Issues on China's Pension System: Dilemma and Solutions*

Junyong Zhang
Shijiazhuang Railway University (Shijiazhuang, People's Republic of China)
Head of the Chair of Economy
Doctor of Economy, Professor
Trainee of Anglia Ruskin University (London, UK)
zhjy@ruc.edu.cn

ABSTRACT

The article examines pension systems modernization in China; the evolution of the approaches to solving pension security problems in view of demographic challenges. The existing regulatory framework of funded pensions, the approaches to refill the empty accounts such as delaying retirement ages as well as abolishing one-child policy are in focus of the research. Population aged 60 or over is the fastest growing cohort, globally, according to the UN data. Currently having 15.2% (2015) of its population aged 60 or over, China is one of the most rapidly ageing nations. By 2030, China will have nearly a quarter of their populations aged 60 or over. Population ageing is projected to have a profound effect on the number of workers as well as pensioners, posing the problem of underscoring the national pension systems' adaptation to changing conditions; increasing the fiscal and political pressures that the old-age and social protection systems, health care systems are facing.

KEYWORDS

China, pension, deficit, coverage, empty accounts

Цзюньюн Джан

Проблемы пенсионной системы Китая: дилемма и решения

Цзюньюн Джан
Шидзяджуанский университет путей сообщения (Китайская народная республика)
Заведующий кафедрой экономики
Доктор экономических наук, профессор
Стажер университета Раскина (Лондон)
zhjy@ruc.edu.cn

РЕФЕРАТ
В статье рассматривается модернизация пенсионной системы в Китае и эволюция подходов к решению проблем пенсионного обеспечения в силу демографических проблем. Существующая нормативно-правовая база накопительных пенсий, подходы для наполнения пустых счетов, такие как отсрочка пенсионного возраста, а также отмена «политики одного ребенка» находятся в фокусе исследования. По данным ООН, население в возрасте 60 лет или старше является самым быстрорастущим контингентом во всем мире. В настоящее время, имея 15,2% (2015) населения в возрасте 60 лет или старше, Китай является одной из наиболее быстро стареющих наций. К 2030 году Китай будет иметь почти четверть населения в возрасте старше 60 лет. Старение населения, по прогнозам, окажет существенное влияние на количество работников, а также пенсионеров, вызывая проблемы адаптации к изменяющимся условиям; усиление финансового и политического давления, с которым сталкиваются системы социальной защиты и здравоохранения.

КЛЮЧЕВЫЕ СЛОВА
Китай, пенсия, дефицит, обеспечение, пустые счета

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Introduction

China has been undergoing a very rapid economic growth over the past nearly four decades. The reform of China's social security system is a critical component of China's overall economic reform. Pension system is the most important constituents of social security system. Some other systems, such as Medical Insurance, Unemployment Insurance, Maternity Insurance and Work-related Injuries Insurance are combined to build up an all-round social security net. By the end of 2015, 858.33 million people are covered by pension system, with 665.7 million by Medical Insurance, 173.26 million by Unemployment Insurance respectively. All in all, the income from all kinds of social security in 2015 amounted to 4593 billion Yuan, with pension fund had a share of 64%. To study China's social security, one should first have a clear profile of how pension system is operated.

No one can deny the fact that China has made great strides in expanding pension coverage for its population over the past nineteen years. China has established a contributory pension system, which covered 353 million urban workers as well as 504 million individuals' pension accounts with government subsidized (urban self-employed, rural workers, rural peasants all fall into this category). While a causal glimpse of the data of coverage and fund amount can easily find that urban workers' pension income last year is almost ten times of their counterpart, while pension expense is almost 12 times accordingly.

There are many problems and challenges in the current Chinese pension system. China is experiencing a rapidly ageing population. The one-child policy and significant improvement in living standards make China's ageing problem more severe than any other countries. China faces a monumental challenge to support its ageing population, a strain that its dynamics might be undermined if such issue can not be tackled in an appropriate method.

Last year, China made the decision to end the compulsory one-child policy for most couples. The purpose was aimed at balancing population development and solving the ageing population. China's economics success in large part should be attributed to its abundance of cheap labor force when it joined the global economic system. Statistics are showing that the working-age share of the Chinese population peaked in 2010 and declined afterwards for many years to come. The median age is forecast to 32.5 years in 2005 to 48 years in 2015. Clearly China's population is ageing quickly, which will have a strong impact within one generation. This change is, in large part, intended to mitigate the adverse demographic trend plaguing China's social security system: the rapidly declining ratio o active to retired workers. According to China's National Bureau of Statistics, the absolute working-age population of China declined by 3.45 million in 2012. Even one-child policy has been abolished, it is not expected that there would be another baby boomer. China has in fact fell into low fertility rate trap with no sign of rebounding even the ease of one-child policy. With the generation of baby boomer coming into retirement, these demographic pressures will put severe strains not only on the government-run pension system, but also on informal family support of retirement.

The Chinese state-run pension system is undergoing a top-level redesign to push reforms in the sector, so as to ensure that pension funds remain sustainable in an ageing society. Issues such as excessive fragmentation, insufficient funds as well as low returns from fund investment aroused many policy debates as well as proposals.

I. Structure of Pension System in China

The "Chinese pension system", as currently constituted, actually has four main subsystems. The Urban Enterprise Pension System covers urban worker, who in practice are mainly employees of large private enterprises and SOEs. The recently established Rural Pension scheme allows rural workers to make voluntary contributions to individual accounts that are subsidized by local and central government. The structure of the new and much smaller pension plan for non-employed urban residents. The forth is the scheme carried out only from last year, targeting civil servants and government-related employees such as teachers.

As the fourth subsystem had just joined in the contributory pension system, there is no definite participants numbers and funds amounts contributed. For a long time, civil servants and other government employees such as teachers are not required to pay their own pension contributions and were entitled to a generous government-subsidized pension on retirement. It will be an obvious fact that there seems no necessity to study issues surrounding the most newly developed subsystem as it is publicly financed even though participants are also required to contribute as in others. Without consideration of this regard, China's pension system now covered 850 million people. Excluding students and pre-school children, about 1 billion shall be covered by the system. That means a 85% of coverage rate.

Pension reform has long been tied to the reform of China's state-owned enterprises, and stemmed in part from the new requirements of the market-based mechanisms introduced under Deng Xiaoping starting in the late 1970s. Before then, there is no distinction between salary on the job and benefits after retirement. There was an implicit guarantee that Danwei (working units, under socialism there was no employment contract) will support its workers to end at the expense of low salary. This is what had been called the "iron rice bowl", an all-encompassing social security system for workers in state-owned enterprises. The benefits were equal to roughly 80% of the last annual provincial average wage income in the province where a worker retires. In this sense, the pension system before 1997 can be viewed as a huge pay-as-you-go (PAYG) framework that the government taxes workers. With China's opening-up further, it found that not only overstaffing but also rigid labor employment were bringing an unfavorable edge in international competitiveness. Creating a new system in which both employers and employees could make their own decisions on who hire and where to apply for work also meant the old system's top-down assignment of lifelong employment and social security became increasingly untenable. But while new employees began being hired under a new contract labor system, permanent workers at state firms retained their old benefits, marking the first of many schisms in China's pension plan.

In 1997, the Chinese government decided to introduce the basic parameters of a multi-pillar system. At the heart of the new system is so-called "three-pillar" system. The first pillar consists of two parts: a mandatory pay-as-you-go pillar which is called "social pool," and a mandatory fully funded pillar which is called "individual account." A new social security system based on employment contracts was created, with the employee and the employer contribute separately to pensions accounts. Both employees and employers are required to make contributions to the pension system. Workers contribute based on their individual wage, at a rate of up to eight percent, while employers contribute 20 percent. It ensures that all the employees who has worked and paid the contribution for more than 15 years would receive the basic pension benefit, targeting to a fixed replacement rate at retirement rate at retirement and afterward of 35% of the local average wage. The target replacement rate for individual account is 24.2%, based on the assumption of 15 years of continuing contribution and a monthly payment formula of dividing the accumulated amounts plus investments by 120 after the retirement. Therefore the total target replacement for the first pillar is around 60%. The general pension payments are determined by the number of years of employment, the average wage in the locality, and life expectancy.

In 2004, the Enterprise Annuity system was created, which is a voluntary occupational pension system. It is fully-funded defined contribution accounts. They are established as trust that can take the form of either an internal or external trustee model. Employer

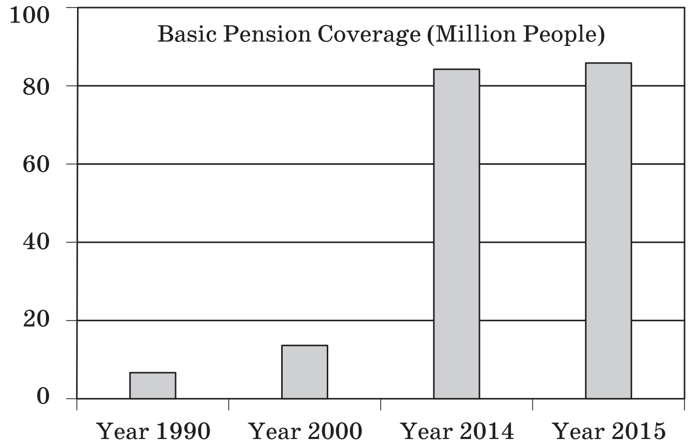

Figure 1. Pension Coverage Numbered People

contributions are limited to a twelfth of employee salaries, and the combined employer/employee contribution should not exceed a sixth of total wages. The is the second pillar, and the third pillar is voluntary saving. Until now, Enterprise Annuity schemes have primarily been adopted by large, profitable, mostly state-owned enterprises. As many as 75,000 enterprises had set up their annuity fund, with 23.17 million employees joining the scheme and accumulated balance of the fund reaching 952.6 billion Yuan, by the end of 2015. In spite of the significant progress, there is still plenty of room for improvement in view of the huge number of enterprises and employees. When analyzing pension system, one should also need to know something about China's household saving rate. Since the mid-1990s, the saving rate has increased markedly due to rising income uncertainly as well as distrust on pension China. According to data released by the World Bank, China is one of the few countries that has the highest saving rate as high as 49% in 2014. While the saving rate in Russia is 24%[1].

The above mentioned pension system is mainly related to employees in enterprises in urban, either public-owned or privately-owned ones. Later, the system began to be extended to self-employed in urban and rural population. Sources of pension fund are different even though they are put into the same category statistically. Either contribution or benefit differ greatly. From the following Tables, one can easily get a rough understanding of China's pension system balances:

By the end of 2015, people covered in the urban workers' pension system amount to 353.60 million, corresponding to fund expenditure of 2579.86 billion Yuan. While people covered in another system reach as high as 504.7 million, the funds either collected or distributed are rather lower.

Nationwide, it seems bright for China's pension system with regard to cumulative surpluses when no demographic trend is considered. The accumulated surpluses have been increasing from 2008 to 2014. The ratio of pension asset to GDP also indicates the same trend. When compared to other countries, the scene seems not so optimistic.

In 2005, there was the reform on the benefit, a shift from static to dynamic one. The retiree's benefit is calculated on the weighted average of local average wage and his life average wage. It encourages workers to contribute to the pension fund not just the 15 years as previously stipulated. With more months' payment to the system, the more benefit one will get on retirement. In 2011, the Social Insurance Law was adopted to

[1] http://data.worldbank.org/indicator/NY.GNS.ICTR.ZS?name_desc=false

Table 1

National Pension Fund Balance (billion Yuan)

Year	Income	expenditure	balance of the year
2010	1387.29	1075.53	311.76
2011	1800.48	1336.32	464.16
2012	2183.02	1671.15	511.87
2013	2473.26	1981.87	491.39
2014	2761.99	2332.58	429.41

Table 2

Pension Fund Balances in Subsystems (billion Yuan)

Year	Urban Workers' Pension Income	Urban Workers' Pension Paid-out	Residents' Pension Income	Residents' Pension Paid-out
2015	2925.04	2579.86	295.18	223.04
2014	2525.23	2175.24	238.69	165.67

Table 3

Accumulated Surplus (billion Yuan)

Year	2008	2009	2010	2011	2012	2013	2014
balances	993.10	1252.61	1578.78	2072.78	2624.35	3127.48	3564.45
GDP	31951.55	34908.14	41303.03	48930.06	54036.74	59524.44	64397.40
Ratio	3.1%	3.6%	3.8%	4.2%	4.9%	5.3%	5.5%

supplement piecemeal Labor Law and Labor Contract Law. The basic principles of China's social security system, as outlined in the Social Insurance Law, are as follows: All employees, including rural migrant workers, should be covered by the social insurance system. Both employers and employees are required to make contributions (at different rates) to a pension fund, unemployment insurance fund and medical insurance fund, as well as the Housing Provident Fund, Employers, but not employees, are also required to contribute to the work-related injury and maternity insurance funds. The pension funds are composed of pooled components, which can be used to benefit any eligible employee, and personal accounts that benefit the individual employee concerned, when they become eligible.

Before 2015, civil servants and public-related employees need to contribute to their pension fund. Now the sub-system will be paid in to by 8 million civil servants and 32 million public institution employees who will also now pay 8% of their salaries and the employers will contribute 20%. No one will worry about there will be problem in this subsystem. When the reform is carried out, a large number of funds have been compensated for the contribution. This means that not any participant in this regard suffers a loss as a result while their pension can also be guaranteed on retirement, possibly based on their salary as well as locality.

II. Problems Related to Pension System

China's pension system, as currently constituted, faced a number of urgent challenges that will, in time, make the present arrangement unsustainable. In my view, "empty accounts" in the first pillar (Urban Workers' Pension System), ageing demographic, disparity of pooling and reluctance to be engaged in the system, low return on investment, lack of confidence and trust. All these might undermine efforts carried out by China in recent decades.

2.1. Unbelievable "Empty Accounts" in China's Pension System

When the mandatory pension system was being carried out, for those workers near to retirement age or having been retired, there should be a fund reserve for their pension to paid out for them. In fact the government did not disburse any fund, where they would be paid out. From the beginning, there existed the issue of pension deficit. In the pay-as-you-go account, there was almost no fund at the initial stage. Only new workers had to contribute, these pools soon became unable to deal with the increase in pension demands that accompanied an influx of retirees. The administrator had to "borrow" from individual accounts as the contributors will get the benefits in a much later time. In particular, it fails to bring in new contributors to the social pools. As local authorities use account contributions to cover current cash shortfalls, the overall system is gradually running out of money. By 2010, there was only 203.9 billion Yuan in the individual accounts, rather than the supposed figure of 1.96 trillion Yuan, creating a gap of a total of 1.76 trillion Yuan for the government to fill. Anyway in China, the government is legally obligated to cover the shortfalls. A more recently released figure from official source indicated that the accumulated value of empty personal accounts was more than 3.5 trillion Yuan at the end of 2014[1]. Pension reform had been listed as one of the six key reforms for this year by China's top decision-makers.

2.2. Ageing demographic

Demographic trends are straining social welfare resources and the capabilities of officials to provide for ageing populations. A vigorous debate is now playing out among experts over how the country can best support a rapidly swelling population of senior citizens. This rapid ageing phenomenon creates a severely increasing burden on old-age support. As shown in the following figure (data source: China Statistical Yearbooks), the ratio of aged 65 and above to working age (16-64) population had been increasing significantly.

The proportion of China's population over 65 is currently high enough compared to other countries, but is projected to grow to 24% by 2050. China will become the world's most aged society in 2030. Ageing populations set to impact China dramatically by 2050 with the number of people aged 65 and over will be rising by almost 200m, from 132 m in 2015 to 331m in 2050. A report published in December last year by the Chinese Academy of Social Studies(CASS) said that without adjustments, pension deficits would appear in 2030, and that by 2050 the accumulated shortfall would amount to 90% of China's GDP. It can be recalled that ageing population was not the main concern when the pension system was being designed.

Robust economic growth over the past decades has been associated with increased average life expectancy in China from 68 in 1981 to 74 today. The generation of baby boomers (those Chinese born in the 1950s and 1960s) has started to join the older population. Third, the draconian population control policy, introduced in the early 1980s, resulted in an extremely low fertility rate, further increasing the proportion of the older population.

In view of the possibly unsound pension system, China set up the National Social Security Fund, aiming to alleviate the financial impact of demographic development. Strictly speaking, it is not part of the pension system. Its functions are to build up capital for public pension deficits resulting from upcoming demographic development.

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[1] http://www.chinadaily.com.cn/opinion/2016-01/08/content_22990307.htm

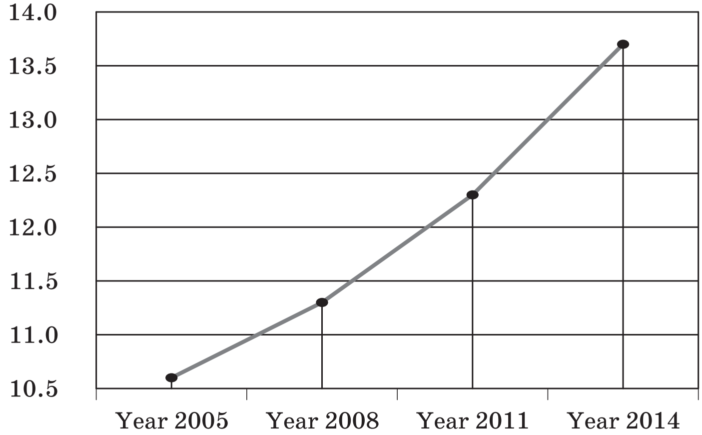

Figure 2. The Ratio of Aged 65 and above to Working Age (16–64) Population

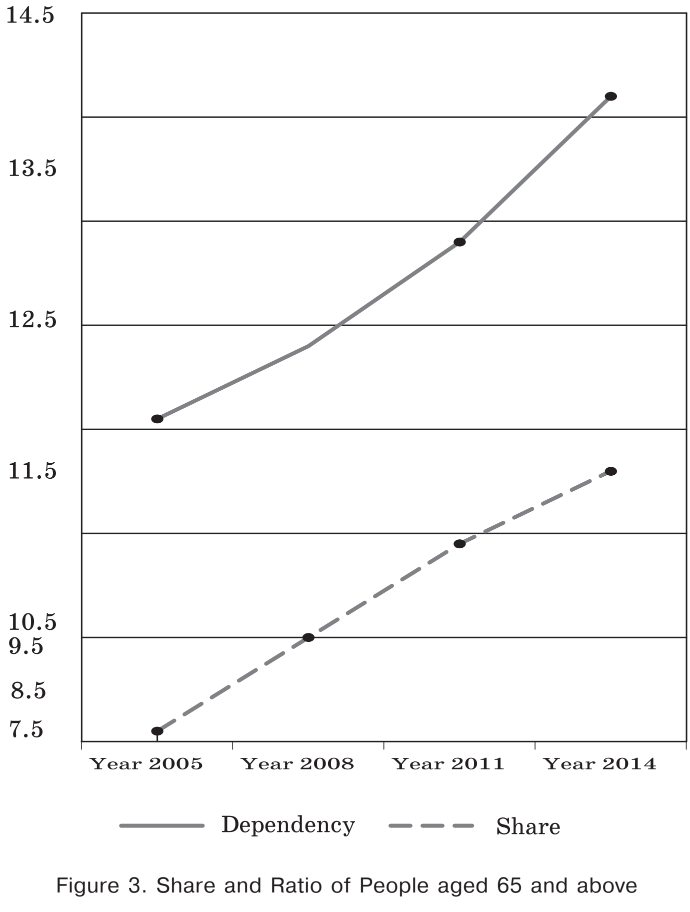

Figure 3. Share and Ratio of People aged 65 and above

2.3. Disparity of Pooling

Today, pension pooling operates at the provincial, county or municipal level. Administration is decentralized, meaning that local discretion is considerable. Pension fund revenue currently

Table 4

Some facts about Urban Enterprises Pension System in 2014

	Covered People Number million	Current Contributors Number million	Retiree Number million	Fund Income billion	Fund Expenditure billion	Accumulated Amount billion
Nation Total	341.24	255.31	85.93	2530.97	2175.47	3180.0
Beijing	13.926	11.637	2.289	133.13	84.17	216.08
Heilongjiang	10.901	6.467	4.434	92.22	102.83	32.33
Guangdong	48.095	43.636	4.459	205.94	128.91	544.42
…	…	…	…	…	…	…

Table 5

Facts about Residents' Pension System in Rural and Urban*

	Covered People Number Million	Pensioner Number Million	Fund Income Billion Yuan	Fund Expenditure Billion Yuan	Accumulated Asset Billion Yuan
Nation Total	501.075	143.127	231.02	157.12	384.46
Beijing	1.863	0.351	3.67	2.13	11.68
Tianjin	1.061	0.713	4.16	2.03	12.77
Hebei	34.044	8.853	10.04	6.44	16.93
Jiangsu	23.479	9.878	21.54	17.57	37.99
…	…	…	…	…	…

Примечание <?> For statistics purpose, citizen pension in Urban and in Rural is quiet different, even though they are combined together.

exceeds expenditure in most provinces, particularly in coastal provinces like Guangdong, which has a yearly surplus of 77 billion Yuan at the end of 2014. However, provinces in the northeast of China that have an excess of retirees and a shortage of young people are already feeling the stain. In Heilongjiang, for example, pension pay-outs exceed revenue by more than 10 billion Yuan in 2014, with the overall account balance standing at just 32.3 billion Yuan. Within a very short period of time, the province will run out of money

From 2009, China began to expand its pension system to rural population. Those aged 60 or over are entitled to get the monthly benefit of 55 Yuan. The fund is totally transferred from the central government and provincial government, while those aged fewer than 60 are required to contribute a small portion as their individual accounts while a much larger part is to be subsidized by the government. Monthly pay-outs for rural residents are generally very low, with yearly benefit still far less than average monthly benefit for urban retirees.

2.4. Portability

Social insurance benefits should remain with workers when they move. However this provision has proved very difficult to implement because of the highly localized nature of the social welfare system in China. Getting different jurisdictions to share information is fraught with bureaucratic and technical difficulties, especially for workers coming from rural areas of China.

The flow of pension contributions and benefits through local governments not only undermines funding of the current pension, but also erects barriers to labor mobility. An individual moving to a new city is likely to face significant barriers to pension portability. First, he or she is typically forced to surrender a portion of the accrued pension benefits. Second, the pension system of the new city may have different rules or rule interpretations. Third, the move could restart the vesting clock -meaning that the individual would need to work longer in order to receive guaranteed benefits. All of these consequences could dissuade an individual from moving to obtain better employment.

Rural migrant workers in urban areas, of which there are approximately 150 million, are not generally covered by the urban pension system. Participation is allowed, but not compulsory. Both employers and rural migrant workers try to dodge the involvement. As migrant workers are more interested in immediate wages than in pensions. What's more, their high mobility across regions impedes participation. In order to encourage employers and employees to participate, local governments have started experimenting reducing contribution rate.

A key point to note is that the migrant worker population is getting older: More and more workers are middle-aged and already planning for their retirement. The annual survey of migrant workers in China showed that the proportion of workers aged 16 to 30-years-old fell from 42 percent to 33 percent in 2015, while the proportion of workers over 40-years-old has jumped from 34 percent in 2010 to 45 percent in 2015. Over the last few years, many of these older workers have been at the forefront of workers' demands for payment of social insurance. As the migrant workforce continues to age, those demands will only get louder.

2.5. Low return on Investment

State pensions lack adequate funding to support the country's rapidly ageing population, and investing in assets with higher returns could help make up the shortfall. There have been strict rules on how to management pension funds such as saving, bond, stock, trust. Low yields earned from bank accounts or bonds will not meet the increasing demands of a rapidly growing elderly population. From another angle, even if pension can be allowed to flow into stock market, its return can not be indexed as its volatility.

III. Debates and Policy Options

To be or not to be? How to make the pension fund sustainable is a thorny issue to be tackled with. Compared to other countries, it is not an easy task to have such a large population covered by pension system. Once it had been fully set up for the whole populace, fairness and equality are still being considered except for the sustainability. The future retirement system in China is facing a rapid population ageing as well as the drawback of pension system design, demographic dividend will soon disappear. When it has a large working-age population and relatively few retirees, there is no pension crisis looming. This demographic dividend has allowed China to finance pension benefits to retirees from current pension contributions. But this favorable situation will shortly come to an end, as the population ages. China, as one of the world's most populous countries, once adopted draconian one-child policy for most of young couples. Even it has been relaxed, the low fertility rate as low as 1.6 per couple can not make a shift. The new two-child policy is not likely to have a big impact on the worker-retiree ratio, so China's retirement system will remain under stress.

3.1. How to centralize the fund pool

Nationally, there seems no pension deficit at present. As the pend fund is managed locally, some provinces have more surpluses than others, while some provinces will suffer deficit nearly. An estimated 40 million retirees in China are victims of a highly fragmented, under-funded patchwork of local pension funds. To sustain social security, China needs to implement other reforms - moving from a local to a national system and expanding the permissible investment for Chinese pensions. To centralize so much a pool, there will be many issues to be dealt with. The pension system is to be coordinated at the national level unlike at present, where it is coordinated at the provincial level. With national-level coordination, risks will be lowered because there will be more room to iron out surpluses or deficits in different parts of the country.

3.2. Raise retirement age

At present, China's official retirement age for most men is 60. For women, it is 55 for civil servants and employees for state enterprises, and 50 for others. This rule has been implemented since the founding of New China in 1949. At that time, the life expectancy was not very high, setting a relatively young retirement age seemed sensible. Robust economic growth over the past decades has been associated with increased average life expectancy in China from 68 in 1981 to 76 today. When the PAYG is operating still at the present situation, there will be sure of deficit ahead. One of the policy options is to raise the official retirement age in a gradual manner.

Table 6

Life Expectancy in China

	Year 2015	Year 2010	Year 2005	Year 1990
Male	73.64	72.38	70.83	66.84
Female	79.43	77.37	75.25	70.47
Average	76.34	74.83	72.95	68.55

The right way to overhaul the system is to guarantee basic coverage rather than increasing superannuation payments. At the same time, the age of retirement eligibility should be postponed to mirror lengthening life expectancy.

3.3. Raise Contribution Rate or Lower it

The majority of workers are still denied the social security benefits they are legally entitled to. The government has sought to resolve this issue, not by enforcing the law, but rather by introducing new schemes based on individual contributions from urban and rural residents, and by seeking to encourage compliance of the Social Insurance Law by gradually reducing the contributions employers and employees have to make to the various insurance funds. In mid-2016, several provinces and cities, including Beijing, started to reduce employer contributions by one percentage.

The burden related to employment contract include not only pension, but also others such as unemployment, medical, work-related injury and maternity insurance. In addition, the government established a housing fund designed to help employees, who no longer had housing provided for them, buy their own home. The housing fund is also contributed by both employer and employee. In some enterprises, the contribution rate is from 19% to 27% of the employee's salary compared to the 28% in pension system.

Concluding Remarks

China's pension system has seen far-reaching structural reforms in recent years. It is apparent that China is making efforts to have the entire population to subscribe to pension, everyone can be entitled to have the basic right, no matter in what subsystem. In that case, China can deepen its reform to upgrade its economy. It will very be likely that the government needs to lend its hand to refill the empty accounts as the last resort. Raising retirement age abruptly is not feasible without the consultation and consensus from the staked.