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The Paradox of Social Security: The Distribution of Costs and Benefits

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Abstract: This study aims to analyze the burden and welfare distribution of China's social welfare framework and explore the economic impact and optimization plan of social security reform. Through a review of existing literature and a comparison of domestic and foreign experiences, combined with China's unique socio-economic background, the study adopts a combination of data analysis and case studies to focus on the financial challenges of the social security system in China, the contribution burden of enterprises and individuals, and the welfare access of different groups. The results show that the current social security system is facing great financial pressure, especially in terms of pension payments and social insurance coverage. There is an unbalanced contribution and benefit relationship, and some groups are not well protected. By comparing international experience, this study proposes reform directions for optimizing the social security system, including strategies such as reasonably adjusting social security tax rates, expanding security coverage, and improving the welfare level of low-income groups. The conclusion points out that social security reform should focus on the balance between fairness and sustainability and formulate policies that are in line with China's national conditions to ensure the long-term stable operation of the social security system and promote sustainable economic and social development.

Keywords: social security; welfare distribution; system reform; economic impact

1. Introduction

1.1. Background and Current Status of the Study

Social security system is an important part of modern national governance, aiming to guarantee the basic living needs of citizens and promote social equity and social stability through social insurance, social assistance and social welfare [1]. In China, the social security system has transitioned from a unit welfare system under a state-controlled economic system to a multi-level social security system after market-oriented reforms, gradually establishing a social insurance system covering the whole population.

In recent years, China's social security system has faced new challenges with the acceleration of population aging, the slowdown of economic growth, and the rise of new employment patterns. From the existing research, the current academic discussion focuses on the following aspects:

Sustainability of social security funds: As pension expenditures increase, the sustainability of social security funds has become a hot research topic. For example, Feldstein discuss the financial pressure faced by China's pension funds and analyze possible reform options [2].

Impact of social security on the economy: some studies have explored the impact of social security contributions on business costs and labor market liquidity. For example, Fang and Nie analyze the impact of social security burdens on firms' hiring decisions and point out that high contribution rates may lead to a reduction in firms' employment.

Despite the relatively abundant research, the current focus is mainly on the financial sustainability of the social security system, and there is still a lack of systematic research on the balance between the burden of social security contributions and the benefits of welfare programs, especially in the context of slowing economic growth and changing social structure.

1.2. Research Gaps and Needs

Existing research focuses on the sustainability of social security funds and fiscal pressure, but less research has been conducted on "the balance of benefits between contributors (enterprises and individuals) and beneficiaries (retirees, disadvantaged groups, etc.) of social security". At present, China's social security system still has the following practical problems in balancing the "contribution-benefit" relationship:

Young workers have a heavier burden of contributions, and the uncertainty of the expected benefits of social security in the future may affect their willingness to participate in the system.

The cost of social security contributions is high, and some small and medium-sized enterprises (SMEs) are facing greater operational pressure, and even the phenomenon of evasion of contributions exists.

1.3. The Necessity of This Study

Promote the fairness of the social security system: explore how to reasonably distribute social security responsibilities among individuals, enterprises and the government, so as to avoid an excessive social security burden affecting social stability.

Optimize the design of social security policies: provide policy suggestions for the government to formulate reasonable social security reform plans and improve the efficiency of social security funds.

Contribute to sustainable economic development: study the impact of social security contribution policy on enterprise competitiveness and labor market in order to balance economic development and social welfare.

2. Related Work

The design and operation of social security systems have been a central concern of academics and policymakers. Existing studies mainly focus on the economic impacts, sustainability and policy models of social security, as well as the burden of social security contributions and the fairness of benefit distribution. In the following, we will review the existing studies from both international and Chinese perspectives, and analyze their strengths and weaknesses in order to identify the contributions and innovations of this study.

2.1. International Social Security Research

2.1.1. Economic Impact of Social Security

Barr suggests that the social security system is not only a tool for the government to regulate market failures, but also has the role of risk sharing and promoting social stability [1]. Feldstein further explores the impact of social security on economic growth and the labor market, pointing out that a high social security tax may reduce the supply of labor and affect the vitality of enterprises [2]. Diamond analyzes social security from the perspective of welfare economics and highlights that it serves both as a tool for government

intervention in market failures and as a mechanism for promoting social stability. He further emphasizes that the long-term management of social security funds is crucial for ensuring economic stability [3].

Advantages: These studies establish a basic framework for the economics of social security, emphasize the macroeconomic impact of social security, and provide a theoretical basis for policy design.

Disadvantages: The studies are mainly based on the Western market economy system and pay less attention to the specificities of the social security system in emerging economies, especially the problem of the boundary of responsibility between the government, enterprises and individuals.

2.1.2. Welfare Model and Social Security Sustainability

Esping-Andersen proposed the famous "three models of welfare capitalism" (liberalism, conservatism, and social democracy), and analyzed the structure of social security systems in different countries and their impact on social equity [4]. Lindert analyzed the growth of social security expenditures from a historical perspective, analyzed the impact of the growth of social security expenditures on the economy, and concluded that high welfare countries, despite their heavier tax burden, still contribute to economic growth in the long run [5].

Advantages: These studies provide a comparative analysis of global social security models and offer important theoretical support for understanding the social security development paths of different countries.

Disadvantages: The experience of the Western welfare model is not directly applicable to China, particularly as China's social security system is still undergoing reform, facing specific challenges such as the urban-rural dual structure and population aging.

2.2. Research on Social Security in China

2.2.1. Social Security Burden and Firm Behavior

Feldstein study the impact of social security contributions on firms' hiring decisions and find that rising social security costs may lead firms to reduce formal employment and shift to informal employment to reduce labor costs [6]. Liu and Sun study the progress of reforming China's pension system and point out that the pressure on the sustainability of the social security fund is increasing, highlighting the need to delay retirement and raise social security contribution rates [7].

Advantages: Based on actual data in China, these studies reveal the negative impact of social security contribution costs on enterprise employment and provide policy recommendations for optimizing the social security system.

Disadvantages: The studies mainly focus on the impacts at the enterprise level, while there are fewer studies on how individuals (especially young workers) can bear the burden in the social security system and obtain reasonable returns.

2.2.2. Social Security Policy Reform and Equity

Frazier studied the evolution of social security systems in East Asian countries (including China) and concluded that China's social security reform has mainly experienced the transition from a unit-based welfare system to a market-based model, and has made progress in urban-rural integration and government underwriting [8]. However, the existing policies still face fairness issues, such as the low participation rate of migrant workers and flexibly employed people, who face difficulties in accessing equal social security benefits compared to formally employed urban workers.

Strengths: The study reveals important aspects of China's social security reform, emphasizing the social security coverage and benefit gaps among different groups.

Disadvantages: Although it points out the fairness of the social security system, it lacks a systematic study of the "contribution-benefit" balance, i.e., how different income

groups share responsibilities and enjoy benefits in the social security system has not been analyzed in depth.

2.3. Improvements and Contributions of This Study

Based on the shortcomings of the above studies, the contributions of this study are mainly in the following three aspects:

2.4. Filling the Research Gap of "Social Security Contribution vs. Benefit".

Existing studies mainly focus on the sustainability of social security funds, but less on the rational distribution of contribution responsibilities among enterprises, individuals, and the government, as well as the fairness of the benefits of different groups in the social security system [3,7].

In this study, we will combine social security contribution data with benefit distribution, quantify the ratio of contributions to benefits across different economic groups, analyze its fairness, and propose optimization suggestions.

2.5. Balancing Social Security Reform and Economic Development

Fang and Nie found that high social security contributions may lead to reduced hiring by firms, but existing studies have not explored how to protect social security benefits while reducing the burden on firms [6].

This study will analyze how to reduce the contribution pressure on enterprises and individuals while maintaining the stability of social security funds by examining social security tax rates, pension replacement rates, and fiscal subsidies.

2.6. Optimizing China's Social Security Policy by Combining International Experience

Esping-Andersen and Lindert have studied the long-term impacts of Western welfare models, but these models may not necessarily be applicable to China [4,5].

Based on international comparisons, this study will propose a "balanced social security" program that aligns with China's socio-economic context and protects the basic welfare of low-income groups without placing an undue burden on enterprises and young workers.

3. Empirical Analysis

3.1. Data Collection and Analysis

In order to analyze the current situation of labor employment and social security in China, this study selected relevant data from the 2023 China Statistical Yearbook and the Social Security Fund. By collecting and analyzing these publicly available data, a comprehensive statistical basis can be provided for the study.

3.1.1. Labor Employment Data

In 2023, the number of employed people in the country reached 740.41 million, of which 470.32 million were employed in urban areas, accounting for 63.5% of the total number of employed people in the country. Specifically, in terms of industry distribution, the number of employed people in the primary industry was 168.76 million, accounting for 22.8%; the number of employed people in the secondary industry was 214.63 million, accounting for 29.1%; the number of employed people in the tertiary industry was 356.02 million, accounting for 48.1% (Figure 1). In addition, the total number of migrant workers in the country was 297.53 million, of which 120.95 million were local migrant workers, a year-on-year decrease of 2.2%, and 176.58 million were migrant workers, a year-on-year increase of 2.7%.

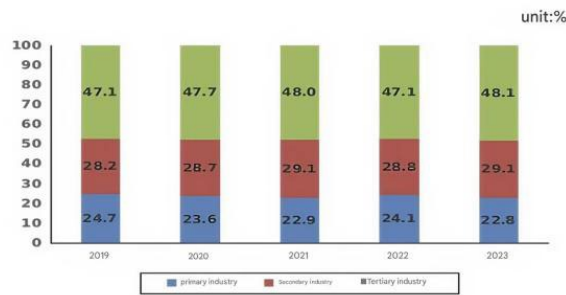


Figure 1. Industry Composition of National Employment in the past Five Years.

Throughout the year, 12.44 million new jobs were created in urban areas (Figure 2). Additionally, 5.14 million unemployed urban residents successfully reentered the workforce (Figure 3), and 1.72 million individuals facing employment difficulties secured jobs. The urban survey unemployment rate was 5.1% at the end of the year, and the annual average stood at 5.2%. In addition, the country further strengthened the construction of the employment public service system. The number of public employment and talent service agencies nationwide was 4434, and the various services provided to workers throughout the year reached 125 million person-times.

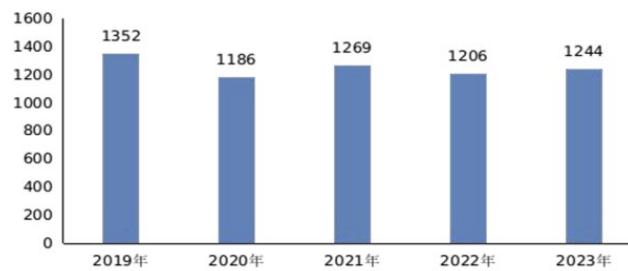


Figure 2. Number of New Urban Employment in the past Five Years (Unit: 10,000 People).

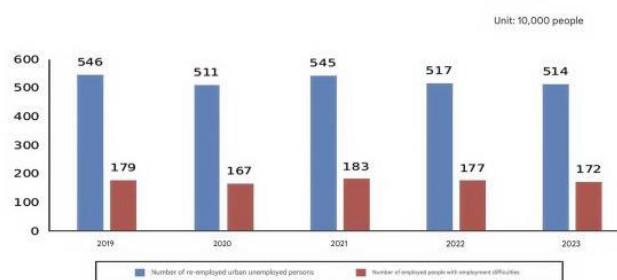


Figure 3. Employment Situation of Key Groups in the past Five Years.

3.1.2. Social Insurance Funds

In 2023, the total revenue of China's three main social insurance funds—basic pension insurance, unemployment insurance, and work-related injury insurance—reached 7.97 trillion yuan, marking an 11.4% year-on-year increase. Meanwhile, expenditures grew by 7.5% to 7.11 trillion yuan (Figure 4). Among them, the basic pension insurance fund income was 7669.1 billion yuan, the expenditure was 6836.9 billion yuan, the accumulated balance at the end of the year was 7817.3 billion yuan, and the fund investment and operation scale reached 1.86 trillion yuan.

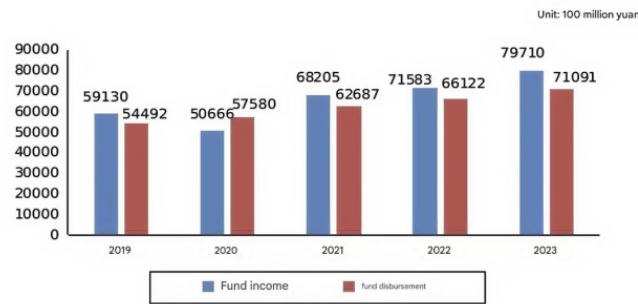


Figure 4. Revenue and Expenditure of Three Social Insurance Funds in the past Five Years.

In terms of unemployment insurance, the number of participants nationwide was 243.73 million, an increase of 5.66 million over the previous year. A total of 72.9 billion yuan in unemployment insurance benefits were paid throughout the year, an increase of 13.6 billion yuan over last year, and the monthly per capita level of unemployment insurance benefits was 1814 yuan (Figure 5). The number of participants in work-related injury insurance was 301.74 million, and the annual income of the work-related injury insurance fund was 121.2 billion yuan, the expenditure was 123.7 billion yuan, and the fund balance at the end of the year was 141.5 billion yuan.

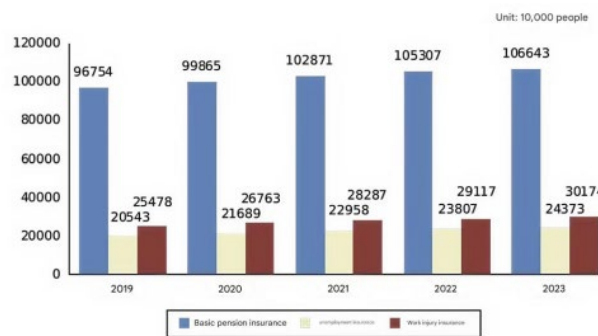


Figure 5. Number of Participants in the Three Social Insurance Programs in the past Five Years.

Based on employment data, China's labor market exhibited overall stability in 2023. Urban employment remained dominant over rural employment, and the tertiary industry continued to expand, reflecting ongoing economic structural optimization. It is worth noting that the number of migrant workers and the proportion of migrant workers have increased, indicating that the mobility of urban and rural labor is still large. In terms of social insurance, the basic pension insurance fund has shown a relatively healthy growth in both income and expenditure, and the fund balance is relatively sufficient, showing the stability of my country's social security system. The increase in unemployment insurance expenditures and the implementation of job retention refund measures reflect the government's sustained efforts to stabilize employment and mitigate the economic impact of labor market fluctuations.

3.2. Analysis of the Balance between Contributions and Benefits for Different Social Groups

In China, the development of the social security system and the balance between contributions and benefits for various social groups directly influence income equality and economic security. Different social groups face different practical conditions and challenges when paying social security fees and enjoying benefits. This article will analyze the balance between contributions and benefits for different social groups based on current social security data.

3.2.1. High-Income Groups and Benefit Enjoyment

High-income groups usually enjoy higher contribution levels and can also obtain more adequate social benefits. For example, in 2023, there were 4012 postdoctoral research workstations and 3862 postdoctoral research mobile stations in China, with a total of 360,000 postdoctoral fellows recruited and trained. Such high-income groups make a large contribution to social security, and can enjoy a high level of social welfare through more refined welfare policies, especially in terms of performance rewards for high-level talents and rewards for the transformation of scientific research results. In addition, the state's support policies for technical talents, such as the establishment of 300 advanced training courses and 25 continuing education bases, also provide this group with welfare guarantees for knowledge updating and career development. As shown in Table 1, 104 expert talent service activities were organized and implemented nationwide throughout the year, and 1100 experts, including postdoctoral fellows and other senior talents, were selected to participate in technical guidance and joint research, creating a relatively good allocation of social resources for high-income groups. While high-income groups contribute more to the social security system, they also receive benefits that align with their professional development and welfare needs, particularly through specialized talent support policies.

Table 1. Welfare and Payment of High-Income Groups.

Index	Data
Number of postdoctoral research workstations	4012
Number of postdoctoral research stations	3862
Total number of postdoctoral students admitted	360,000 people
Number of technical guidance and joint research	2100 times
Number of advanced training courses held	300th issue
Number of continuing education bases	25

3.2.2. High-Income Groups and Benefit Enjoyment

For the middle-income group, although their payment level is higher, compared with the high-income group, the welfare they can enjoy is usually more inclusive and basic. The data in Table 2 show that there are 2468 technical schools in China, with 4.395 million students, 1.625 million annual enrollments, and the employment rate of secondary vocational school graduates is 97%. In addition, vocational skills training and employment support policies for this group are also being strengthened. For example, the basic pension insurance premiums for urban and rural residents were paid on behalf of 25.77 million people in need throughout the year, ensuring that the participation rate of the needy group is above 99%. These measures help improve the social security protection of the middle-income group. The middle-income group contributes a considerable portion to the social security system. While their welfare benefits are more inclusive and basic compared to high-income earners, initiatives such as vocational training subsidies and pension contributions for vulnerable groups help ensure that their social security needs are increasingly met. For example, the skills training and employee subsidized vocational skills training for enterprise employees and migrant workers is close to 18.22 million people, and these services have helped improve the social security level of this group.

Table 2. Welfare and Payment Status of Middle-Income Groups.

Index	Data
Number of technical schools	2468

Number of students enrolled	4.395 million people
Annual enrollment	1.625 million people
Graduate employment rate	97%
Number of people receiving annual subsidized vocational skills training	18.22 million people
Number of employees receiving vocational skills training	8.04 million people
Number of migrant workers receiving vocational skills training	6.43 million people
The annual subsidized training targets include unemployed people	630,000 people
Number of highly skilled personnel receiving technical skills training	677,000 people
Number of people paying for basic pension insurance for urban and rural residents	25.77 million people

3.2.3. Low-Income Groups and Their Dependence on Social Security

Low-income groups are vulnerable groups in the social security system, and they are highly dependent on social welfare. In 2023, the number of people lifted out of poverty reached 33.97 million. However, many rural migrant workers among them still face significant social security pressure, reflecting the ongoing challenges in ensuring social welfare for low-income groups. Table 3 shows that subsidized vocational skills training was provided to 6.43 million migrant workers throughout the year, and the number of people who were evaluated for various professional qualifications and vocational skills levels nationwide reached 15.403 million. For low-income groups, basic social security services are particularly important, especially in the areas of basic security such as medical care and elderly care. In addition, social security policies in economically underdeveloped rural areas have also been strengthened, especially the pension insurance payment and vocational training projects for people in need, which have significantly improved the welfare security of low-income groups. The basic pension insurance premiums for urban and rural residents were paid on behalf of 25.77 million people in need throughout the year, ensuring that the participation rate of people in need remained above 99%.

Table 3. Welfare and Payment Status of Low-Income Groups.

Index	Data
Scale of employment of people lifted out of poverty	33.97 million people
Number of migrant workers participating in subsidized vocational skills training	6.43 million people
Number of people paying for basic pension insurance for urban and rural residents	25.77 million people
Basic pension insurance participation rate	More than 99%
Insurance participation rate of people in need	More than 99%
Insurance coverage of the poor	Ensure that the poor are covered by insurance on time

3.2.4. General Impact on the Labor Force

From the perspective of the overall labor force, the popularization and improvement of social security has made significant progress. In 2023, labor and personnel dispute mediation organizations and arbitration institutions at all levels across the country handled

a total of 3.85 million labor and personnel dispute cases, involving 4.082 million workers. This data reflects that the labor force still faces certain social security disputes when enjoying social welfare, especially the fairness of remuneration and benefits. Therefore, welfare policies for different social groups need to be further optimized to protect the basic rights of every worker (see Table 4).

Table 4. General Social Security Situation of the Labor Force.

Index	Data
Number of collective contracts	1.05 million copies
Number of employees involved	100 million people
Number of enterprises with special working hours system	92,000 households
Number of labor and personnel dispute cases handled	3.85 million
Number of workers involved in labor and personnel disputes	4.082 million people
Amount of Arbitration Cases Settled	82.99 billion yuan
Labor dispute mediation success rate	77.7%
Labor dispute arbitration settlement rate	98.1%
Number of inspections by wage payment supervision agencies	726,000 households
Number of workers involved	30.787 million people

In general, different social groups have different status and benefits in the social security system. High-income groups enjoy more professional skills and scientific research awards by relying on higher payment levels; middle-income groups have obtained more inclusive social security through vocational skills training and other measures; low-income groups rely on the basic security provided by the government, especially the security policies in the fields of pension and medical care. In general, social security policies should be further optimized according to the needs of different groups to ensure that each group can obtain corresponding social benefits in a fair environment.

4. Discussion

4.1. Analysis of Social Security Burden and Benefits

With the aging of the population and the slowdown of economic growth, the social security system is facing increasing financial pressure, especially the continuous increase in pension and medical insurance expenditures. In this context, the social security burden has not only increased fiscal pressure on the government but also influenced corporate investment decisions and individual disposable income. For the younger generation of workers, although they bear a heavy burden of social security contributions, their future welfare expectations are highly uncertain, which directly affects their willingness to participate in the social security system. For enterprises, the excessive burden of social security contributions may lead them to adopt a more conservative approach to employment decisions and explore ways to reduce social security costs. In addition, the welfare distribution of the social security system also faces the problem of imbalance, and there is a large gap between high-income groups and low-income groups in enjoying social security benefits. Therefore, improving the sustainability of social security funds while ensuring the basic livelihood of vulnerable groups is a key challenge in optimizing the social security system.

4.2. Social Security Reform and Its Economic Impact

Social security reform is not only about the sustainability of funds, but also directly affects the economic development and social stability of society. One of the core issues of reform is how to balance the relationship between social security contributions and benefits. In recent years, some countries have tried to reduce the financial pressure on the social security system by delaying the retirement age, increasing the contribution rate, and adopting more sophisticated fiscal subsidies. Although these reform measures may bring some instability in the short term, in the long run, they will help ensure the sustainable development and social equity of the social security system. At the same time, The reform has also caused some economic side effects. The rising cost of social security contributions may influence corporate hiring decisions, which in turn impacts the overall employment market. Therefore, how to ensure that the production vitality and market competitiveness of enterprises are not overly impacted when carrying out social security reform has become an urgent problem to be solved in the current reform process. Through scientific policy design, social security funds can be optimally allocated to enhance equity and support stable economic development.

4.3. Optimizing the social security system

Under the current economic situation, the core of optimizing the social security system lies in how to balance the interests of all parties and ensure the sustainability and fairness of the system. First, the government can adjust the financing mechanism of social security to ensure a more equitable distribution of the financial burden among different income groups and economic sectors. Specifically, by adjusting the contribution rate and optimizing resource allocation, more funds can be used for the basic living security of low-income groups and the elderly, while reducing the payment pressure of enterprises and young workers. Secondly, reform the social security welfare distribution mechanism to ensure that different income groups receive equitable social security support. For example, improve the pension insurance and medical insurance system and provide a higher proportion of government subsidies for low-income groups. At the same time, through scientific and technological means, improve the level of intelligence in social security management and make the use of funds more transparent and efficient. Ultimately, the optimized social security system will contribute to economic stability, improve social welfare, and strengthen social cohesion and stability, thus laying a solid foundation for the sustainable development of the economy and society.

5. Conclusion

The social security system plays a vital role in the modern economy. It not only stabilizes society by reducing income disparity but also ensures equitable access to welfare, thereby promoting social fairness. However, with the acceleration of population aging, slowing economic growth and changes in the labor market, the challenges facing the social security system are becoming more severe. Analysis shows that optimizing the social security system requires not only a reasonable balance of interests among all parties while ensuring fund sustainability, but also a focus on fairness among different groups. The key to reform lies in the reasonable allocation of responsibilities, reducing the burden on enterprises and young workers, and improving the welfare security of low-income groups. As technology advances and social needs evolve, the reform of the social security system will continue to deepen. Only by continuously prioritizing the fairness and sustainability of the social security system and exploring more flexible and efficient reform paths can we ensure that this system provides adequate protection for a broader population in the future and promotes economic and social development.

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