Personal Pension Plan: International Enlightening for Aging China

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Abstract. The Implementation Measures for Personal Pensions were jointly released in November 2022 by five agencies, including the Chinese Ministry of Finance and the Ministry of Human Resources and Social Security. The Communist Party of China's report on its 20th Congress makes clear recommendations for the welfare of the populace, including "improving the national coordination system of basic pension insurance and building a multi-level and multi-pillar pension insurance system." China is currently dealing with the strains of an ageing population and the uneven development of its pension system. One of the primary challenges China's social security system is currently experiencing is effectively encouraging the development of individual pensions to satisfy higher-level pension needs. Individual retirement accounts have been developed in the US for a very long time. China should undertake a range of various measures based on the Chinese situation while relying on the prior experience of the United States to promote personal pensions from the perspectives of public bodies, financial institutions, and investors.

Keywords: Ageing population; multi-pillar pension insurance system; personal pension.

1. Introduction

David Blake formally introduced the concept of pension finance in 2006. He described pension finance as pension asset management, a combination of assets based on the investment preferences of different groups [1]. Pensions are a crucial component of the social security system. With the growing trend of an ageing population and the subsequent impact of China's one-child policy, China's basic old-age insurance (BOAI) expenditure will take up an increasing proportion of government expenditure. The Chinese government officially promulgated the personal pension system in 2022, i.e., actively developing the third pillar of pensions, in order to reduce fiscal strain and assure the sustainability of pension development. The essence of the personal pension system is that individuals make regular deposits into their tax-advantaged pension accounts and choose financial products based on their risk and investment preferences.

2. Ageing Problem

China's Government Work Report makes the following recommendations for 2022: "actively respond to the ageing of the population, optimise the supply of senior services in urban and rural areas, and support the high-quality development of the elderly cause and industry"[2]. This means that China's ageing risk has entered a stage that cannot be ignored. A total of 264.02 million Chinese people, or 18.70% of the population, were 60 years of age or older, according to the seventh census. Among them, 190.64 million persons, or 13.50% of the population, were 65 years of age or older [3]. Population ageing is a common phenomenon in the world development process. China has a vast demographic base, nevertheless, and an even larger population that is getting older when compared to developed nations. According to the World Bank, there are 747.24 million people over the age of 65 in the world's total population [4], and China's old population accounts for 25.5% of the world's elderly population.

After suffering from a string of natural disasters for three consecutive years, China adopted the slogan "more people, more productivity" in an effort to spur economic growth. China's population increased significantly between 1961 and 1972, with a peak growth rate of 2.78. Figure 1 depicts this. According to World Bank figures, 175 million individuals were born in China in a time span of nine years [5]. Over the next decade, those born between 1961 and 1972 will retire and join the ageing population. China's dependency ratio and its ageing population will both rise significantly over time (see Figure 2). In addition to the ageing population increase, the dependency ratio of the ageing population will also increase significantly in the future due to the compounding effect of the one-child policy.

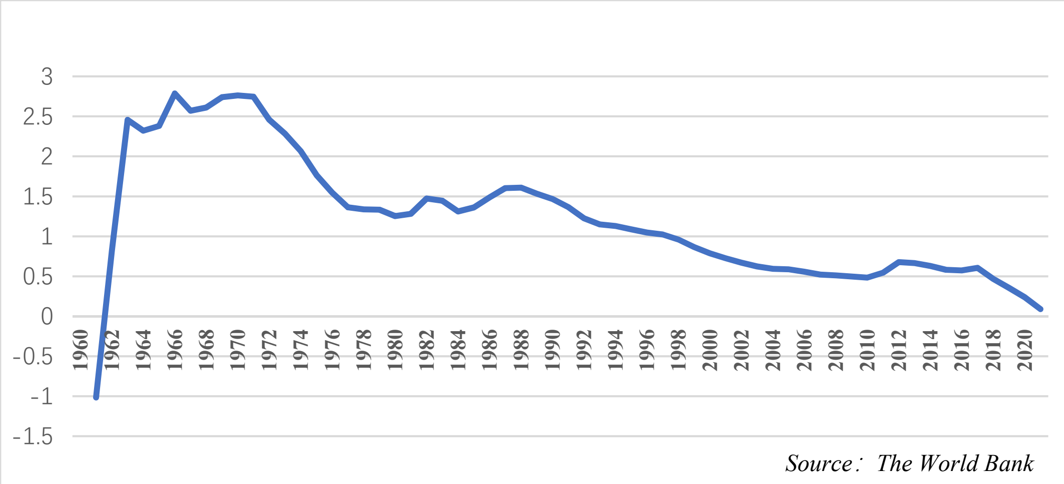

Fig. 1 China CHN Population growth (annual %) SP.POP.GROW

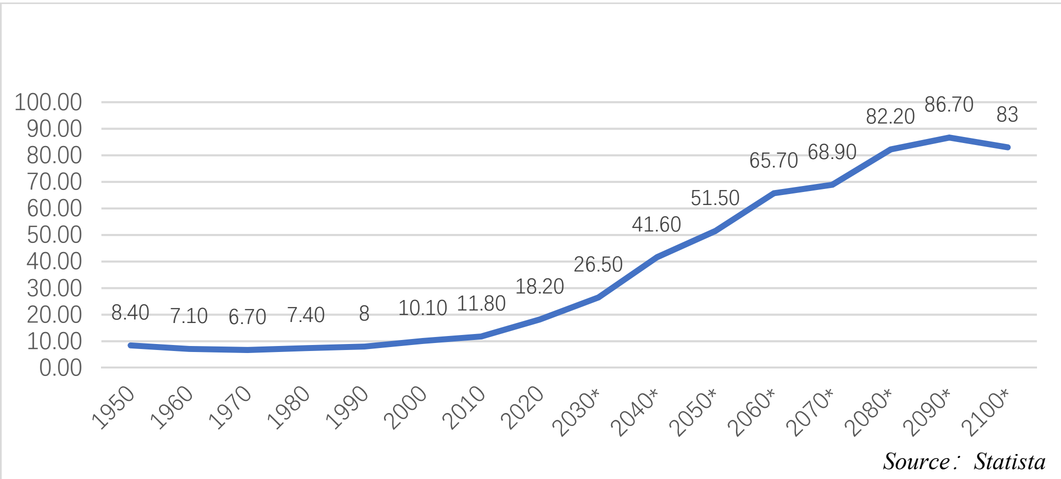

Fig. 2 Old-age dependency ratio (%) in China from 1950 to 2020 with forecasts until 2100

The social security system and government budgets in China will be under tremendous strain as the population ages. With a per capita GDP of US$12,556.3, China now has a low level in comparison to developed economies. According to World Bank data, when the population over 65 amounts to 13% of the total population, the GDP per capita in major industrialised countries is significantly higher than in China. In 1989, the GDP per capita in the United States was US$22,857.2; in 1993, the GDP per capita in Japan was US$35,682; and in 2000, the GDP per capita in Canada was US$39,169.4 [6]. According to the data, the majority of Chinese citizens still need to be wealthier in order to meet the financial demands of an ageing population. It also demonstrates that these developed economies can deal with the issue of an ageing population more effectively and affordably than China.

3. Low Employment Rate of the Ageing Population

China has a rich reserve of older workers, and the employment rate of older people is much lower than in developed countries. China's population over 60 has a 26.8% employment rate, according to

"Living Conditions of the Elderly in Urban and Rural China" [7]. In contrast, the employment rate in Japan is 71% for people between the ages of 60 and 64 and 49.6% for people between the ages of 65 and 69. In the United States, the employment rate is 30.5% for people aged 65 and older and 53.2% for those between the ages of 60 and 64. (See Table 1). According to Chinese culture, elderly people would spend their golden years at home, supported by the government and their progeny. Youngsters think it is disrespectful to retain elderly people in their jobs. However, by engaging in constructive activities in society, elderly people who are still able to work can diversify their sources of income and recognise their own worth. Chinese seniors depend more on pension insurance and view pensions as their sole source of money for retirement compared to older adults in more affluent nations.

Table 1. Employment rate of older

	Employment rate of older workers, 60-64	Employment rate of older workers, 65-69
Unit	Percentage	Percentage
Japan	71.0	49.6
United States	53.2	30.5

4. Unbalanced Pension System

The basic old-age insurance, corporate and occupational annuities, and personal pension insurance make up the three main parts of the Chinese pension system at the moment [8]. The basic old-age insurance, often known as BOAI, includes a pension for urban workers as well as endowment insurance for both urban and rural people. BOAI is the first pillar of China's pension insurance system. BOAI is the most widespread pension insurance in China and covers a significant number of people. The BOAI was launched by the Chinese government in 1997 and was quickly extended to all towns and cities across the country. The BOAI is compulsory and covers all types of employees, including those of companies with different ownership structures, freelancers, and people who do not have permanent and stable employment. Business, the state, and the individual all contribute to BOAI premiums. By the year 2022, BOAI had, for the most part, accomplished the primary goals that policymakers had initially set for it: broad coverage, necessary protection, and sustainability [9]. The Statistical Bulletin on Human Resources and Social Security Development in 2021 shows that by the end of 2021, the number of people participating in basic pension insurance nationwide was 102.87 million, an increase of 30.07 million from the end of the previous year [10]. Among these people, the number of people who participated in pension plans for urban employees was 480.74 million, and the number of people who participated in endowment insurance plans for urban and rural residents was 547.97 million [10]. In the overall population of adults aged 15 or older, up to 88% were BOAI-covered. The BOAI is only available to people who are at least 18 years old, so the coverage rate is much higher because of this restriction. Corporate and occupational annuities are the second pillar of China's pension insurance system and are supplementary pension insurance. By the end of 2021, 117,500 companies had established corporate pensions, covering only 28.75 million people [10]. When they retire, employees of businesses and institutions that have adopted the corporate and occupational annuity scheme will earn a greater pension than those merely covered by BOAI. Corporate and occupational annuities are not compulsory. Only state-owned and central enterprises, large private and foreign enterprises, and public institutions participate. In most cases, businesses will establish an enterprise annuity board to oversee the management and investment of the organization's annuity fund. Occupational annuities are usually managed by social security institutions that are qualified to manage occupational annuities. The third pillar of China's pension insurance, personal pension insurance, needs to be faster to develop and is a shortcoming among the three pillars of China's pension insurance. According to the implementation measures for personal pensions promulgated in 2022, personal pensions are based on a personal account system with contributions borne entirely by the individual participant, who can independently choose to purchase financial products such as savings deposits, financial products, commercial pension insurance, and public funds that comply with the regulations and enjoy preferential tax policies in accordance with relevant national regulations [11].

China has a three-pillar pension system in place, but it is unevenly distributed. Due to the lack of support from the second and third pillars of pension insurance, most people can only obtain essential livelihood protection after retirement. Most people cannot maintain the same quality of life after retirement as before. Therefore, in recent years, China has begun to expand pension finance and encourage the growth of the third pillar of personal pensions.

5. Pension System of United States

The United States is currently the most economically advanced country with the most sophisticated financial system in the world. The pension system in the United States is more market-oriented, less reliant on financial support, has a long history of development, and is a fully functional system. The US pension system has a three-pillar structure, with government pensions as the basic guarantee, supplemented by occupational pensions and personal pension investments as essential supplements. The first pillar of the US pension system is the Old Age, Survivors, and Disability Insurance Program (OASDI). OASDI is a required social security program. OASDI coverage is much higher than China's BOAI coverage, with approximately 94% of the US workforce covered by OASDI, which is usually funded through a combination of employee and employer social security taxes and taxes on benefits paid by OASDI. Additionally, OASDI is funded by donations and bequests, earnings from specific technology transfers, and risk-free investments that produce interest income on trust fund securities [12]. The second pillar of US pensions is voluntary employer-sponsored supplemental pension plans. Defined benefit programmes (DB) and defined contribution plans (DC) are two types of employer pension plans [13]. Defined benefit plans are funded by employer contributions based on an employee's years of service and salary, and the employee receives a fixed, predetermined benefit upon retirement [14]. Each participant in the defined contribution plan has a personal account that is funded and credited in accordance with a predetermined ratio by the employer and the employee [15]. The Defined Contribution Plan outlines how payments are made rather than what benefits are received [15]. The third pillar of the American pension system is individual retirement accounts (IRAs). The development of IRAs has increased the number of Americans who are covered by pensions, decreased the cost of government pensions, and strengthened U.S. capital markets. A three-pillar pension social security system was formally established in the U.S. In comparison to China, the three pillars of the pension system in the United States are more well-developed and well-balanced. This provides an excellent reference for how to improve the pension system in China.

5.1 Long History

The U.S. pension system is now a century old, and it has undergone several revisions during its development. The U.S. pension system was initially created by private firms, unlike China. American Express created the first private pension plan in 1875, covering 4 million workers [16]. The first pillar of the social security system, now known as the Old Age, Survivors, and Disability Insurance (OASDI) scheme, was established in 1935 [12]. After World War II, many private companies began developing their pension plans as wage compensation to recruit and retain more employees. When Studebaker Motors filed for bankruptcy in 1963, it was a watershed moment for pension reform in the United States. As a result of the bankruptcy, employees of Studebaker Motors were prevented from receiving the pension benefits to which they were otherwise entitled. This was the moment that sparked widespread public support for pension reform. This event promoted the enactment of the Employee Retirement Income Security Act (ERISA, P.L.) [16] in the United States in 1974. The Employee Retirement Income Security Act (ERISA) is responsible for the establishment of both the second and third pillars of the pension system in the United States, which are employer pensions and individual retirement accounts (IRAs), respectively.

5.2 OASDI: Wide Coverage and High Financial Pressure

In the United States, the first pillar of Social Security is starting to feel overburdened as the population ages. According to the findings of the Trustees Report for OASDI for the year 2022, the OASDI programme will have provided benefits to a combined total of 50 million retired workers and dependents of retired workers by the end of 2021 [17]. Due to a variety of factors, including COVID-19, the total cost of the plan in 2021 was higher than the total income, with total costs of $1,145 million and total income of $1,008.8 million, including $1,080 million in non-interest income and $70 billion in interest income [17]. There were $2.91 trillion in OASDI asset reserves at the end of 2020 vs. $2.85 trillion at the end of 2021 [17]. By 2035, all of OASDI's reserves will be gone [17].

5.3 Supplementary Pensions

In contrast to China, the population of the United States places a greater emphasis on the second and third pillars as their primary sources of retirement income. As of June 2022, the total asset value of the supplemental pensions in the US was $33.7 trillion [18]. As of the end of the second quarter of 2022, the total assets of US employer pension plans were $22 trillion. Of this, DC plans had $9.3 trillion in assets, DB plans had $7.3 trillion in assets, and private sector DBs held $3.2 trillion in assets [18]. The US employer pension plans are currently the most significant part of the US pension system. In addition, as of June 2022, Americans had a total of $11.7 trillion in their individual retirement accounts (IRAs), which accounted for 34.7% of the $33.7 trillion in assets specifically designated for retirement [18].

5.3.1 A wide choice of products

There are several different product options for employer pensions in the US, which are broken down into different groups for different investors. DC plans include five different options: 401(k) plans, 403(b) plans, TSPs, 457 plans, and other private-sector DC plans. 401(k) plans are now the most popular employer-sponsored defined contribution (D.C.) retirement plans in the United States and a crucial component of the country's second pension pillar. The Internal Revenue Service (IRS) made a proposal about 401(k) plans in 1981. By the end of 2021, Americans held a total of $11 trillion in DC plans, of which 70% were 401(k) plans (see Figure 3), representing 20% of all retirement assets in the U.S. [19]. In addition to company pensions, individuals can choose to enrol in IRAs on their own. IRAs offer a different choice for low-income households as additional pension insurance. IRAs offer a different choice for low-income households as additional pension insurance. IRA participants are more likely to be low-income households than 401(k) participants, with 4% of owners having a total household income of less than $25,000 [20].

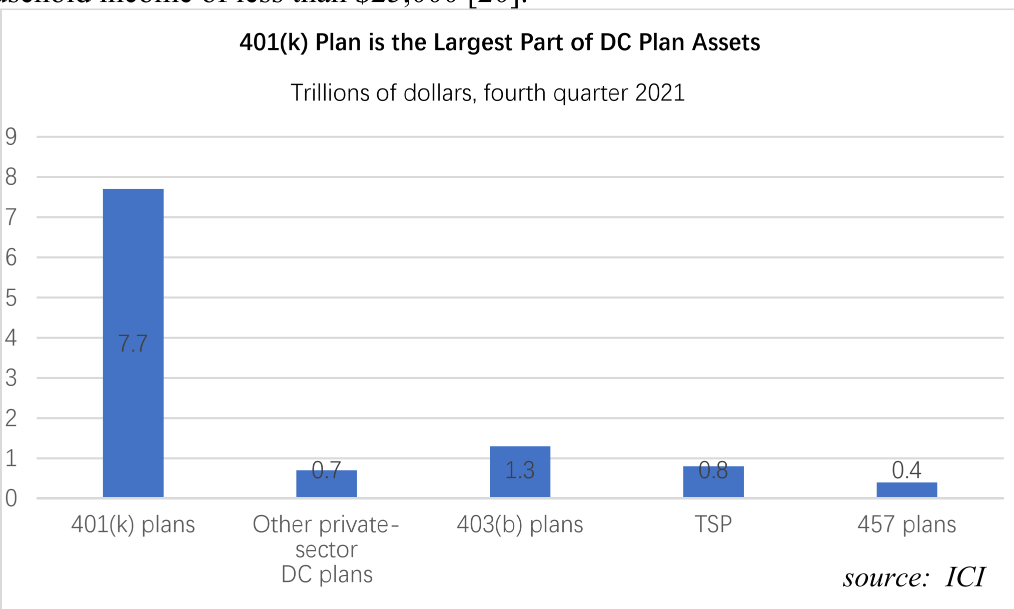

Fig. 3 401(k) Plan is the Largest Part of DC Plan Assets

5.3.2 Older and high income

Because IRAs and 401(k) plans are voluntary investment vehicles, their users must be older than those required to purchase pension insurance [20]. The data shows that nearly 50% of 401(k) plan participants are between the ages of 40 and 60. Mid-life is typically when a person's earning potential is at its highest [19]. This is a side effect of the fact that 401 k participants are more likely to be in the higher income groups. 46% of US DC account users earn between $25,001 and $99,999 annually, and 51% make over $100,000 [19]. This phenomenon is because young people usually lack the awareness to save extra for retirement and need more income to pay for these savings.

5.3.3 Tax incentives

The federal government of the United States offers financial incentives for retirement savings plans. Individual Retirement Accounts (IRAs) are tax-advantaged savings plans that individuals can join as supplemental pension insurance plans. The government strengthens resident incentives by providing tax benefits to pension financial products in order to promote IRAs. Additionally, the US government provides various incentives for promoting various items. Two types of Individual Retirement Accounts that are currently authorised by the U.S. Congress, traditional IRAs and Roth IRAs, provide a good example for this [16]. The tax advantages are the fundamental distinction between standard and Roth IRAs. Contributions to traditional IRAs are tax deductible, whereas Roth IRAs take the form of after-tax contributions, but retirement funds are tax-sheltered [16].

5.3.4 Market-Based Mechanisms

The third pillar of pension insurance in the US follows market-based principles very well. The government promotes the participation of residents through market-based instruments. Residents can also choose their investment options according to their preferences. In practise, the government encourages individuals to save money for retirement through the receipt of incentives, whereby individuals regularly deposit a portion of their income into an IRA account [16]. Individuals can then choose their prefered financial products from a pool of financial products, such as funds, stocks, bonds, etc., based on their investment preferences [20]. The adoption of market mechanisms has significantly increased participation among citizens and decreased the financial burden of the government's pension program.

6. Enlightens for China

By learning from the advantages of supplementary pension insurance in the US, we analyze how China should make the newly enacted personal pension insurance system work better. This part is analyzed through three main dimensions: public institutions, financial institutions, and individuals.

6.1 Public Institutions

The smooth implementation of a personal pension insurance system requires a well-developed incentive and regulatory system, as well as guidance and education for investors.

6.1.1 Implementing tax benefits

A comprehensive tax incentive policy can help facilitate the smooth implementation of a personal pension insurance system. After retirement, the presence of a single tax incentive mechanism has a tendency to exacerbate class tensions and widen the gap between the wealthy and those with lower incomes. Introducing different incentives for different income groups is the only way to maximise residents' willingness to invest. For example, subsidies should be given to low-income groups who open personal pension accounts, thus encouraging low-income groups to put their savings into pension accounts. A cap on investment should be set for higher-income groups to avoid tax evasion through this route.

6.1.2 Improving the regulatory system

For the development of a personal pension system, the regulatory framework must be improved. In most cases, residents' worries regarding the investment of their pension accounts are related to how well the assets can be handled and how secure the funds are. By clarifying the responsibilities of the participants in the system, the funds in the account can be operated effectively. In order to protect investors, the government should carefully examine the credentials of financial institutions and choose only reputable, seasoned companies. Additionally, it is crucial to guarantee that investors have a choice in the products they invest in, fostering competition amongst financial institutions to offer investors a wider range of financial products at a lower service cost.

6.1.3 Allow risky assets allocation for those with higher risk tolerance

To increase projected returns, policies should let financial institutions distribute riskier assets to risk-tolerant clients. For instance, in Japan, early on in their creation, asset allocation for pension portfolios was rigorously controlled. To maintain the safety of Japanese pensions, more than 50% of the financing required must come from risk-free assets prior to 1979. Less than 30% went to stocks, less than 30% to overseas assets, and less than 20% went to the creation and sale of real estate [21]. Japanese pension reform has mostly focused on overseas investments. Prior to 1976, exchange regulations imposed by the Japanese government made it difficult to distribute foreign assets in practise. After the Japanese government deregulated the management of pension funds in 1997, pension funds were given more freedom to allocate their investment ratios. According to research, Japanese pensions benefit more from asset ratios that can fluctuate freely [21]. Offering higher-return investment options for those with high risk tolerance can attract younger investors to invest in their pension accounts.

6.1.4 Enhanced financial education

An increase in financial literacy can benefit citizens by raising their understanding of retirement investments and helping them form solid investment habits. First of all, self-help pensions can substantially improve the quality of life in retirement through television public service announcements. Besides, financial knowledge is popularised among the public through short videos on mobile phones and small classes on financial management in the community. Most Chinese residents still choose to keep their income in the bank without making any financial investments. Individual investors who participate in the stock market and mutual funds typically need to develop better investing habits or a better mindset. Individual investors frequently follow the trend of seeking out huge gains but are unable to accept the danger. Some investors approach their investments with a gambling mentality. Through popular financial education, the investment habits of individual investors can be effectively changed so that retirement investments can truly protect retirees' lives.

6.2 Financial Institutions: Social Responsibility

6.2.1 Offering a wider choice of products

To achieve individualised service, financial institutions should provide investors with a diverse selection of products to fulfil their investment needs. Financial institutions that provide products and services related to retirement planning ought to demonstrate greater social responsibility and provide suitable discounts on relevant items in order to entice individuals to invest in their retirement savings. From the standpoint of the user experience, it is critical to offer services that are better suited to investors' requirements. Financial institutions could offer low-income groups the possibility of allowing early withdrawals and waiving penalties in urgent need (e.g., by asking the user to provide a hospital certificate). One potential benefit of this strategy would be a reduction in the concerns that low-income groups have regarding their investments.

6.2.2 Improving service capabilities

Commercial banks and other financial institutions should work to increase their ability to allocate assets and make investments, as well as their level of customer service. Financial institutions should diversify their asset holdings based on the level of risk that various age, income, and gender groups are willing to take. Second, financial institutions ought to enhance their skills to evaluate the performance of their funds. They should evaluate the fund manager's timing skills in addition to assessing the funds for return and risk. For pension investors, it's critical to choose funds that are genuinely trustworthy.

6.3 Individual: rational asset allocation

Investors should analyse their financial situation and risk tolerance by learning about finance and choosing different investment products according to their risk appetite. Pension investments are ultra-long-term investments, and age is the most obvious influencing factor on risk tolerance that changes during the investment process. According to the article, "Risk-sensitive preferences and age-dependent risk aversion" [22], the higher the age, the higher the risk aversion. Therefore, the asset allocation of pension investments should be based on the investor's age. Investors can get better returns at a younger age in this fashion, but they also have to take on more risks. As people get older, their ability to bear risk decreases; therefore, investors should progressively shift more of their portfolios towards risk-free assets to ensure security in their later years. Among such financial products, investors may build a portfolio with higher risks but higher returns at a younger age. At this stage, people often have a fixed income and a high risk tolerance and can invest a small portion of their income in risky investments to achieve higher returns. Even if the investment's risk results in a partial loss, it won't negatively impact one's current stage of life. People's capacity for risk declines with age. By adding a rising percentage of risk-free assets to their portfolios, investment institutions can assist investors in reducing the total risk of their pension investments. From "do not put eggs in one basket" to "do not put eggs in the same basket on the same shelf," pension investments may even choose to build a portfolio consisting of more than one portfolio. This approach can help investors allocate more assets and thus diversify their risks.

7. Conclusion

In China, there is a serious issue with population ageing, few seniors participate in worthwhile social activities, and the uneven progress of the pension system is only now beginning to be noticed. How to encourage its implementation is the main challenge facing China's pension system now that the Implementation Measures for Personal Pensions have been published. The US IRA has a long development history, a high coverage rate, a wide choice of products, generous tax incentives, and a sound market mechanism, all of which are worth learning from in China. Chinese public institutions should ensure the implementation of tax incentives, allow financial institutions to allocate a certain percentage of risky investments to investors with high-risk tolerance, and provide financial education to residents. Financial institutions should provide investors with diversified products and strive to improve their investment and asset allocation capabilities. Investors should be aware of their financial condition and risk tolerance so that they may select the appropriate investment products based on their risk appetite. All facets of society must participate in the implementation of a personal pension system, which cannot be promoted overnight without due consideration. A personal pension plan is a type of financial investment. The residents' low level of financial literacy and the mismatch between the rate of return they hope to obtain through investment and their risk tolerance are the biggest obstacles in promoting a personal pension system.

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