

Research on the Efficiency of Chinese Pension **Insurance System Reform**

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Abstract

Beginning in the early 1980s, countries have carried out the reform of the pension system, the general trend is the introduction of different levels of fund system, the structure of the diversified pension insurance system. In this paper, the theoretical analysis framework and basic standards of the efficiency of pension insurance reform are put forward and demonstrated from the perspective of static efficiency and dynamic efficiency of resource allocation. On this basis, the partial equilibrium analysis method is used to analyze China's partial endowment insurance system This paper analyzes the financial sustainability of institutional reform and explores the optimization parameters selection of the pension system reform. Using the general equilibrium model of intergenerational overlap, the author analyzes and evaluates the effect of the partial accumulation pension system on long-term economic growth, income distribution, Social welfare.

Keywords: Insurance System Reform, Chinese Pension System, Society

1 Introduction

In the early 1980s, due to the financial crisis and shortcomings of the old-age insurance system, the pay-as-you-go pension system began to face great challenges. On the one hand, the global population aging is becoming increasingly serious, and the old-age dependency ratio (the proportion of the population aged 65-64 accounting for the working population aged 15-64) is on the rise. The oldest problem is the OECD countries. The aging of the population has changed the basic conditions for the effective operation of the pay-as-you-go system. The financial balance of the pension system begins to emerge and the



government's financial pressure increases. From 1995 to 2050, the proportion of pension expenditure to GDP in industrialized countries will (Germany) rose from 11.1 percent to 17.5 percent, while Japan grew from 6.6 percent to 11.5 percent (Roseveare et al., 1996). The US government's share of OASDHI spending on GDP rose from 3.7% in 1970 to 6.9% in 1993 and is expected to rise to 10% to 13% by 2050 (Steuerle And Bakija, 1994), the US social security system will be difficult to maintain the current level of pension funds, the system will be depleted by the year 2030 (Sargent, 1999); Europe 2030 balanced pension contribution rate France will reach 34%, 48% in Germany, 62.5% in Italy and 63.1% in Austria (Gonnot, 2001). On the other hand, the pay-as-you-go system weakens the link between contributions and benefits and has a distorting effect on the labor market and capital markets, leading to a decline in national saving. Feldstein (1996) and Kotlikoff et al (1996) studied the potential effects of the US pension system on national savings and economic growth, respectively, suggesting that the traditional system affected savings in varying degrees Cifuentes and Valdes-proto (1996) have shown that the current accumulation program may contribute 8% to GDP growth in the future through a study of the Hungarian pension system, and that the increase in GDP The traditional pay-asyou-go system will only increase GDP by 1.5% in the future. In order to alleviate the financial crisis caused by the aging of the population and the rapid development of the old-age insurance system, to avoid the insolvency risk, to improve their own efficiency, to achieve long-term equilibrium system, but also for the old-age insurance system in the protection of basic living At the same time, it can promote the development of financial market, promote economic growth and improve the long-term welfare of the people. Countries have reformed the traditional pay-as-you-go pension system. The general trend is from a single pension insurance system to a diversified pension insurance system.

2 The Efficiency Theory of Endowment Insurance System

In the 1970s, the developed countries in the western developed into a long-term stagflation, and the welfare states represented by Western Europe and the Nordic countries faced an increasingly serious financial crisis. (Friedrich von Hayek, 1889 ~ 1992) and the United States economist Milton Friedman as the representative of the Austrian economist Friedrich von Hayek (1889 ~ 1992) and the United States economist Milton Friedman Of the neo-liberalism began to prevail. Neo-liberalism is the theory and thought of western economics, which is based on inheriting classical liberalism economic theory and opposing and resisting Keynesianism. This theory advocates "liberalization", "privatization", and "marketization", and opposes state intervention. Economic freedom is the premise of economic efficiency. Privatization is the guarantee of freedom and economic development. Resources, state intervention in the economic system can not eliminate the unfavorable factors of economic development, but will limit the market economy, self-improvement and self-regulation, "unregulated market is the best way to stimulate the economy, it will make everyone benefit"



Neo-liberal social welfare thoughts and ideas include five aspects: the first advocating freedom, against social justice and distribution of justice. Any demand for the distribution of wealth will lead to the loss of social progress, any narrowing the gap between the rich and the poor distribution of justice, will cause great harm to personal freedom. The market allocation of resources and wealth distribution is the most fair and effective. The second emphasis on personal responsibility and the role of the market play against the state and government intervention. Hayek believes that freedom and responsibility are linked, individuals do not take responsibility but also lose their freedom; advocating market competition system, the government to provide exclusive power of the old-age insurance system is inefficient, and cause oversupply or inadequate, and family and competition The welfare channels formed by the market can meet the welfare needs of the people. Only when these two channels can not work, or when certain benefits can not be met, the state should be temporarily involved. That the mandatory insurance in the state-controlled monopoly framework, contrary to the "freedom of order", will eventually lead to the social security system of self-expansion and inefficiency, the general affluent society should provide all people with a limited, The family survey of social security to ensure that the minimum demand for subsistence for everyone. The fourth advocates cutting social welfare and advocating competition in the field of social security. Hayek also argued that appropriate safeguards to prevent extreme poverty must allow competition to occur naturally and that social security provision itself should also reflect the principle of competition and oppose monopolistic behavior by the government, which is the main reason why social welfare is "stagflation" and should reduce social welfare. Fifth advocate reform welfare policy. The employment of active labor and employment policies, through the reform of the social security system, strict unemployment insurance eligibility to apply, to shorten the unemployment insurance period, reduce the level of protection, and active employment policies combine to "activate" the unemployed re-labor to work instead of welfare.

3 Analysis of the Patterns of the Reform of the Endowment Insurance System

According to the classification criteria given by the US economists Martin Feldstein and Feldstein and Liebman (2001) in Social Security, different financing methods are used as the standard, and the old-age insurance system Can be divided into pay-as-you-go (PAYG) and full accumulation (full-funded, FF) two basic types, the combination of the two, but also the formation of mixed mode, but it is Due to the different financing methods, the two systems have different fund balance requirements and system operation characteristics.

Pay-as-you-go system. Pay-as-you-go system is the payment of a generation of people who are working in the same period, the system of pension financing for a generation who has retired, its essence is "intergenerational support". Pay-



as-you-go system In the current or near future, the horizontal balance of capital income and expenditure for the financing and treatment of the principle of payment depends on the amount of pension needs during the budget period, not for the future accumulation of funds (in order to avoid rate adjustment Too frequent and short-term fluctuations in income and expenditure may occur, generally also retain the small liquidity reserve fund), the fund raising is usually "social pooling" approach, and in accordance with the principle of social mutual distribution among members of society, with Generation and intergenerational redistribution, the intergenerational redistribution of the performance of the younger generation through the payment of pension funds for the retirement generation, while access to their future retirement benefits of options, pension managers for the work of a generation to provide a Implicit liabilities, which can be transferred to a new generation of work when the working generation becomes a new retiree. Thus, the pay-as-you-go system is an implicit liability scheme But also because the pay-as-you-go system does not guarantee that each person in the life cycle, through the system of payment and income balance, especially when the rate of progressive tax, the system will have on behalf of the redistribution of the nature. It is characterized by the fact that the real burden of payment is light; the pressure of investment and appreciation does not need to worry about the effects of fluctuation of economic fluctuation, inflation and interest rate; in the stable age structure of the population and the establishment of the system, smoothly.

4 Analysis of the Static Efficiency of Chinese Urban Pension Insurance Reform

As one of the ways of disposing resources, the old-age insurance system has its own fund collection, payment channels and forms. The efficiency of the old-age insurance system is optimized by rationalizing the structure of resource allocation and realizing the financial balance of the system. A financial unsustainable system can only transfer the burden to the next generation, resulting in inefficient allocation of resources. Therefore, the aging of the population under the background of the pension system reform, the first face is the sustainability of the system. Part of the accumulation system of old-age insurance system to determine the model, the end of 2000, the State Council developed a "perfect urban social security system on the pilot program" and decided in 2001 in Liaoning Province pilot, pilot work in July 2001 formally entered the organization and implementation phase, And summed up in early 2004, which lasted three years, followed a unified decision-making and hierarchical management combined with the protection level and the provincial conditions to adapt to the combination of fairness and efficiency, rights and obligations to adapt to ensure policy continuity and improve the psychological residents The principle of the expected realization of the urban enterprise employees basic pension insurance from "pay-as-you-go" to "part of the accumulation" model of the transition, initially established a



separate from enterprises and institutions, diversified sources of funds, security system standardization, Management of social services of urban pension insurance system.

According to the static efficiency standard optimized by the old-age insurance system above, we choose the evaluation index of the static efficiency of the pension system reform. The study shows that 58.5% of target replacement rates can guarantee the minimum standard of living for retired workers (Liu, 2004), which is consistent with the Pigouvian standard for the static efficiency of the pension system; without considering other tax burdens, 20% of the overall rate and 8% Personal account rates, which are affordable tax rates for businesses and individuals, are in line with the Pareto standard for the efficiency of the pension system. We choose the three indicators of the income gap, hidden debt and the balance of the required rate to measure whether the pension system to meet the static efficiency of the financial long-term equilibrium standards and the Kaldor-Hicks compensation standards.

The pension gap is the sum of the net present value of the pension gap for the entire forecast period, which reflects the long-run equilibrium of the financial sustainability of the pension system. The paper chooses the proportion of pension revenue gap in the base year GDP. 2. Pension Implicit Debt (IPD) is the commitment of a pension plan to provide pension insurance to employees and retirees, equal to the total amount of the pension that must be paid to the current retiree if the plan is terminated today Plus the present value of the pension rights that the active employees have accumulated and which must be paid. The IPD concept as a stock represents the direct and implicit debt that the government can clearly anticipate and must include in the fiscal plan. The index reflects the longterm equilibrium standard of the pension system optimization and the Kaldor-Hicks compensation standard. In this paper, the proportion of implicit debt to GDP is selected. 3. The required rate is the rate required to balance the pension receipts and disbursements without any additional assistance. The indicator reflects the Kaldor-Hicks compensation standard for the optimization of the pension system. The required rate is defined as the ratio of contributions to total wages. In order to conduct a quantitative analysis and evaluation of the pension reform policy, to study alternative financing models, to predict pension expenditure and how the pension system will change with economic and demographic changes, the World Bank's Human Development Network Social Security Group Social security experts use the actuarial principle of pension insurance and mathematical model, developed on the population structure and pension insurance fund analysis and forecasting tool - PROST actuarial model, the pension reform options Simulation Toolkit (Pension Reform Options SimulationTool-kit). We use the PROST actuarial model to analyze the static efficiency of the pilot program (benchmark) for the long run from 2001 to 2075, and then simulate the effect of different policy parameters on the efficiency of the pension system.



5. Conclusion

In this paper, we study the long-term equilibrium of social pension reform in China from the perspective of static efficiency and dynamic efficiency. We also examine the impact of pension reform on economic growth, income distribution and social welfare. The reform of the old-age insurance system is to seek the best combination of fairness and efficiency, improve the rationality and reality of efficiency, ensure the sustainable and balanced operation of the pension system itself, realize the efficiency of resource allocation, promote long-term economic growth, improve the income distribution, Total benefits, and dynamic efficiency.

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