THE RETIREMENT SYSTEM IN CHINA

1. ABSTRACT

Due to many historical reasons, the retirement system in China has two different treatment for urban employees and rural residences. This paper focuses on the retirement system for urban employees. It introduces the historical development, examines the extent of coverage, criteria for eligibility, various pension and insurance reforms that this system has gone through over the years and sheds light on the possible impact of economic system transition, decreasing birthrate and increasing in life expectancy over the years. It suggests possible ways in which these issues can be solved which is either by delaying retirement age, making sophisticated actuarial management, requiring current workforce contribute more into the pension fund, and educating retirement plans for individuals.

2. BRIEF INTRODUCTION ON THE RETIREMENT SYSTEM

Retirement system plays one of the fundamental role in a society's harmony. Obviously, it is utmost important to the elderly, but it highly affects the growth of a country's economy and the social welfare as well. As people become aged, naturally, both mental and physical abilities degenerate gradually. Thanks to the modern medical knowledge and technologies, however, we are able to have an enjoyment of longevity. In the meanwhile, the increasing longevity of populations brings up more and more need to have a financial support in order to protect aged people against the natural degeneration, and therefore keep a comfortable standard of living for them. This is how many systematic retirement plans.

In many well-developed economies in the world, there is a concept of what is known as a three legged stool in a retirement system. These three legs stand for: government-sponsored, employer-sponsored, and individual savings for the retirement benefits.

The first leg, government-sponsored retirement benefit, is often connected with a social insurance, such as the the Social Security System in the United States. In general, it also plays a main role in supporting the livings for the old aged, the disables and many low-income families.

The second leg, for example in the United States, is represented by employer-sponsored pension plans of either the defined benefit plans or the defined contributions plans. The difference between these two systems, however, is the how the retirement plans are funded. Defined-contribution plans is the retirement plan in which a certain amount or a percentage of money is set aside each year by a company for the benefit of the employee. There is no way to know how much the plan will ultimately give the employee upon retiring. The amount contributed is fixed, but the benefit is not. The funds in an account may be invested and the payouts is a function of the amount contributed and the return on investment. This actual operation of the defined contribution plan varies in different countries all over the world. It includes but not limites to things like how retirement funds are invested, whether funds are managed by government, by insurance companies, or by any other independent third parties.

A defined benefit pension plan, on the other hand, is a type of pension plan in which an employer/sponsor promises a specified monthly benefit on retirement that is predetermined by a formula based on the employee's earnings history, tenure of service and age, rather than depending directly on individualinvestment returns. Traditionally, many governmental and public entities, as well as a large number of corporations, provided defined benefit plans, sometimes as a means of compensating workers in lieu of increased pay.[1] A defined benefit plan is 'defined' in the sense that the benefit formula is defined and known in advance. Conversely, for a "defined contribution pension plan", the formula for computing the employer's and employee's contributions is defined and known in advance, but the benefit to be paid out is not known in advance.[2]

Nowadays more and more employers are actually prefer defined benefit plans over defined contribution plans. It is primarily because of the expense and long-term obligations associated with running a defined benefit plan.

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[1] Lemke and Lins, ERISA for Money Managers, § 1:1 (Thomson West, 2013).

[2] Definition. http://www.businessdictionary.com. Retrieved 2009-05-08.

The third leg consists of the variety of personal retirement accounts. With the definition of the defined contribution plans, that individuals contribute to their accounts and receive payments from their own accounts could also be considered as the same way the defined-contribution plans run. It often goes with a tax credit or tax preference. In the later discussion, I will also refer to the three “legs” of the stool as the tiers in the retirement system.

3. HISTORICAL DEVELOPMENT OF THE RETIREMENT SYSTEM

The basic retirement system for urban employees in China (Basic Pension Plans) combines both social pooling accounts and personal accounts. Pay-as-you-go plans run the social pooling account while funded pension plans run the person account. According to the realistic situation in China, the model of raising capital of endowment insurance of "cash revenue and expenditure as the main, fund accumulate as assist" is the key of personal account becoming true account. This basic retirement system for urban employees in China builds on under the bounding of planned economy, and then gradually developes with the policies of reform and opening to the outside world and the continuous improvement of market economy system. During this process, it carries out many problems left over by history as well as facing the challenges of social risks such as aging demographic structure and transition economy. As a result, the basic retirement system for urban employees in China is of intricate and complicated regulations and rules.

3.1 From the state-enterprise insurance system to the social security system

In the early days of the establishment of the nation, China started to explore the available industrial workers’ insurance by borrowing the social insurance system from the Soviet Union. It started from a two-tier state-enterprise insurance system. The “1951 Labor Insurance Regulation” suggested a comprehensive labor insurance covering pension, workers compensation, medicare and many other various kinds welfare. The state constituted 70% to the funds while the enterprises constituted the rest 30%. This very rooted labor insurance went out of service due to the Great Proletarian Cultural Revolution. After applying the Reform and Opening-up, the “1991 State Council’s Provisions to Reform Enterprise Workers Social Security” officially established the social security system in which the state, the enterprise and the individual all have to contribute to the fund raising of the social insurance. Up till then, pay-as-you-go plans ran both the state-enterprise insurance system and the social security system. Later on, the “1995 Circulars to Deepen the Reform of Enterprise Workers Social Security” suggested a system of “social pooling and individual account combination" and clarified the responsibilities for each three parties in this system. The "1997 Decisions to Unify the Basic Retirement System for Urban Employees "(The File [1997]-26) established the system of "social pooling and individual account combination". After that, the "2005 State Council's Decisions to Improve the Enterprise Workers Social Security System" layed a foundation for the current social security policies. In 2010 China has promulgate the "Social Security Act" to address the fundamental principles of the retirement system in a form of law.

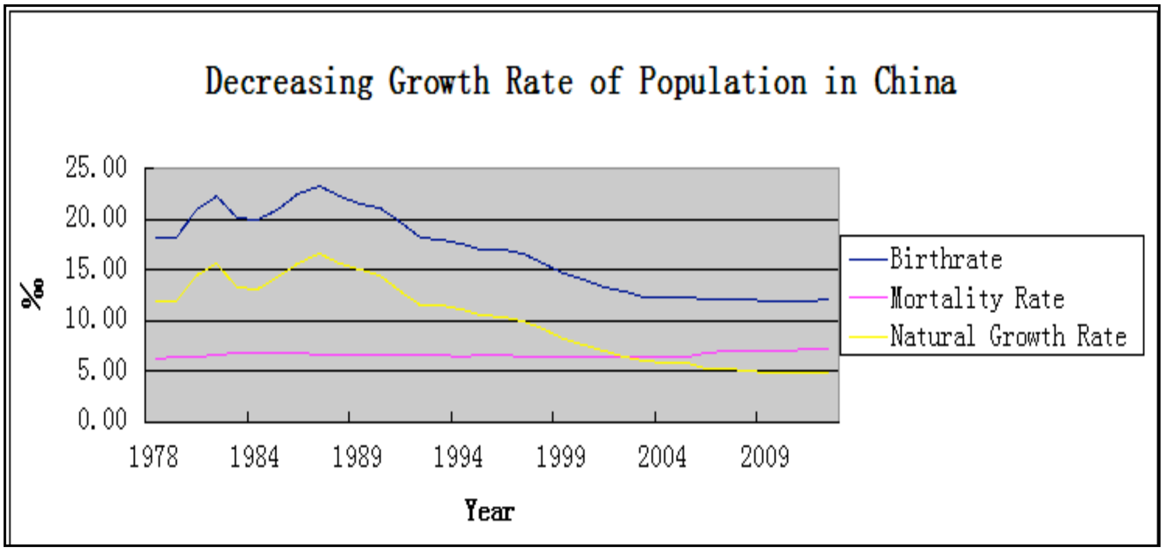
Literally, the basic pension plans can take advantages of both pay as you go plans and the funded pension plans. So to speak, the communist government takes the responsibility to smoothen the transition economy and to reallocate the social welfare. On the other hand, it can confirm the personal contribution, and promote the continuity of the fund raising. However, the changes made from the pay-as-you-go plans to the funded pension plans result in a high cost of transition economy.

4. Overview of the current retirement system in China

Nowadays China has entered into an aging society all-side, so that it becomes even more urgent to improve health care, inhabitation environmental quality of the old people. Currently the only-child policy leads a relatively low natural growth rate of population, which eventually affects the demographic structure, the labor force. The social security legs behind seriously and it becomes the potential troubles in the development of the future. In the following, we will discuss the details of the current retirement system in China.

4.1 Aging Society

Unlike most of the well-developed economies, China alone with many other developing countries have a decreasing birthrate and natural growth rate of population. It is associated with a continuos increase in the GDP growth per capita, and overall decline in the poverty rate. For China, the growth rate of GDP keeps a relatively stable level at 6% ~ 8% over the past 10 years. From the late 1980's up to date, China has experienced a constant decrease in birthrate, as shown in the figure below:



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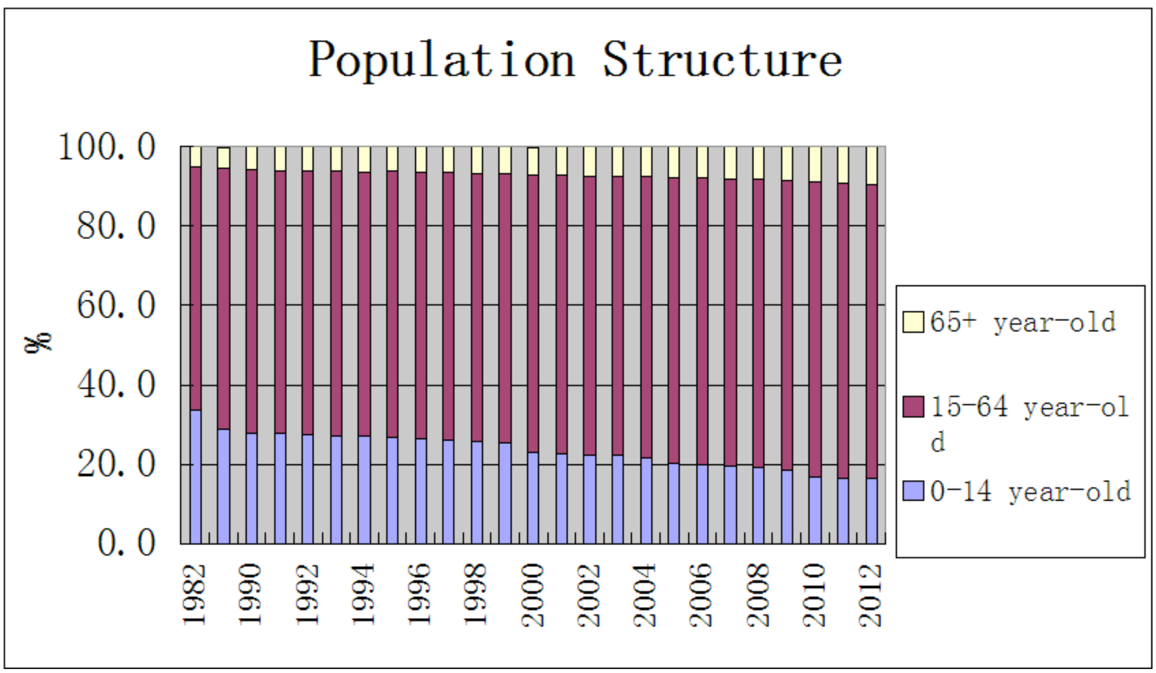

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In China, it is required by law that capable children have to take responsibilities to support their parents' livings in their older age. the income of retirees in urban is mainly from Society Security Pension, which is 45.4% of the total income of retirees, other 37% supported by their children. And the older age people in rural area are mainly supported by their children. On the whole, the

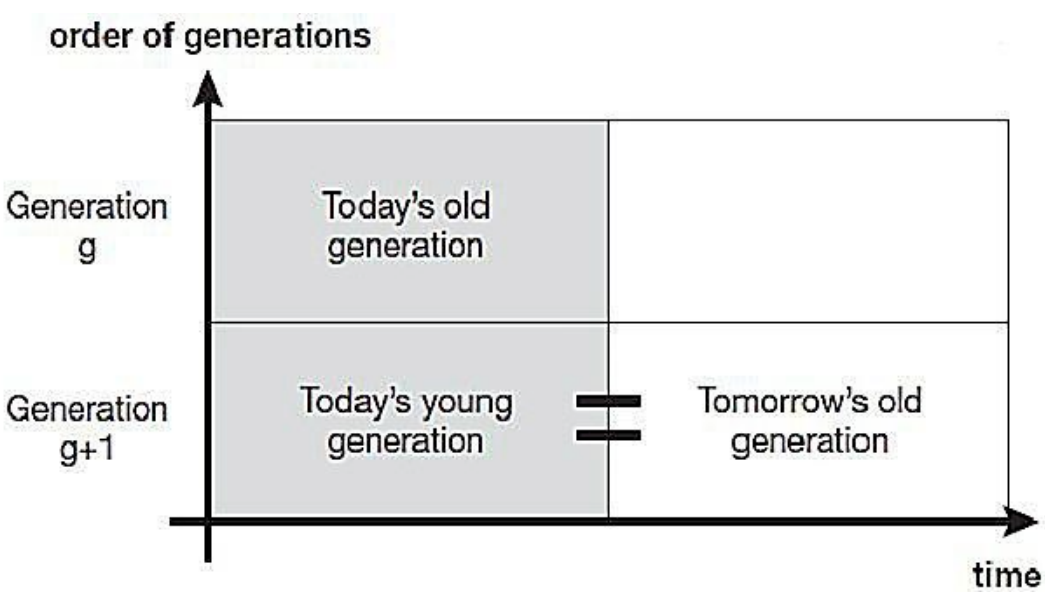
[3] Based on the data: China Statistical Yearbook 2013

[4] Based on the data: China Statistical Yearbook 2013

retiree’s older age life mainly depends on their family members is still the main form, especially in rural areas.

Furthermore, as the younger generations come into the workforce and start to contribute the retirement plans, what actually could happen or have already happened is called the intergenerational income transfers. According to the updated actuarial analysis, the average present cash value paid to current retirees over the present cash value those retirees contributed (alone with the fund sponsored by both the government and the enterprise) is only 84.9%.[5] It means, for the same generation, the inflowing is only 84.9% of the outflowing in value, which suggests an unjust wealthy transfer from younger generation to the older generation.

In the 2030 years, the parents with only one child (because of “only child” policy”) will reach out



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[5] Hu Jianxin, Yang Jining Pension System and intergenerational justice, ECONOMIC AND SOCIAL DEVELOPMENT, 09-2011

[6] Joerg Chet Tremmel, A Theory of Intergenerational Ju09, P.26.

the retirement age. In a structure of one child with two parents to support, the burden will become naturally heavier and heavier. As the aging process speed further, not only China has to face with a serious deficit problem of pension fund in a short run, but also it has to bear a potential challenge to keep the harmony of the society and continuos economic growth in a long run.

In all, the injustice between generations is inevitable under the reality of account shortfall in the individuals pension accounts and the aging society.

4.2 Deficit Gap in the Social Security Fund

At the end of nineties, the historical period of state-owned enterprises (SOE) reformation, some of the SOEs went to bankrupt due to the poor management and cash flow shortfall while other SOEs forced many employees involuntarily retire at a very young age. In this case, the basic pension plans provide insured wage earners with a partial replacement of their wages during periods of involuntary unemployment. In reality, due to the big dollar amount of money needs to pay out, the operation is actually taken by embezzling the funds from the individual accounts or younger generations' contribution to balance the overall social security fund. And this problem left over by history caused a shortfall in the individual accounts and actually counteracted the saving effect of the funded pension plans. Under this sense, the system of "social pooling and individual account combination" are actually acting as a pure pay-as-you-go system with a deficit gap.

4.3 Lower collection rate

Collection rate is the ratio of population of paying the contribution to the population of not paying the contribution but participating in the Social Security Pension system. With the well-advertising method, the participants of the retirement plans increase year after year, the collection rate actually decreases from 25.1% in 2008 to 17.1% in 2010.

The main reason is that the contribution rate is too high and also the transfer procedure is too complicated, if some persons change work place, they will withdraw from Social Security Pension System.

4.4 The unbalanced replacement rate and contribution rate

The average wage in 2007 is 5.495 times to that in 1994. The average annual growth rate of the wage is as high as 14% during these years.

The rapid increase in the annual wage contributes to a constant increase in retirement income and of course, people' expectancy towards the retired income. The growth rate of the wage in China is at a very high level. As it suggests in the exhibits below:

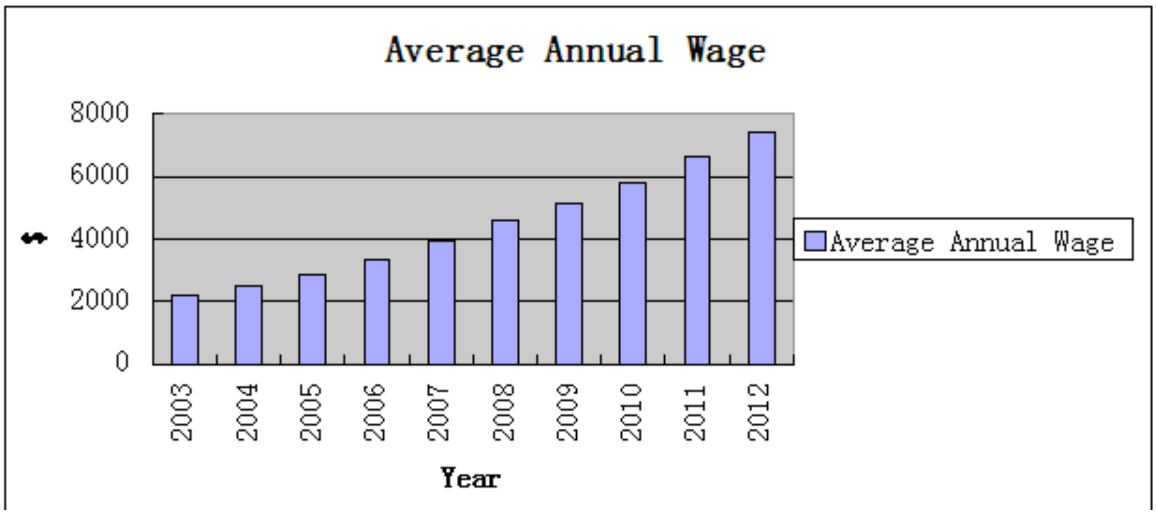

Table 1 lists the data of the average replacement rate, the average pension income of each retiree and the average wage of work force.

From Table 1 the replacement rate was gradually decreasing during 2002 to 2008. It tends to be more stable but in recent years at a comparatively lower levels. The low replacement rate represents a vulnerable protection against the future uncertainty. Even though the monthly retired income constantly increases over years, the low replacement rate still suggests a more accurate rate of the average annual retired income over the annual wage.

In 2011, it was 1700 billions RMB. It is expected to reach 1830 billions in 2012. On the other hand, the contribution rate is as high as 28% and, at the same time, the government gave a part of subsidy each year. For example, in 2010, the total subsidy in pension payment was as high as 193.4 billion RMB, which was 14.6% of total pension payment of this year. On one hand, the pension income of retirees stays at a lower level. The contribution rate is very high and it makes the working force bear over high pressure of contribution payment.

Table 1

Years	2002	2003	2004	2005	2006	2007	2008	2009	2010
Average replacement rate(%)	63	57	53	50	45	42	44	45	44
Average pension income for each retiree and each month	652	667	708	765	788	873	1072	1225	1362
Average wage	12422	14040	16024	18364	21001	24932	29229	32738	37147
The growth rate of average pension income each retiree	14	2	6	8	3	11	23	15	11
Average growth rate of wage	14.3	13	14.1	14.6	14.4	18.7	17.2	12.0	13.5

[7]

4.5 Investment of pension funds

Well known is a tradition for Chinese people who prefer to save money for their future adversity. Due the lack of investment knowledge and retirement plans, many people still choose to save

[7] YUAN Zhong-mei, Discussion of Delay Retirement and Pension Replacement Rate, POPULATION & ECONOMICS, 2013

money and deposit them in banks.

On the other hand, for insurance companies, up till 2010, there are more than 50 insurance companies which provided annuity products to individuals as an alternative investment options. In 2011, variable annuity products were allowed to sell in few cities (Bejing, Shanghai, Guangzhou, Xiamen and Shengzhen.) as an pilot experiments. But there were only two joint venture insurance companies to sell this product. Most of insurance companies have not taken actions into this new marketplace due to the lack of knowledge to evaluate the investment risks.

Whether or not the pension funds can be openly put into investment market is still a issue. Currently, the percentages of fixed return investment on short term and long term equity investment are 51%, 38% and 11% respectively. The weighted return rate of these assets is only 3.41% in 2010, which was even lower than the inflation rate of 5.4% in that year.[8]

4. 6 Current Funds Structure

As we discussed before, in the unprepared developing economies like China, the retirement plan is not fully-developed. The social security fund counts the most the income for retirees. Indeed, the current retirement system in China includes government-sponsored pension fund, enterprise-sponsored annuity and individual contributions. Among all three tiers, the government-sponsored pension fund is a big piece of pie here in the social security fund. It constitutes about 72%, urban employees constitutes 8% wages and another 20% of the assets are from the employers.[9]

The enterprise-sponsored contribution in China began started from 1990s but its development had stayed at a very slow level up till 2004. In its early process, the average accumulative funds sponsored by the enterprise per year was only 4.5 billion RMB. Later on, with the promotion of the government issues a document on “The performance methods on enterprises annuity” the enterprise-sponsored fund rapidly increase.

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8 YUAN Zhong-mei, Discussion of Delay Retirement and Pension Replacement Rate, POPULATION & ECONOMICS, 2013

9 State Council’s Decisions to Improve the Enterprise Workers Social Security System, Xinhua News Agency

5. Conclusions

After we introduced the current situation of the retirement system in China and analyzed its current difficulties such as: aging society, low return of investment of pension funds, a series problems resulting from “only child policy”, “embezzled account” and deficit gap of pension, unbalanced replacement rate and contribution rate. For the further study we should do is to design a four pillar retirement system so as to decrease or avoid pension deficit, increase the benefit of retirees and improve their life quality.

5.1 Delaying retirement age

Raising the retirement age not only can release the pressure on the paying the current retirees but it can help recover the embezzled account left over by history and decrease the invisible debt caused by the increase of the longevity. Because the slower current workforce become retirees, the less the pressure cast onto the current retirement system, therefore the higher replacement rate could be.

5.2 Providing retirement plans education for individuals

Retirement plans are still relatively new to most current enterprise employee. They have not well prepared and planned for it yet. Under the threat of the aging society, income reallocation, and low saving return, it would be more sophisticated for individuals to look over a big picture ahead and protect their living quality in the uncertain future.

For example, there are many other ways for individuals to help themselves save for the retirement such as annuity products. With a better education, urban employee would be more involved in annuity products or any other low-risky investment options provided by private insurance companies. As a result, not only individual can benefit from the diversified products and services, more sophisticated actuarial technologies might be introduced to the current retirement system.

	Annuity	Traditional IRA	Roth IRA
Who is eligible?	Everyone.	Everyone under the age of 70 1/2 who has with positive compensation (or non-working spouse).	Only those whose income is lower than the threshold. ▪ Income threshold: – $179,000 or less (married) – $122,000 or less (single)
Key Tax Advantage	Tax-deferred growth	Tax-deferred growth	Tax-free growth
Maximum Annual Contribution	No limitation	$5,000 if under age 50 $6,000 if age 50 and above (in aggregate to both Traditional and Roth IRAs)	$5,000 if under age 50 $6,000 if age 50 and above (in aggregate to both Traditional and Roth IRAs)
Tax Deductible Contributions?	No (all contributions are after tax money)	For certain qualified individuals. You are qualified to make tax deductible contributions if: ▪ You are not active participants in employer-sponsored retirement plans, OR ▪ Your income is lower than the threshold (even if you are participating in an employer-sponsored pension plan). Income threshold: – $110,000 or less (married) – $66,000 or less (single).	No (all contributions are after tax money)
Tax Treatment of Withdrawals	Any earnings are subject to tax upon withdrawal	Any earnings and deductible contributions are subject to tax upon withdrawal	Tax free!
10% Early Withdrawal penalty	Yes	Yes	Yes

[10]

[10] Edited based on Dr.Yayuan Ren's StudyNotes for FIL250 Introduction to Risk and Insurance

APPENDIX

Shen Junxia, Research on basic pension insurance fund balance, http://www.cnki.net 2009

YUAN Zhong-mei, Discussion of Delay Retirement and Pension Replacement Rate, POPULATION ＆ ECONOMICS, http://www.cnki.net 2013

The web of Statistics B Fang, Lianquan, The financial hidden trouble in social security pension of China needs to be solved urgently, The News Paper of China Security, 21th, March, edited by Wei, Chi, 2012.

Web of Statistics Bureau of China, www.stats.gov.cn.

Feldstein, Martin, Social security pension reform in China, China Economic Review, 10, 99-107, 2012.

Hu Jianxin, Yang Jining Pension System and intergenerational justice, ECONOMIC AND SOCIAL DEVELOPMENT, 09-2011

Ni, Jinjie, Why are the enterprise annuity and individual pension edged out?
News Paper of Sheng Zhen Business, 6th, July, 2012.

Hu, Yifan, How dangerous does China's Pension System? The Day Paper of Wall Street (in Chinese), 5th, June, 2012.

Zhang, Yinghua, The reform of the Pension System in China and The Situation of its marketsation, www.howbuy.com, 9th, February, 2012.

The development of annuity insurance in China is still slow and the drive force of developing variable annuity insurance is not enough, Times of Finance, 1th, February, 2012.

John Myles, A New Social Contract for the Elderly, in G. Esping-Andersen,

D. Gallie, A. Hemerijck and J. Myles(eds.), Why We Need a New Welfare State, Oxford: Oxford University Press, 2002, p.130–72.

Liu Wenbin, Li Lele, Song Chao, Zhang Daoqi, A Study on Endowment Insurance Fund, MATHEMATICAL THEORY AND APPLICATIONS, Vol.32 No.1, 2012

Li Keqiang, Report on the Work of the Government 2014, Xinhua News Agency, 2014