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Postponed retirement and pension: the necessity, feasibility and implementation path

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Abstract
After years of discussion in the academia, the focus of research on postponed retirement age policy has been shifted from whether it is necessary to evaluate the policy effect. This paper will systematically review the research literature related to the retirement policy and the pension, then sort out the different theoretical views, the research methods and the logical background. Specifically, in this paper, we will discuss the necessity, feasibility and implementation path of the postponed retirement policy from the perspective of the sustainable development of the pension, aimed to clarifying the complex relationship between the postponed retirement policy and the pension, and clear the impact of postponed retirement policy on the potential benefits of stakeholders, which may provide the theoretical support for exploring the path choices that can help policy implement smoothly as soon as possible.

Key words: postponed retirement age, pension, reform, implementation path

Introduction

According to the sixth national census data and the United Nations Population Outlook (2012 edition), China has officially entered the aging society. With the continuous improvement of population life expectancy and the declining birth rate, China is facing an increasingly serious problem of population aging. The aging of the population has brought many challenges to China's economic and social development, especially for the labor market structure and the balance of income and expenditure of pension. 2012 witnessed the first declining of the absolute amount of China's labor-age population, and with the deepening of the aging, the working age population in terms of quantity and proportion are showing a downward trend, the demographic dividend is gradually disappearing, and even become a stumbling block to economic growth. In this context, the old-age dependency ratio is increasing, which means that the number of insurance participants is decreasing, and the number of retired and pension received workers is increasing, resulting in the basic old-age insurance system is facing the risk of failing to bear.In addition, due to the recessive debt which caused by the institutional transition continues to be dominant, the pressure of the balance of income and expenditure of pension funds exacerbated.

On one hand, postponed retirement age can extend the payment period; on the other hand, it also can shorten the receiving period. So it can adjust the fund balance from both ends of revenue and expenditure, which makes it becomes one of the most talked about reform measures. In view of the domestic fact of China that the per capita life expectancy prolonged, the retirement age is low while the gap of retirement year between men and women is large, and the international trend of the general delay in retirement age in developed countries, postponed retirement age is not only a means to solve the pension fund gap, but also conform to the inevitable requirement of population change.

At the macro level, the postponed retirement age can increase the vitality of China's economic development, reduce the defray pressure of the pension fund, achieve the sustainable development of pensions to a certain extent; help achieve social equity to a certain extent by adjusting the gap between men and women retirement age; avoid wasting old age human resources and actively adapt to the social status that the improvement of the level of education and the health status of the elderly. At the micro level, on the one hand, with the weakening of family support function, the postponed retirement age can meet the economic needs of the elderly to accumulate the old-age capital, alleviate the economic pressure of the family and improve the quality of life. On the other hand, the postponed retirement age can satisfy the elderly participate in society, distract lonely, seeking self-realization of the emotional needs.

At this stage, the focus of research on the postponed retirement age is no longer a matter of value judgment, but the question of the future policy formulation and the effectiveness of policy evaluation. Focused on the following four areas: the first one is evaluating the policy impact of postponed retirement age on the state pension financial status; the second one is a study on the policy impact of postponed retirement age on personal pension rights; the third one is evaluating the policy impact of postponed retirement age on the contribution rates of enterprise; the forth one is a study on the policy impact of postponed retirement age on young people employment situation. Among them, for the negative impact of postponed retirement on the labor market, many researches in the view of development stated that does not exist through the establishment of theoretical models or empirical model. So now the focus of the current debate is on the policy impact of postponed retirement age on the adjustment of pension gap and contribution rates.

At present, China has actually determined to postpone the retirement age, but most people object this reform measure. Simultaneously, the starting time of the implementation, mode and rhythm of operation, supporting measures and other aspects of the specific content has not yet clear, leading to the government to maintain a very cautious attitude. For the general public, theoretically speaking, postpone retirement age will extend their contribution years, although it also can increase their monthly pension amount after retirement, however, the shortening of receiving years will result in the loss of personal pension benefits. So they are opposed to postpone retirement age. For the country, most studies have shown that the policy impact of postponed retirement on the total amount of pension is positive, but some studies have found that whether the policy impact of postponed retirement on the total amount of pension is positive or not, it depends on the specific design of the postponed retirement program, which includes the starting time of implementation, mode and rhythm of operation.

Therefore, this paper focuses on the policy impact of the postponed retirement age on basic pension fund. This paper will systematically review the research literature related to the retirement policy and the pension, then sort out the different theoretical views, the research methods and the logical background, so as to have a more comprehensive understanding of the issues related to the postponed retirement and the pension, aimed at providing new ideas for further research and policy development.

Research Status

Many developed countries have postponed the retirement age in order to solve the problem of insufficient labor supply, but China's implementation of postponed retirement age is largely aimed at alleviating or eliminating the pension payment pressure. In this paper, we will discuss the necessity, feasibility and implementation path of the postponed retirement policy from the perspective of the sustainable development of the pension, aimed to clarifying the complex relationship between the postponed retirement policy and the pension, and clear the impact of postponed retirement policy on the potential benefits of stakeholders, which may provide the theoretical support for exploring the path choices that can help policy implement smoothly as soon as possible.

The Need to Launch the Postponed Retirement Age Policy

China's current retirement age policy basically follows the provisions of the 1950s, the general retirement age is male 60 years old, female cadres 55 years old, female workers 50 years old. However,

with the rapid development of China's economic and society, and the continuous improvement of life expectancy, the current retirement age standard is obviously low, which does not accord with the law of general retirement age in most countries. At the same time, there are still early retirement, gender and industry differences in retirement age. China's pension system stipulates that workers can receive a pension after retirement, so the extension of life expectancy means that the pensioner's pension period is extended. With the increasing degree of population aging, pension payment pressure gradually increased. On one hand, it shows the rising demand for pension which leads to improve the pension insurance system-support rate; on the other hand, the extend of receiving period will improve the self-support rate. In terms of reducing the contribution rate, China's old-age insurance contributions mainly completed by the enterprise, and now the social insurance burden our enterprises bear is too heavy, which hinder the development of enterprises and is not conducive to improving the enthusiasm of the contributions, further exacerbating the pension finance risk of payment. The earlier the retirement age, the higher the cost of the business. Can be seen, if not to adjust the retirement age, China's pension system will face a huge payment pressure in the future.

Adjust the basic pension balance. Ministry of Human Resources and Social Security said that after years of reform, China's social pension insurance fund accumulated surplus, increasing solvency, pension insurance fund does not exist payment gap. Wang Huanqing (2012) measured and analyzed the current implementation of China's pension financial operation. He pointed out that the current value of 2 trillion can be raised to adjust the reserves for the next period of time to close the balance, no institutional changes.

However, due to the historical debt caused by the transition of the system, individual accounts in the pension are used to pay the basic pension, so China's current pension system is actually pay-as-you-go system.At the same time, with the deepening of the population aging and the continuous improvement of life expectancy, in recent years, the relevant studies agreed that China's social endowment insurance will face a serious payment crisis in the future. Yu Hong & Zhong Heqing (2009), Liu Qingrui & Miao Hongjun (2004) and Wang Xiaojun & Ren Wendong (2013) established the basic old-age insurance fund revenue and expenditure forecasting model to do actuarial calculations, they found that it is difficult to ensure the long-term payment ability of pension funds if not reform the current pension system, and pointed out can make appropriate adjustments to the retirement age.

Among them, from the perspective of gender differences in retirement age, Cong Chunxia (2009) further pointed out that the enrichment of social pooling funds mainly rely on the postpone of women's retirement age; the same retirement age for men and women can effectively control the increase of the pension system support rate and the enterprise contribution rate.In addition, Deng Dasong & Wang Zengwen (2008) established the dynamic model of population mortality and optimal retirement age in China, they pointed out that there is difference between the legal retirement age and the optimal retirement age in the short term, and pension payment pressure in the future needs to consider to adjust retirement age, especially female retirement age.

Many scholars have made similar conclusions after the calculation, they all pointed out that in our current retirement age policy, basic pension will be a gap in the future. The results of some studies are shown in Table 1.It can be seen that, although the research methods are similar, the conclusions of the research are not the same. The reason is because the actuarial results of the pension fund gap are influenced by the actuarial assumptions, and different judgments and assumptions on the factors that affect the future revenue and expenditure will result in different calculation results, as shown in Table 2.Based on this, Wang Xiaojun & Mi Haijie (2013) used cash flow discount method and asset liability method, considering the impact of changes in assumptions on the results, to calculate the pension gap under a variety of assumptions. They found that China's pension system will face more and more serious payment gap.

Table1

Part study results of the pension gap calculation

	Calculation period(year)	The time of the current gap(year)	The current gap (billion yuan)	Time of occurrence of the cumulative gap(year)	Cumulative gap (billion year)
Yu Hong, Zhong Heqing (2009)	2010-2050	2038	-6 685 .18	2042	Year 2045：-390 344 .71
Yuan Lei (2014)	2010-2050	2014	/	2038	-36100
Liu Qingrui, Miao Hongjun (2004)	2001-2050	2015	-68. 83	/	/
Wang Xiaojun, Ren Wendong (2013)	2010-2060	2035	-13000	2045	-104900
Cong Chunxia (2009)	2005-2050	2035	-15291	/	/
Yang Huan (2014)	1997-2050	2020	Year 2050：-378000	2028	Year 2050：-7804500
Zhang Lechuan (2012)	2010-2050	2020-2025	－7323.9--－6249.5	/	/

Table2

Part study parameter assumptions of model construction

	Urbanization rate	Urban employment rate	Return on investment	Wage growth rate	Pension growth rate
Yu Hong, Zhong Heqing (2009)	/	/	2%	8%-4.5%	4.8%-2.7%
Yuan Lei (2014)	An annual increase of 1%、1.2%, Upper limit of 90%	95.85%	6%、7%、8%	3%、5%、7%、9%	3%、5%、7%、9%
Ding Renchuan, Zhang Wei (2006)	/	/	/	9%	5.4%
Wang Xiaojun, Ren Wendong (2013)	Upper limit of 80%	80%	3%	Higher than GDP growth rate of 1%	= the wage growth rate

Cong Chunxia (2009)	/	96%	/	10%	5%
Yang Huan (2014)	（prediction）	96.1857%	6%	（Measured）	8.35%、8%、7%
Zhang Lechuan (2012)	An annual increase of 0.6%, Upper limit of 70.1%	95.5%	/	7.5%	/
Yu Liren (2012)	/	/	5%	10%	5%

Reduced the contribution rate. Foreign scholars such as Galasso believe that if you want to reduce the pension payment pressure, you need to postpone the retirement age and increase the contribution rate at the same time. However, in terms of the actual situation in China, more and more domestic scholars are not in favor of alleviating China's pension balance by increasing the contribution rate. This is due to the current enterprise contribution rate of the basic pension social co-ordination part is 19%, has been at a high level, which make enterprises bear a heavier social insurance contribution burden.Sun Qixiang (2001) and Jing Peng & Hu Qiu Ming (2014) pointed out that increase the contribution rate will further squeeze the profit margins of enterprise, which will induce enterprises to a greater extent to escape pension insurance contributions. On the contrary, some scholars believe that should be appropriate to reduce the social contribution rate.Feng Jin (2013) and Su Chunhong & Li Song (2016) pointed out that appropriate reduction in social co-ordination contribution rate can give enterprises more participation incentive, which is conducive to form a good circle of conscious and voluntary contribution, expand the coverage of basic old-age insurance and increase the pension income of workers.Furthermore, in the context of postponed retirement and the "two children" fertility policy, Yu Hong & Zeng Yi (2015) calculated the financial operation of the pension fund, they pointed out that, under the premise of the sustainable operation of the pension, the reduction of the contribution rate can also keep the accumulated surplus of the basic old-age insurance fund at a relatively appropriate level and reduce the risk of devaluation of the fund.

As can be seen, considering the reality of adjusting pension payment pressure and reducing contribution rates, it is necessary to postpone retirement age, which is an effective measure to ensure the sustainable operation of the pension system. Therefore, based on the pension sustainable development perspective, scholars have discussed the necessity of postponed the retirement age from adjusting the basic pension balance and reducing the contribution rate. After a thorough study of the necessity of postponed retirement age, it is conductive to clarify the objectives of policy reform. In the future study, we should further consider the necessity to implement the policy of postponed retirement age, and explore how to ensure that the implementation of postponed retirement age policy is better and more effective, in order to achieve the purpose of easing pension payments pressure and reducing the contribution rate.

The Feasibility of Introducing the Postponed Retirement Age Policy

Nowadays, after years of discussion in the academia, the focus of research on postponed retirement age policy has been shifted from whether it is necessary to evaluate the policy effect.On one hand, this is related to the effectiveness of policy formulation; on the other hand, it is related to the specific operation of the policy implementation, which can provide support for the specific design of the postponed retirement age program. Based on the perspective of pension sustainable development, the stakeholders involved in the policy of postponed retirement age include countries, individuals and enterprises. At this stage, scholars' researches related to the impact of postponed retirement age on pension sustainable development are also around these three aspects. Some are based on a macro perspective, calculate and measure whether the postponed retirement policy can ease and to what extent to alleviate the future pension funding gap; some from a single insured staff perspective to study what

impact of the postponed retirement policy will be on personal pension rights; or from the perspective of the enterprise, to examine the adjustment direction of contribution rate after the implementation of postponed retirement policy.

Based on the policy impact of postponed retirement age on pension finance. In view of the reform practice of retirement age abroad, postponed retirement helps to improve the financial situation of pension funds.Linked to the reality of China, a huge fund gap caused a serious threat to the sustainable development of China's pension system.Under the pressure of aging, pension gap and high contribution rate, scholars generally believe that postponed retirement age can effectively alleviate the payment pressure of pension fund.Jiang Xiangqun (2012), Deng Dasong & Xian Mihua (2015), Yin Jun & Huang Rong (2012) and Yang Huan & Yuan Lei (2014) constructed the pension balance model, they analyzed the policy impact of different postponed retirement schemes on easing the pension payment pressure, and they found that postponed retirement age can delay the current pension gap by increase pension income and reduce pension expenditure, significantly reduce the pension gap, and improve the solvency of the fund.

With the development of "two children" fertility policy, more and more scholars have taken into account the fertility policy background in the dynamic simulation of the model, and examined the changing trend of the pension gap under the dual background of postponed retirement and fertility policy. Su Chunhong & Li Song (2016) and Yu Hong & Zeng Yi (2015) calculated and measured the policy impact of different postponed retirement schemes and different fertility will on the pension fund financial performance, they pointed out that the improvement of the fertility rate can ease the pension fund payment pressure significantly.

However, some studies have also raised the question of the effect of postponed retirement age to ameliorate the pension gap.Zhang Yi (2011) found that postponed retirement age will have an impact on pension income and expenditure from the contribution period, the receiving period, the replacement rate, the difference these four effects. He pointed out that, in the short term, postponed retirement age will indeed ameliorate the pension finances by increasing the contribution years and shortening the receiving years; but in the medium and long term, the extension of the contribution period will bring about the increase of the pension replacement rate and the level of pension, leading to an increase in pension expenditure, weakening the positive policy effect of postponed retirement reform, and even reversing.Yu Liren (2012) pointed out that the postponed retirement age policy may not be able to enhance the ability to pay the basic old-age insurance, because the pension is affected by various factors such as interest rate, social average wage growth rate, wage growth rate of workers, pension growth rate and death rate distribution.Taking into account the uncertainty of future economic and social development, Yuan Lei (2014) dynamically set the working age, salary and pension growth rate, pension insurance fund yield and urbanization rate these four parameters, examining the policy effects of different retirement programs under 72 conditions. He found that, under most conditions, postponed retirement age can only alleviate the pension fund gap, but cannot eliminate completely, which need to be supplemented by a safe capital investment income mechanism and the expansion of institutional coverage.

Based on the policy impact of postponed retirement age on individual pension benefits. From the perspective of labor economics, when studying the reform of retirement system, we must not ignore the mutual influence between personal retirement behavior and the endowment insurance system.Among them, the endowment insurance system how to affect individual retirement decision or behavior is a key basic problem. However, the negative incentive of the current basic old-age insurance system to individual retirement behavior will encourage more people to retire early (Peng Haoran, 2012).But for a long time, most scholars analyzed the policy impact of postponed retirement age on pension from the macro level, they thought that postponed retirement age can reduce the national financial burden, which is conductive to regulating the balance of pension. There are not many studies on the issue of individual pension rights at the micro level. The results of the polls show that most people

oppose the extension of the retirement age, leading to a deadlock in China's retirement system reform, which makes policy makers and the majority of scholars to consider and pay more attention to micro-individual feelings.

The study began to involve personal balance of income and expenditure, at the current level of income and expenditure, scholars began to analyze whether the postponed retirement age is reasonable for individual.Ding Renchuan and Zhang Wei (2006) established the pension actuarial model and found that the postpone in retirement age will reduce the pension recovery rate, that is to say workers' pension benefits will suffer losses after the postponed in retirement age.They also pointed out that postponed retirement age must be combined with a reduction in the contribution rate or an increase in the replacement rate to avoid the loss of personal pension benefits.Later, Yuan Zhongmei (2013) established a pension model to calculate and analyze, she concluded that postponed retirement can improve the pension replacement rate, will not reduce the level of pension treatment.However, Jiang Xiangqun (2012) used the formula to calculate that, he found that despite the postponed in retirement age can increase workers' monthly pension after retirement, but the increase in contribution years and the relative reduction in receiving years will lead to losses of personal pension benefits.

Further, some scholars began to focus on industry differences and gender differences in the effects of postponed retirement on individual pension benefits. Under different retirement age, Peng Haoran (2012) measured the pension insurance replacement rate and marginal stealth tax rate of the representatives of nine different industry. He found that China's current basic old-age insurance system has a general negative incentive for individual retirement behavior, and low-income workers are facing more serious negative incentives.Then, Lin Xi & Lin Yi (2015) established the model of option value (OV), which comprehensively considered the total change of personal income and pension wealth, and measured the difference between immediate retirement and optimal retirement age.They have come to the conclusion that postponed retirement age will cause significant economic losses to male laborers and low-income workers, causing ordinary workers' dissatisfaction.

Based on the policy impact of postponed retirement age on contribution rate. In the past, some scholars believe that the postpone in retirement age and the improvement of contribution rate at the same time can better adjust the pension gap. But now, more and more scholars have found that postponed retirement will provide a certain room for the contribution rate to decline. Liu Qingrui & Miao Hongjun (2004), Lei Xiaofeng (2002), Yin Jun & Huang Rong (2012), Su Chunhong & Li Song (2016), Ding Renchuan & Zhang Wei (2006) and Yuan Zhongmei (2013) established the pension income and expenditure forecast model, they calculated and analyzed that, if do not adjust the retirement age, in order to alleviate the pension payment pressure, pension contribution rate will increase year by year; if postponed retirement age, on one hand, it can achieve the balance of the fund, on the other hand, it can try to reduce the contribution rate, improving business competitiveness.Furthermore, in the context of postponed retirement and the "two children" fertility policy, Yu Hong & Zeng Yi (2015) estimated the effect of downward contribution rate on the financial operation of the basic old-age insurance fund.The results showed that the current income and expenditure of the basic old-age insurance fund is in a slightly surplus state in most years, and the accumulated surplus is always at a reasonable level.To accurately determine the adjustment direction of the contribution rate, we need to compare the optimal contribution rate with the current contribution rate.Jing Peng & Hu Qiuming (2016) established OLG model to estimate the optimal contribution rate, they pointed out that when the retirement age is extended to 60 years, the optimal payment rate is slightly lower than 20%; when the retirement age is extended to 65 years, the optimal payment rate is close to half of the policy contribution rate.

In the above study, based on the perspective of pension sustainable development, scholars discussed the feasibility of the postponed retirement age from three aspects: pension income and expenditure, personal pension rights and social contribution rate. Among them, postponed retirement age can alleviate the payment pressure of China's pension to a certain extent, but cannot fundamentally solve the gap problem. In the short term, it may improve the ability to pay old-age insurance, but in the long term, it will be affected by many economic factors, which makes its role in making up the gap is very

limited and need to be supplemented by optimizing the pension system. Secondly, as far as personal pension benefits are concerned, studies have shown that, under the existing institutional arrangements and income and expenditure levels, postponed retirement age will increase the pension replacement rate of individuals after retirement, but the total amount of personal pension will be lost, especially for low-income workers and male workers. Finally, most studies show that the implementation of a postponed retirement policy can provide a possibility to reduce the contribution rate. Therefore, through the comprehensive consideration of the feasibility of the postponed retirement age, it can be seen that in order to achieve the sustainable development of the pension, it is necessary to examine not only the pension gap but also the mutual influence between the pension system and the individual retirement behavior, as well as the possibility of reducing the contribution rate in the future, to provide guidance for the next step to explore the implementation of the postponed retirement policy.And its role in the future depends on the macro economic development trend, pension system arrangements and the specific design of postponed retirement program, which depends on the scholars' further study in the future.

The Implementation Path of the Postponed Retirement Age Policy

The specific design of the postponed retirement age program is not imaginary, it needs scientific predictions and actuarial to ensure the rationality of the policy. Zheng Gongcheng (2012) and Liu Qingrui & Miao Hongjun (2004) believe that when we do the design of the postponed retirement program, we need to provide a scientific basis of qualified indicators for the implementation of the program and maintaining the fairness of inter-generational burden, to achieve the sustainable development of the pension system.After that, Chu Fuling (2014) respectively used self-pension burden coefficient as the standard, calculated and measured the rationality of different retirement program and provided a reasonable range of retirement age for reference.

The Ministry of Human Resources and Social Security has already stated that it will adopt a way of gradual postponed retirement, which is consistent with the results of most scholars in the past.Although Jin Gang & Liu Qingrui (2016), Su Chunhong & Li Song (2016) and Zhang Qin & Guo Yan (2015) established the basic pension income and expenditure model to calculate, and they pointed out that in the short term, "one-time postpone" relative to the "progressive postpone" in terms of mitigation effect for pension payments gap is indeed more obvious, but in the long term, the effect differences between the two policy is not large.This conclusion is consistent with these scholars' view, including Liu Qingrui & Miao Hongjun (2004), Zheng Gongcheng (2012), Deng Dasong & Xian Mihua (2015) and Zhang Yi (2011), they all believe that postponed retirement is a long-term progress, we need to choose the right time to start, phased, step by step and control the speed of reform.However, the Ministry of Human Resources and Social Security has not yet formulated a specific postponed retirement program, different scholars had different views on the specific design of the retirement program, such as the time to start, specific operation and rhythm to master.Furthermore, some scholars have adopted industry and gender factors in estimating differentiated retirement plans, and have received some practical recommendations for policy implementation. Peng Haoran (2012) and Xu Xiaowen (2011) pointed out that, in order to avoid widening the gap between rich and poor or causing social instability, we must pay attention to industry differences and protect the benefits of low-income industry workers in the implementation of postponed retirement age.In view of the present situation of gender differences in China's retirement age, Deng Dasong & Xian Mihua (2015) have made an analysis that the female retirement age has an important effect on the balance of income and expenditure of the whole pension fund.At the same time, Xu Xiaowen (2011) also believes that we need to take full account of gender differences in the design of postponed retirement programs.

In addition, many studies have shown that, whether it is to solve the problem of pension gap, protect the personal rights and benefits of the pension or reduce the contribution rate, can not only rely on the policy of postponed retirement age.As China's pension is facing a huge pressure on payment, based on the ultimate goal of pension sustainable development, some scholars put forward in addition to postpone the retirement age, also should optimize the pension system. Liu Qingrui & Miao Hongjun (2004), Wang Xiaojun (2013), Yuan Zhongmei (2013) and Zhang Yi (2011) proposed that, in addition to postpone

retirement age, adjust the replacement rate and pension investment rate of return can more effectively alleviate the pension payment pressure, providing the possibility to reduce the contribution rate.Further, Liu Xueliang (2014) found that postponed retirement and reduced pension replacement rate can significantly reduce the pension gap, but the effect of improving the rate of return and fertility rate is limited.As for the protection of the personal rights and benefits of the pension, Lin Xi & Lin Yi (2015) proposed to add actuarial adjustment factors in the pension system design, so that workers of postponed retirement can receive more pension, then the economic losses caused by the reduction of receiving year will diminish or even disappear.This will reduce the resistance in the implementation of policy, in turn, to encourage workers to postpone retirement age.

In view of the above, we can see that the scholars have reached a consensus on the principle and general path of the postponed retirement policy, that is, it is necessary to carry out scientific forecast and actuarial, determine the starting point and follow the progressive. And in the program design, we also need to consider gender and industry differences, ensuring policy fairness and efficiency of unity and preventing public conflict. In addition, the adjustment of the retirement age policy must also be combined with the optimization reform of pension system, in order to alleviate the pension gap and protect the total amount of personal pension benefits at the same time, providing the possibility to reduce the contribution rate.But scholars still have many non-uniform views on the specific design of the postponed retirement program, including the starting time and rhythm of implementation, specific operation mode for different gender and industry, as well as the parameters adjustment of pension system and so on.The reasons for the differences may be the different theoretical perspective and research methods of scholars.In the future, academia needs to continue in-depth study, trying to determine the specific content of the implementation of postponed retirement program, finding the optimal path to achieve the ultimate aim of pension sustainable development.

Summary and Prospect

From the literature review above, it can be seen that the retirement system is inseparable from the pension system, and there are many problems related to the pension in the whole policy progress of postponed retirement age for academia to discuss. Based on the perspective of pension sustainable development, scholars first introduced the necessity of postponed retirement policy from two aspects of future pension gap and higher contribution rate; and then assessed the feasibility of postponed retirement in regulating pension income and expenditure, affecting individual pension rights and social contribution rates; finally, it was divided into the specific design of the postponed retirement scheme and the supporting reform of the pension system to present the specific implementation path of the policy. On the whole, the current research direction of the postponed retirement age is clear, whether it is necessary to postpone the retirement age has no controversy, more attention to the implementation path and policy effect of the postponed retirement age. After the previous review, the research and discussion on postponed retirement age and pension can be made from the following points in the future.

First, we should continue in-depth study, in order to explore the optimal design of the postponed retirement age program. Based on the perspective of pension sustainable development, it is necessary to pay attention to the effect of postponed retirement age on the pension gap in the research process. But should not blindly pursue an obvious policy effect, need to consider the policy impact on employment, economic growth, social stability, practitioners of different sex or different industry and other factors.

Secondly, pay full attention to the optimal reform of pension system, which is closely related to the adjustment of retirement age, and establish a incentive mechanism to encourage people to postpone retirement age. Postponed retirement policy has not been determined and implemented yet because of the contradiction between the total amount of state pension and personal pension benefits. Therefore, the future research direction can be to explore the postponed retirement program how to adjust the pension replacement rate, rate of return and other parameters, in order to balance the total amount of state pension and individual rights and interests to achieve a win-win situation, while providing a possibility to reduce the contribution rate.

Finally, discuss specific design of postponed retirement age program and the optimal reform of pension system under the new background of “universal two-child” policy.“Universal two-child ” policy will bring about changes in China's population structure, which will directly affect the scale of China's pension income and expenditure in the future, and also bring about a new turnaround for China's postponed retirement and pension reform.

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