management products are issued by bank wealth management subsidiaries, mostly fixed - income or mixed-type products, with flexible investment terms ranging from 1 year to 5 years. Participants can purchase products through the mobile banking or online banking of commercial banks, or through the official platforms of fund, insurance, and wealth management institutions.

3.2.4 Account Management and Fund Operation

The account implements the management of an individual account with a fully funded system. The funds belong to the individual, and the contributions, investments, and earnings are accounted for independently. The account funds operate in a closed-loop and can only be withdrawn when reaching the legal retirement age, completely losing the ability to work, emigrating, or in other circumstances stipulated by the state. The withdrawal methods include monthly, in installments, or one-time withdrawal. The private pension account is independent of the basic pension insurance individual account and the enterprise annuity account, and there is no mechanism for fund inter-communication or merger yet. Participants can independently choose products for investment and adjust the asset allocation according to their own needs. Financial institutions are required to regularly disclose product operation conditions and account income information to participants.

4 Existing Problems of China's Private Pension Scheme

4.1 The Private Pension Scheme Does Not Cover the Flexible Employment Group

China's "Measures for the Implementation of Private Pensions" stipulate that workers who participate in the basic pension insurance for urban and rural residents or the basic pension insurance for urban employees within China can participate in the private pension scheme. Currently, the proportion of residents in the country who are eligible to participate in the private pension scheme accounts for less than 70% of the total national population [5]. Especially, in China, there are many freelancers, farmers, small traders, and others who have not participated in the basic pension insurance. Since they cannot enjoy pension benefits after retirement, they need to provide for their own retirement through savings, contributing to private pensions, making independent investments before retirement. However, the current private pension scheme just excludes this group with a large demand. By the end of November 2024, the "Notification on the Implementation Progress of the Private Pension System" released by the Ministry of Human Resources and Social Security of China showed that only 72.79 million people had opened private pension accounts in 36 pilot cities. Compared with the total population of 1.4 billion in the country, this coverage ratio is significantly low. One of the important reasons for this situation is that the potential participation space of groups such as flexible employees has not been effectively activated. At the same time, relevant research data such as "Report on the Development of Flexible Employment in China 2024" show that in emerging flexible employment fields such as express delivery and food delivery, more than 80% of the practitioners have not been covered by the private pension system, which not only directly reflects the insufficient penetration of the system among specific groups, but also highlights the severity of the coverage gap problem.

4.2 Insufficient Intensity of Tax Incentives

At present, the tax incentives for private pensions in China are mainly reflected in the following aspects:

1. Tax incentives during the contribution stage: When individuals contribute to their private pensions, the contributed amount can be deducted before tax to offset personal income tax, with a limit of 12,000 RMB.

2. Tax-free investment income during the investment stage: The investment income obtained by private pensions during the investment stage is temporarily not taxed. However, a 3% personal income tax is uniformly levied on the investment income during the withdrawal stage.

The above-mentioned "EET" tax model has been widely used in pension systems represented by enterprise annuities in various countries and has achieved good results. But in China, such tax-incentive policies are difficult to encourage residents to participate in the private pension scheme.

Firstly, China's personal income tax threshold has been raised to 5,000 RMB. The number of people with a monthly income reaching this level is relatively small [6]. At the same time, there are 7 deductions including expenses for children's education, continuing education, and infant care. In other words, after deducting the corresponding items, residents with a monthly income of up to 17,000 RMB basically do not need to pay personal income tax. This significantly narrows the scope of people covered by the tax-incentive policy for private pensions and fails to give full play to its incentive effect.

Secondly, for higher-income people who can actually enjoy the tax-incentive policy for private pensions, the maximum annual deduction limit of 12,000 RMB is slightly insufficient [7]. The Summary Report on the Operation of the Private Pension System in 2023 released by the Ministry of Human Resources and Social Security in early 2024 shows that the actual number of people who have made contributions to the private pension nationwide is 11.66 million, with an average contribution of about 2,400 yuan per person. There is a large gap from the annual contribution limit of 12,000 yuan, which to some extent reflects that the current deduction limit has limited appeal to high-income groups.

Thirdly, as shown in Table 1, if residents with a monthly income of less than 5,000 RMB contribute to private pensions, according to the current policy, they cannot enjoy any tax-credit incentives during the contribution stage. But during the withdrawal stage, they still have to pay deferred tax at 3% of the investment income. In the long run, the average tax-saving rate of this group of participants is - 1.2%. Participating in private pensions actually increases the investment cost.

4.3 Lack of Investment Consultation Services

At present, most residents in China may not have received professional investment education or training. They lack an understanding of complex financial products and tools. Moreover, the financial market is flooded with chaotic and complex investment information, resulting in an "information asymmetry" situation. This may cause them to misunderstand the risk and return characteristics of investment products and make wrong judgments when making private pension investment decisions.

However, few banks or relevant organizations in the current market can provide investment consultation services specifically for private pension participants. Even if such services exist, their quality and content may not be perfect and cannot meet the actual needs of investors. According to the "Report on the Development of Chinese Residents' Pension Wealth Management (2024)" released by CITIC Bank in conjunction with CITIC Wealth Management, China AMC and Fidelity, based on the survey results of 6,506 valid quantitative samples in 31 provinces, autonomous regions and municipalities directly under the Central Government in China, among the respondents who have a pension plan but have not implemented it, 39% of them fail to implement the plan because they lack professional pension advisors to help them with investment. This situation not only affects investors' ability to make informed investment decisions but may also become a constraint when they consider whether to participate in the private pension - which will directly lead to the private pension participation rate being lower than expected.

4.4 Poor Account Flexibility

According to the relevant regulations of China's "Measures for the Implementation of Private Pensions", participants can only withdraw funds from their private pension accounts under three circumstances: reaching the age for receiving basic pensions, completely losing the ability to work, emigrating, as well as other circumstances stipulated by the state. Such regulations result in an overly long and strict closed - period for private pension accounts.

In addition, in terms of account connection, private pension accounts operate independently. Their funds do not communicate with individual medical insurance accounts or provident fund accounts, nor do they communicate with the individual accounts of the first-pillar basic pension insurance and the second-pillar enterprise annuity accounts. This obvious segmented state reduces the liquidity of individual accounts, fails to effectively meet individuals' liquidity needs for pension accounts, and also causes a lot of inconvenience for individuals when seeking pension investment and accumulation. To some extent, it reduces residents' willingness to participate in private pensions.

5 Development Experiences of Private Pension Schemes in Developed Countries

5.1 The US IRA Accounts — Seamless Transfers among Various Pension Accounts

The third-pillar private pension scheme in the United States was first established in 1974 based on the Employee Retirement Income Security Act and was named the "Individual Retirement Account" (IRA). It is a government-supported and individual-voluntary retirement savings plan, which is divided into Traditional IRA and Roth IRA.

To meet the pension needs of its citizens, the US government has taken a series of measures to achieve free transfer and continuation among various pension accounts. In particular, the conversion between the second-pillar occupational pension account and the third-pillar private pension account is quite representative. The US IRA allows some participants with small personal account balances in occupational pensions to transfer the balances to the third-pillar individual retirement account to reduce account management costs. The implementation of this measure enables this group of people to manage their pension assets more flexibly. At the same time, it also helps to expand the coverage and fund scale of the national private pension account.

In addition, to further eliminate the impact of job mobility on the transfer of occupational pensions, the US government carried out a reform in 2001, shortening the minimum contribution period for full vesting of occupational pensions from 10 years to

Table 1. Actual tax-saving situation after participating in private pension.

Annual Net Income I (Yuan)	Corresponding Tax Rate (%)	Tax-Saving Amount Corresponding to 12,000 Yuan Deduction Quota (Yuan)	Tax Paid When Withdrawing (Yuan)	Actual Tax-Saving Amount (Yuan)	Average Tax-Saving Rate (%)
0 < I ≤ 60,000	0	0	360	- 360	- 1.2
60,000 < I ≤ 96,000	3	360	360	0	0
96,000 < I ≤ 204,000	10	1,200	360	840	0.56
204,000 < I ≤ 360,000	20	2,400	360	2,040	0.72
360,000 < I ≤ 480,000	25	3,000	360	2,640	0.63
480,000 < I ≤ 720,000	30	3,600	360	3,240	0.54
720,000 < I ≤ 1,020,000	35	4,200	360	3,840	0.44
1,020,000 < I	45	5,400	360	5,040	Tending to 0

3 years. This reform enables US citizens to more conveniently transfer the occupational pensions of their previous employers to private pension account when changing jobs. The implementation of this policy not only simplifies the transfer process and improves efficiency but also helps to maintain the continuity of private pension savings.

Overall, the US private pension scheme fully considers the pension needs of its citizens and the actual situation of job mobility. Through flexible transfer and continuation measures, it provides more comprehensive and sustainable pension security for its citizens. The successful experience of this system can provide reference for China, promoting the continuous improvement and development of China's private pension scheme [8]. However, it cannot be denied that the flexible transfer mechanism of the US IRA accounts also brings management complexity. The conversion rules for different types of accounts are cumbersome, and ordinary people are likely to face tax risks due to operational mistakes [9]. At the same time, frequent account transfers may weaken the stability of long-term investments, which instead affects the efficiency of fund accumulation.

5.2 The Riester Pension in Germany - Substantial Fiscal Subsidies and System Design Taking into Account Different Income Groups

Germany's Riester - Rente is a state-supported third-pillar retirement pension plan, which was officially launched in 2002. Since its introduction, through increasing tax incentives and subsidy intensity several times, the number of insured people has remained stable at around 1.6 million for a long time, accounting for about one - third of Germany's total population. This is a remarkable achievement for the third-pillar private pension.

The main features of the subsidies for the Riester private pension are diverse types, high amounts, and wide coverage. As long as participants contribute more than 60 euros to the Riester pension each year, they can receive fiscal subsidies. Since 2008, the subsidy amount for unmarried people has been 154 euros, and for married people meeting certain conditions, it is 308 euros. For children born before 2008, the subsidy is 185 euros, and for those born after 2008, it is 300 euros. If new participants are under 25 years old in the first year of the contract, they can also receive an additional one - time subsidy of 200 euros. In addition, if participants' annual contribution amount reaches 4% of their annual income, they can receive a subsidy of up to 2100 euros. In terms of system design, the German Riester private pension is quite attractive to people with different incomes. For low-income groups, the Riester private pension scheme stipulates the principle of linking contributions to income, that is, the lower the income, the lower the contribution. But at the same time of low contributions, they can enjoy the same high-amount subsidies as other groups, which reduces the insurance-participation pressure of low-income groups to a certain extent. For high-income groups, although the subsidies they receive are the same as those of other income groups, they can enjoy more tax incentives according to relevant regulations, which significantly reduces their tax burden [10].

However, it must be admitted that the high-subsidy policy of the German Riester pension exerts continuous pressure on the national finances [11]. As a developing country, if China simply replicates Germany's subsidy mechanism when learning from its experience, given the ongoing intensification of population aging, the sustainability of financial subsidies may face severe challenges.

5.3 Japan's iDeCo and NISA - Tailored Pension Plans for Different Groups

Japan's private pension scheme mainly includes two methods: the individual defined-contribution plan (iDeCo) and the tax-advantaged personal savings account (NISA). These two methods have their own characteristics, providing flexible pension savings options for groups with different needs.

The iDeCo plan adopts the EET tax-incentive model, which means that contributions and investment income are tax-free, and tax is paid at the withdrawal stage. To meet the contribution needs of different people, the iDeCo plan has formulated differentiated policies according to the job nature and income level of participants. Different groups such as freelancers, students, civil servants, corporate employees, and housewives have their specific contribution ceilings. This differentiated policy takes into account the actual situations of various groups and ensures the fairness and sustainability of the system. In terms of pension withdrawal, iDeCo participants can choose to withdraw in a lump sum or in installments according to their needs. This flexible withdrawal method fully considers the pension needs of different groups and helps to achieve the sustainable development of the system.

NISA, on the other hand, is a private pension account applicable to all Japanese residents. Different from iDeCo, NISA adopts the TEE tax-incentive model, that is, contributions are tax-free, and tax is paid at the investment income and withdrawal stages. This tax-incentive model provides individuals with a greater tax-reduction effort, further encouraging individuals to save actively. The NISA account is divided into three types: Junior NISA, Regular NISA, and NSTA. Junior NISA is mainly aimed at teenagers under 20 years old. Through tax - incentive measures, it encourages them to develop a savings awareness from an early age and lay a foundation for their future retirement life. Regular NISA has a relatively high tax-free amount and is suitable for individuals with a stable income. For beginners and small-scale investors who hope to make long-term and diversified investments, NSTA is an ideal choice.

The combination of iDeCo and NISA provides Japanese residents with a comprehensive private pension savings plan. This diversified institutional arrangement meets the needs of different groups, helps to improve the pension security level of residents, and promotes the continuous development of the economy. With the intensification of the aging trend, the Japanese government will continue to improve the private pension scheme to better meet the pension challenges and ensure the quality of life of the elderly [12].

However, the co-existence of Japan's dual pension plans leads to relatively high management costs. Also, the differences in tax rules brought about by the different tax models adopted by iDeCo and NISA may make it difficult for the public to accurately choose a suitable plan. This restricts the investment flexibility of some groups.

5.4 New Zealand and Canada - Account funds can be withdrawn in advance for specific purposes

The private pension scheme implemented in New Zealand is called KiwiSaver. Its funds mainly come from personal contributions and employer subsidies, and these funds can only be withdrawn when specific conditions are met. Normally, funds in KiwiSaver can only be withdrawn when an individual reaches the retirement age of 65. However, to meet some special needs, the New Zealand government has set some exception clauses. For example, when an individual needs to buy a first home, faces serious health problems or financial difficulties, or emigrates, they can withdraw funds from KiwiSaver in advance. Such regulations aim to provide more flexibility to meet individuals' needs at different life-cycle stages.

Similarly, Canada's private pension account also has similar early-withdrawal regulations. In specific situations such as buying a first home or participating in a lifelong education program, individuals can withdraw funds from their pension accounts in advance.

To ensure the sustainability and stability of the pension system, these countries have also strictly restricted the circumstances and amounts of early withdrawals. If individuals withdraw funds in advance in violation of the regulations, they will face corresponding punitive measures. For example, the Canadian government stipulates that the early-withdrawn funds must be repaid within 10 to 15 years, otherwise, they will face penalties such as fines and damage to personal credit [8]. But even so, the early withdrawal mechanism may still weaken the long-term accumulation ability of pension funds. For example, official data from New Zealand's KiwiSaver shows that in 2023, after about 15% of accounts made early withdrawals for house-buying, the subsequent repayment rate was less than 40%. Although Canada's repayment penalty mechanism has a certain restraining effect, it also traps low-income groups in a vicious cycle of "withdrawal - fine - greater poverty", which goes against the original intention of the design of the private pension. A comparative summary of these and other international approaches is presented in Table 2.

Table 2. Summary of experiences of developed countries.

Country	Core Measures	Core Experiences
United States	Established IRA accounts, allowing flexible transfer between occupational pensions and private pension accounts, and shortened the full vesting period of occupational pensions.	Flexible account transfers adapt to job mobility and maintain the continuity of savings.
Germany	Provide diversified and high-value subsidies (differentiated by marital status, children, and age), and implementing targeted incentives for different income groups.	Subsidies are substantial and widely covered, catering to the needs of different income groups.
Japan	Implemented iDeCo and NISA plans, setting differentiated contribution limits and tax models (EET/TEE) for different groups, and supporting flexible withdrawals.	Customized plans for diverse groups to meet varied retirement savings needs.
New Zealand Canada	New Zealand's KiwiSaver and Canada's private pension accounts allow early withdrawals for specific scenarios such as house purchase, education, health issues, with penalties for unauthorized withdrawals.	Permit early withdrawals for specific purposes, with strict restrictions to ensure system sustainability.

6 Recommendations for the Optimization of China's Private Pension Scheme

6.1 Introduce Fiscal Subsidies and Optimize the Tax-incentive Model

In terms of fiscal subsidies, China can draw on relevant German experience. On the basis of providing tax deductions, it can provide full-coverage or targeted participation subsidies. Especially for middle-and low-income groups who cannot enjoy tax incentives at this stage, a certain amount of contribution subsidies can be directly provided during the contribution stage. This not only encourages this group to participate actively but also effectively reduces their contribution burden. In addition, based on the core concept of the life-cycle theory that "balances the financial demands at different life stages", when designing subsidy and tax policies, for low-income groups, it is necessary to take into account both their current payment pressure and long-term pension reserves, and reduce their participation threshold through differentiated subsidies. For high-income groups, it is important to prevent them from reducing long-term investment due to short-term tax burden considerations. Thus, after the relevant policies have been implemented for a period of time and become mature, more refined measures such as "linking subsidies to income" and "linking subsidies to the number of participation years" can be tried to continuously and steadily enhance the attractiveness of the private pension scheme. Besides, during the initial implementation of the financial subsidy plan, a "dynamic quota adjustment mechanism" should be adopted. The subsidy standard should be adjusted dynamically according to the fiscal revenue and expenditure situation, which contributes to avoiding the instant pressure on the finance caused by a one-step-to-the-end subsidy.

In terms of optimizing the tax incentive model, the current "EET" model adopted in China has a limited coverage. According to the data from the State Taxation Administration in 2023, the actual number of people paying personal income tax in China is approximately 65.12 million, accounting for only about 9% of the employed population. In other words, less than 10% of the total employed population can truly enjoy the current tax benefits for personal pensions. Thus, the TEE tax-incentive model (the TEE model means paying personal income tax during the contribution stage and being tax-free during the investment income and withdrawal stages) can be introduced to work together with the EET model. The TEE model can be mainly aimed at middle-and high-income taxpayers, while the EET model is for middle-and low-income taxpayers and freelancers [13]. It must be emphasized that any adjustments in the field of finance and taxation must clarify the operational details by amending relevant laws and regulations such as the "Individual Income Tax Law". During this process, there may be resistance from some high-income groups towards tax burden adjustments, and local tax departments may also face difficulties in implementing the transition between the old and new models. These problems need to be gradually resolved through systematic policy interpretation, phased pilot projects, and the spread of experience. In addition, the parallel operation of the two tax models may increase management costs and complexity, and may also deepen the public's confusion when choosing suitable plans. These real-world challenges must be fully considered and properly addressed in the subsequent optimization.

6.2 Strengthen Investment Education and Improve the Public's Financial Literacy

The public's financial literacy is one of the major factors influencing the participation rate of private pensions. However, the current financial literacy level of Chinese residents still needs improvement. According to the 2023 Consumer Financial Literacy Survey Report of the People's Bank of China, the national average financial literacy score is 66.8 points (out of 100), and only 30% of the respondents can correctly understand basic financial concepts such as compound interest. According to the requirements of the overlapping generations model for "rational intergenerational resource allocation", investment in education should guide the public to recognize that personal retirement savings not only concern their own later life but also can alleviate the future intergenerational retirement burden. By enhancing the recognition of long-term investment, it promotes the continuous accumulation of retirement funds. Banks, relevant industry associations and government departments should work together to organize and carry out financial publicity and education activities on private pensions. They should adopt various channels and methods to actively promote the knowledge of the third-pillar private pension and its national support policies, and enhance the understanding and trust of the private pension scheme. At the same time, providing appropriate investment education to residents can guide the public to deeply understand the importance and long - term nature of pension investment, and help deepen the public's understanding and awareness of private pension financial products.

In addition to the above measures, banks should also provide specialized investment and financial advisory services to residents participating in the private pension plan. Professional advisory services can not only help individuals optimize the allocation of pension assets, but also play a key role in continuously monitoring and timely adjusting the investment portfolio, which is an important option for participants to increase investment returns. By cooperating with financial advisors, individuals can better understand the risks and opportunities of pension investment, and thus make more informed investment decisions. In personal retirement planning, the role of financial advisors is also very important. They can provide professional advice and guidance to help individuals achieve the optimal allocation and management of pension assets.

6.3 Enrich Product Offerings and Provide Diversified Investment Financial Products

Private pension account combines the two characteristics of security and investment. Therefore, diversified investment products and channels should be expanded to increase the choices for individual pension investors. According to the data from the National Social Insurance Public Service Platform as of June 17, 2025, there are a total of 1,033 personal pension products in China. Among them, there are 466 savings products (accounting for 48.44%), 297 fund products (accounting for 28.75%), 235 insurance products (accounting for 22.75%), and 35 wealth management products (accounting for 3.39%). Referring to the product structure of Japan's iDeCo and NISA plans, China could increase the proportion of fund products in private pension products to 40%, and add more detailed products for different risk preferences. For instance, it could design a stable portfolio with an annualized return rate of 3% to 4.07% for conservative investors, and a growth portfolio with 30% to 40% equity assets for aggressive investors. Furthermore, data from the National Bureau of Statistics of China in 2023 shows that the current number of flexible workers in China has exceeded 200 million. Therefore, China should also consider developing flexible and customizable exclusive products for flexible workers when the time is ripe.

It should be noted that the expansion and innovation of products should be led by regulatory authorities to define the risk levels and suitable target groups for various products, to prevent financial institutions from launching high-risk products in pursuit of scale. At the same time, the promotion of differentiated products may encounter problems such as low market acceptance of niche products and insufficient channel inclination. Therefore, policies should be adopted to encourage institutions to provide services at lower levels and to push suitable products based on the characteristics of regional economies.

6.4 Enhance Account Flexibility

Regarding the deposit of private pensions, China can learn from the United States. Consider introducing more transfer and continuation mechanisms, allowing residents to transfer funds between private pension account, individual medical insurance account, provident fund account, and enterprise annuity

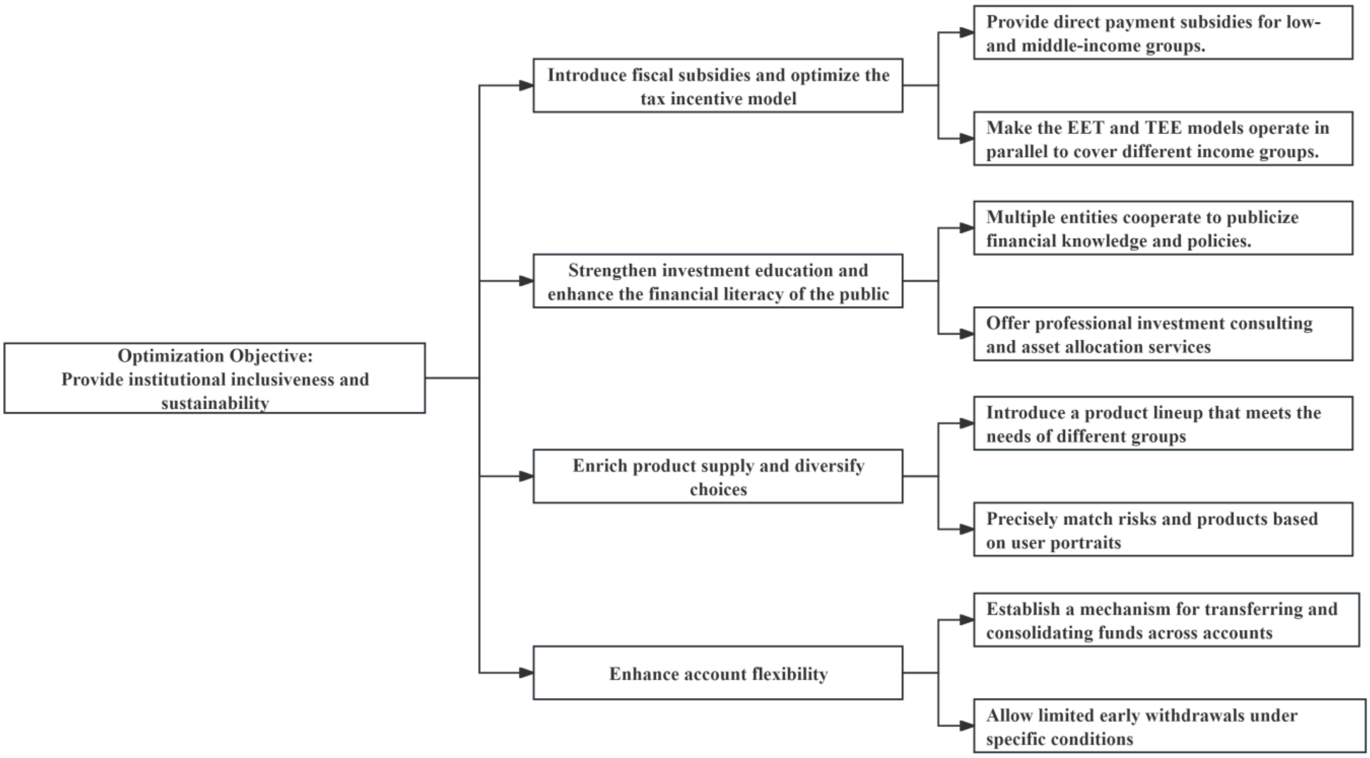

Figure 1. Optimization path diagram.

account, and improving the conversion efficiency between account and other related social security accounts.

Regarding the use of account funds, China can draw on the practices of New Zealand and Canada. The private pension schemes in New Zealand and Canada allow early withdrawal of funds to help participants cope with special needs, such as buying a house, major medical treatment or financial difficulties, and emigrating. Therefore, as time goes by and relevant conditions gradually mature, the government should also carefully explore and consider expanding the account usage functions, allowing participants to withdraw a limited amount of funds in advance under certain circumstances. For example, flexible workers are more likely to face employment interruptions in their lives. To meet their basic living needs during unemployment, they can be allowed to withdraw some funds from their private pension account in advance as temporary support for their lives. When they find a new job, they can replenish these funds. Specifically, based on the concept of "matching financial fluctuations with life stages" emphasized by the life cycle theory, when the private pension scheme allows for flexible operations such as early withdrawals, it is necessary to strictly limit the scenarios and amounts, which not only meets urgent needs such as home purchase and medical care but also ensures that long-term pension reserves are not overly eroded through a supplementary payment mechanism, achieving a balance between short-term liquidity and long-term security. Thus, in practice, strict regulations should be made on the circumstances, amounts, subsequent replenishment, and tax-replenishment methods of early withdrawal to ensure the fairness and sustainability of the scheme [14]. Additionally, the implementation of the account connection and early withdrawal mechanism should first be verified for feasibility through a "small-scale pilot + effect evaluation" model to minimize potential unexpected situations that may arise during practice. The strict restrictions on early withdrawals may face questions from some groups regarding the "right to use funds". It is necessary to emphasize through typical case publicity the protective role of the rules for long-term pension reserves, and balance flexibility with the seriousness of the scheme.

6.5 Summary of Optimization Paths

Based on the above-mentioned content, to optimize China's private pension scheme, it is necessary to ground it in China's national conditions and fully draw on the mature experiences of developed countries. A path system should be formed to make coordinated efforts from four aspects: policy incentives, public awareness, product supply, and account management. The specific optimization logic is shown in Figure 1. At the policy-incentive level, by implementing a parallel approach of introducing fiscal subsidies and optimizing the tax model, direct payment support can be provided to low-and middle-income groups to lower the participation threshold. Moreover, through the differential combination of the EET and TEE models, a wider range of income groups can be covered, thus enhancing the universality and attractiveness of the scheme. At the public-awareness level, a linkage mechanism among the government, financial institutions, and industry associations should be established. Investment education and professional consulting services should be strengthened to improve residents' understanding and trust in the private pension scheme and assist them in making rational investment decisions. At the product-supply level, referring to Japan's diversified product system and combining it with the development of the capital market and users' risk profiles, personalized product portfolios suitable for the needs of different groups should be developed to accurately match risks and returns. At the account-management level, by integrating the account-transfer mechanism of the US and the flexible-withdrawal systems of Singapore and Canada, channels for cross-account fund intercommunication should be established. Under strict regulations, limited early withdrawals in specific scenarios should be allowed, taking into account both the liquidity of the account and the sustainability of the scheme.

7 Conclusion

The private pension scheme, as an important strategic measure to address population aging, its perfection is directly related to the overall quality of China's pension security system. At present, during the pilot process of China's private pension scheme, there are problems such as insufficient coverage, weak incentive mechanisms, and single product services. It is necessary to deeply draw on the mature experience of developed countries and optimize it from multiple dimensions such as policy design, product supply, and account management.

In the future, by constructing more attractive fiscal and tax policies, a diversified investment service system, and a flexible account management mechanism, the inclusiveness and sustainability of the scheme should be gradually enhanced, which will promote the private pension scheme to become an important pillar of China's pension security system, providing residents with more adequate and reliable pension security.

Data Availability Statement

Data will be made available on request.

Funding

This work was supported without any funding.

Conflicts of Interest

The author declares no conflicts of interest.

Ethical Approval and Consent to Participate

Not applicable.

References

[1] Lin, J. (2025). China's Three-Pillar Pension Insurance System: How the Third Pillar Complements the Gap in the First Pillar. *Economics & Business Management, 1*(2), 38-51. [CrossRef]

[2] Chan, K. S., Te Lai, J., & Li, T. (2022). Cultural values, genes and savings behavior in China. *International Review of Economics & Finance, 80*, 134-146. [CrossRef]

[3] Li, B., & Liu, Y. (2025). Household aging, commercial insurance participation, and risky asset allocation. *International Review of Financial Analysis*, 104291. [CrossRef]

[4] Zhao, G., Fu, Y., & Zhou, D. (2024). Study on the Impact of China's Pension Insurance System on the Savings Rate of Urban Residents Based on the Preventive Saving Perspective. *Sustainability, 16*(21), 9328. [CrossRef]

[5] Dong, J. (2023). Birdcage Economy: Who Holds the Strings of China's Economy?. In *Chinese Statecraft in a Changing World: Demystifying Enduring Traditions and Dynamic Constraints* (pp. 35-50). Singapore: Springer Nature Singapore. [CrossRef]

[6] Chen, Z. (2023). Problems, causes and countermeasures of China's pension insurance system. *Advances in Education, Humanities and Social Science Research, 5*(1), 45-45. [CrossRef]

[7] Dong, K., & Sun, B. (2019). Development Path of Pillar 3 Personal Pensions in China. In *Annual Report on Financing Old Age Care in China (2017)* (pp. 93-115). Singapore: Springer Singapore. [CrossRef]

[8] Sørensen, O. B., Billig, A., Lever, M., Menard, J. C., & Settergren, O. (2016). The interaction of pillars in multi-pillar pension systems: A comparison

of Canada, Denmark, Netherlands and Sweden. *International Social Security Review, 69*(2), 53-84. [CrossRef]

[9] Welch Jr, J. S. (2016). Measuring the Financial Consequences of IRA to Roth IRA Conversions. *Journal of Personal Finance, 15*(1).

[10] Börsch-Supan, A. H., Coppola, M., & Reil-Held, A. (2012). *Riester pensions in Germany: design, dynamics, targetting success and crowding-in* (No. w18014). National Bureau of Economic Research. [CrossRef]

[11] Kim, W. S. (2018). Evaluation and Implications of the German Riester Pension Scheme. *Korea Social Policy Review, 25*(3), 279–303.

[12] Yang, F. Comparison and Enlightenment of Retirement Policies in China and Japan. *Korea, 60*, 60. [CrossRef]

[13] Wolf, I., & Caridad y Ocerin, J. M. (2021). The transition to a multi-pillar pension system: The inherent socio-economic anomaly. *Journal of Financial Economic Policy, 13*(6), 755-771. [CrossRef]

[14] Rowlingson, K. (2002). Private pension planning: the rhetoric of responsibility, the reality of insecurity. *Journal of Social Policy, 31*(4), 623-642. [CrossRef]

Shi Yao, a current postgraduate student at the School of Management, Universiti Sains Malaysia, mainly focuses on the innovative application and integration path of artificial intelligence technology in social security projects, with a particular emphasis on the practice and development of intelligent algorithms in the field of social welfare. (Email: seanshi@foxmail.com)