

EU – CHINA SOCIAL PROTECTION REFORM PROJECT

Assessment Reports Series

Component 1



VOLUME ONE

PENSION SYSTEM

Into the Chinese XIIIth Five-year Plan

Combining Social pooling & Individual accounts

Designing a multi-tier pension system

Public sector pension reform

Integrating Urban and Rural social security protection

JANUARY 2016



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Introduction

The EU-China Social protection reform project document stipulates that project component 1 would conduct Situational Analysis aiming at “**understanding the current Social Protection framework in China** in order to point out elements and information useful to strength the institutional capacity for developing policies for Social Insurance and, generally, to achieve the expected results.” The Situational Analysis would focus on a set of topics for which stakeholders have expressed a particular interest.

The project document also indicates that (*macro-activity 1.1*) “The **Component 1 EU Resident Expert in China** will collect all the results of the Situational Analysis in an **assessment report** that will include, for each topic, the following aspects:

- a general description of the current situation;
- the most relevant statistical data;
- an overview about on-going activities and plans aimed at improving the current situation, including current reform; efforts, proposals and possible pilot projects;
- a list of open problems/issues.”

When adopting the 2015 Plan of activities for Component 1, the Project Advisory Committee, meeting on 22 April 2015, noted that five topics would be explored during the first year of the project, among which 3 would form a first batch, and two would start being addressed during the second half of the year.

Topics selected are as follows:

- **Batch 1:**
 - Topic 1.1.1 Social insurance administration systems reform [contributing to the elaboration of the XIIIth National Five Year Plan (2016-2020)]
 - Topic 1.3.2 Evaluation of the combination of basic pension and Individual accounts
 - Topic 1.3.4 Multi-tiered design of pension systems (public pension, enterprise annuity and individual pension)
- **Batch 2:**
 - Topic 1.3.1 Pension reform for public sector

- Topic 1.4.3 Strategy of integrating social security system in urban and rural context although through the portability of social insurance

Component 1 of the project has specifically to pursue 4 of its altogether 11 identified results - results R2 to R5 inclusive, namely:

- Improved interagency cooperation in social protection reform (R2);
- Enhanced capacity in policy development, implementation and evaluation (R3);
- Strengthening the interface of the various pension schemes towards full coverage in old-age (R4); and,
- Reform efforts in response to urbanization trends, concerning notably basic protection and portability of rights (R5).

The five topics being explored during the year 2015 – see table below - directly contribute to the pursuance of results R2 – 1 topic, R4 – 3 topics and R5 – 1 topic.

For the first batch of topics, for which technical progress was considered most urgent in view of the deadlines attached to the preparation of draft contributions for China's XIIIth Five-years Plan, NDRC and the Component 1 project team in Beijing agreed during the month of April 2015 on the terms of reference and the selection of high-level Chinese experts whose task would be to conduct the situation analysis for their respective topics, to submit their findings to peer review through a panel discussion, and to contribute to the identification of most relevant European experiences to support Chinese pension reform in the field, through a dialogue entertained with an ad hoc European Best practices experts selected by the project leadership according to established recruitment procedures for short terms experts.

The experts started working on their task in April 2015, the EU Best practice expert conducted his first mission to China within the framework of the project over the month of July 2015 and the panel discussion (*macro-activity 1.3*) could be held as scheduled by the end of July 2015 in Beijing, with participation from NDRC, the C1 project team.

The same pattern was used for the second batch of topics, for which experts were selected in July 2015. The consultation process with the C1 team was running throughout the period elapsed until the second panel discussion held on 13 November 2015, with the active involvement of the EU Best practices expert.

The following table summarizes the process for each of the topics under consideration.

| Result | Topic # | Title | Chinese Expert | EU Best practices Experts | Date Panel discussion |
|--------|---------|--|------------------|---------------------------|-----------------------|
| R.2 | 1.1.1 | Social insurance administration systems reform [contributing to the elaboration of the XIIIth National Five Year Plan (2016-2020)] | Mr. Tan Zhonghe | | 28 July 2015 |
| R.4 | 1.3.1 | Pension reform for public sector | Ms Zhang Yinghua | | 13 Nov. 2015 |
| R.4 | 1.3.2 | Evaluation of the combination of basic pension and Individual accounts | Mr. Song Xiaowu | Mr. Koen Vleminckx | 28 July 2015 |
| R.4 | 1.3.4 | Multi-tiered design of pension systems (public pension, enterprise annuity and individual pension) | Mr. Dong Keyong | | 28 July 2015 |
| R.5 | 1.4.3 | Strategy of integrating social security system in urban and rural context although through the portability of social insurance | Mr. Wang Zeying | | 13 Nov. 2015 |

While Chinese experts reviewed their respective reports to take into account the comments and suggestions made during the panel discussion meeting, the first draft of the Best practices report was shared with interested Consortium members – Belgium, the Czech Republic, France, Italy and Spain – who all contributed comments and suggestions subsequently embodied in the finalized version of the Best practices report (*macro-activity 1.4*).

The process was concluded early in the month of December 2015 for the first batch of reports, and the consultation phase for the second batch with concerned EU project partners is under finalization at the time of submitting this first draft assessment report.

This volume therefore presents the results of technical works conducted to date under the auspices of project Component 1 for the five topics to be considered – namely the summary of the panel discussion meeting and the finalized Situation analysis reports - and the consolidated draft Best practices report. Although presented under the generic title of “Assessment report” as per the terminology adopted in the project document, the Report therefore includes elements related to the subsequent phase of collaboration between NDRC and the project team, i.e. (*macro-activity 1.2*) the “Identification and review of

possible relevant EU experience”. This is justified by the fact that these documents will be submitted to the Workshop to be organized in January 2016 (*macro-activity 1.6*¹) to review all five topics to be considered in 2015 under the project C1 component plan of activities to “debate the first draft of reform proposals “.

One additional report of relevance for the overall pension reform process is therefore appended as supplement to the main report, viz. an Analysis of the social insurance administration systems in China produced by Chinese expert Tan Zhonghe.

All documents and news from the project C1 component can be found on web site <http://www.sprp-cn.eu>

Jean-Victor Gruat,
Component 1 EU Resident Expert
December 2015

¹ *Macro-activity 1.5* corresponds to related overseas activities consisting notably of an international workshop held in Brussels in February 2015 on Public pension reform (topic 1.3.1), of a 2-weeks high-level training conducted in France in June 2015 for some 20 NDRC Central and Provincial officials around the issue of multi-tier pension systems (topic 1.3.4) and of a Dialogue and Study visit to Spain, the Czech Republic and Poland for high-level NDRC officials on Employment and Social security policies with special reference to migrant workers’ issues, held over ten days in October-November 2015.

FIRST BATCH OF TOPICS

Notes on the Panel discussion meeting

Jean-Victor Gruat and Wang Qingqing (Ms)

Mr. Jean-Victor Gruat is the EU Beijing-based Resident Expert for Component 1

Ms Wang Qingqing was the Assistant for Component 1 within the Beijing office of the EU-China Social Protection Reform project.

EU – China Social Protection reform project, Component 1

REPORT ON A PANEL DISCUSSION MEETING - TOPICS 1.1.1, 1.3.2, and 1.3.4

HELD ON TUESDAY, 28 JULY 2015 IN CHINA PALACE HOTEL, BEIJING

Some 25 participants attended the meeting – see list attached as Annex I – which was chaired by Ms. Ji Ning, Counsel, NDRC Department of Employment and Income Distribution, Project Leader for Component The programme of the meeting is attached as Annex II. The meeting started with welcome speeches by Ms. Ji Ning from NDRC and Mr. Lars Gronvald on behalf of the EU delegation.

Ms. Ji Ning noted that after 30 years of experimentation and implementation, China's social security system had made great progress. It has formed a pension system both for urban workers and for urban and rural residents. But operation of the system also encountered problems and contradictions. Which model was the best for the most populous country in the world? How to operate the system in a healthy way? What international experience is more adapted to China's national conditions? These were all the questions we needed to answer. We chose three topics for this first round of work, namely the preparation for the XIIIth Five-Years Plan, the combination between social pooling and individual accounts, the design of a multi-tier pension system with research entrusted respectively to Mr. Tan, Mr. Song and Mr. Dong. Ms. Ji Ning hoped NDRC would get inspiration and gain more knowledge from the papers, the European experience expressed during the meeting and discussions among participants.

Mr. Lars Gronvald hoped everyone would benefit from this panel discussion. This discussion would help us to understand the EU experience. With the development of China's "new normal" economy the EU might make an even greater technical contribution to China. Our previous project was in 2011, but today's project was more complex and deeper. Mr. Gronvald stressed that today's discussion was very far reaching, which was a very good sign. Getting help by European experts will hopefully be very useful for the Chinese research. At the end of this year or early next year there would be a larger workshop to confirm future trends in reform. It is expected that the results achieved under the project framework by NDRC will be shared and discussed openly and thoroughly with all other interested partners. Mr. Gronvald expressed thanks to NDRC, the Chinese experts, the EU experts, and hoped to continue to participate in such meetings as part of the project future activities.

Mr. Tan Zhonghe presented his report about the development of China's Old-age Insurance for the 13th Five Year Plan period. From the onset of the 12th Five Year Plan period, a social security system covering urban and rural residents has been tentatively established, with expanding coverage, growing participants, and enhanced the social security. Significant stride has been made in the undertaking of social security, which laid a solid foundation for the development of social security during the 13th Five Year Plan period. The 13th Five Year Plan period is a critical stage in reforming the Chinese social security system, and a key period in integrating social security systems for urban and rural residents. Old-age insurance scheme is one of the most important components of China's social security system, and was among the earliest for reform among China's social security programs during China's transition from planned economy to socialist market economy. Although an old-age insurance scheme covering urban and rural areas has been basically established, there are still prominent problems, such as unsound policies and mechanisms, unbalanced development, and unsustainability. Mr. Tan's report puts forward the development targets, reform tasks, measures and suggestions for the development of old-age insurance scheme, on the basis of the achievements of reform and development during the 12th Five Year Plan period, analysing the situation and major existing problems. Mr. Tan expressed the hope that his work could be used as a reference for the authorities' efforts in formulating guidelines on social insurance development during 13th Five Year Plan period.

Mr. Song Xiaowu's presented his report about improving the urban basic pension insurance. On the basis of Chinese basic pension insurance system evolution analysis and learning from international experience, the report holds the view that, to further improve the basic old-age insurance system, we should guarantee its solidarity, and therefore cannot expand the size of individual accounts to the detriment of the pooled part of the system. As to personal accounts, whether they should be "real" or "notional" is the second problem. The reporter believes that the solution to be preferred is to create conditions to gradually "make the accounts real". But there may be some practical problems in the reality that may justify small NDC accounts. Mr. Song stressed that the basic old-age insurance social security system is an important project, which should match the stage of a country's economic and social development. After 30 years of reform and opening up, China's social and economic life has changed dramatically thanks to the miracle of rapid economic development but at the same time has gradually accumulated a lot of issues, notably the fact that the income distribution gap is too big. This is the founding layer of the pension system, and the introduction of personal accounts carries over the primary distribution into the secondary distribution, focusing on breaking the egalitarianism in a

completely different environment. In the new stage of development however, China is facing a distribution gap that is too big, basic social protection programs should therefore enhance fairness and solidarity, so as to stabilize the gap once assigned.

Mr. Dong Keyong presented his report about the design of a multitier pension system. He stated that in its current features the Urban employees' pension system had difficulties in coping notably with the challenge of China's ageing crisis. Hence the reform proposals for the establishment of China's three-pillar pension model. In Mr. Dong's view, on the basis of combination of social pooling and individual accounts, the separation of existing social pool and personal accounts are to be converted into first and second pillar. The first pillar basic pension would be based on an actuarial basis PAYG system related to the collection of contributions based on individual workers salary base with tax collection and national coordination, paying attention to the burden on enterprises. Benefits should in a way be linked to contributions but at the same time should avoid regressive redistribution mechanism and establish normal pension adjustment mechanisms in order to achieve the basic functions in the first pillar. To turn the personal account into the second pillar, the fact that individual workers currently pay 8% into the funds forms a solid basis for the establishment of this pillar, investment returns leading to improve pension income replacement rate. Mixed ownership economic reform provides the opportunity, through the reduction of state-owned assets, to replenish the currently empty personal accounts and to reduce the implicit pension debt. To accelerate the enterprise annuity system while achieving a fair system, organizations and institutions should be subject to mandatory occupational pension system, while annuity coverage rate is only about 7% currently. The introduction of preferential policies to accelerate the construction of enterprise annuity is therefore necessary. To achieve the implementation of voluntary private savings system, tax incentives should be developed to speed up the trial of voluntary private savings policies. The system should focus on solving the pension issues for those who are not covered by employer pension or occupational pension. Mr. Dong added that the considered mechanisms to improve pension operations represented an opportunity to promote the construction of China's capital market, to achieve pension collaborative development with the said markets.

After these three authors' presentation, the EU experts gave their comments. The purpose of the EU-China protection project is for European experts to exchange information and experience with their Chinese counterparts. As the emphasis of component I lies on the preparation of an important pension reform in China within the framework of the XIIIth Five-year plan, Koen Vleminckx, a research director at the Belgian federal Ministry of Social Security and an initiator of pension reform in Belgium, was selected to provide the support

requested. He prepared himself by collecting background information on social security in China and pension reform in particular. He provided information to the Chinese experts on their request or, in some cases where he thought it to be useful on his own initiative, but he respected their academic freedom. He also situated each expert within the context of the broader pension reform debate in China.

On the basis of the reports drafted by the Chinese experts, Mr. Vleminckx selected relevant issues for which he selected relevant 'best practices' in the EU member states. He also referred to EU level activities and networks where this was useful for China's perceived needs. As the topics of the authors partially overlapped, particularly as far as the reform of the second tier individual accounts system was concerned, he put the emphasis on the issues that were particularly well developed and emphasized in the respective papers.

Mr. Vleminckx noted that in his report "China's XIIIth Five-year Plan and the development of pension security, Professor Tan Zhonghe particularly stressed the need to enhance the governance of China's social security system and its pension system in particular. He wants to improve China's legal and regulatory framework of social security, its management and servicing system, communication and training of employers and employees, the contribution base and compliance, He also stressed the need to improve the actuarial system, modelling, and enhancing social security research, a point which was also stressed by Koen Vleminckx as this had been essential during his experience with the preparation of pension reform in his own country, Belgium. Koen Vleminckx provided best practices for each of these issues.

In his report "Evaluation of the combination of social pooling and individual accounts techniques schemes for urban employees" Professor Song Xiaowu mainly addressed the reform of the second tier individual accounts for urban workers, believed to be one of the main issues of the XIIIth Five-year plan. He wants to maintain the current pension structure for urban workers, including the repartition of funding (20/8), but he wants to improve and modernize the individual accounts system. He identified two options for the modernization of the individual accounts: 1) reinforcing the funding of the individual accounts, or 2) replacing the funded individual accounts with notional individual accounts, in line with the NDC model. Professor Song prefers the first option and motivated his choice in his report. Koen Vleminckx provided European best practices for both options. Upon Prof. Song's request he also provided best practices on pension calibration and indexation.

In his report “The Chinese pension system in transition: current challenges and reform path”, Professor Dong Keyong presented his viewpoint on the institutional restructuring of the Chinese pension system for urban workers. His main proposal is to merge the second tier individual accounts with the second pillar occupational pension plans that are currently underdeveloped in China. The second pillar would become mandatory and tax subsidized. The first pillar’s basic pension would be reserved for social pooling. This structure reminds us of the Dutch pension system. Professor Dong also suggests to further developing the third pillar as these are more individual and flexible and could thus provide a solution for covering freelance workers etc. that could not be covered by the second pillar. The development of the third pillar would be supported by tax incentives. Koen Vleminckx provided best cases on the regulation of investments by pension funds, on tax incentives for occupational pension plans, on the portability of occupational pension plans, and on tax incentives for individual pension plans.

During his last intervention Mr. Koen Vleminckx summarized his experience during his one-month mission in China. It had been a very busy, but very interesting period with very interesting exchanges with the Chinese authors and other Chinese experts and civil servants. He confirmed that he had selected 12 issues for which he provided one or more European best practice case. These will be presented in a report, which will be verified and further complemented by the consortium members. NDRC might also add issues that they belief to be relevant. These would then provide a basis for further technical cooperation within the framework of the EU-China project.

Following each of the authors’ presentations and comments by European experts, participants expressed their own views, comments and suggestions on the reports. This formed a very rich and lively debate, which the authors said would greatly help them when finalizing their papers.

Mr. Jean-Victor Gruat, EU Resident Expert for Component 1, then presented the main aspects of the Component plan of activities for the rest of the year 2015. After this very interesting and dynamic exchange between eminent Chinese scholars, European and NDRC experts, C1 component of the EU-China Social protection project has reached one of its critical targets. Future activities will of course build on this sequence. Two more topics will supplement the technical range of 2015 programme, namely the integration of urban and rural pension schemes – focussing on migrant workers’ rights vesting and portability – and the practical issues implied in the decision made at the end of 2014 to henceforth include public officials in the mainstream of the urban workers’ pension scheme in China. Also under this heading, a ten days study visit for high level responsible NDRC official is

being planned to three European countries. Two other major events abroad of interest to component 1 were already held in 2015, namely a high level technical meeting in February in Brussels around the issue of reforming pensions for public officials, and a two-weeks high-level training course in June in France on multi-tier pension schemes. The second half of the current year will also be devoted, as far as the project is concerned, to the elaboration of proposals for activities to be launched in 2016. Mr. Gruat expressed his thanks to his colleagues from C1, to the French member of the consortium leading the project, to NDRC and to the EU delegation in China for their support.

On behalf of the EU Delegation in China, Ms. Yi Xiaolin expressed the view that this meeting was very successful, and represented the first milestone of the whole project. Also, she expressed her thanks to NDRC and to the famous Chinese experts who contributed their time and research to the project. She hoped in the project could continue to meet the real needs of China's development. On behalf of NDRC, Ms. Tan Ling made a summary of the meeting. She hoped in the future the EU experts could give more examples of a broad range of the European countries. Ms. Ji Ning concluding the meeting by saying that in her view the three topics of today's discussion were mature. She drew a lot of inspiration from the discussion. She was looking forward to the next discussion and she expressed her thanks to everyone participating in the meeting.



The three authors at the Panel discussion meeting

– from left to right, Mr. Dong Keyong, Mr. Tan Zhonghe, Mr. Song Xiaowu



ANNEX I - LIST OF PARTICIPANTS FOR PANEL DISCUSSION MEETING

| Unit | Names | Title |
|--|----------------|------------------------|
| Department of Employment and Income Distribution, NDRC | Ji Ning | Project leader, C1 |
| | Zhang Xinmei | Division Director |
| | Tang Ling | Project coordinator C1 |
| | Zheng Jinhua | Official |
| | Niu Ming | Official |
| | Li Xiaoliang | Official |
| International Cooperation Centre, NDRC | Chang Hao | Project coordinator C1 |
| | Wang Yue | Project assistant C1 |
| EU Delegation | Lars Gronvald | Counsellor |
| | Yi Xiaolin | Project officer |
| Authors | Tan Zhonghe | CN Expert |
| | Dong Keyong | CN Expert |
| | Sun Bo | Assistant to DKY |
| | Wang Gengyu | Assistant to DKY |
| | Song Xiaowu | CN Expert |
| | Zhang Luqin | Assistant to S XW |
| | Xing Wei | Assistant to S XW |
| | Guan Bo | Assistant to S XW |
| SPRP | JV Gruat | C1 Resident expert |
| | Koen Vleminckx | EU Expert |
| | Fang Lianquan | Main Expert (Research) |
| | Wang Qingqing | Component assistant |
| | Lin Guowang | Interpreter |
| | Zhao Qing | Interpreter |

ANNEX II – PROGRAMME OF THE PANEL DISCUSSION MEETING**Chairperson:** MS. JI NING, COUNSEL,

DEPARTMENT OF EMPLOYMENT AND INCOME DISTRIBUTION, NDRC

| | |
|---|--|
| 09.00 – 09.15 | Welcome speeches - Ms. Ji Ning, NDRC - Mr. Lars Gronvald, EU Delegation |
| First Session: Topic 1.1.1 - Social insurance administration systems reform [contributing to the elaboration of the XIIIth National Five Years Plan (2016-2020)] | |
| 09.15 – 09.45 | Draft Report presented by Mr. Tan Zhonghe, Short term expert |
| 9.45 – 10.15 | Comments submitted by European expert Mr. Koen Vleminckx and colleagues |
| 10.15 – 10.45 | Comments submitted by NDRC and general discussion |
| 10.45 – 11.00 | <i>Coffee – Tea break</i> |
| Second session: Topic 1.3.2 - Social pooling of the basic pension component (Evaluation of the combination of social pooling and individual accounts techniques in pension schemes for employees) | |
| 11.00 – 11.30 | Draft report presented by Mr. Song Xiaowu |
| 11.30 – 12.00 | Comments submitted by European expert Mr. Koen Vleminckx and colleagues |
| 12.00 – 12.30 | Comments submitted by NDRC and general discussion |
| 12.30 – 14.00 | <i>Lunch break</i> |
| Third session: Topic 1.3.4 - Multi-tiered design of pension systems (public pension, enterprise annuity and individual pension) | |
| 14.00 – 14.30 | Draft report presented by Mr. Dong Keyong |
| 14.30 – 15.00 | Comments submitted by European expert Mr. Koen Vleminckx and colleagues |
| 15.00 – 15.30 | Comments submitted by NDRC and general discussion |
| 15.30 – 15.45 | <i>Coffee – Tea break</i> |
| Fourth session: Work ahead, and conclusions | |
| 15.45 – 16.30 | <ul style="list-style-type: none"> - Tentative identification of most suitable European best practices by European Expert Mr. Koen Vleminckx - Work plan and forthcoming activities by EU C1 Resident expert Mr. Jean-Victor Gruat - Remarks by the representative from EU Delegation in China - Recommendations by NDRC C1 Coordinator Ms. Tang Ling - Conclusions |

Topic 1.1.1.

**Contributing to the elaboration of the XIIIth
National Five Year Plan (2016-2020)]**

Tan Zhonghe

Mr. Tan Zhonghe is Director of the Old-age Pensions department in the Social security institute of the Ministry of Human resources and Social security of the People's Republic of China. He has a masters degree in Engeenering from the Beijing Post and Communication Univerisity. He is a Member of the China Social Insurance Council , of the National Standardization Technical Committee, of China Medical Insurance Research Council. Mr. Tan is Standing Director of the Annuities Branch of China Social Insurance Council, member of the Acedemic Committee of China Academy of Labor And Social Security and Evaluation Expert of the National Social Science Fund Project

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Research Report on the Development of China's Old-age Insurance for the 13th Five Year Plan period

Tan Zhonghe

From the onset of the 12th Five Year Plan period, a social security system covering urban and rural residents has been tentatively established, with expanding coverage, growing participants, and enhanced the social security. Significant stride has been made in the undertaking of social security, which laid a solid foundation for the development of social security during the 13th Five Year Plan period.

The 13th Five Year Plan period is a critical stage in reforming our social security system, and a key period in integrating social security systems for urban and rural residents. Old-age insurance scheme is one of the most important components of China's social security system, and was among the earliest for reform among China's social security programs during China's transition from planned economy to socialist market economy. Although an old-age insurance scheme covering urban and rural areas has been basically established, there are still prominent problems, such as unsound policies and mechanisms, unbalanced development, and unsustainability. This report puts forward the development targets, reform tasks, measures and suggestions for the development of old-age insurance scheme, on the basis of summarizing the achievements of reform and development during the 12th Five Year Plan period, analysing the situation and major existing problems. It aims to serve as reference for the authority's efforts in formulating guidelines on social insurance development during 13th Five Year Plan period.

I - Main achievements and experience for old-age insurance scheme during the 12th Five Year Plan period

From the onset of the 12th Five Year Plan period, while deepening economic reform, China paid great attention to the building of old-age insurance scheme. A series of policies and measures have been formulated and issued, the development of old-age insurance scheme have been constantly promoted, the function and effects of old-age insurance have been given play, old-age insurance has played an important role in

ensuring people's basic life, promoting economic development and maintaining social stability.

(1). Evaluation Criteria and Methodology

China established a basic old-age insurance scheme for employees of urban enterprises in 1997, which covered employees of urban enterprises and freelancers; pilot programs for new rural social insurance experiment and urban social old age insurance have been launched in 2009 and 2011 respectively, in the year of 2012, the two schemes have covered all of the country's population, in 2014, the two programs have been integrated as a unified basic old-age insurance scheme for urban and rural residents. In light of international experience and reality of China's old-age insurance, this evaluation plans to further explore the indexes including coverage of old-age insurance scheme, suitability in fund raising, adequacy of insurance and fund sustainability.

1. Coverage

Coverage criteria considers the coverage rate of old-age insurance for employees of urban enterprises, as well as urban and rural residents; the coverage rate of old-age insurance. See attached document one for implications and explanations of indexes concerned.

2. Suitability in Fund Raising

Suitability reflects the burdens of fund raising imposed on the two schemes and the coordination of the two schemes. Choose 1) actual contribution rate, coefficient of contribution burdens on enterprises; 2) increase of per capita old age insurance contribution made by urban and rural residents, burdens on individuals.

3. Adequacy of Insurance

Choose replacement rate of pension as the measure of salary levels. The measure reflects the level of basic old-age insurance, which should not be too low or too high, and should be maintained within a proper range.

4. Sustainability of Funds

During the reform process of old-age insurance scheme for employees of urban enterprises, due to unspecified channel for cost payment, social pooling funds have used money from personal accounts, which is in reality still a pay-as-you-go system, only part of

the provinces and cities had pilot programs in opening personal accounts. Therefore, accumulative surplus rate of basic old-age insurance fund for employees of urban enterprises, return on investment of personal accounts, return on investment of old-age insurance fund on personal accounts of urban and rural residents, the payment of financial subsidy have been chosen as sustainable measures.

(2). General Judgment and Evaluation

Based on the measures mentioned above and analysis on the condition of regions investigated, the following judgments have been made on the development of reform on China's old-age insurance scheme during the 12th Five Year Plan period:

1. An old-age insurance scheme covering urban and rural areas have been basically established and improved gradually

During the 12th Five Year Plan period, a series of supportive regulations and policies have been rolled out, which centred on the implementation of Social Insurance Law. The old-age insurance scheme that covers urban and rural areas has been further improved.

1) Launched urban social old age insurance pilot on top of the 2011 new rural social insurance experiment, the two schemes had covered all of China's population in 2012, and had been integrated into a unified old-age insurance scheme for urban and rural residents in 2014, to that date, China had fully established an old-age insurance scheme covering urban and rural areas;

2) Launched old-age insurance reform on government organizations and public institutions in 2015, bringing more than 40 million employees of government organizations and public institutions into the old-age insurance scheme enjoyed by employees of enterprises. The establishment of the two basic old-age insurance scheme platforms for urban and rural residents signifies the basic establishment of a framework for China's old-age insurance scheme;

3) Further improved the social security policy for farmers whose land have been requisitioned, the work on social security of migrant workers and land requisitioned farmers has been progressing steadily. Freelancers, migrant workers, land-requisitioned farmers and foreigners who work in china should participate in social insurance according to law. Old-age insurance scheme has covered all of the population;

4) A multi-layered old-age insurance scheme is improving. Policies on individual income tax of enterprise and occupational annuity, encouragement for social organizations, foundations and privately-owned units to establish enterprise annuity have been further clarified. Encouraging capable social organizations, families and individuals to participate in commercial insurance and individual savings;

5) Meanwhile, made concerted efforts to carry out research on top-level design of old-age insurance scheme, studied major issues related to reform and development of old-age insurance, including improvement of individual accounts of old-age insurance for urban employees, national comprehensive arrangement of basic old-age insurance plan for urban employees, investment and operation of old-age insurance foundations, pension adjustment mechanism and postponing of retirement age in a gradual way, raising social security funds through various channels. Opinions from various parties have been solicited, relevant policies will be released soon.

2. Fast Expanding Coverage

Coverage of old-age insurance scheme has been expanding from cities, towns to villages gradually, from state-owned enterprises to enterprises of various forms, from employees with stable jobs to jobless group, or group with unstable employment. By the end of December of 2014, 842.32 million people have participated in basic old-age insurance scheme, which was an increase of 134.3% or 482.45 million people. Basic old-age insurance for urban and rural residents, in particular, has seen 501.070 million people joined in just within 5 years since 2011, when the new rural social insurance experiment begun. See table 4 for the number of people participating in basic old-age insurance scheme between 2010 and 2014.

Table 1 - Participation in basic old-age insurance from 2011 to 2014 (Unit: .000 people)

| Year | Total number of people participating basic old-age insurance | Including | |
|------|--|-------------------------------|---|
| | | The number of urban employees | The number of urban and rural residents |
| 2011 | 61573 | 28391 | 33182 |
| 2012 | 78797 | 30427 | 48370 |
| 2013 | 81968 | 32218 | 49750 |
| 2014 | 84231 | 34124 | 50107 |

In addition, a number of prominent problems left over by history have been resolved. Over 10 million people including land reclamation employees, retirees of enterprises who didn't participate in old-age insurance scheme, urban residents who used to work at state-owned enterprises during 1960s to 1970s and had not participated in basic old-age insurance scheme, and their family members who worked at the same enterprises with them without signing labour contracts with employers.

In 2014, Ministry of Human Resources and Social Security issued *Notice on Implementation of Registration Plan on Universal Coverage of Old-age Insurance Scheme*, (issuance No.[2014]40), which decides to gradually implement *Registration Plan on Universal Coverage of Old-age Insurance Scheme*. The plan is based on laws and regulations including *Social Insurance Law*, and aims to the universal coverage of social security. The plan, through measures including information comparison, household survey, centralized data management and dynamic updating, records, reviews and exercises standardized management on participation of various groups in social security scheme, so as to promote the campaign in ensuring employees, urban and rural residents to be fully covered, and continue to participate in old-age insurance scheme.

3. Level of Insurance steadily improved

During the 12th Five Year Plan period, old-age pension of enterprises' retirees have been adjusted constantly, in 2014, per capita pension reached 2,500 yuan, which was an increase of 36.3% compared with the end of the 11th Five Year Plan period. Currently, per capita pension exceeds 100 yuan for urban and rural residents across the country. More and more people have been enjoying the basic old-age insurance. By the end of 2014, 85.92 million retirees, 143 million urban and rural residents have received old-age pension, institutional arrangement for the basic life of urban and rural elderly have been mapped out.

4. Revenue and Expenditure of Funds is Expanding, Financial Strength Improved

In 2014, revenue of the fund for basic old-age insurance (including urban and rural residents) reached 2.76 trillion yuan, expenditure reached 2.33 trillion yuan, cumulative surplus was 3.56 trillion yuan, which increased by 99.09%, 116.87% and 125.77% respectively compared with the end of 2011. From 2011 to 2014, the revenue of basic old-age insurance for employees increased by 20% annually. A fund raising mechanism incorporating the state, employers and individuals have been tentatively established. The anti-risk capability has been greatly strengthened.

Governments at all levels continue to increase investment in old-age insurance, direct financial subsidy for social security has increased year by year. Governments provide urban and rural residents participating in basic old-age insurance with an annual subsidy that is no less than 30 yuan per person. Senior residents aged above 60 living in urban and rural areas are granted with basic pension no less than 55 yuan per person each month. Since 2015, the standard has been raised to 70 yuan per person. In addition, central government offers financial subsidy for basic old-age insurance of employees at central and western regions. Meanwhile, financial channels have been expanding, which serves as necessary capital reserve for challenges of aging population peak. By the end of 2014, fund assets managed by China's National Social Security Fund reached 1.529 trillion yuan.

5. Continue to Strengthen Supervision on Fund, and Ensure Fund Safety

According to Social Insurance Law and relevant laws and regulations, guidelines and regulatory documents have been formulated and implemented, including management rules on Fund Supervision and Inspection Permit, opinions on pilot program of public supervision, Management Rules on Enterprise Annuity Fund, Disciplinary Rules on Staff of Social Security, local governments have been instructed to issue detailed rules on supervision, implementation, regulations on supervision, inspection and law enforcement. Special inspections have been carried out in old-age insurance fund for urban and rural residents and operation of financial subsidy. Fund safety has been prominently enhanced by investigating and handling major cases, and taking precautionary measure while punishing people held accountable. Networking and application of fund supervision software has been progressing steadily, networking and application have been launched in 28 cities of provincial level and 294 cities of prefecture level. The market of enterprise annuity has been gradually standardized, with strengthening market regulation. Relevant institutions have been organized to formulate and sign industry's self-discipline convention, in a bid to promote orderly competition in the market. Professional teams have been built up and strengthened, there have been more than 2,000 fund supervision agencies, over 5,000 staff members are working for the country's human resources and social security system, all of the supervisors at provincial level and two third of supervisors at prefecture or county level have received professional trainings, among which 2,702 have passed exams and have been granted with Fund Supervision and Inspection Permit.

6. Management and Service System Tentatively Established, Service Continue to Improve

Promote the social security management and service system and service networks, which have social security agencies at all levels as the backbone, banks and various kinds

of designated service agencies as support, community labour security work platform as the basis, to gradually expand to villages and towns, administrative villages. Most of the country's villages and towns have set up labour security service stations. By the end of 2013, there had been 8,363 social insurance management agencies of various kinds, which were above county level across the country, the number of staff reached 177-thousand, and there had been more than 300-thousand people engaging in comprehensive public service at grass root level including social security work. Promote the establishment of Golden Social Security Project, realize the integration of social security systems at central, provincial, and municipal level, the basic integration of application software and centralized management of data, a national unified technical supporting platform has been basically formed; carry out new modes of social security business, such as online management, self-service; by the end of 2014, 712 million social security cards have been issued, with applied functions enhanced. A series of national and industrial standards on social security have been formulated, including social security terms and visual identification system, application of standardization has been promoted. Strengthen regulation and management of files on social security business, strengthened internal control mechanism building, promote standardization of business. Strengthen the building of professional teams. Steadily carry out social management, promote the integration of enterprises' retirees into community management, basic pension for enterprises' retirees have been fully delivered by social service institutions.

7. Increasing law-based system

Social Security Law, which was issued in July 1st of 2011, ended the age when China had no basic law in social security sector, this signifies that China's social security has become more law-based. On one hand, successful experience of pilot reforms in social security sector has been elevated to a legal height, on the other hand, the direction for the development of China's social security system has been made even more clear, the implementation of basic old-age insurance scheme should be carried out by integrating social pooling and individual accounts, with the fees collected from governments, enterprises, and individuals, basic old-age insurance for urban and rural residents is mostly paid by governments, with individual payment as support.

(3) Basic Experience

The experience of development of China's old-age insurance during the 12th Five Year Plan period is as follows:

1. *Great attention paid by governments*

During the 12th Five Year Plan period, governments have stepped up establishment of social security system covering urban and rural residents, which was an important work in promoting scientific development, social harmony, and improving people's life. The 17th National Congress of the Communist Party of China put forward the target of ensuring every citizen has access to social security, CPC's 18th National Congress, 3rd and 4th Plenary session of the CPC Central Committee further clarified that an overall plan should be drafted for social security development of urban and rural areas, and targets for more fair, sustainable reform and development should be set. A series of important rules and policies have been issued, greatly boosting reform of social security scheme. Top-level design of old-age insurance has been carried out, which ensures scientific and sustainable development of social security work.

2. *Continue to Increase Financial Input, Promote Universal Coverage of Social Security System*

Social security issues left over by history, including urban residents who are not covered by old-age insurance, retirees of bankrupted and closed enterprises, retirees of collectively-owned enterprises who are not covered by social insurance scheme, people who suffered from work injuries before January 1st of 2014 when *Work-related Injury Insurance Regulations* took force, were resolved by universal coverage of social security system in an efficient way, including adjusting expenditure structure, increasing financial input, establishing old-age insurance system for urban residents, and improving relevant policies.

3. *Continue to enhance fairness, adaptation to mobility, ensure sustainability*

During urbanization process, some issues have been emerging, such as protection of social security rights during labour force mobility between urban and rural areas, between different management systems, and farmers' transition into urban residents. The transition track of social security system has been opened among different regions, as well as between urban and rural areas, thanks to *Rules on Inter-provincial transfer and continuation of Employees' Basic Old-age Insurance* issued in 2010, *Rules on Inter-*

provincial transfer and Continuation of Employees, Urban and Rural Residents issued in 2014, the two documents ensured that labourers' social security right could be accumulated instead of missed during mobile employment, which constantly promoted fairness in the development of social security, and free mobility of nation-wide human resources.

4. Strengthen Management and Service System Building of Social Security, Continue to Improve Management and Service Capability

Continuing the reform of improving old-age insurance policy and paying attention to implementation of all policies. Standardization, professionalism and computerization are centrepieces, with capacity-building of management and service continued to be improved. Formulating a series of management and service standards in social security sector, adopting various forms of training for staff from management agencies at all levels, realizing full computerization of social insurance by focusing on Golden Social Insurance Project.

(4) Major Existing Problems

China made great achievements in social security during 12th Five Year Plan period, but there are also some prominent issues, including:

1. Lack of Fairness

- i. There are still “void” in coverage, especially a number of migrant workers and freelancers have not participated in social security, who lack protection from the system. According to requirement of universal coverage as the target, basic old-age insurance should cover all of the employees at urban and rural areas, as well as residents at proper ages, there have been 840 million people covered by social security, the target stands at whole population and 95% of participation rate, there have been nearly 200 million people who are not covered by social security, after ruling out groups including children and students, people uncovered by social security are mainly migrant workers, domestic helpers, self-employed people in cities and towns, disabled people, young rural residents, people engaged in cyber economy, part of poor population;
- ii. The level of social security benefits for urban and rural residents are relatively low, currently, the basic pension for urban and rural residents are generally lower than subsistence allowance. The scheme is not attractive enough for residents. Social security issues for land-requisitioned farmers, which is a problem left over by history, is still widespread.
- iii. Imbalanced development among regions. According to the share of employees' basic old-age insurance rate, the lowest contribution by units in regions such as

Guangdong and Zhejiang is 13%, while it is 20% in most areas of central and west China; According to the balance sheets of employees' basic old-age insurance fund, imbalance among regions is serious. Currently, fund surpluses in Jiangsu, Zhejiang, Guangdong and Shandong exceed over 100 billion yuan respectively, while surplus in provinces and regions such as Hainan, Tibet Autonomous Region, and Xinjiang Corps are just around one billion yuan respectively.

2. Inadequate adaptation to mobility

The level of integration is still low, with different policies implemented in different regions. Capability of management and service still calls for improvement, building of information systems progresses slower than anticipation, which led to many difficulties in ensuring cross-regional and cross-system mobility of participants. The coverage rate of mobile labour force is relatively low, suspension and overlapping in old age insurance coexist.

3. Lack of sustainability

Against the backdrop of fast aging population, retirement age is relatively low, mechanisms on identification of contribution, benefits, and adjustment still need improving, risks of payment for old-age insurance and medical insurance funds in the future are growing. Stimulus mechanisms for participation and payment have not been given to full play. Investment channels are limited. Administrative power and financial power are not clearly defined between central and local governments, local governments receive a limited amount of financial subsidy. A multi-level social security system has not been effectively reformed, inadequate development has been seen in supplementary social insurance, which shows the trend of overdependence on governments, basic security systems face lots of pressure. Capability in management needs improving, which could not meet demands in the development of integrating social security systems in urban and rural areas.

Burden on employers and individuals are relatively heavy. Employers take relatively higher rate, social security burden for some enterprises, especially small and mini sized companies are heavy, refusal to payment, and payment evasion are widespread; relatively high contribution by freelancers, payment suspension are also serious.

4. Relative backwardness in legal system building of social security

Particularly, there are difficulties in promoting law-based management, rules and mechanisms related to fund supervision and management, supervision and law

enforcement need improving. Multi-department interaction mechanisms, mechanisms for coordination and cooperative investigation are not running smoothly, public oversight is not extensive, and the force of supervision on social security fund is relatively weak.

5. Inadaptability of capability in social security management and service

Service resources of social security management and service are dispersed, problems such as overlapping management and overlapping of functions in government departments; management and service platforms of social security at grass-root level lack capabilities, which can't meet the demand of fast development in social security; IT system of social security is progressing slowly, isolated information island existed, new technical methods such as big data, cloud computing are not playing a part in social security.

II - Main Situation faced by social security development during XIIIth Five Year Plan Period

The 13th Five Year Plan period is crucial in China's efforts of building itself into a moderately prosperous society and deepening reform in a comprehensive way, governments pay more attention to people's life, and social security; economy and society are developing fast, integration of urban and rural areas are accelerating, comprehensive national strength is strengthening, which lay down solid foundation and condition for deepening reform in social security sector.

(1) China is impacted by the Changes in Economic Pattern Transformation

China has entered into new normal period for its economic development. Economic growth rate is slowing down, profit-making capability of small and medium sized enterprises is worsening, unemployment of low-end labour force is increasing, which altogether lead to an increase of the population who suspend social security and contribution; upgrading of industrial structure, adjustment in employment structure, the increasing number of people engaging in service sector, the increasing flexible and diversified employment have all called for strengthening flexibility of social security policy; aging population and continuing increase in benefits, social security spending is increasing, and pressure in fund payment is growing.

(2) Reform Becomes More Difficult

China's has entered into a deep water zone in its reform, with growing difficulties in social security reform and interest adjustment, balance needs to be made during the

comparison of salaries and benefits among groups, unification in management system needs to be achieved by looking beyond sectional interests, level of overall planning should be enhanced by looking beyond regional interests, balance between fund raising and salaries should be ensured in economic new normal. Under the precondition of focusing on the present, and planning for the future, breakthroughs should be made in key issues and major difficulties.

(3) Challenges Facing New Type of Urbanization

The 13th Five Year Plan period is crucial in China's urbanization drive, during the acceleration of new type of urbanization, more forms of employment will emerge, the change in people's identities and frequency of mobility will speed up, the number of cross regional business in social security will increase, which call for an accelerated unification of social security policies, management and standards, increased level of integration, strengthened financial transfer, so as to remove systematic obstacles that hamper smooth mobility of labour forces.

(4) Fast Aging Population

Over the past 5 years, net increase of population above the age of 60 reached 41 million, aging rate increased by 2.74 percentage points. During the 13th Five Year Plan period, the trend of aging will continue, according to forecasts, by 2020, the number of people aged above 60 will reach 254 million. The number of employees will decrease, dependency ratio will increase, pressure of ensuring long-term balance of old-age insurance fund will increase, and impact of aging population on social security will increase. At the same time, problems are becoming serious than before, for instance, investment channels for social security funds are limited, rate of return is low. How to tackle fast aging population, ensure sustainable development of social security system during peak time of aging population, is one of challenging issues faced with social security reform during the 13th Five Year Plan period.

(5) New expectations

Full coverage of social security and increasing demand of people for social security raise new and higher requirements for systematic building of social security and public service system building. With the awareness of rights protection in social security of the general public, people have more and higher demands for having access to more convenient and faster social security service. Comparison of benefits among different groups is growing, integration is becoming harder among different social security programs (such as pension and subsistence allowance). The gap between growing demand in social security of urban and rural residents, and limited supply has been even

more acute, it's urgent to constantly improve social security system and policies, while paying more attention to the building of public service system, so people's growing demand for social security can be met, and different groups can fully enjoy achievements made by economic growth.

III - Development Targets and Guiding Principles of Social Security System

(1) Main Targets

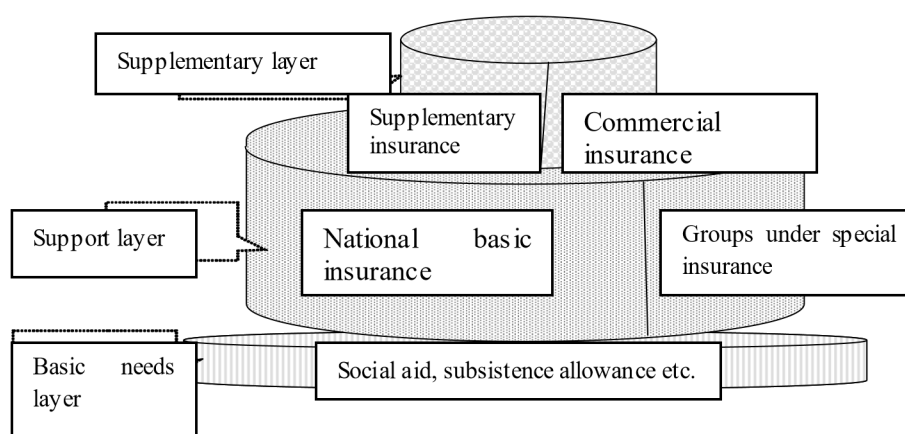
The main target for China's social security reform during the 13th Five Year Plan period is, centring on the target of building China's into a moderately prosperous society, efforts should be made to follow the policy of making coverage universal, ensure basic living needs met, offer multilevel and sustainable social security, focus should be put on strengthening fairness, adaptation of mobility and ensuring sustainability, so a more fair, sustainable social security system featured with basic systematic framework, improved mechanisms and systems, basically completed welfare items, increasing benefits, strengthened fund security, smooth and orderly coordination of systems, effective and convenient management and service, and universal coverage will be built.

(2) Specific Targets

1. Improved systems, sound operation mechanisms

A multi-level old-age insurance scheme with Chinese characteristics has basically taken shape, which includes three levels in its structure: "basic needs layer" is to solve issues for low-income and impoverished groups in urban and rural areas by providing them with social assistance and welfare (such as people receiving subsistence allowance and households enjoying "the five guarantees"); "support layer" has social security as the centrepiece, on the basis of five social insurance categories, to consolidate basic old-age insurance for employees and basic old-age scheme for urban and rural residents; "supplementary layer" focuses on the development of enterprise and occupational annuity, further improvement of policies such as supplementary medical insurance, medical aid system for serious disease, and fast development of commercial insurance. Efforts should be made to ensure basic insurance coordinates effectively with policies of subsistence allowance, social welfare, social assistance and commercial insurance.

Chart 1 shows structure of framework of China's multi-level social security system



2. Realize universal coverage of old-age insurance basically

On the basis of consolidating existing number of participants, focuses will be put on bringing freelancers, migrant workers and low-income rural residents into coverage, coverage rate of basic old-age insurance increases from current 85% to around 95%, which is around 1.05 billion people.

(3) Steadily improve security level

Steadily improve employees and urban residents' basic old-age pension, meanwhile, make overall planning on adjustment of benefits of old-age insurance for urban and rural residents, so that all of the elderly aged above 60 could be lifted out of poverty, consumption could be expanded, consumption outlook would be stable, the strategy of boosting domestic demands should continue to be promoted.

4. Establish and improve regular adjustment mechanism of old-age benefits, economic growth, price levels, fund strength should factor in pension adjustment

Adjustment in old-age benefits of governments, public institutions, enterprises, urban and rural residents should be considered in a comprehensive way. It is needed to ensure elderly in urban and rural areas could enjoy achievements of social and economic development, with basic living guaranteed.

5. Further enhance the level of overall planning, promote proper personnel mobility

Implement overall planning of basic old-age insurance of enterprises' employees, properly define responsibilities of the central government and local governments in basic old-age insurance, further improve policies related to the coordination of old-age insurance among different regions for migrant population.

6. Improve the long-term mechanism for tackling risks brought about by the peak of aging population, and realize long-term balance of funds

Further strengthen stimulus measures featured with coordination of benefits with payment, keep actual contribution rate at a high level; properly increase the minimum terms required for payment, gradually postpone retirement age, improve dependency ratio; establish regulated social security budget, increase share of social insurance expenditure of governments at all levels in financial expenditure; carry out investment and operation of pension funds for maintenance and appreciation of values; open up new channels for fund raising, expand scale of national social security fund, increase strategic preservation, which could be put into use during peak time of aging population.

7. Establish a management and service mechanism of social security featured with clearly defined responsibilities, scientific arrangement of institutions, well-regulated personnel management

Integrate management and service resources of the society, promote one-stop management and service for different insurances, actively study ways of service in government purchase, outsourcing of social security serve; basically complete the building of a public service network that covers the whole society for social security. The number of card holders reaches 1.2 billion; ensure all-in-one-card service of social security, which can be commonly used across the country. Comprehensively promote standardization, computerization and professionalization of social security management and service, offer effective, convenient and secure social security service for the people, realize the target of “recording, securing, servicing life” for participants.

(4) Guiding Principles

The following rules should be observed in order to achieve the target set for social security system building during the 13th Five Year Plan period:

1. Ensure balance between rights and responsibilities, integration of fairness and effectiveness

As a major way in redistribution of national income, fairness should be highlighted. Design of social security system should include arrangements featured with universal benefits, governments should take the responsibility of ensuring basic living standard of impoverished groups; a mechanism of defining benefits of social insurance for different groups and regular adjustment mechanism should be set up, so that interests of all parties could be properly adjusted for social harmony. Meanwhile, contributory social insurance

should act as the core scheme in social security, with functions of mutual support between social pooling account and individual account and risk diversification. Put emphasis on the balance of rights and obligations, namely benefits and payment, promote honest and hard work, and avoid repeating setbacks which some countries have taken before, whose welfare systems unable to sustain due to excessive welfare.

2. Ensure basic systems taking shape and becoming stable

China's basic old-age insurance and basic medical insurance system featured with integration of social pooling and individual accounts are right choice made in light of basic national situation, and successful stories of other countries. The systems have been operating for many years, and gained acknowledgement from every walks of life. The basic system should be consolidated during deepening reform, and continue to make improvements, instead of rejecting the system and making repeated mistakes.

3. Unifying and standardizing basic policies

China's social insurance reform is promoted gradually on the basis of local pilot programs; it is inevitable that there are contradictions such as different policy standards, division of management rights in some regions during the development of the system. The basic direction of deepening social security system reform is unify basic policies, fund management, management and service process across the country, establish national integrated social security information protection system, so as to ensure the overall interests of people across the country. It is an inherent requirement of improving socialist market economy, and a key factor in ensuring market plays a decisive role in allocation of human resources.

4. Making overall considerations, progressing in a coordinated way

Realize balanced development by strengthening top-level design, coordinating economic and social policies, urban and rural development, relations between social security reforms and other reforms, considering relations among five social security reforms, in a bid to realize balanced development; enhance the level of the rule of law, and law-based capability in management and service in a coordinated way, promote building of a multi-level security system, so as to realize comprehensive development; coordinate development at present and in the future, properly define responsibilities taken by the nation, units and individuals in old-age insurance, activate enthusiasm of all parties, realize sustainable development.

5. Adhere to universal coverage, ensure every one enjoy social security

Universal coverage is the basis of ensuring every one enjoy social security. Universal coverage should be realized by focusing on resolving systematic loopholes, efforts in promoting the universal coverage. On the basis of consolidating the number of urban employees participating in social security, the coverage should be expanded continually, efforts should also be made in reforming and improving existing security

systems, polices, and social security management service, so as to ensure small and medium sized enterprises, jobless urban residents, flexible employees and farmers all covered.

6. Adhere to the principle of moderate insurance, with the priority target of ensuring people's basic living needs

The level of China's productivity is generally low, development gap between urban and rural areas is relatively large, social security system should not transcend objective conditions of economic development, its level should not be excessively increased, instead, it should match with the level of economic and social development, the progress and efforts should be properly made in reform process.

IV - The main content and policy suggestions for social security system building during the 13th five-year plan period

According to the development target and basic principles for social security during the 13th five-year period, the main contents of social security reform are as follows:

(1) Further improve retirement pension system

1. Promote urban and rural old-age insurance in a coordinated way to achieve a full coverage

Coverage rate is one of the basic measures to evaluate the effectiveness of the old-age insurance system. It is also the important task for China. Now the coverage rate for the developed nations in Europe and the US is around 90%. By 2020, China's total population will reach 1.434 billion. The basic old-age pension system should cover 1.05 billion. Targeting the 95% coverage rate, it should reach 1 billion people (workers basic endowment insurance 440 million people and residents' old-age insurance 560 million people). Among them, people entitled for basic old-age insurance should be 286 million (workers basic old-age insurance 126 million and residents' old-age insurance 160 million). Now the basic old-age insurance has covered 840 million people. To achieve a full coverage, it should cover another 160 million people in the future 5 years. Among them, workers basic old-age insurance should at least add 110 million. Considering 40 million staff at governmental and public organizations incorporated into workers basic pension system, at least 10 million should be added each year. Urban and rural old-age insurance system should add 50 million in total, and 10 million each year.

Regarding the difficulties for a full coverage, in towns, it falls on the migrant workers, internet economy employees, housekeeping personnel, self-employed people

and the handicapped. Most of them work in non-public sector and micro businesses. Due to its small economic scale, flexible operational model and instable employment and low income, they lack the ability to pay for the premium. In rural areas, it mainly falls on young people who don't have the willingness to pay and some poor people who don't have the ability to pay. Targeting the conditions above, we should gradually incorporate qualified people into the system by combing law enforcement and interest's orientation, and policy improvement and promotion.

2. Improve insurance policy for residents and self-employed people

We should further improve incentive mechanism of paying premium more and getting insured more, to mobilize the individually employed businesspeople, flexibly employed people and urban and rural residents to get insured. For residents who choose high-end premium and for a longer-period premium, we could appropriately increase government subsidy and give additional basic pension, guide by interests and step up insurance management to encourage consistent and longer premium. For the people living on minimum subsistence allowances and the handicapped, we should improve the policy of government supported payment. Targeting the prominent issue of suspending premium by the low-income group and flexibly employed people, we should improve the statistical methods of social average salary, by including that of the private companies into calculation. Thus it could lower the payment base and increase the premium elastic range, by expanding the base from 60% to 300% of social salary, thus keeping consistent with enterprises workers premium range and facilitating them to choose how much to pay according to their own conditions.

3. Improve connection method of endowment insurance

At present, the policy of interprovincial transfer of workers basic pension and connection of workers basic old-age insurance and rural and urban residents social endowment has been carried out steadily. It solve the problem for transregional transfer of workers insurance (including migrant workers) and the connection between workers and residents insurance. But in actual condition, they still face difficulties in transfer and connection and the high cost for the move and some of them even cannot transfer their insurance. We should speed up unifying operation process for transfer and connection and improve the nationwide unified information system of social security to curb enjoying repeated insurance and standardize and computerize transfer and connection to provide convenient service for insured people.

4. *Improve individual account system of basic old-age insurance for urban workers*

At the beginning of the century, the state council of China, while creating social security strategic reserve fund, was determined to carry out pilot of consolidating workers basic old-age insurance individual account to accumulate partial fund for future. Evaluating on the more than 10-year operation, these measures are of important strategic significance for coping with ageing of population and alleviate fund payment pressure under future accounting on the cash basis. But consolidating pilot program also faced with prominent problems. Some regions faced great pressure in ensuring current cashing. Companies were heavily burdened. Effective investment channels were lacked to preserve and increase value for consolidating fund. Various regions lack initiative to do it and to continue to expand the fund was faced with severe challenges. We need to adjust policy and make a directional choice. The main purpose of creating individual account was to clarify the old-age insurance responsibility between government and individuals. Only this function was played out, consolidating or not consolidating all can be a choice. It will not affect the basic model of accounting on cash and partial accumulation in general. On the condition that the strategic reserve fund has been created and continued to expand, we can choose not to deposit another sum of money to consolidate it. There have been different views on individual accounts in the international community. The International Labour Organization, and the International Social Security Association consistently oppose the accumulation system of personal savings without the function of mutual aid. The World Bank, previously advocated strongly consolidating individual accounts, but recently it proposed that China could implement individual nominal accounts. Seeing from the different countries' practice worldwide, there are those who took individual accounts, while others nominal accounts. On comprehensive analysis and considering that China can hardly meet the condition to consolidate individual accounts in a long period of time (huge cost in payment system transition and difficulty in achieving good investment return for doing it), China could consider not to continue to consolidate the individual accounts of workers basic old-age insurance, rather it could take individual accounts as an incentive treatment. Suggestions: First, adhere to solid account accumulation for urban and rural residents' old-age insurance individual account. This fund is from individual payment and has not burden of historical debt. It cannot be used for basic pension and must be invested standardized, and keep account according to actual investment earnings. Second, standardize workers' pension individual account interest rate. Due to long-term capital nature of the premium, to maintain the replacement rate of the individual account endowment, the accounting interest rate should be set on comprehensively considering the growth of workers' salaries and the factor of rising of

commodities prices. It should be released by the nation annually. All these are to encourage people's incentives to get insured. Third, appropriately cut companies' premium rate and promote supplementary old-age insurance. Workers personal premium will be fully pooled into coordinated funds to ensure people get insured timely and to alleviate payment pressure for that purpose. Meanwhile, Companies' premium should be cut down appropriately and they are encouraged to use some of the money to build a supplementary pension so as to promote the building of a multi-level security system and reduce the future capital pressure.

5. Accelerate achieving a nationwide planning of workers old-age insurance on the basis of summarizing province-level planning experience

Internationally, for the countries practicing a basic old-age insurance system, they all take uniformed system and policy nationwide and uniformed operation of funds. And rarely is there a phenomenon of different regions taking their own policies and managing their own funds. China took a path on which some regions engaged in pilot program at first, and then the country summarized the experience and gradually made it a standardized national policy. It played a positive role for exploring ways, improve policy and ensure people get insured timely at the initial stage. But there were problems such as not uniformed policy, regional segmentation and ambiguity of power and responsibility between central and local governments. At present, half of the balance of funds for workers old-age insurance are concentrated in very few eastern provinces. Different regions have different dependency ratio and premium for the companies, from 13% to 21%. In recent years, as the provincial planning system was put in practice, policy was uniformed and funds can be transferred for use within the province. And stimulus and constraint mechanism for localities by the provinces was also built. All these laid a foundation for nationwide planning. According to the requirement of law of large numbers of social insurance, the objectives of the nationwide planning are to carry out unified system and policy and management process and information system across the country by stepping up central government's decision-making mechanism. The objectives also coordinate the use and management of the funds, balance regional burdens, strengthen the anti-risk capability of the funds and facilitate flow of the people got insured to promote the formation of a unified labour market and fair competitive market environment. The core is to clarify the financing and payment responsibility of the central and local governments on basic old-age insurance fund, clarify power and responsibility and mobilize the incentives of both central and local governments by combining the conditions of present finance management system and regional imbalanced economic

development. The planning could consider starting from workers basic old-age insurance and followed by the one of the government and public organizations' staff. The urban and rural residents' old insurance could not meet the condition to incorporate into national planning, because its system is different from the workers' basic old-age insurance, and their financing channels and treatment setting mechanism are also different.

It is not suitable to practice unified collection and allocation of funds by the state for the nationwide planning. We could consider taking partial planning for current funds collection and payment to create central planning funds. Through the adjustment by this fund can we effectively balance burdens between regions and alleviate the problem that in some places they have too much reserves while others lack money for payment so as to promote unified premium rates and leave rooms for reducing employers' rates.

6. Setting a criterion for financing and social security that commensurate with economic development to avoid insufficient security or excessive security

Financing and treatment level concerns not only the healthy operation of the old-age insurance but also the economic burden of the employers and the individuals and the basic living condition of the people got insured. Thereby it affects the social and economic development. Therefore, we should set a criterion for financing and social security that commensurate with economic development.

- i. Adjust properly the premium rates for the organizations in a timely manner

According to the ranking of 164 countries listed in Global Social Security, the sum of premium rate by both the organization and individual reached 28%, ranking the 13th. The rate is relatively high. It is mainly because the companies' old-age insurance premium shoulders the system transition cost and state-owned enterprises reform cost. Because before the system transition, the old people have no individual account accumulation, the middle-aged people have no fund indemnity during the period regarded as payment one and nearly 10 million people retired in advance during the SOEs reform period from 1998 to 2006, current payment mainly relied on payment from companies and individuals. Meanwhile, the low overall planning and imbalanced fund balance reduced the fund use efficiency. The huge gap between premium basis and salary statistics also caused the virtual-high of the premium rate (premium rate which is 20% in 2012, if calculated on the social average salary that included private companies, would be 16%). The relatively high premium rate made the financial burden for companies heavier and constrained the improvement for competitiveness. At the same time, it exacerbated

the payment evasion and resulted into a vicious circle. Our studies show that the system transition has not ended yet, the payment for the period regarded as payment one will continue for about 20 years, and as the peak for ageing is coming, the total premium rate has no room for a big down adjustment. Considering such factors as the government will continue to increase subsidy, more people will be get insured, premium salary base will be standardized, structural problem for fund will be solved by national planning and the capital use efficiency will be improved, we could properly adjust the employers' premium rate for old-age insurance. The rate for individuals will not be changed, as 8% is relatively suitable.

ii. Properly setting the replacement rate of the basic old-age pension

The Social Security (Minimum Standards) Convention (No. 102) by International Labour Organization, which took effect in 1952, stipulates that the minimum old-age allowance for the people got insured for 30 years, should be no less than 40% of their average salary. The new standard in No. 128 Convention in 1967 was 45%. Among the over 160 countries that have old-age insurance system, about 78% of them have a comprehensive replacement rate (basic + supplement) over 60%. The rate for developed countries like France, Germany, Japan, and UK was 62%, 52%, 49% and 47% respectively. Based on the above conditions, we believe that the average replacement rate for the primary treatment is better to keep between 45% and 70% due to the small share of the supplementary insurance in China. The target replacement rate for the urban and rural residents' pension should be set as 50% of the net income of farmers during last year, with basic pension and individual account taking half and half.

iii. Setting a normal adjustment mechanism for basic old-age pension

Setting a normal adjustment mechanism for basic old-age pension is an important measure to guarantee the basic living standards for the retirees and also an important manifestation for them to enjoy the fruits of economic and social development. International experience told us that the countries with the system all had a growth mechanism for the pension standard in relation with the change of prices and salary growth. China has for several times, adjusted the basic old age pension for the retirees since it had the system. But a scientific and standardized mechanism has not been built yet.

The basic thinking for setting a sound mechanism is to improve the old-age pension adjustment mechanism for company employees, and based on that, to gradually build a sound one covering government, public organization, and company employees. The adjustment of basic old-age pension should be based on price fluctuation and growth

of workers' salaries and the adjustment range should consider the salary growth rate and price index and the basic old-age insurance fund and the capacity of the fiscal support. To curb the situation that people stop to pay premium after a full 15 years, and try every possible way to retire in advance, we should continue the principle of paying more, getting insured more, and while adjusting basic pension, we should emphasize on premium duration and level. We should also reduce the range of quota for universal adjustment and increase the treatment for those who retired later. And in principle, we will not lean our policy on the group with special identity. Meanwhile, the country should also adjust the minimum standard of the basic pension for rural and urban residents according to the economic development and price fluctuation.

7. Postponing retirement age in a gradual manner

Retirement age is an important factor affecting the old-age insurance system. The present practice that the male workers retired at 60, female leaders 55 and female workers 50, started since the 1950s. On the one hand, the retirement age is low and there are also some policies for retirement in advance. The actual age for getting pension was only 54, while the life expectancy for urban population already reached 78 and is becoming longer. On the other hand, the different retirement age for female workers and leaders resulted in conflicts in reality. At present, the threshold age for urban and rural residents to get pension has been the same, which is from 60. That for the individually insured was 55. As the economy and society develops and the average life span extends and people are receiving longer education, it is an inevitable trend to postpone retirement age. We should do it properly on considering the factors such as demand and supply of labour, education level, and life expectancy and fund balance. It could be done in two steps by starting from extending the retirement age for woman first and then for man. Firstly, we could adjust the retirement age for female workers from 50 to 55. Secondly, extending that for male and female workers simultaneously, from 55 to 60 and from 60 to 65 respectively. It is advised to release the plan during the 13th five-year plan period to solicit people's voice. And after amending and improvement, the plan is to put into practice during the 14th five-year plan period. We should give people an about 3-years preparatory period to arrange their career and life after retirement. Meanwhile, we should study and improve some supported policies on the retirement for those who did heavy manual work. We should cancel the policy on advanced retirement because of illness. For those who lost their working ability, we could give them allowance according to related regulations and let them retire when they meet the age requirement. For those individually insured people, we should also adjust their retirement age in a timely manner

and improve the policy to promote their employment and encourage employers to create posts suitable for old-aged people and guide them to work or start their own businesses.

8. Promote fund investment to preserve and increase its value

As the social insurance develops, the balance of old-age insurance fund increases rapidly. With the acceleration of urbanization, more and more will take part in the old-age insurance program in the future, so the fund will also increase and it is expected to reach an accumulation of nearly a trillion Yuan in the coming 10 years. Months ago, the Ministry of Human Resources and Social Security and the Ministry of Finance sought people's advice on the Regulation on Investment and Management of the Basic Old-age Insurance Fund. That means the balance fund will go to market for investment. The regulation stipulates the channels for fund investment and its capital quota. It should be put into practice as soon as possible after soliciting opinions. The old-age insurance fund in the world, whether it is full accumulation system or pay-as-you-go system, all take a strategy of diversified investment to preserve or increase its value. Some conservative investors, such as Singapore's central public reserve fund, began to gradually change their style. The fund account was only allowed to buy special state bonds before, but now it could go for market investment. Meanwhile, those fund, which was only used for market investment previously, such as the individual account of Chile, the DB, DC fund of the US, Canada's pension planning, and California's government employee retirement fund, all expand the quota of equity asset and are trying other investment channels. The fund from some countries also tried going global for investment. All these show that against the backdrop of ageing society, slowdown of economic development in many developed countries and the economic globalization, all countries actively use the force of market and seek more returns by diversified investment to reserve and increase the value of their old-age insurance fund, relieve budget burden and improve its replacement level. However, practice proves that the marketed and diversified investment for the old-age insurance fund is not accomplished at one stroke. It all started by investing on fixed income products, and then as the capital market developed and improved, and the managing organization improved their ability to steer the capital market, they began to increase the quota of equity assets. The regulation on investment of China's old age insurance fund, told us it takes time for related policies and management to improve, for the coordination and cooperation among decision-making, executing and supervising bodies, for the shaping and improvement of multilayer capital market and for the investment organizations to improve their ability to cope with changing financial market. So all these determine that the marketed and diversified investment should be done in a gradual way. In light of the special nature of old-age insurance fund, safety and appropriate mobility

are more important than its profits. At present, China's capital market indeed has the drawback like lack of financial products, unstandardized operation of listed companies and lack of a multi-layer and multi-structural market. Therefore, we advise to combine fund investment with regional economic development. Only the fund promotes social and economic development, can it be share the fruits of economic development and accumulate real and tangible purchasing power. On this, the international practice has given us rich experience. Singapore's central public reserved fund was invested in infrastructure building, the huge house leasing program in particular to let everyone has a house to leave. The country's employees' reserved fund, after privatization, was used to support private economy. It promoted the infrastructure building such as power station, airport, highways and port by buying non-public bonds and direct loans, stimulating economic development as a result. The California's government retirement fund also put local investment a priority, and is always an important part of local economic system. All these show that the purpose of old-age insurance fund is not only for the increase on the accounting, but also for promoting the regional economic development. The latter is the root for preserving and increasing the value for the fund. China's capital market needs further improvement and standardization. This condition determines that the present investment focus for China's old-age insurance fund is to support real economy. On the one hand, it could be used to support infrastructure building through loans, purchasing state bonds or bonds issued by local government. It could be in particular used to support affordable house building program. On the other hand, we could increase its investment in private equity to help the development of small and medium companies with huge potential (like high-tech and bio-tech companies) to achieve a high return.

Risk accompanies investment. Therefore, we need a series of supporting measures and policies. One is to set up a system and mechanism to guard against risks. One of the important measures is to set up a system on investment evaluation and grading, information releasing and a mechanism on exit and access. On evaluation and grading system, emphasis should be put on evaluating and grading different investment products and the operation organizations. We advise to put the old-age insurance fund operation on the agenda of each year's Two-Sessions (National People's Congress and Chinese People's Political Consultative Conference) and release related information to the public. It is money for people's future use, so people's right to participate, to know and to supervise should be given a full play. Second is to improve legal system for pension fund investment and management. The State Council should step a management system for old-age pension fund to clarify related contents, regulate on related departments and behaviour of the investment organizations. Third is to set up a supervision system for fund

investment. We advise the Ministry of Human Resources and Social Security to set up an Investment and Supervision Bureau for Old-age Pension Fund. Their task is to supervise the investment of pension fund, enterprise annuity, occupational annuity and national social security fund. The role of social supervision and supervision by other departments should be played out. Fourth is to clarify pension fund collection and distribution of investment returns. Fifth is to improve investment risk prevention and control mechanism. We should strictly limit investment scope and ratio. The fund should not be managed together with other types of capital. The investment organization should draw some money out of their management fee to compensate possible losses. Related organizations should set up system for internal control to earnestly step up risk management.

9. Fully implement the old-age insurance reform of government organizations and public institutions

The specific policies on reforming old-age insurance of the public and government organizations have been clarified and will be put into practice in 2015. The difficulties are as follows: First, how to guarantee a smooth transition for the middle-people (who work before reform and will retire after reform) in these organizations under current policy while ensuring their treatment not affected. Second, how to ensure the pension for those people who worked at public organizations but were not on their official payroll. Most of them are to retire soon. They cannot take part in old-age insurance scheme for public organizations and have not been in workers' insurance scheme. Third, some public institutions are not fully reformed. They may face difficulties to pay premium, as the premium rate for them is 20% and individual, 8% and a further compulsory occupational annuity. We suggest related departments to carry out specific measures to solve these difficulties.

10. Set up a system of treatment for family members of the deceased and allowance for the sick and disabled

We should set up a system for treatment for family members of the deceased who got insured and allowance for the sick and disabled because of illness, to form an integrated security network.

i. Standardize the treatment policy for family members of the deceased

At present, the treatment for the family members of the deceased in government, public institutions and companies is with a huge gap and through different channel of payment. The basic thinking: First is to clarify the function of the system to alleviate the economic

burden of the family of the deceased to arrange funeral and give certain but not too high material support for the family. Second is to clarify the items and payment ways for the treatment for family of the deceased, which should include funeral assistance and pension for the family and be paid one-off. Third is to standardize the payment channel. The treatment should be paid by the basic old-age insurance fund.

ii. Set allowance system for the sick and disabled

According to present policies and regulations, workers could enjoy retirement treatment when they lost working ability because of sickness or disability. The social insurance law regulates that we should set up a unified and standardized system which links with old-age insurance system. The basic thinking: First is to aim at establish a separate and integrated illness and disability allowance and combine the policy of retiring from post and retiring because of illness into it. Second is to abide by the principle of enjoying allowance on the condition that they paid premium. We also should avoid the moral risk of getting insured after illness and differ the system from social relief and aid. Third is to reasonably set standard for treatment. On the one hand, we should consider the national condition and bearing capability of the fund to ensure people's basic living. On the other, we should connect the new system with the old and ensure they could enjoy regular pension after reaching their retirement age.

11. Extending minimum duration for premium

Judging from one person's life cycle, the period before age 24 is generally education stage and working stage between 25 and 60 and old-age life stage between 60 and 80. People should keep paying premium during the average 35 years of working period to accumulate rights and interest for old-age insurance after retirement. Considering factors that people may suspend work, the minimum duration for premium should be no less than 25 years. However, in 2012, the average duration was only 24 years (among it, average actual premium duration was 10 years and duration regarded as paying premium was 14 years). The advanced retirement ratio was 9% and suspending premium ratio was 15%. All these severely affected the balance of the fund and resulted in low pension for some of the retirees (especially the females). We advise to extend the minimum duration to 25 years. To keep a continuity of the policy, for the people who reach retirement age, but not pay premium for less than 25 years, we should extend their premium to full 25 years. We should consider adjusting the duration while amending social insurance law.

12. Vigorously develop company's occupational annuity to improve the multilayer system

Chinese workers' multi-layered old-age insurance system is composed of basic old-age insurance, enterprise annuity or occupational annuity and old-age insurance with personal savings nature. At present, the enterprise annuity develops slowly and covers less people, as there is only 6% of people take part in the program. Individual savings old-age insurance has not built yet and most of retirees rely on basic pension. The way for social security is simple and the government bears a heavy burden. The main problem affecting the development of supplementary old-age insurance is lack of policy support and guidance and it needs to be improved. One is to accelerate expanding coverage of enterprise (occupational) annuity. We could properly lower the premium rates for companies and institutions by reforming and improving basic old-age insurance system to leave room for developing enterprise annuity. Second is to practice EET model for tax policy. In reference of international practice, we could further adjust the tax policy on enterprise and occupational annuity. Meanwhile, should study policies on tax support for individual savings old-age insurance. Third is to develop enterprise annuity pooling plan. Big enterprises, due to large number of employees and huge amount of capital, can design their own investment plan. But for SMEs and social organizations, it is difficult to do so because of small scale of money and high operation cost. Therefore, we should encourage them to pool their annuity together to reduce management cost and improve operational efficiency. Fourth is to integrate insurance system between different levels. We should do a good job in integrate basic old-age insurance with rural and urban subsistence allowances and related social welfare and relief and aid policies. We should continue to play the role of land security and family security. At present, the personal savings of Chinese residents have reached over 40 trillion Yuan and commercial life insurance also developed to a level. People with high income are encouraged to take part in commercial insurance to improve the life quality after retirement.

13. Improve social security fund supervision and management

i. Improve laws and regulations on social security fund supervision

We should promulgate an integrated regulation on fund supervision law enforcement and fraud handling. Meanwhile, we should enforce it strictly to hold those who violates responsible.

ii. Build a professional team for supervision organizations

The central, provincial and municipal government should exercise the rights of supervision and the top level should set sub-organizations to lower level to form a separate supervision system.

iii. Create a system for prevention, investigation punishment, and evaluation

We should standardize decision-making, management process and improve internal control to prevent and control risks from the root. We should improve fund supervision information system to step up real-time supervision on fund collection, payment and management. We should step up law enforcement on fund supervision to punish those who violate laws and regulations such as embezzlement, fraud. We should implement the criminal law explanation by the CPC standing committee and step up coordination between police, and judicial departments to improve efficiency of punishing violations. We should also build fund safety evaluation and analysis system and achieve a quantitative analysis on fund risk to improve the accuracy of supervision. We should also release the punishment cases to the public to expand the right to know of the public and serve as warning education.

iv. Improve the all-round supervision system combining administrative organs, CPC and society

We should actively play the role of the labour union, various organizations, public, media and social organs in supervision. We should ensure general public to exercise their right of supervision by improving decision-making rule and process, information releasing, public reporting and awarding system. We should improve mechanism on reporting and handling of the problems and integrate administrative and social supervision. All these is for the setting up of an all-round supervision system to secure the fund and improve people's livelihood.

14. Improving management and service system

i. Further integrate management and service resources

We should make it clear that the power to the management organization is to practice these functions well like executing policy, managing fund, and providing service. We should set up social security management and service bureau under Ministry of Human Resources and Social Security and the similar organs at provincial and municipal level and branch at country level. We should integrate the organizations handling workers basic old-age insurance, government and public institution employees' old-age insurance and new rural insurance (urban and rural residents insurance) to improve operation and service network and grassroots public service platform.

ii. Optimize operation model and service means

We should promote online operation of social insurance, expand public service channel and explore outsourcing services. We should accelerate computerization of social security to foster E-social security by relying on information technology and network coverage, implement accurate management by pooling and effective use of data, and achieve all be done on one integrated social security card.

iii. Improve grassroots public service platform

We should integrate all network and service resources of the grassroots service organizations and social service organizations to build a employment and social security service platform at all sub-district and township levels and set up employment and social security station at all community and villages. We should set up a coordinator system at all villages. All is to improve service network for grassroots social security business with city (county) as core, sub district (township) and community (villages) as basis.

iv. Improve computerizing social security services

One is to fully use social security card. We should build a basic information data for social security cardholder, as the people will reach 1.2 million at the end of 13th five-year plan and cover 90% of population. And we should reach the goal that the card can be used with multi-functions and across the country. Second is to pool social security information together and promote data sharing and business coordination. We should accelerate integration of management system with achieves system and improve digitalization and visualization of achieves to pave the way for achieves resource sharing across the country. We should build a unified information exchange and business coordination platform by improving cross-regional business handling. We should promote cross business, cross-region, cross-level and cross-department information sharing and business coordination to form a unified platform. Third is to use big data and cloud computing technology in social insurance area. And we should explore supervision, information analysis and decision-making based on big data. We should continue to expand network monitoring. We should improve network supervision system, data collection, trimming and cleaning mechanism to improve data quality and analysis. We should improve business-monitoring model, fund supervision system and medical behaviour monitoring system to explore computerized monitoring, gradually expand business application scope and improve decision-making support. Based on data storage technology, we should further improve decision-making support system, carry out theme analysis, data

demonstration and warning and prediction and explore building of analysis model, to build an information-based statistics and surveying platform.

(2) Main Measures

1. Strengthen legal system of social insurance

Study and formulate basic old-age insurance regulations, social insurance handling management regulations, revise and improve social insurance premium collection and payment provisional regulations, in order to formulate a legal system of laws, regulations and departmental rules supplementing and supporting each other.

2. Strengthen coverage, collection and payment in accordance with the law

According to Social Insurance Act, it is a legal obligation for employers and employees to participate in basic old-age insurance. Registration management needs to be strengthened, especially for non-public economic organizations and small businesses. Reporting and implementation of payment must be strengthened as well. At the same time, reporting and approval system must be standardized. Law enforcement need to be further strengthened. The audit of the number of employees and social insurance contribution base need to be strengthened the in accordance, in order to prevent evading social insurance coverage and payment of social insurance fee. Make sure to cover everyone that is legally eligible and collect all due fees. Improve the old-age insurance policy for farmers whose lands are expropriated. Include them in either basic pension insurance for enterprise employees or urban and rural old-age insurance, based on their own circumstances. Money collection comes after they are being covered in social insurance system.

3. Increase financial investment for basic old-age insurance

In China, money for basic old-age insurance is raised from national treasury, companies and individuals. China supports companies by preferential tax policies, it also takes financial responsibility for state-owned enterprises and government employees when they did not participate in basic old-age insurance but their years serving were identified as valid in terms of verifying how many years of insurance they have paid. The government has to subsidies, especially when basic old-age insurance fund does not have enough money. Although all levels of financial departments have continuously increase their spending on social insurance, the speed of increase in spending is still low than the increase of revenue income. The Third Plenary Session of the CPC Central Committee explicitly proposed to improve financial investment system for social insurance, and improve social security budget. It also proposed to improve state capital budget operation system, and increase the ratio of state capital revenues

turning into public finance. That ratio will be increased to 30% by 2020, to ensure more spending on improving livelihood. As basic old-age insurance almost covers all, governments at all levels should further adjust the structure of fiscal expenditure, increase capital investment, implement national co-ordination, improve social insurance budget, in order to achieve standardization and institutionalization of fiscal investment into basic old-age insurance fund.

4. Strengthen policy publicity and guidance

Firstly, strengthen publicity of social insurance law and regulation for owners of small and medium sized businesses who have low social insurance coverage, as well as owners of catering, construction businesses who have high labour mobility. Holding forum and regular training for private business owners to enhance their awareness of participating in social insurance and pay for relevant fees. Familiarize employers with relevant laws and the punishment regulated by law for not participating in social insurance and violation of employees' social rights. Guiding employers to positively participate in social insurance and pay relevant spending. Secondly, provide targeted guidance and training for employees and urban and rural residents. Persuade and educate those who are not willing to participate in social security, in order to stop short-sighted behaviour and increase their awareness of risks. And handle the relationship between current interests and long-term benefits correctly. Make participants aware the relationship between paying for social security and get pension, encourage them to do payment in the long-term and pay more. Provide participants a foreseeable future, and enhance their enthusiasm to pay. Explain to migrant workers and other flexible employees the transfer of social security; make them confident to participate in social security. Try to achieve active inquiry and participation of service object from passive participation.

5. Strengthen the management of labour and employment norms, regulate insurance participation and payment

Link the following two things with insurance participation and payment. They are training for small and micro business operators and certification audit for operators and person in charge of high-risk industries. Rigorous exam the qualification of labour dispatch companies, in order to prevent them from not participating in social security in the name of dispatched employment; urge labour dispatch companies to get their dispatched labour covered, especially those domestic companies who dispatch their labour to foreign counties. For those who failed to do so, resolutely cancel their qualification to dispatch labour as a company. Meanwhile, inspection is needed to prevent the following from happening, companies turn employee into dispatched labour in order to avoid paying for employee' social security fee, as well as other actions that harm the legal rights of employees.

6. *Continue to expand the National Social Security Fund*

In 2000, China founded Council of National Social Security Fund, and set up a national social security strategic reserve fund. The money was raised from financial allocation, transfer of state-owned shares and lottery income as well as many other ways. The fund adds value through market operations. Given that the National Social Security Fund is set up to cope with aging population, expanding the fund could be considered, in order to better cope with the financial risk of payment while aging population reached peak time. According to the spirit of the Third Plenary Session of the 18th CPC Central Committee, the work of transferring state-owned shares should get started as soon as possible. Invest some of the important national resources capital revenue into the fund, to enhance the reserve capacity of social security fund. As the population of middle-income class, especially high-income class is getting bigger; the levy of inheritance tax is becoming an important means to enhance future re-distribution of recourses. Inheritance tax can improve intergenerational adjustment and social equity, and its revenue can be used to replenish the reserve fund.

7. *Improve income verification system and statistical system of average income for employees*

Implementation of standardized income verification system is the basis for the establishment of credit system. It is also a fundamental project to improve social security system. In developed countries, improving income verification system effectively prevented tax loopholes, it also enables the low-income group conveniently get social welfare. So far, China's income distribution system is not standardized yet, the level of income is neither real nor transparent. That resulted to false social contribution base. Management should further improved in terms of regulating total wages of enterprises and employees, fully implement real-name system for wages, and reduce cash payment, while monitor company behaviours in real time via inter-bank network.

So far, insured individuals have accounted for about 30% of all the insured population, and are continuing to increase. According to the current policy, the contribution base for self-employed labourer and flexible employment mainly refers to the average income for employees. The statistical data for that average income is mainly collected from above-scale enterprises and government organizations and institutions, the data from a large number of small and medium sized companies and individual businesses are not included. As a result, the data of average income is relatively higher than the real data. Many are saying their income is "artificially raised". That add to the burden for self-employed, thus huge number of them are unable to afford payment, and

quit participation of social security system. Statistical methods of calculating average wage should be further improved in order to make sure the authenticity of the data get.

8. Establish actuarial system for pension

Currently, actuary is already widely used in most countries who have mature social insurance businesses, and has become an important sign to reflect the fund's management standardization and specialization. With the population aging and accelerated development of urbanization, there are many uncertainties for fund income and expenses; operational risk of institution is increasing. In order to maintain the sustainable development of the pension system, actuarial system for pension must be introduced, establish an actuarial reporting system, strengthen early warning forecast for the payment ability of the fund, and the monitoring operational risks, support policy making and funding arrangements in advance to ensure that basic pensions are fully released on time.

Periodic actuarial and analysis is important tool and mean to ensure the long-term balance of the pension fund. Since subsidy constitutes an important source of finance for China's pension system, it is necessary to analyst the financial ability of fiscal income in order to further judge the financial sustainability of the pension system. It is recommended that during China's 13th five-year plan, the determination of all the parameters regarding old-age insurance should be based on actuarial analysis. Otherwise, any determination or adjustment of the parameters regarding old-age social security is blind. That will be dangerous, and could affect the long-term balance and system sustainability of old-age social security.

9. Strengthen social dialogue, listen to various opinions and recommendations

Old-age insurance reform and adjustment affects interests of all sides, including employees, retirees, businesses, governments and other urban and rural residents, and therefore very sensitive. International experience shows that full and active social dialogue contributes to the formation of a more reasonable, equitable and sustainable old-age insurance reform plan. It also helped to get the understanding and support from all sectors of society as well as the smooth implementation of the reform program. Various stakeholders' participation and dialogue itself is a potential balancing mechanism. In 2012, the International Labour made a special research on the role of social dialogue in old-age insurance reform during economic crisis. They observed a general phenomenon: old-age insurance reform plans were implemented smoothly with sustainability when full communication, consultation was carried out between government and social partners, other stakeholders, and all aspects of requirements were considered and balanced to reach a political consensus. In addition to listening to

a wide range of opinions and suggestions from government, employees, businesses, foreign experts and scholars, social dialogue need to be expanded when old-age insurance reform involves others. That is to ensure the demands of other groups; especially the vulnerable group is fully reflected and took into consideration during old-age insurance reform. The participation of various forces can make old-age insurance reform plan more comprehensive, reasonable, fair and balanced.

10. Strengthen research and propaganda on social security

Enhance the social security research with focus on fairness and sustainability, in order to form a social security theory and policy system with Chinese characteristics. The research can also provide theoretical guidance and technical support to building a more equitable and sustainable social security system. Strengthen social security management system, technical standards and research on standardizing businesses. Innovative research methods and means, use cloud computing and big data processing technology to carry out deep collection and analysis of social security business data, social security policy assessment, analysis, forecasting and early warning; to deepen research on macro decision support systems, service monitoring system, fund monitoring system. Carry out actuarial studies; establish actuarial system to promote balanced analysis of the social insurance system. Promote scientific research applications. Raise fund via multiple channels to increase research funding. Strengthen social security policy advocacy and guidance of public opinions.

11. Strengthen international exchanges and cooperation of Social Security

Strengthen bilateral and multilateral cooperation in the field of social insurance and promoting work on social security agreements, timely ratify the International Social Security Conventions that fit to the need of our country, and actively participate in the standard-setting of International Labour Organization conventions and Recommendations as well as other international standards. Use the opportunity of participation in the International Labour Organization (ILO), the International Social Security Association (ISSA) and other international organizations to strengthen international exchange of social security, to draw on the experience of the International Social Security reform and management services. Strengthen external propagation for social security, introduce China's experience and effective practices on social security, and promote the development of international social security.

V - Major project proposals for 13th five year plan

(1) Grassroots employment and social security comprehensive service platform construction project

Continue to implement the grass root employment and social security comprehensive service platform construction project. Strengthen service facility construction at county and township levels; strive to provide service on social insurance registration, payment, checking and distribution of social security, transfer of social insurance as well as other services at grass-roots level facility. By 2020, employment and social security services platform should cover all counties, townships and administrative villages. The government will properly subsidize basic infrastructure construction.

(2) Social security card project

Take "a card has multi-purpose and can be used nationwide" as the overarching goal, cover services like card issuing, application, management and others, plan to build a comprehensive social security card service system as a whole which collaborate nationwide efforts, share resources, coordinate services, and is safe and efficient. That could make card use for the public to be easy and convenient, and achieve precise and standardized management, personalized service for human resources and social security services targets.

(3) Social Security Standardization Project

Based on the "Human Resources and Social Security Standardization Plan (2011-2015)", further improve the social insurance standards, develop and revise a number of social insurance national standards and industry standards. Implement work regarding the national "social management and public services standardization pilot" and national standardization pilot in key areas in the social insurance field, in order to fully implement social security standards.

(4) Transfer of social security and financial clearing platform project

Build a unified national platform to cover social insurance transfer, optimize information flow and capital flow for transfer of social security, and change from local agency transfer to national centralized clearing and convergence. Provide more convenient services for social security card holders, and enable them to inquiry, tracking their status.

Build a national fund settlement platform, serving national co-coordinating pension insurance, getting treatment from hospitals in another province or city that is different from permanent residency, and transfer of social security. Establish a central financial settlement centre in order to achieve national coordinating pension fund management for

revenue and expenditure plan and final accounts; use the platform to allocate and collect regional basic pension and inter-regional treatment working fund.

(5) Social security big data project

Integrate existing basic data of social insurance scattered in different departments, including basic information of employers, basic personal information, income, participation and payment of insurance, policy parameter and many other information, in order to form a unified social security Big Data platform. Horizontally, realize data sharing and real-time exchange between various departments, including Ministry of Human Resources and Social Security, National Development and Reform Commission, Ministry of Finance, Ministry of Public Security, Ministry of Civil Affairs, National Health and Family Planning, National Bureau of Statistics, Administration for Industry and Commerce. Vertically, connect all platforms from grass-root level to county level, prefecture-level city, provincial to central level. Gather all the data to central social security data centre, and establish sub-centres at provincial level. Use big data and cloud computing technology to develop social insurance-based big data applications. Solve the problem of information silos. Monitor behaviours of not participating in social security, participating social security at two different locations at the same time, receive double or multiple pension, and fraud of the Fund. Make sure data is consistent and accurate, get rid of obstacles to transfer social security across regions, achieve a mode of one centre with several terminals. At the same time, try to provide service at Internet terminals, social security kiosks, mobile phones, WeChat and SMS. Try to achieve the goal of handling 80% of social security businesses via Internet by the end of the 13th five year plan; Establish a social insurance decision support and monitoring system based on big data to monitor the operation of social security. Compare information of participating companies to find false and inaccurate information, as well as adverse participating (参保人逆向参保); false contribution base, make false report, potentially fraudulent and other acts. Forecast the revenue and expenditure of the fund for a certain period; make early warning to operational risk; provide comprehensive social insurance information application based on big data. Government, companies and the public could get public service on the social insurance big data platform.

VI - Steps and main indicators of promoting the development of old-age insurance for 13th five year plan

Reform and improve the pension system is a long process. In accordance with the principle of focusing on the current situation, aiming for the long-run, having an overall design, while implementing the plan step by step, strive to do the work well during the 13th five year plan, resolve outstanding contradictions and problems. Suggested steps to reform and develop old-age insurance during the 13th five year plan are in Table 2.

Table 2 - China's old-age insurance reform plan during the 13th five year plan

| Time | Key tasks | Purpose |
|--|--|---|
| 13th five year plan (Year 2016 – year 2020) | 1. Improve policy for self-employed labourer and flexible employment to participate in social security and pay | Expand the coverage, reduce interruptions of payment |
| | 2. Fully implement operation rules for basic old-age insurance fund investment | Achieve to keep and increase the value of the fund, add to the fund |
| | 3. Establish system of providing allowance for the sick and the disabled | Improve the old-age insurance system for the old, family of the deceased and the disabled |
| | 4. Introduce policy on compensating family members of the deceased | |
| | 5. Fully implement reform on old-age insurance system in government organizations and institutions | Achieve the goal of almost full coverage of old-age insurance, realize social equity |
| | 6. Introduce national coordinating program | Improve anti-risk ability, divide central and local powers reasonably |
| | 7. Improve the mechanism for employees and residents to normally adjust basic pension | Guarantee basic living, share the results of social and economic development |
| | 8. Announce the scheme of gradually delay retirement age | Lead the whole society to achieve consensus |
| | 9. Implement the plan of register everyone for social insurance | promote universal coverage, promote government's social management and public service level |
| | 10. Research and formulate "Old-Age Insurance Act" | Achieve the legislation and standardization of old-age insurance law |
| | 11. Research to extend the payment period | Consolidate payment, increase the Fund's revenue |
| | 12. Research to implement the scheme of delaying retirement age | Improve current situation of high support ratio, fully take advantage of human resources |
| | 13. Improve multi-layer old-age insurance system | Play multi-level role in achieving risk-sharing |
| | 14. Research on methods to enrich old-age insurance fund from multi channels | Enrich the fund, enhance its sustainability |
| | 15. Research on the use of social security strategic reserve fund | Ensure the smooth operation of ageing peak, achieve sustainability |

Table 3 - A list of main criteria for social security development by the end of the 13th five year plan

| Code | Criteria | Content | Rate | Description of the criteria |
|------|---|--|--------------|---|
| 1 | Coverage rate of basic social security (%) | Coverage rate of basic old-age insurance for urban employees, government organizations and institutions, urban and rural residents | 95% | (The number of people who actually participating in social security/ The number of people who should participate in social security) X 100% |
| 2 | Replacement rate for basic pension insurance of employees (%) | Pension level of employees in terms of basic old-age security | 45% 70% ~ | (Average pension for statistical period / average wage for statistical period) X 100% |
| 3 | The number of Social Security Card issued | Refers to the number of cards that are currently active and held by participants (excluding reissued and lost cards) | 1.2 billion | |
| 4 | The percentage of business conducted on the internet | Refers to the proportion of total business volume conducted by organizations and individuals via internet, cell phone, ATMs, telephone terminals. Businesses conducted include registration, payment and collect of pension. | 80% | |

Annex 1: China's evaluation criteria system for old-age insurance development

China's basic old-age insurance system is comprised by two parts, basic old age insurance urban employees and basic old-age insurance for urban and rural residents. Old-age insurance index system comprised 15 indicators in four areas, coverage, moderate fund-raising, guarantee of adequate financing, and sustainability.

1. Coverage criteria

Coverage criteria picks basic old-age insurance participation and coverage rate for urban enterprise employees; urban and rural residents; total old-age insurance participation and coverage rate in urban and rural areas.

Basic old-age insurance coverage rate for urban enterprise employees: the number of urban enterprise employees who actually participated in basic old-age insurance / the number of urban enterprise employees who are obligated to participate in basic old-age insurance. The number of people who actually participated in basic old-age insurance equals the number of urban enterprise employees (within work age); the number of people who are obligated to participate in basic old-age insurance equals the total number of urban employment (excluding government organizations and institutions, military servants and students).

Basic old-age insurance participation rate for urban enterprise employees: the number of urban enterprise employees who are actually covered by basic old age insurance / the number of urban enterprise employees who should be covered by basic old-age insurance. The number of people who actually covered by basic old-age insurance equals the number of urban enterprise employees who participate in basic old-age insurance plus the number of people who collect pension; The number of people who should be covered by basic old-age insurance equals the number of urban employment (excluding government organizations and institutions) plus the number of company retirees.

Basic old-age insurance participation rate for urban and rural residents: the number of people who actually participated in basic old-age insurance / the number of people who should participate in basic old-age insurance. The number of people who actually participated in basic old-age insurance equals the number of urban and rural residents who pay for basic old-age insurance plus the number of people who can get pension. The

number of people who should participate in basic old-age insurance equals the number of people who are registered as urban and rural residents minus the number of students and the number of urban and rural population who already participated in the basic old age security for urban employees.

Total old-age insurance participation rate in urban and rural areas: the total number of enterprise employees plus the total number of urban and rural residents who actually participated in basic old-age insurance / the total number of them who are obligated to participate in basic old-age insurance

Total old-age insurance coverage rate in urban and rural areas: the total number of enterprise employees plus the total number of urban and rural residents who are actually covered by basic old-age insurance / the total number of them who should be covered by basic old-age insurance

2. Criteria of moderately fund-raising

This criterion reflects the financial burden and coordination between the two systems. The criteria are as follows:

- 1) actual contribution rate of basic old-age insurance for urban enterprise employees, enterprise contributions ratio;
- 2) individual contribution growth rate of basic old-age insurance for urban and rural residents, individual payment

Actual contribution rate of basic old-age insurance for urban enterprise employees : the average money paid by urban enterprises and employees / the average wage of urban enterprise employees. This criteria reflects the financial burden for enterprises and its employees, the determination of contribution rate need to ensure balance of payment for basic old-age insurance fund while inspire social vitality (which means stimulating the production enthusiasm of enterprises and workers), funding levels to high or too low are both not desirable.

Financial burden for enterprises in terms paying for basic old-age insurance for urban enterprise employees: money paid by enterprises for basic old-age insurance / total profits of the enterprises. This criterion reflects the crowding effects that old-age insurance payment has on corporate profits. As a result of increasing degree of internationalization and marketization for China's economy, competition became fiercer. The increase of labour cost cannot be easily transferred by raising prices; the stronger the crowding effects old-age insurance payment has on corporate profits, the less favour that has on the long-

term development of enterprises. That could also threaten the stability and sustainability of basic old-age insurance fund raising.

Individual contribution growth rate of basic old-age insurance for urban and rural residents: growth rate of payment made by urban and rural residents in terms of basic old-age insurance this year compared with payment made last year. Payment made by urban and rural residents in terms of basic old-age insurance include: the sum of total payment made by individuals, total financial aid, and collective subsidy (or financial aid given to individuals, social groups and others) / the total number of individuals who pay for basic old-age insurance.

It reflects the financial burden for urban and rural residents.

Financial burden for urban and rural residents in terms of participating in basic old-age insurance: average individual payment / average net income of farmers per person. It reflects the financial burden for urban and rural residents.

3, Guarantee of adequate financing

For the criteria of pension distributed, we pick pension replacement rate to reflect the function of old-age insurance to ensure basic daily life. It cannot be too low or too high, and should be kept between reasonable ranges.

Pension replacement rate for urban enterprise retirees: average pension for urban enterprise retirees / average individual contribution wage for urban enterprises employees who participated in social insurance.

Pension replacement rate for urban and rural residents: average pension for rural and urban residents / net income for rural residents per person. The level of insurance that urban and rural residents get can refer to five indicators:

- minimum living standard for urban areas;
- minimum living standard for rural areas;
- minimum living allowance for urban areas;
- minimum living allowance for rural areas;
- the per capita consumption expenditure of rural households.

Considering the level of insurance that urban and rural residents get is to protect the basic living standards, not the lowest cost of life, therefore, urban and rural minimum living standard is relatively low, and cannot be used as the main reference criteria. However, the standard can be used as a minimum standard. The per capita consumption expenditure for rural residents is relatively reasonable, therefore, rural residents net income per person is used as the main reference criteria for judging the level of insurance that urban and rural residents get.

4 Sustainability of the fund

Because the process of reform on urban and rural enterprises employees old age insurance system, channels of payment for transition costs were not specified, co-ordinated fund embezzle personal accounts, in fact, it is still pay-as-you-go, only some provinces (municipalities) take personal accounts as pilot project. Thus the following are chosen as main criteria for sustainability, urban enterprises employees' basic old-age insurance fund accumulated surplus rate, individual account investment yield, urban and rural residents' individual old-age insurance accounts investment yield and rate of realization of fiscal aid.

Urban enterprises employees' basic old-age insurance fund accumulated surplus rate :

$$\text{years of accumulated surplus for old-age insurance fund} / \text{total annual expenditure of social insurance funds}$$
 This criteria reflects the financial sustainability of the pension fund, and is generally considered appropriate when accumulated surplus rate ranges between 1 and 2. Too low, it means insufficient financing, the sustainability of pension is at risk; too high means that the funding levels are too high, and that will increase labour costs for enterprises, and in turn risk the sustainability of the system.

Individual old-age insurance account investment yield for urban enterprises employees:

$$\text{individual account investment profits (deduct investment operational costs)} / \text{total investments from individual account}$$
 This criterion reflects the investment performance of individual accounts. Investment yield too low could impact accumulation of personal accounts, and affect the old-age insurance pattern of "co-coordinating accounts with individual accounts"; investment yield too high means that fund investment is facing high risks, and could affect fund safety. Ideal investment yield equals to the average wage growth rate for urban enterprise employees.

Urban and rural residents' individual old-age insurance accounts investment yield:

$$\text{investment profits of urban and rural residents' individual old-age insurance accounts} / \text{total fund investment}$$

Rate of realization of fiscal aid:
$$(\text{central fiscal aid that are realized and funded for urban and rural basic old-age insurance during report period plus regional fiscal aid that are realized and funded during report period}) / (\text{central fiscal aid that should be realized and funded for urban and rural basic old-age insurance during report period plus regional fiscal aid that should be realized and funded during report period})$$

Topic 1.3.2

Social pooling of the basic pension component
(Evaluation of the combination of social pooling
and individual accounts techniques in pension
schemes for employees)

Song Xiaowu

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Evaluation of the combination of social pooling and individual accounts techniques schemes for urban employees

Song Xiaowu

Abstract

As for selection of a direction for perfection of basic pension insurance individual account system of China, arguments between shorting and full funding have always existed. Under the condition that pilot of full funding is very difficult in every move for many years, Notional Defined Contribution System (NDC) seemingly becomes a more practical solution. However, great controversies in this regard still exist in different government departments and academic circles. This report conducts theoretic analysis on the focus of arguments at present and puts forward a reasonable direction for perfection of “Social Pooling and Individual Account Combination” System (hereinafter referred to as pooling-account combination system) based on retrospective analysis of evolution of pooling-account combination system. To be specific, it is not to expand the scale of individual accounts but stick to the essential directions of fairness priority and narrowing but not expansion of initial distribution gap without any deviation. It aims to promote organic combination of social pooling and individual accounts, drive the reform of relevant supporting systems and implement nationwide pooling of basic pension insurance, so as to realize fairer and more sustainable development of system. This report puts forward two schemes for perfection of pooling-account combination system as well as relevant supporting policy measures.

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Introduction

It was pointed out in the Third Plenary Session of the 18th Central Committee of the CPC that, “It is required to establish a fairer and more sustainable social insurance system, and stick to the social pooling and individual accounts combination and perfect individual account system”, which has made clear of the reform direction of basic pension insurance system. However, arguments between shorting and full funding have always existed on how to perfect individual account system design based on the adherence to “pooling-account combination” basic system model. Under the condition that pilot of full funding is very difficult in every move for many years, NDC seemingly becomes a more practical scheme. However, great controversies over whether the scale of nominal individual accounts should be expanded still exist in different government departments and academic circles. It is thus urgently required to conduct systematic theoretic analysis of pooling-account combination system model and put forward practical and feasible policy suggestions acceptable for each party joined in the system.

This report plans to review the changes of “pooling-account combination” system of basic pension insurance of urban employees of China, analyse the main problems faced by the system and the causes, and put forward direction and policy suggestions for the perfection of “pooling-account combination” system of basic pension insurance of urban employees. The structure of this report is as follows: Part I briefly reviews the changes of pooling-account combination system of basic pension insurance of urban employees of China, highlights retrospective analysis on three argument climaxes concerning individual account system, and demonstrates that pooling-account combined partial fund system finally selected by China is a decision made based on experiment of abundant fierce theoretic arguments and policy choices; Part II analyses the main problems faced by current pooling-account combination system and their causes, and clarifies the logical relationships among various problems; Part III puts forward a general idea for the perfection of pooling-account combination system of basic pension insurance of urban employees of China as well as basic principles to follow; Part IV conducts a comparative analysis of different viewpoints on the perfection of pooling-account combination system of basic pension insurance based on theoretic and practical inspection, and puts forward the viewpoints of this report; Part V analyses nationwide pooling of basic pension insurance which is closely related to the perfection of pooling-account combination system and puts forward a scheme for promoting nationwide pooling of basic pension insurance; Part VI analyses policy measures supporting the viewpoints put forward in Part IV and Part V of this report; Part VII, the final part, draws conclusions of this report.

1. Changes of Pooling-Account Combination System for Basic Pension Insurance of Urban Employees in China

China's reform and opening up started from rural reform in 1978, while urban reform was not involved. In 1984, China began to carry out urban state-owned enterprise reform focusing on enhancing enterprise vitality, which impacted the traditional retirement system in the charge of the state and monopolized by the entities under the original planned economic system. In order to cope with the challenge of aging of population and adapt to the transformation from planned economy to market economy, China's pension system was gradually changed from accounting on the cash basis to partial fund accumulation system since the middle term of the 1980s.

1.1 Primary Exploration of Pension Insurance System Reform (1984-1993)

In this stage, pension system reform was adopted as a supporting measure for state-owned enterprise reform. The state explored the implementation of pension social pooling and multi-party paying and determined the transformation from accounting on the cash basis to partial fund accumulation system combining social pooling and individual accounts.

1.1.1 Causes for Launch of Reform

In the beginning of the 1980s, pension method of "enterprise self-insurance" in the era of planned economy already caused imbalance of pension burden among enterprises. As for long-established enterprises in industries like textile, grain, salt manufacturing and moving, the retirement expenses were equal to over 50% of total amount of wages of in-service employees. The retirement expenses of some enterprise even exceeded the total amount of wages; in some emerging industries and newly established enterprise such as enterprises engaged in electronics, instrumentation and chemical engineering, the retirement expenses were even less than 5% of total amount of wages. With the increase of retirees of long-established enterprises year by year, the expenditure of pension increased greatly. The contradiction of imbalance of pension burden between long-established and old enterprises became increasingly severe. The method of paying retirement expenses by enterprises could no longer guarantee the lives of retirees especially for some enterprises suffering from serious losses. They had to reduce or stop paying of pension due to failure to pay retirement expenses. Some enterprises lowered and even cancelled retirement treatment for the sake of interests of in-service employees, which triggered strong dissatisfaction from the retirees and their family members and affected social stability, which was a primary cause for launch of reform.

The second cause was that the establishment of labour contract system promoted pension security socialization. In 1986, China practiced labour contract system nationwide. The government could not monopolize employment. As for new employees, employment was no longer a lifelong hired “iron bowl” system. They began to enter into labour contracts with enterprises and they were able to select jobs and go anywhere they liked freely, which broke the lifelong stable relation of subordination. It meant that it was impossible that a certain enterprise was the only pension supply source of employees. Instead, a set of socialized pension security system matched with market employment mechanism must be established.

The third cause was that the endogenous defects of traditional pension system were gradually exposed and the system was continuously impacted. The burden of traditional pension insurance system was very sensitive to the composition structure of in-service employees and retirees of enterprises. Under normal circumstances, the aging of pension insurance system should be slow. However, in 1978, the state opened “Children Substitution” policy according to G.F. [104] Document. To be specific, when an employee retired from a state-run enterprise or public institution, one of his/her children was allowed to fill his/her shows. This policy was initiated upon the end of school graduates going to the countryside. Millions of school graduates returned to cities but the inflexible labour planning system could absorb so much surplus labour within a short time. As a result, many school graduates could not be arranged to work. In order to ensure employment of children, many employees from state-run entities chose to retire ahead of time and make room for their children in consideration of relatively stable and high-level retirement treatment commitments at that time. It directly caused the quick aging of traditional pension system. The dependence rate within labour insurance system climbed straight and number of retirees and retirement expenses increased at a relatively fast speed.

Table 1-1 - Increase of Number of Retirees and Retirement Expenses from 1978 to 1984 - Unit: %

| Year | Entity under ownership by the whole people | | Enterprise under collective ownership | |
|------|--|---------------------|---------------------------------------|---------------------|
| | Number of retirees | Retirement expenses | Number of retirees | Retirement expenses |
| 1978 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1979 | 165.5 | 177.3 | 410.0 | 360.0 |

| | | | | |
|------|-------|-------|--------|--------|
| 1980 | 224.6 | 266.3 | 593.3 | 700.0 |
| 1981 | 260.6 | 326.9 | 700.0 | 900.0 |
| 1982 | 304.6 | 380.9 | 826.7 | 1100.0 |
| 1983 | 357.4 | 453.9 | 923.3 | 1330.0 |
| 1984 | 374.1 | 519.0 | 1320.0 | 2120.0 |

Data source: Organized by the author according to data indicated in *China Labour and Social Security Statistical Yearbook* in relevant years.

1.1.2 Main Moves of Reform

(1) Implementation of social pooling of enterprise retirement expenses: In 1983, relevant department of the government put forward the launch of social pooling of retirement expenses of enterprises under ownership by the whole people. In 1984, social pooling of employee retirement expenses of state-owned enterprises was initially tried out in Jiangmen and Dongguan of Guangdong Province, Zigong of Sichuan Province, Taizhou and Wuxi of Jiangsu Province, Heishan of Liaoning Province, etc. and successful experience was primarily obtained. In January 1986, State Commission for Restructuring the Economic System and Ministry of Labour and Personnel jointly printed and distributed Circular on Forwarding Retired Staff Pension Insurance Pooling System Implemented in Wuxi which requested each place to expand pilot projects. As of May 1987, there were already 600 cities and counties in China implementing social pooling of retirement expenses. Relevant departments required that cities and counties with favourable conditions should implement social pooling of retirement expenses within two years. Social pooling of pension insurance of state-owned enterprises was an important move for the development of pension insurance from “enterprise self-insurance” to socialization, despite low pooling level and poor mutual aid degree of pooling implemented in the scope of cities and counties.

(2) Implementation of enterprise and employment individual payment and establishing of pension insurance system for employees under labour contract system. In 1986, the State Council released four regulations for reform of enterprise labour system and decided to implement labour contract system for all workers newly recruited by state-owned enterprises. In addition, measures for pension insurance of workers under labour contract system were stipulated. Enterprises paid retirement pooling pension according to approximately 15% of total amount of wages of workers under labour contract system, while workers under labour contract system paid retirement pooling pension not exceeding 3% of their standard wages.

(3) Pilot project of “pooling-account combination” system in Hainan Province and Shenzhen. In March 1989, the State Council formally approved Hainan

Province and Shenzhen as comprehensive reform pilots of China's social security system. Partial accumulated fund-raising model was adopted for the pension schemes of these two places. The difference lied in that Hainan Province adopted "Large Pooling (18%) and Small Accounts (3%)" while Shenzhen adopted small pooling and large account model. Over 2/3 of enterprise payment entered individual accounts and the scale of individual accounts was 16%. It was worth noting that these two places had very different understandings of nature of individual account. The pension scheme adopted by Hainan Province regarded that the private attribute of individual account pension was stronger than its public attribute. It should be regarded as mandatory occupational pension. However, the scheme adopted by Shenzhen regarded that individual accounts and social pooling jointly formed basic pension insurance.

The unified understanding of pooling-account combination ratio and nature of individual accounts by Hainan Province and Shenzhen revealed gaming and competition of different reform ideas during the period of reform at the back. Even after the Third Plenary Session of the 14th Central Committee of the CPC already made clear of reform principles of "pooling-account combination" in November 1993, the decision-making level still had different understandings of specific meaning of "pooling-account combination". One opinion held that social pooling corresponded to basic pension insurance while individual accounts were established in the supplementary pension insurance. Another opinion held that "pooling-account combination" should be realized in the level of basic pension insurance while supplementary pension insurance did not belong to the category of mandatory social insurance. The opposite reform ideas of these two parties could be used to exactly explain the differences of model selection of two "pooling-account combination" policy pilots in Hainan Province and Shenzhen.

Table 1-2 - Measures for Social Pension Insurance System Reform Pilot of Hainan Province and Shenzhen

| System stipulation | | Hainan Province | Shenzhen |
|---------------------------------------|---------------------|-----------------|----------|
| Fund-raising ratio | Enterprise | 18% | 16% |
| | Individual | 3% | 5%—10% |
| | Total | 21% | 21%—26% |
| Method of determination for treatment | Social pooling | 18% | 5%—11% |
| | Individual accounts | 3% | 16% |

Data source: Organized by the author according to relevant documentation.

The exploration in this period established “pooling-account combination” system model of basic pension insurance of urban employees of China. In 1993, the Third Plenary Session of the 14th Central Committee of the CPC approved *Decisions of the Central Committee of the Communist Party of China on Several Problems Concerning Establishing of Socialist Market Economy System* which, for the first time, made clear of “pooling-account combination” system as a reform direction of China’s social basic pension insurance system and acknowledged the public attribute of individual accounts.

Table 1-3 - Primary Exploration of Pension System Reform

| Content of reform | Nationwide reform |
|--|---|
| Social pooling of retirement expenses | In 1984, the State began pilot projects of social pooling of retirement expenses and popularized it nationwide since 1987. |
| Relatively standardized social pension insurance fund management mechanism | In November 1994, the Ministry of Finance issued <i>Interim Regulation on Strengthening of Enterprise Employee Social Insurance Fund Investment Management</i> . |
| Pension insurance multi-party bearing mechanism | In June 1991, the State Council released <i>Decision on Reform of Enterprise Employee Basic Pension Insurance System</i> . |
| Establishing of pooling-account combination system structure | In November 1993, the state released <i>Decisions of the Central Committee of the Communist Party of China on Several Problems Concerning Establishing of Socialist Market Economy System</i> . |

Data source: Organized by the author according to relevant documentation.

1.2 Construction of Pooling-Account Combination System Model (1993-2000)

The highlights of reform in this stage were to explore how to organically combine social pooling and individual account system as well as determine national unified pooling-account combined partial fund accumulation system.

1.2.1 Construction of National Unified Pooling-Account Combination System

On the basis of summarization of exploration experience of each place, the State Council formally issued *Circular on Deepening the Reform of the Pension System for Staff and Workers of Enterprises* (G.F. [1995] No. 6) in March 1995 and put forward two

implementation measures of “pooling-account combination”. The main difference of these two measures lied in the scale of individual accounts. Each region might select either of these two measures based on actual conditions. Public proposal of competitive public policy choice schemes was very rare in the government documents of China. This move reflected openness and exploration orientation during China’s social security reform. It should be pointed out though the pension system reform scheme originally designed by former Ministry of Labour did not set up individual accounts in the basic pension insurance system. Later, according to the requirements of the State Council, the original scheme was revised and individual accounts were added.

During the subsequent reform pilot for two years, there were already 21 provinces and cities and 4 national pooling industries in China establishing “pooling-account combination” pension system. In the first half of 1996, about 150,000 employees obtained pension according got the new system or the transitional measures. However, the basic system of each region was not unified and the management was decentralized. Due to different individual accounts, employees’ flow was obstructed. A typical case was that Wuhan adopted 16% of individual accounts while Hubei Province adopted 12% of individual accounts. As a result, employee transfer between municipal enterprises of Wuhan and provincial enterprises encountered with certain difficulties.

Table 1-4 - Comparison of Two Reform Schemes of Social Pension Insurance System of Urban Employees

| System provision | | Measure 1 | | Measure 2 |
|---------------------------------------|---------------------|-----------|------------|--|
| | | Start-up | Final goal | |
| Fund-raising ratio | Enterprise | 13% | 8% | Generally maintain social pooling level of labour insurance. |
| | Individual | 3% | 8% | 8% or smaller |
| | Total | 16% | 16% | - |
| Method determination for of treatment | Social pooling | 5% | 5% | Generally remain unchanged. |
| | Individual accounts | 11% | 11% | About 10% |

Data source: Organized by the author according to relevant documentation.

In 1996, the State Council instructed former Ministry of Labour and former State Commission for Restructuring and the Economic System to take the lead and organize relevant departments to form a joint survey group which should go to each place and get to know the progress of enterprise employee basic pension insurance reform. To sum up, the survey group listened to the opinions of local leaders from 14 regions and held a series of forums and demonstration meetings. Based on the summarization of practical experience of each place and through discussion in premier work meetings in August 1996 and July 1997, the State Council released *Decision on Establishing of a Unified Enterprise Employee Basic Pension Insurance System* (G.F. [1997] No. 26) in July 1997. The core content of this document was “three unifications”: Unification of standardization of payment ratios of enterprises and employee individuals. The payment ratio of enterprises should usually not exceed 20% of total amount of wages. The specific ratio should be determined by each local government according to actual conditions. The payment ratio of individuals should not be lower than 4% of their wages in 1997. This ratio would be increased by 1% for every two years later to finally reach 8%; unification of scale of individual accounts. Each place should establish individual accounts for employees according to 11% of wages of employees of enterprises. Individual payments were all included in individual accounts and the insufficient part should be transferred from enterprise payments. With the payment ratio of individuals being gradually improved to 8%, the ratio of part transferred by enterprises should be reduced to 3% accordingly; unification of pension calculation and paying measures. Pension payment included two parts, namely, basic pension and individual account pension. The monthly standard of basic pension was 20% of monthly average wages of local employees in previous year, while the monthly paying standard of individual account pension was accumulated deposit in individual accounts dividing 120.

1.2.2 Reasons for China to Select Pooling-Account Combination System

If viewed from the development history of world social insurance system, China’s pooling-account combination model is a system innovation. This system is neither traditional pay-as-you-go system nor fund accumulation system or partial accumulation system often discussed in the social security circles. Instead, it realizes organic integration of four key system elements, i.e. two financial balance methods (pay-as-you-go and fund accumulation) and two methods for determination of treatment (determination of payment and determination of payment) under a system framework.

As a matter of fact, Chinese decision makers didn't finally choose pooling-account combination model only in action. As analysis in the previous part, abundant theoretic arguments and policy choices were involved. Even before the release of *Circular on Deepening the Reform of the Pension System for Staff and Workers of Enterprises* in 1995, the scheme reported by Ministry of Labour to the State Council still continuously insisted on expansion of socialized pooling coverage of labour insurance system but didn't support establishing of individual accounts. The scheme was adjusted only with the insistence of the State Council. If viewed from the perspective of retrospective analysis, each related part finally unified the understanding of establishing "pooling-account combination" model mainly based on the following considerations:

Table 1-5 - Prediction of the UN for China's Population (2005-2050)

| Year | Total population (unit: 1,000 persons) | Population aged 65 and above (unit: 1,000 persons) | Ratio of population aged 65 and above (%) |
|------|--|--|---|
| 2005 | 1312979 | 100464 | 7.7 |
| 2010 | 1351512 | 112941 | 8.4 |
| 2015 | 1388600 | 133902 | 9.6 |
| 2020 | 1421260 | 169567 | 11.9 |
| 2025 | 1445782 | 197382 | 13.7 |
| 2030 | 1458421 | 236414 | 16.2 |
| 2035 | 1458292 | 285868 | 19.6 |
| 2040 | 1448355 | 321762 | 22.2 |
| 2045 | 1431488 | 328493 | 22.9 |
| 2050 | 1408846 | 333668 | 23.7 |

(1) Aging of population age structure decided the discontinuity of pay-as-you-go model. In the beginning of the 1990s, Chinese decision makers realized that China's population age structure would go through radical changeover within several decades and the population age structure would be aging at a relatively quick speed and the number of retirees would continuously increase. The basis of continuity of pay-as-you-go system was relative stability of population age structure (which meant that there was enough in-service generation to supporting the retired population). Therefore, this kind of pension insurance system based on transfer of inter-generation income could not cope with the impact of financial crisis resulting from quick aging of population. The pension financing of fund accumulation system was originated from savings accumulation of individuals during work. The influence of this model on the change of population age structure was neutral and it could hedge old age crisis risk in a relatively favourable way.

(2) Relatively heavy historical burden of China decided that fund accumulation model could not be fully implemented. Although complete accumulation model had born advantages in improvement of economic efficiency and resistance of aging risk, pension transition would result in the necessity to search for extra financial sources in order to fulfil the commitments made to the treatment of retirees, so as to form transformation cost. In particular, China already had 24 million retirees back then and therefore the transformation cost was tremendous. Under the condition of heavy historical burden, realization of complete transition of pension insurance system was not feasible. System innovation was needed. Based on equal consideration to the handling of old age crisis, too heavy burden should not be imposed on the in-service generation.

(3) Advantages of pooling-account combination partial accumulation system: Partial fund accumulation model has made the respective advantages of two systems complementary to each other theoretically. It not only reflects the characteristics of social insurance, i.e. social mutual aid, risk sharing and strong guarantee in a traditional sense but also highlights employees' self-security awareness and motivation mechanism so as to establish a new pension insurance system combining fairness with efficiency and social mutual aid with self-security.

(4) Penetration of world social security reform trends. Since the 1980s, some international organizations highly praised pension individual accounts established by countries like Singapore and Chile and recommended giving up public pension system with pay-as-you-go system as financing method and government as management subject. It proposed the provision of more efficient economic guarantee for labourers by establishing a competitive individual accumulation pension plan. The rise of this ideological trend was exactly in a same time window with China's pension system reform. Many foreign experts were involved in the demonstration of China's pension reform scheme directly or indirectly. In 1995, with the assistance of relevant departments and research institutions of China, the World Bank completed a special research report titled as "Pension Reform in China". Through these communication activities, foreign experts directly or indirectly participated in the decision-making activities of Chinese government, and their concepts were selectively absorbed and recognized by Chinese decision makers at that time and became important theoretic foundations for promotion of the establishing of individual accounts.

1.2.3 Problems Faced in Initial Operation Stage of Pooling-Account Combination System

(1) Transformation cost: Internal digestion path contained long-term paying risk. Due to existence of a relatively mature public pension system and coverage of 24 million retirees,

transformation cost for transformation of China's pension system from traditional labour insurance system to pooling-account combination model was relatively huge in scale. According to different research assumptions, scale of future pension gap estimated by different scholars differed significantly from RMB 1 trillion to RMB 12 trillion. Despite disagreement on specific figure, that the transformation cost was relatively huge as a whole already became a common understanding of decision makers and the academic circles. Since the state-owned enterprises encountered with great operation difficulties and low fiscal revenue back then, external financing was hard to realize and the pension reform had to become a closed-loop system. As a result, transformation cost had to be gradually digested inside the system. The first path selected was to overdraft individual account fund to pay the current pension. Consequently, social pooling and individual accounts were managed in a "mixed" way and "empty accounts" appeared in individual accounts; the second path was to gradually make up the increase of pension expenditure by improving payment rate. 28% of high payment rate of China's enterprise employee pension insurance was greatly related to transformation cost; the third path was to expand coverage. From a long term, this kind of "coverage expansion" transferred the current paying pressure in other stages. It made relatively high treatment commitments to the new insured but only acquired fund revenue of a limited level. When the number of paying individuals in the system grew at a relatively fast speed, this policy choice was feasible. However, once pension system realized full coverage and the economic growth became stable and the number of employed population in the system was kept stable for a long term, the pension insurance system would face a situation that the coverage couldn't be expanded any more. The treatment commitments made in the past required centralized payment but no new paying individuals were added to provide excessive financial sources for repayment. As a result, the paying pressure of pension fund would suddenly rise. Therefore, digestion of transformation cost through expansion of coverage contained huge paying risk.

(2) The coverage of the system was still limited: It mainly covered state-owned enterprises. The pension system reform in this period was no more than a supporting measure for reform of state-owned enterprises instead of independent system arrangement. The execution of enterprise employee pension insurance system in each place mainly focused on state-owned enterprises and collective economy was gradually included in the system. At the end of the 20th century, with the decline of effectiveness of collective economy, many collective enterprise assumed relatively heavy payment burden and found it difficult to join pooling-account combination system. This problem left over by history still exists in some regions now.

(3) Low pooling level of system: Weaken risk assistance and increase labour flow cost. In 1982, after China implemented tax distribution system, each city, county and district became independent financial budget entities. Social insurance pooling was conducted with district or county as unit once. Since the economic strength and local financial level of each county and district developed in an imbalanced way, different pooling entities did not have mutual aid and allocation, the funds among them were self-balanced and closed-operated, and there was no mechanism for super-solution and adjustment of superior finance established, the risk resistance of insurance system was thus weakened. Meanwhile, fragmentation of pooling regions not only affected the risk resistance of system but also obstacle reasonable flow of labour.

(4) The method for determination of pension was unreasonable: The pension treatment continuously declined. G.F. [1997] No. 26 Document stipulated a regulation mechanism centring on growth of pension with price and referring to increase of wages. However, in the reality, the pension treatment adjustment level of “middlemen” already joining work and “old men” already retiring before system transition could not catch up regional economic development and growing range of people’s income level. Relative treatment level of retirees continuously declined. As a result, the pension level gap between enterprise employees and public institution employees kept expanding, to result in many social contradictions.

1.3 Efforts for Perfection of Pooling-Account Combination System (2000-2010)

The highlights of reform in this stage were to review pooling-account combined partial fund accumulation system, adjust and try out the full funding of individual accounts, explore the enriching of pension insurance fund with state-owned assets, improve pooling level, expand system coverage, accelerate the development of enterprise annuity, etc.

1.3.1 Further Discussion of Pooling-Account Combination System Model in 2000

Since it was required to properly solve the problem of transformation cost during transformation from pay-as-you-go system to partial accumulation system, while China expected to solve the problem by improving enterprise payments and borrowing individual account payments, problems like “mixed” pooling and “empty” individual accounts would inevitably appear. In 2000, with the proposal of former Premier Zhu Rongji of the State Council, the former Economic Restructuring Office of the State Council and the former Ministry of Labour and Social Security jointly invited first-class economists like Stiglitz and Feldstein to demonstrate *Pilot Scheme for Perfection of Urban Social Security System*.

When meeting with foreign experts involved in “China Development Forum: Social Security System Reform International Seminar”, Premier Zhu Rongji put forward five major issues in the social security reform: Should China improve payment rate? Should China give up individual accounts and fund accumulation and implement pay-as-you-go system again? How could China reduce or compensate the future pension deficit? How could pension fund be managed under the capital market condition of China? How could the Central Government reduce the subsidy for each province or only subsidize provinces most needed under provincial pooling?² These five major problems were discussed by decision-making departments and foreign and domestic famous experts in 2000 and finally *Pilot Scheme for Perfection of Urban Social Security System* was finally formed in 2001. It determined to continuously stick to pooling-account combined partial fund accumulation system and gradually try out the full funding of individual accounts.

1.3.2 Adjustment and Pilot of Full Funding of Individual Accounts

In 2000, the State Council issued *Circular on Printing and Issuing Pilot Scheme for Perfection of Urban Social Security System* and the pilot project was conducted in Liaoning Province first. The fund-raising ratio of individual accounts was adjusted from 11% to 8%. The employees shall pay in full amount. As for gap of individual account fund resulting from reasons like history, the central finance and the local finance would subsidize at a ratio of 75:25. In addition, National Council for Social Security Fund was formed and entrusted to invest and operate individual account fund subsidized by the central finance.

In 2003, the Third Plenary Session of the 16th Central Committee of the CPC approved *Decisions of the Central Committee of the Communist Party of China on Several Problems Concerning Perfection of Socialist Market Economy System* which put forward “perfecting enterprise employee basic pension insurance system, sticking to combination of social pooling and individual accounts, and fully funding individual accounts in a gradual way”. After summarizing experience of full funding of individual accounts in Liaoning Province, the State Council expanded pilot in Heilongjiang Province and Jilin Province in 2014. The two provinces started from 5% and gradually fully funded individual accounts. The capital required for full funding was subsidized by the central finance by 3.75% and local finance by 1.25% respectively. The monthly standard of individual account pension was determined by dividing number of months for calculation and paying of pension from amount deposited in individual accounts. The number of months for calculation and paying of pension was determined according to factors like average life expectancy of

² Refer to Human Development Bureau of World Bank: *Five Problems in China’s Social Security System Reform (2001)*, forwarded from “Macro Economy” Special of www.drcnet.com.cn

urban population, retirement age of employees themselves and interest upon retirement of these employees. In 2005, the State Council released *Decision on Perfection of Enterprise Employee Basic Pension Insurance System* which put forward expansion of pilot of full funding of individual account and adjusted scale of individual accounts from 11% of wages to 8% as well as adjust the measures for calculation and paying of basic pension accordingly. In the same year, Ministry of Labour and Social Security and Ministry of Finance jointly released *Circular on Relevant Issues Concerning Expansion of Pilot of Full Funding of Individual Accounts of Enterprise Employee Basic Pension Insurance* and decided to further expand the pilot of full funding of individual accounts. The short-term goal of full funding of individual accounts was 5%. Places with favourable conditions were encouraged to realize 8%. During the pilot, principles such as separation of old, middle and new, separation of East China, Central China, and West China, activeness and reliability and gradual launch were followed. The central finance offered subsidies to Central and West China, old industrial bases and Xinjiang Production and Construction Corps. In 2007, according to the deployment of the State Council, Ministry of Labour and Social Security and Ministry of Finance issued a document concerning further expansion of pilot of full funding of individual accounts and confirmed that provinces like Jiangsu and Zhejiang might launch pilot of full funding of individual accounts relying on their own capacity.

1.3.3 Exploration of Enriching Pension Insurance Fund with State-owned Assets

In January 1996, State Commission for Restructuring the Economic System definitely stipulated in *Key Points to Implementation of Economic System Reform in 1996* that standard measures for compensation of insufficient social insurance fund by contributing a certain ratio from existing state-owned assets and land income were explored according to actual circumstances. *Key Points to Implementation of Economic System Reform in 1997* and *Key Points to Implementation of Economic System Reform in 1998* reaffirmed this content.

In September 1999, the suggestion of transferring state-owned assets to enrich pension insurance fund was written in *Decisions of the Central Committee of the Communist Party of China on Several Problems Concerning Reform and Development of State-owned Enterprises* approved in the Fourth Plenary Session of the 15th Central Committee of the CPC. In order to implement the spirit of *Decisions*, in June 2001 the State Council issued *Interim Measures for Reducing Holding State-owned Shares to Raise Social Security Fund* which requested companies limited by shares owned by the state to sell state-owned shares according to 10% of financing amount during IPO and increase of issues. The revenue from sales would be handed over to national social security fund. After this policy

was issued, strong fluctuation of stock market and certain social emotional fluctuation were triggered. Therefore, it was halted by CSRC 4 months later. In June 2002, the State Council official declared the termination of execution of state-owned shares holding reduction measures against domestic listed companies.

1.3.4 Improvement of Pooling Level of Enterprise Employee Pension Insurance System

Starting from law of large numbers of social insurance, with the higher the pooling level of pension insurance and the stronger the fund strength, pension insurance burden of different regions can be better balanced and the effect of pension insurance can become more stable and lasting. As early as 1987, the former State Commission for Restructuring the Economic System and the former Ministry of Labour mentioned in a circuit issued, “social pooling of retirement expenses shall be implemented in most cities and counties in China and places with favourable conditions can also carry out pilot of provincial pooling”. It was the first time when the concept of “provincial pooling” was used in documents of competent departments of the State Council. In 1991, the State Council released *Decision on Reform of Enterprise Employee Basic Pension Insurance System* which clearly proposed, “Favourable conditions shall be actively created to gradually transit from current municipal and county-level pooling to provincial pooling”. In 1995, the State Council printed and issued *Circular on Deepening the Reform of the Pension System for Staff and Workers of Enterprises* which presented that the highlight of reform was placed in prefecture-level cities. In 2007, the former Ministry of Labour and Social Security and Ministry of Finance jointly released *Circular on Relevant Issues Concerning Promotion of Provincial Pooling of Enterprise Employee Basic Pension Insurance* which requested acceleration of realization of provincial pooling step and unification of basic pension insurance system model, payment mechanism, treatment standards, fund management and business flow of each place at provincial level. By the end of 2007, 13 provinces and regions in China, namely, Beijing, Tianjin, Jilin, Heilongjiang, Shanghai, Fujian, Chongqing, Yunnan, Shaanxi, Gansu, Qinghai, Ningxia and Xinjiang realized provincial pooling, while four provinces and region, i.e. Henan, Hunan, Jiangxi and Tibet, as well as Xinjiang Production and Construction Corps issued provincial pooling measures.

1.3.5 Improvement of Pension Level of Enterprise Retirees

Since the pension insurance system reform of enterprises and government agencies and public institutions was not synchronous, the treatment calculation and paying measures and adjustment measures differed, and enterprises’ pension insurance system was changed from pay-as-you-go system to partial fund accumulation system while

government agencies and public institutions still used the original retirement system, the gap of treatment between retirees of enterprises and retirees of government agencies and public institutions kept increasing and the treatment level formed “three steps” from high to low, i.e. government agencies, public institutions and enterprises, consequently triggering many social contradictions. Currently, the average substitution rate of pension of government agencies and public institutions was approximately 80% which was much higher than that of enterprises (58%). In order to balance this gap, the State Council has already decided to improve the pension level of retirees of enterprises for 11 consecutive years since 2005, with an annual average growth rate of 10%.

1.4 Review and Top-level Design of Basic Pension Insurance System (2010-Now)

The pilot of full funding of individual accounts encountered with great difficulties over one decade. By the end of 2011, only RMB 270.3 billion of individual accounts was fully funded. The State Council already agreed that Liaoning Province might tentatively borrow money from fully funded individual accounts to pay the current expenditure. Later another two provinces applied not to fully fund individual accounts anymore. In 2010, the Twelfth Five-year Plan for National Economic and Social Development of the People’s Republic of China definitely pointed out, “Bigger resolution and courage shall be presented to comprehensively promote the reform in each field and more attention shall be paid to reform of top-level design and general planning”. Later, the discussion of top-level design of pension system reform was increasingly heated, and people began to review the pooling-account combination system again.

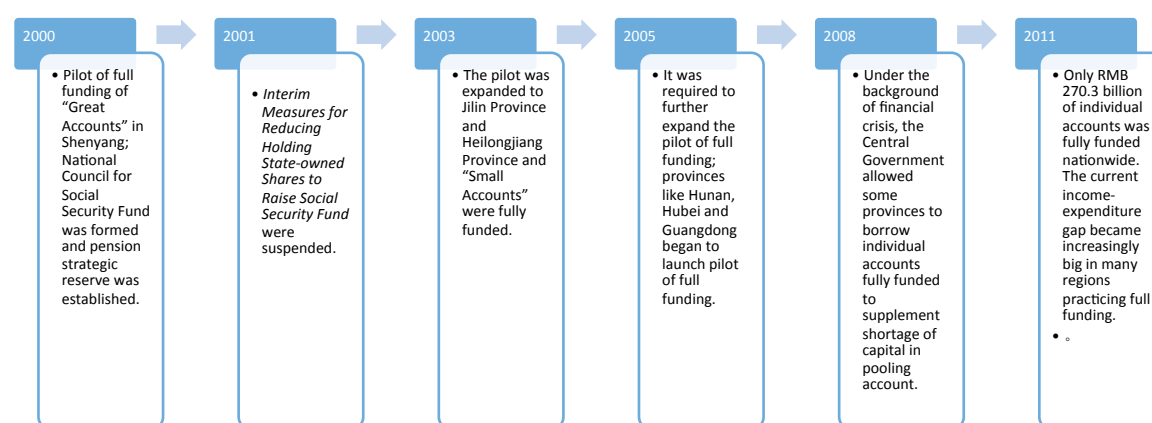


Figure 1-1: Effort and Practice of Full Funding of Individual Accounts

In 2013, the Third Plenary Session of the 18th Central Committee of the CPC put forward the idea of “Sticking to pooling-account combination system and perfecting individual account system”. Under the leadership of Ministry of Human Resources and Social Security, representative organizations in China with different academic viewpoints raised six top-level design schemes for pension system reform. The implementation of Notional Defined Contribution became a more practical option. However, this scheme triggered great controversies. In addition, that how to implement different Notional Defined Contributions was presented with different viewpoints. The study of this report is exactly amidst the arguments of this round of top-level design.

2. Main Problems Faced by Pooling-Account Combination

System of Basic Pension Insurance and Causes

It is undeniable that China’s pension insurance system construction has obtained great progress and realized the transformation from “enterprise self-insurance” to multi-party bearing pooling-account combination system. People benefited from this system keep increasing, the security level is stably improved and the management service capacity construction is strengthened. Nevertheless, some problems during development and reform are still not properly solved, and some new problems emerged under the new situation. The basic pension insurance system of urban employees of China faces the crossroad of development once again.

2.1 Main Problems Faced by Pooling-Account Combination System of Basic Pension Insurance

The primary problem of China’s pension insurance system to solve lies in fairness and sustainability. Requirements of fairness: 1. As an important part of social security system and also an important approach for national income redistribution, pension insurance system is an important content of China’s basic public service system. The function of income redistribution shall be properly developed; 2. It shall be ensured that pension fund realizes mutual aid among different generations, different groups of people and different regions; 3. More groups of people the system can cover shall be included in the system. Sustainability refers to long-term financial balance of pension level given relatively stable conditions under the scheduled condition of population age structure and a bearable rate, which requires that: 1. Pension payment rate is bearable for different types of enterprises and employees, and the expenditure used by each financial department of the state in

each level for pension insurance is also bearable; 2. Pension substitution rate can not only ensure certain living standards of retirees but also squeeze and supplement the development space of pension insurance due to the substitution rate being too high; 3. Pension can not only ensure payment in current period but also realize long-term financial balance. While ensuring fairness priority, basic pension insurance system shall also give equal consideration to efficiency which mainly refers to two aspects: One is motivation mechanism which links individual payments with pension treatment level. More people are motivated to take part in the system and actively pay relevant expenses; the other is to compress management cost and improve management efficiency. Therefore, the main problems faced by China's pension system include:

2.1.1 Long-term Financial Sustainability of System Confronted with Challenges

China began to step into the stage of aging of population since 1999. It is expected that the aged population will increase to 350 million to 450 million during “the Thirteenth Five-year” period. In the peak of aging of population, i.e. 2053, the ratio of total number of senior citizens aged 60 and above in total population will reach 35%. Meanwhile, the working-age population will continuously decline, the dependence coefficient of aged people will substantially increase and pension expenditure will quickly increase. If viewed from current fund income-expenditure operation condition, the current surplus of basic pension insurance fund of urban employees of China was RMB 420.994 billion in 2013. After deduction of financial subsidies, the current surplus was only RMB 16.317 billion. Some regions already faced the condition that income is less than expenditure in current period. If viewed from the accumulated surplus, there was no region with negative accumulated surplus. However, the growth rate declined to a certain extent and the regional differences were still significant. For example, the number of months of provision of accumulated surplus was 53.41 while that of Xinjiang Production and Construction Corps was only 2.85.

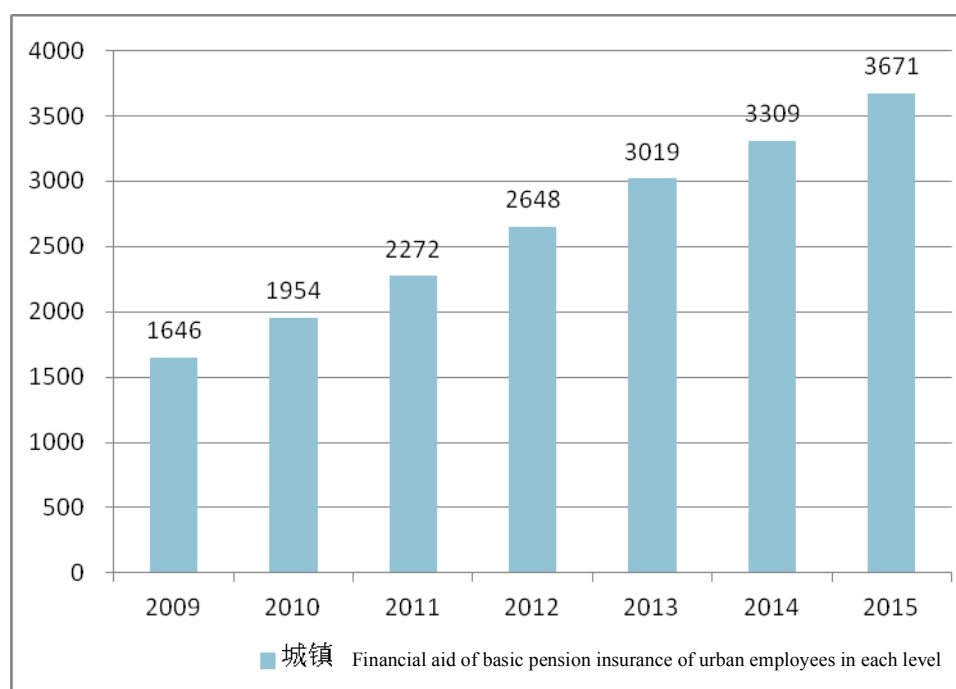
Table 2-1 - Surplus Conditions of Income Collection minus Total Expenditure of Basic Pension Insurance of Urban Employees in Each Province in 2013

| Province | Surplus | Province | Surplus | Province | Surplus |
|-----------|---------|--|---------|----------------|---------|
| Guangdong | 697.76 | Tibet | 2.67 | Chongqing | -81.54 |
| Beijing | 396.36 | Agricultural Development Bank of China | 2.08 | Xinjiang Corps | -82.81 |
| Jiangsu | 218.37 | Yunnan | -0.3 | Tianjin | -85.58 |
| Zhejiang | 215.15 | Sichuan | -6.14 | Guangxi | -88.68 |
| Shanghai | 208.38 | Ningxia | -14.4 | Henan | -88.73 |
| Shandong | 101.5 | Qinghai | -16.08 | Hunan | -111.8 |
| Fujian | 48.24 | Gansu | -25.63 | Jilin | -127.15 |
| Shanxi | 18.66 | Hainan | -30.63 | Hebei | -134.96 |

| | | | | | |
|----------|-------|----------------|--------|--------------|---------|
| Xinjiang | 15.84 | Shaanxi | -50.02 | Hubei | -174.47 |
| Anhui | 13.42 | Inner Mongolia | -63.94 | Liaoning | -233.82 |
| Guizhou | 6.4 | Jiangxi | -66.17 | Heilongjiang | -298.8 |

Data source: Zheng Bingwen: *China Pension Report 2014-Transformation to Notional Defined Contribution*. Beijing: Economy & Management Publishing House, 2014.

It should be recognized that the current condition in some regions including Northeast China that the income was less than the expenditure was related to unreasonableness of regional splitting of system at present. This problem could be solved through inter-regional pooling and mutual aid. However, the development of aging of population would increase the pressure of financial expenditure under the condition that China was currently lack of fund-raising channels beyond the system and also effective solutions to transformation cost.



Note: The amount in 2015 is a budget amount; data source: Financial Statistical Yearbook in relevant years

Figure 2-1: Expenditure of Financial Aid of Basic Pension Insurance of Urban Employees in Each Level

2.1.2 Poor Adaptability to Mobility

The transfer and renewing of pension insurance relation are unimpeded, it is inconvenient for the insured to transfer and new pension insurance relation in different pooling regions

and among different systems, the formalities for transfer and renewing of pension insurance relation are complicated and overloaded and take a long time. Actually, the technologies and policies of transfer and renewing are basically completed. The primary cause of not ideal execution in reality lies in decentralized fund management and low pooling level. The power of property and the power of office of each level of government among different pooling levels are unclear. This problem can be gradually solved through nationwide pooling of basic pension.

2.1.3 Overall Falsely High Payment Rate and Obvious Regional Differences

Currently, the sum of rates of five social insurances paid by Chinese enterprises and individuals is around 40%. Among these five social insurances, the rate of pension insurance is mainly relatively high (it is 28% in most regions). Since a relatively big gap exists between actual payment base number and wage income, and the calculation of payment base number is based on social average wages, while only statistics of enterprises above designated size are gathered to calculate social average wages, two problems will be therefore caused: 1. The real payment rate is lower than nominal payment rate. According to relevant researches, the real payment rate of enterprise employee basic pension insurance of China is approximately 14%; 2. Some enterprises especially many SMEs and labour-intensive enterprises indicate that the payment burden is too heavy, the employee wages are lower than social average wages and the payment rate is relatively high. Furthermore, the payment rate differs greatly in different regions, to result in unequal development opportunities in these regions. China actually executes 16 standards of enterprise basic pension insurance payment rate. The highest payment rate is 22% while the lowest is 10%. 8 provinces still fail to realize unified payment rate in the provinces, and some provinces even adopt as many as 12 standards.

2.1.4 Incomplete Pension Treatment Determination and Adjustment

If viewed from the perspective of treatment determination mechanism, in order to fulfil the requirements of extensive and full coverage, the threshold for obtaining of pension qualification is set relatively low and the sustainability of system becomes worse. It is mainly reflected in the following aspects: 1. Low payment term: Chinese people paying 15 years of insurance expenses are qualified to obtain pension in China's basic pension insurance, while the minimum payment term of most OECD countries reaches 40 years; 2. Low retirement age: Relevant researches indicate that the average retirement age of urban employees of China is 56.1, while the average retirement age of OECD countries is 64 for males and 63 for females. Under the condition that the life expectancy of Chinese population keeps growing, the retirement age stipulated is too early. The retirement age is

not linked with life expectancy per capita. Therefore, it fails to dilute supporting rate to improve financial sustainability of pension insurance; 3. The number of months for calculation and paying of pension is not timely revised. The calculation and paying of individual account pension is based on nominal accumulated amount of individual accounts by dividing number of months for calculation and paying of pension. Currently, China still follows the table of number of months for calculation and paying of pension to individual accounts released in 2005 and thus it fails to fully reflect the changing conditions like life expectancy of population and retirement age. The number of months for calculation and paying of pension to individual accounts under current system is only about half of actual remaining life.

If viewed from the perspective of treatment adjustment mechanism, administrative adjustment makes adjustment rigid and the income-expenditure restriction of pension fund is softened. Since the reform of pension system of enterprises and government agencies and public institutions is not synchronous, system model, treatment calculation and paying methods and adjustment methods all differ. The treatment gap between these two systems kept expanding since 2001, thus triggering many social contradictions. Currently, the average substitution rate of pension of government agencies and public institutions was approximately 80% which was much higher than that of enterprise employees (approximately 50%). In order to balance this gap, the State Council has already decided to improve the pension level of retirees of enterprises for many consecutive years since 2005, with an annual average growth rate of 10%. This kind of administrative instruction “adjustment” method had a positive effect within a short term. However, it results in unclear expectation of society for pension treatment adjustment, splits income association designed in original system, and also forces the government to carry out rigid improvement of treatment, which significantly increases its financial pressure. The calculation method for adjustment of treatment standards is not scientific, which has already caused the problem of reverse linking of wages of in-service employees and pension treatment. It is required to establish a scientific adjustment mechanism on the basis of actuary to conduct adjustments according to economic and social development conditions and stabilize people’s expectations.

Besides the four problems mentioned above, many viewpoints regard that the fairness of basic pension insurance pooling-account combination system of urban employee of China is still questionable. It is regarded in this report that the problem of fairness exists in China’s basic pension insurance system including basic pension insurance of urban employees, basic pension insurance of government agencies and public institutions, and basic pension insurance of urban and rural residents. However, basic pension insurance

system of urban employees has reflected fairness in a relatively favourable way. 20% of social pooling ratio of current system is beneficial to the adjustment of income redistribution. Relevant research findings also indicate the pension insurance has an obvious effect on income redistribution amount people with high and low income. However, its effect on income redistribution among people of different employment types is not clear, thus reflecting the unfairness of system³. Some scholars put forward an issue that the insufficient coverage of employee basic pension system has an adverse influence on fairness. It mainly refers to that a considerable number of migrant workers and flexible employees are not included in the system. It is regarded in this report that extensive coverage is more beneficial to mutual aid and sustainability of system. But it is currently not necessary to forcefully include in all migrant workers and flexible employees in basic pension insurance system of urban employees, for employment market needs certain flexibility while employment is the best guarantee. If all employees are forcefully included in pension insurance system, the labour cost of irregular employment will be increased, which is not beneficial to promotion of employment. It will not only increase management cost but also make some irregular employees to reject and cancel insurance. The total number of migrant workers of China is about 270 million, and the number of migrant workers flowing cross provinces is around 160 million. In order to solve a series of problems concerning urban social security, education, and medical treatment and public health available by migrant workers, the essential way out is to promote “citizenization” of migrant workers. It is very difficult to solve this problem only relying on social insurance. It also depends on the reform of household registration system developed along with urbanization. In 2014, China already began to implement *National New Urbanization Planning (2014-2020)* and the promotion of reform of household registration system featuring “citizenization” of employed population from rural area to urban area was an important content of this planning.

2.2 Primary Causes for Great Difficulties Encountered by Pooling-Account Combination System

The main problems faced by existing pooling-account combination system are not isolated. These problems connect and influence each other and present relatively strong logical causal relationship. For example, in regions where individual accounts cannot be fully funded, the income-expenditure gap of the pension fund is relatively big, the aging of population is serious and the payment rate is relatively high. Since improvement of pooling level is a precondition for obtaining of transfer payment from the central finance, the

³Wang Xiaojun & Kang Bowei. Analysis of Income Redistribution Effect of China’s Social Pension Insurance System. *Statistical Research*, 2009 (11).

pooling level in these regions is also relatively high; in regions where individual accounts are fully funded, the payment rate is relatively low, the pooling level is relatively low and the value preservation and increase pressure of pension fund is huge. The primary causes resulting in these problems mainly lie in:

2.2.1 Problem of Transformation Cost Unsolved

During the transformation progress from pay-as-you-go system to pooling-account combined employee basic pension insurance, China has always failed to solve the problem of transformation cost. Although some relevant documents put forward the idea of appropriating a part of assets of state-owned enterprises to supplement pension fund, it was not implemented for many years. During the actual operation, this problem was solved by improving enterprise payments and borrowing individual account payments, which would inevitably result in mixed and empty accounts. The in-service generation has not only to support the retired generation through inter-generation transfer payment but also to prepare for their retirement, while the pension level of the retiring generation also slightly declines, thus paying a cost for system transformation.

2.2.2 Pooling Level Too Low

Pooling level being too low leads to a phenomenon that regions with relatively high supporting rate of aging population have to overdraft fund accumulated in individual accounts and maintain a relatively high payment rate, while regions with relatively low supporting rate of aging population are able to lower payment rate. Regional gap of payment rate results in unfairness of development opportunities in different regions. Developed regions obtain development “dividends”. Since nationwide pooling of pension is still not realized yet, balance of pension of developed regions cannot be transferred to regions failing to make both ends meet. As a result, the central finance has to appropriate over RMB 200 billion to subsidize these regions in order to realize balance of payments. Therefore, the central finance is supporting the operation of split pension system. In fact, the subsidy from the central finance stays in a minority of surplus provinces. Besides, due to the individual account fund torn to pieces, it is impossible to establish an investment and operation mechanism of individual account fund and it is difficult to effectively appreciate the accumulated fund.

3. Overall Idea for Perfection of Pooling-Account Combination

System of Basic Pension Insurance

3.1 Main Idea

Implement the requirements of the Third Plenary Session of the 18th Central Committee of the CPC for establishing of a fairer and more sustainable social security system, based on the general situation of new normality of China's economy and the changing trend of population age structure, stick to the guideline of full coverage, basic insurance preservation, multiple levels and sustainability, the essential direction of fairness priority and the essential direction of narrowing but not expansion of initial distribution gap without any deviation, actively promote structural reform of basic pension insurance of urban enterprise employees and perfect and give equal consideration to relevant supporting measures, and promote the development of basic pension insurance system in a fairer and more sustainable way.

3.2 Basic Principles

- Fairness priority and equal consideration to efficiency: Basic pension insurance system is not only an important project of China's social security system but also an important part of the national basic public service system. The functions of mutual aid and income redistribution of basic pension insurance system shall be emphasized. On this basis, motivation mechanism and supply efficiency of the system shall be improved, and people's initiative to take part in insurance and pay insurance expenses shall be enhanced.

- Sharing by three parties and guarantee of basic insurance: Stick to the sharing of basic pension insurance expenses by three parties, i.e. the state, enterprises and individuals. Realize social pooling and mutual aid of basic pension insurance expenses at a relatively high level and within a relatively big scope. Stick to the principle of basic insurance preservation, provide more groups of people with certain level of basic insurance, and gradually expand insurance scope and improve standards according to the economic and social development and changes of demands.

- Revealing of all the details by the government and assurance of actuary balance: It means actuary balance based on the revealing of all the details by the government. Strengthen the dominant position and leading role of government in provision of basic pension insurance, perfect government input guarantee mechanism, pursue "actuary balance" of system as much as possible, conduct actuary balance analysis of income-expenditure

condition of pension insurance account fund within a certain period, and make the national finance reveal all the details when necessary.

- Supporting and comprehensively advancing reform: The construction of basic pension insurance system shall adapt to the economic development situation of the state and the changing trend of population age structure. In addition, it is required to continuously perfect relevant supporting measures, establish scientific treatment determination and adjustment mechanism, link the indexation of basic pension with equilibrium factor of the system, and improve system insurance level and operation efficiency.

3.3 Proper Handling of Several Major Relations

3.3.1 Relation between Mutual Aid and Motivation

Motivation and mutual aid of basic pension insurance are trade-off to a certain extent. The stronger the motivation and the weaker the mutual aid would become. Mutual aid emphasizes fairness and mutual assistance, while motivation stresses correspondence between rights and obligations. The legal basic pension insurance of the state shall cover the whole people and promote social fairness. Therefore, the basic function of mutual aid shall be emphasized. Linking of treatment with payment can be enhanced and honest and diligent labour can be promoted only on this basis.

3.3.2 Relation between Present and Long Term

Pension system is an income-consumption smoothness system between generations and among different stages of individual life cycle. It is often affected by long-term factors like degree of aging of population, retirement term, and return on investment. It has to go through a long test and cannot bear the influence of short-term factors like policy regulations and administrative assessment. The goal of reform of pooling-account combination system of pension insurance of urban employees is not only to preserve current rigid payment but also to benefit long-term sustainable development of system and give equal consideration to present and long term.

3.3.3 Relation between Government and Market

In the pension system, properly handling relation between government and market is actually to properly handle the relation between basic pension insurance and supplementary pension insurance and make clear of the functions of these two insurances. An important content of reform of pooling-account combination system is to clearly define security responsibility and level of basic pension sponsored by the government and properly release market acting space.

3.3.4 Relation between Central Government and Local Governments

Basic pension insurance is the common power of office of central government and local government. Relationship of power of office shall be gradually smoothened and decentralized authority of central government and local government shall be emphasized. The central government shall not only break local protectionism, conduct pooling, adjustment and use of pension in a bigger scope and turn over the reverse transfer tendency of expansion of initial distribution gap of inter-region basic pension insurance project, but also fully mobilize local initiative and encourage mutual competition and learning among different places. Under the condition that the regional development gap of China is relatively significant, it can be considered that the central government shall take charge of nationwide pooling of basic pension and enough acting space shall be given to local governments on the basis of guarantee of basic pension demand.

4. Pooling-Account Combination System Model of Basic Pension Insurance

4.1 Arguments of Different Viewpoints on Perfection of Basic Pension Insurance

Arguments between “shorting” and “full funding” have always existed as for selection of direction for perfection of pooling-account combination.

4.1.1 Shorting of Individual Accounts and Implementation of Notional Defined Contribution

Based on the reality that full funding of individual accounts is very difficult over many years and referring to experience of establishing of nominal accounts by some countries, certain sectors and scholars put forward transformation as Notional Defined Contribution⁴ and come up with three schemes: 1. Implement full nominal accounts (28%). Include individual and enterprise payments to nominal accounts. They belong to individuals. National unified account-keeping interest rate is released every year with clear individual payment records. In addition, calculation and paying formula featuring more payment for more gain is adopted. Pooling account and individual account fund are used in a mixed way and all of them are used for current payment. The surplus fund is used for investment and operation; 2. Implement larger nominal accounts (16%) to enhance payment motivation; 3. Implement small nominal accounts (8%) and do not change the current situation of enterprise payment as 20% and individual payment as 8%. The three schemes

⁴Zheng Bingwen: *China Pension Report 2014-Transformation to Notional Defined Contribution*. Beijing: Economy & Management Publishing House, 2014.

mentioned above are to strengthen payment motivation mechanism and request using individual wage income as payment base number. The balance of individual accounts is not inherited.

The main reason for supporting of Notional Defined Contribution lies in its motivational effect. It is regarded that Notional Defined Contribution implements DC system with payment determined as for payment of treatment. The individual payment is directly linked with pension treatment level. Therefore, it has relatively strong payment motivational effect theoretically, which is mainly reflected in the following aspects: 1. Motivation of individual payments benefit expansion of coverage and improvement of collection level; 2. Payment is directly linked with pension treatment. The concept of more payment for more gain helps increase payment term and encourage postponed retirement; 3. It is convenient to manage nominal individual accounts and it is easily to transfer and renew. Therefore, this system adapts to population mobility; 4. Nominal individual accounts can realize long-term financial sustainability of the system through actuary relation between treatment and payment.

4.1.2 Full Funding of Individual Accounts to Conduct Structural Adjustment

Scholars holding this viewpoint think that pooling-account combination system is an innovation of China's pension system and it has well integrated the advantages of pay-as-you-go system and fund accumulation system and fully reflected the principle of equal consideration to fairness and efficiency. Besides, it experienced major theoretic and decision-making discussion in the 1990s. The future development direction is to establish national basic pension system through system integration to overcome poverty of senior citizens; build functions of savings of individual accounts and market financing to improve senior citizens' lives. It requires the full funding of individual accounts as soon as possible. There are two different viewpoints concerning how to fully fund individual accounts and how to manage individual accounts after full funding: 1. Individual accounts fully funded are still a part of basic pension insurance and they shall go through market-oriented investment and operation. It insists on original intention of system design and claim gradual implementation of full funding. It can start from full funding of small accounts (5%). New and old accounts shall be separated. Old accounts shall be fully funded by other means including appropriation of income of state-owned capital and increase of fiscal revenue; 2. Change individual accounts to supplementary pension insurance. Scholars with this viewpoint think that individual accounts do not increase efficiency or solve the problem of retirement income guarantee under the condition of aging of population. Instead, it brings many realistic challenges. Therefore, these scholars recommend

separation of social pooling from individual accounts and inclusion of individual accounts to voluntary enterprise annuity or personal savings insurance⁵.

The important reasons for supporting of full funding of accounts are aging of population and system recognition. It is regarded that Notional Defined Contribution is not sustainable under the background of aging of population. Besides, the economic advantage and motivational effect of Notional Defined Contribution are not obvious, and it directly damages the function of income redistribution and substantially lowers the safe expectations of the insured. The reasons why individual accounts cannot be fully funded shall be treated in an objective way, and it shall be clarified that the individual accounts cannot be fully funded cannot deny the correctness of decision-making of pooling-account combined partial fund accumulation system.

4.2 Theoretic Analysis Based on Cross Matrix

A cross matrix indicating relationship between mutual aid and motivation and between present and long term is established for analysis. Mutual aid and motivation of pension system has a trade-off relationship. If viewed from the perspective of the entire economic aggregate, capital available for basic pension insurance system is limited. If the mutual aid of the system is improved, its motivation will be inevitably weakened. If the motivation is improved, its mutual aid will be inevitably weakened. The relationship between present and long term is often considered from the perspective of financial balance. The long-term sustainability of the system refers to long-term financial balance under a bearable rate and relatively stable condition of pension level with given population age structure.

If viewed from the perspective of financial model, pension insurance system can be classified into pay-as-you-go system and fund accumulation system. Pay-as-you-go system determines income based on expenditure, combines expenditure with withdrawal and implements inter-generation income redistribution. It features strong mutual aid and ensures current expenditure; fund system features withholding accumulation and future payment and implements income redistribution within individual life cycle. It has weak mutual aid but ensures long-term financial balance. If viewed from the perspective of treatment payment model, pension insurance system can be classified into treatment determined DB model and payment determined DC model. DB system can be linked with payment. However, more importantly, it guarantees a certain pension level to prevent poverty of senior citizens; DC system is directly linked with payment. The treatment level is

⁵Li Zhen. *Analysis and Evaluation of Basic Pension Insurance System*. Beijing: People's Publishing House, 2013.

related to payment and investment and operation conditions. But it does not ensure treatment level under certain substitution rate. Both fund system and pay-as-you-go system can be designated as DB or DC model.

Partial fund accumulation system determined by China in 1997 was expected to combine the advantages of comprehensive pay-as-you-go system and fund accumulation system. Pay-as-you-go system was implemented for 20% of social pooling to reflect mutual aid. It was mainly used to pay basic pension of DB model. Fund accumulation system was implemented for 8% of individual accounts to reflect motivation. In addition, it was used accumulate partial fund for long-term payment. It was mainly used to pay individual account pension of DC model.

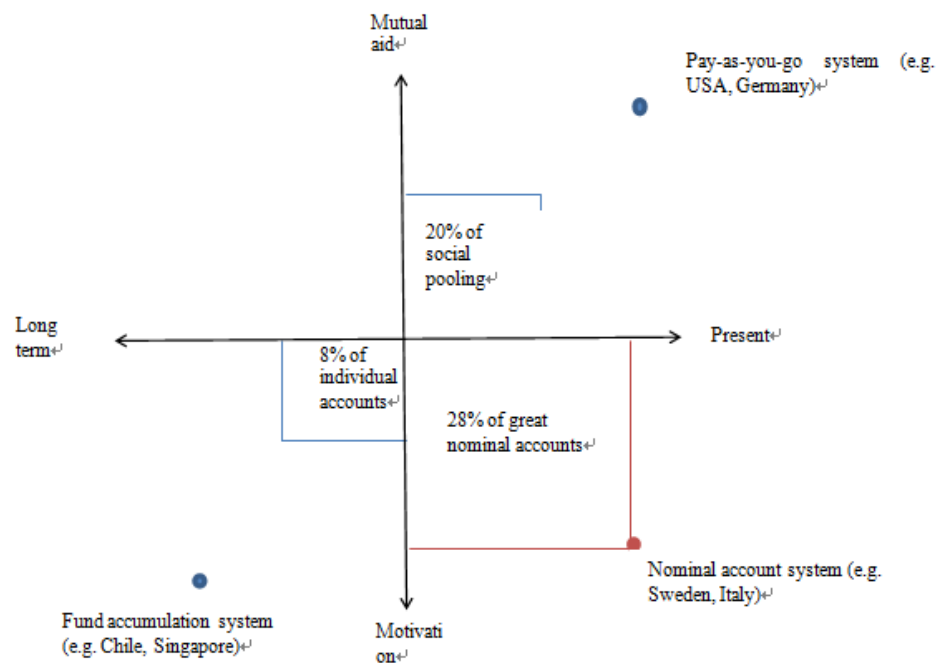


Figure 4-1: System Design and Full Notional Defined Contribution Reform Scheme in 1997

Notional Defined Contribution refers to “nominal payment determination system”. It is a pay-as-you-go system in terms of financial operation. It is another bookkeeping method of pay-as-you-go system instead of innovative form of fund accumulation system. The Notional Defined Contribution itself has no fund accumulation and its financial balance depends on the national fiancé. The capacity of the system for handling of aging of population is relatively low.

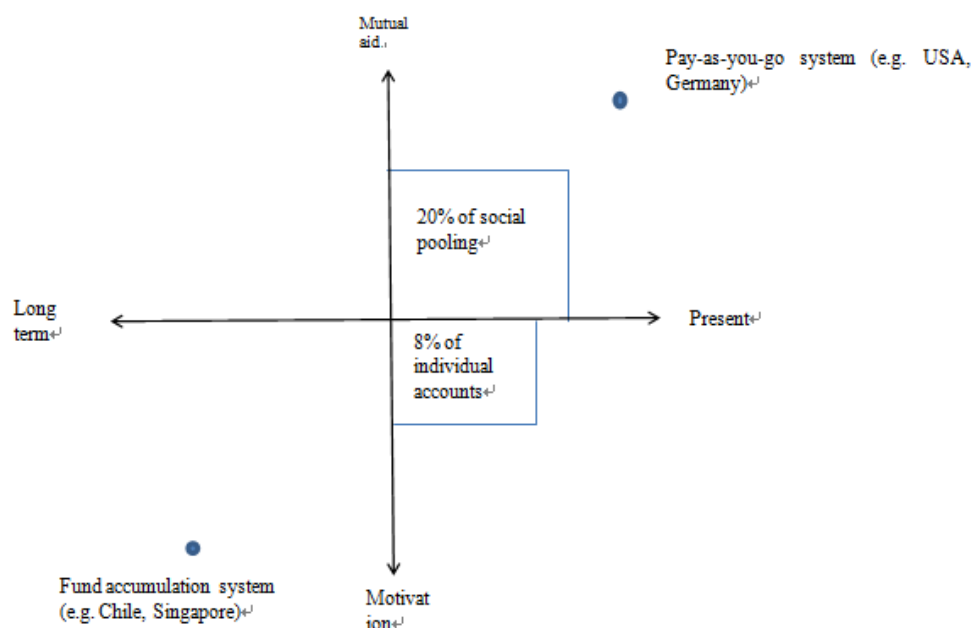


Figure 4-2: 8% Notional Defined Contribution Reform Scheme

4.3 Practical Inspection of Focus of Contradiction

There are two focuses of contradictions of different viewpoints: 1. Whether Notional Defined Contribution can realize long-term sustainable development through actuary balance; 2. How big the motivational effect of Notional Defined Contribution is.

4.3.1. Is Notional Defined Contribution sustainable?

Long-term sustainability of the system refers to long-term financial balance under a bearable rate and relatively stable condition of pension level with given population age structure. The preconditions of two viewpoints (i.e. sticking to full funding of individual accounts and implementing fund accumulation system & shorting individual accounts and implementing Notional Defined Contribution) differ concerning the issue of sustainability. Scholars who support full funding of individual accounts predict that pension fund has self-balanced income and expenditure. If large-scale financial imbalance takes place in the peak of aging of population, this system will fail. Scholars opposing full funding believe that the younger generation always has to create material wealth to support the elderly generation under all financial systems if viewed from the perspective of physical form, and the full funding of individual accounts is also exposed to the fund investment and operation risks. Therefore, it is unnecessary to fully fund individual accounts in this regard. The pension system needs to satisfy rigid payment and financial support from the government is also an important source of pension fund income. Therefore, when

payment gap appears in the pension, the financial department of the government may conduct current transfer payment.

The precondition of sustainability of Notional Defined Contribution is unlimited support and warranty from the finance. For example, relevant law of German stipulates that about 20% of income of pension comes from fiscal appropriation of the state. The debt condition of Germany exceeded the red line established by the Eurozone every year from 2002 to 2005, while 30% of public expenditure of Germany was spent on the subsidy of pension. China's retirees rely on basic pension insurance too much and they have relatively high expectations for basic pension insurance and also relatively high requirements for fairness. If pay-as-you-go system is implemented, it must join hands with multilevel supplementary pension insurance system for mutual support. Otherwise, the pay-as-you-go system which takes on all things is not sustainable.

Under the background of aging of population, Notional Defined Contribution cannot change the continuously deteriorated supporting rate of aging population faced. If principle of "actuary balance" is introduced to Notional Defined Contribution itself and no capital investment outside the system such as finance is provided, the payment burden of the in-service generation will be increased, or the substitution rate of pension treatment will decline. Sweden began to implement Notional Defined Contribution since 1994. The pessimistic prediction during financial crisis in 2008 was that the condition that debts outperformed assets would occur only in 2020. However, the actual situation was that the responsibilities of individual account system of Sweden began to exceed assets in 2008. Therefore, it was required to lower interest calculation rate of individual accounts (i.e. lower retirement treatment level) in order to keep the system balanced. In 2010, Sweden launched automatic balance mechanism. As a result, the growth rate of pension in current year dropped from 4.6% in previous year to -3%. This figure even declined to -4.3% in 2011. In 2012, the automatic balance mechanism stopped. The growth rate of pension in 2012 recovered to 3.6%. The huge fluctuation could not provide the insured with stable and safe expectations.

4.3.2 How big is the motivational effect of Notional Defined Contribution?

Firstly, it is about the relation between nominal accounts and system coverage: Some viewpoints hold that Notional Defined Contribution motivates individuals to pay and participate in insurance. Since individuals can clearly supervise enterprise payments and individual payments are linked with pension treatment, the possibility that enterprises and individuals collude to lower payments. Certain practice already indicate that the coverage rate of pension system is irrelevant to individual account system and size of individual

accounts, while coverage rate is related to pension insurance payment rate, enterprise operation condition, condition of labour supply of private sectors and intensity and capacity of policy execution. As for the collusion of enterprises and individuals for reduction of payment, it is irrelevant to scale of individual accounts. The occurrence of this phenomenon will not be avoided due to expansion of scale of individual accounts. *Social Insurance Law of the People's Republic of China* stipulates mandatory paying obligation of enterprises and individuals. Management institutions may discover the problem of fee avoidance through labour supervision.

Secondly, it is about the relation between nominal accounts and payment: Some viewpoints hold that Notional Defined Contribution motivates individuals to increase payments and postpone retirement. This viewpoint is not checked by practice. Sweden implements Notional Defined Contribution and stipulates mandatory age for retirement as 65. The system allows individuals to choose to retire ahead of time or postpone retirement. Certainly, pension level is closely related to mandatory age for retirement. The earlier the people retire, the lower the pension level would be (vice versa). The system designers think that the beneficiaries would intend to choose to postpone retirement. However, things go awry. Relevant figures indicate that more and more people intend to choose to retire ahead of time instead of postponement. With the retrocession of year of birth, the ratio of people choosing to retire ahead of time becomes increasingly big. Besides, the age for retirement becomes increasingly early. Among newly increased retirees every year, the ratio of population aged from 61-64 increased from 9.4% in 2002 to 21.8% in 2008, which obviously ran counter to the initial intention of establishing of nominal individual accounts⁶.

Thirdly, the management cost of nominal accounts is low and it is convenient for transfer and renewing. Nominal accounts are pay-as-you-go. The management cost is indeed low. However, transfer and renewing are more related to division of power of property and power of office and are irrelevant to that whether actual capital transfer exists in individual accounts. If power of property and power of office of pension payment belong to local governments, nominal accounts will not benefit transfer and renewing and the receiving places will choose to reject.

Fourthly, it is about the relation between nominal accounts and fund value preservation and increase. Fund value preservation and increase under pay-as-you-go system are only limited to surplus fund. Interest rate is objective result of market and it shall not be

⁶Li Zhen & Zhou Yimeng. "Swedish Model" of Social Pension Insurance System: What Swedish Notional Defined Contribution System Solve? *Economic Perspectives*, 2010 (8).

established as planned. “old peasant insurance” of China once implemented bookkeeping interest rate higher than market interest rate in order to motivate payments, which unexpectedly attracted other market capital to the system, indicating that the bookkeeping interest rate of nominal individual accounts should never be higher than market interest rate, and the motivational effect of Notional Defined Contribution was limited.

It is thus clear that Notional Defined Contribution especially full Notional Defined Contribution is not a cure-all medicine solving the problem of employee basic pension insurance as what some scholars worship and its motivational effect was not checked through practice. In addition, it does not indicate that this system is superior to system before reform in terms of solving of financial sustainability issue and labour market efficiency losses. Besides, basic pension insurance system is a major system construction project. It shall not be constructed only based on a motivational mechanism. Basic pension insurance system must stick to the principle of fairness priority and principle of efficiency shall be mainly applied in multi-pillar supplementary insurance system.

4.4 Viewpoint of This Report

Following the basic principles for perfection of pooling-account combination system of basic pension insurance mentioned above, this report regards that Notional Defined Contribution can be implemented when it is indeed difficult to fully fund individual accounts, but only small nominal individual accounts can be implemented. Nominal individual accounts shall not be expanded. In particular, 28% of full Notional Defined Contribution shall not be implemented. Zero social pooling would make the system lose inter-generation mutual aid mechanism, which is a fundamental overturn of pooling-account combination system. It shall be clearly defined that Notional Defined Contribution is pay-as-you-go system. If the government input is not provided, the paying pressure of future aging of population cannot be eased through “actuary balance”. Therefore, this report puts forward two schemes:

4.4.1 Scheme 1: Encouraging Fund Accumulation and Fully Funding Individual Accounts in a Gradual and Flexible Manner

It is an optimized scheme. Respect and prudently treat the common understanding formed during previous three discussions concerning individual accounts, review pooling-account combined partial fund accumulation system established by China (equal consideration to fairness and efficiency and present and long term), objectively treat the reality and causes of failure to fully fund individual accounts, and make clear that failure to fully fund

individual accounts cannot deny the correctness of pooling-account combined partial fund accumulation system.

Organically combine social pooling with individual accounts, keep existing payment ratio unchanged, manage pooling accounts and individual accounts in a mixed way, and ensure paying of pension insurance in current period. Reform pension investment management system and encourage each place to accumulate pension fund. Individual account fund and its investment and operation management are in the charge of provincial government. Promote individual account pension investment and management system reform, introduce market-oriented investment operation and competition mechanism, enhance dynamic power of each place to accumulate pension fund and ensure value preservation and increase of pension fund. Pension fund accumulation, investment return and investment risks are in the charge of provincial governments. Meanwhile, separate administrative affair management, investment management and supervision management of pension insurance, strengthen pension investment and operation supervision of the central government, establish pension fund investment risk control system, and formulate specific investment objects, investment rules, procedures, etc..

As for cross-region employee flow, it can be stipulated that it is only required to transfer pension insurance relation but not required to transfer individual bookkeeping accumulation fund due to different inter-region accumulation fund scale and scale of individual accounts fully funded. Relevant individual account expenditure of pension of transferred population is solved by the central government using collection adjustment payment based on realization of nationwide pooling of basic pension and according to ratios of population transferred out and transferred in among different areas.

4.4.2 Scheme 2: Implementing Lager Social Pooling + 8% Small Notional Defined Contribution

It is a secondary optimized scheme. Ensure that pooling-account combined basic system model remains unchanged and payment ratios of social pooling and individual accounts remain unchanged. Social pooling is formed by enterprise payments as 20% of total amount of wages. Pay-as-you-go system with payment determined is implemented; individual accounts are formed by individuals as 8% of their wages. Bookkeeping method of Notional Defined Contribution with payment determined is implemented. Individual account pension payment and treatment are strictly corresponding, i.e. more payment for more gain. Pooling fund and individual account fund are managed and used in a “mixed” way to ensure paying in current period. The surplus can be invested and operated.

The central government is responsible for nationwide pooling of basic pension as well as relevant basic pension and transitional pension. The paying standards of basic pension are determined according to living standards of different areas. The central government stipulates national unified individual account bookkeeping interest rate and ensures that the investment return of pooling and individual account fund already accumulated by local governments is used to ensure employee pension insurance level of local regions before nationwide pooling of basic pension.

As for cross-region employee flow, since most regions adopt nominal individual accounts, it is only required to transfer pension insurance relation and record individual bookkeeping accumulation fund to place of movement. During cross-region transfer of employees in regions with individual accounts already fully funded, it is not only required to transfer pension insurance relation but also needed to transfer individual account accumulation fund. Individual account fund fully funded can be operated and management by entrusting National Council for Social Security Fund. Provincial governments are responsible for individual account fund accumulation, investment return and investment risks in regions with individual accounts fully funded.

5. Nationwide Pooling of Basic Pension

5.1 Arguments of Different Viewpoints

5.1.1 Unified Collection and Allocation of Funds by the State

Unify payment base number calculation specification, unify enterprise payment rate, unify collection revenue, unify treatment payment, unify system operation specification and supervision and unify handling mechanism and information system. The local governments shall pay all pooling funds to the central agreement, the central government is responsible for implementing national unified collection and unified expenditure of employee basic pension, and the local governments are responsible for individual account pension. On the basis of actuary balance analysis of income-expenditure condition of pooling accounts within a certain period, unified enterprise payment rate is determined. The central government is clearly defined as responsible subject to implement full-amount budget management. When social pooling accounts formed by payments are not enough for current payment, the central finance will subsidize to solve the problem.

5.1.2 Implementation of Nationwide Pooling for Part of Basic Pension

Divide basic pension borne by the central government and local pension responsibility borne by local governments. The central government and the local finance shall reveal all the details respectively. On the basis of provincial pooling, the subsidy of the central

finance and pooling adjustment payment paid by each province are applied to bear a part of basic pension of each province, while the remaining pension demand is borne by the local governments.

5.2 Analysis of Advantages and Disadvantages of Different Viewpoints

If viewed from the perspective of linking with realistic pooling level and responsibility sharing of the central government and the local governments, the abovementioned viewpoints completely hand over the control power of pooling fund to the central government and the central government is completely responsible for paying of basic pension. The advantages include clear fund income and expenditure and simple operation; the disadvantage includes full responsibility exemption of local governments. The central government is in comprehensive charge of basic pension of each place and big problems exist as how to balance gap of each place. Besides, the pressure and responsibility of the central finance can be greatly increased. Viewpoint 1 also requests unification of payment rate nationwide. However, since regional differences concerning current payment rate already exist, if unification is forced, dissatisfaction of enterprises and individuals in surplus regions can be easily caused and the system will face excessive strengthening of risks. Besides, the local governments are exempted from liability and they are only income-expenditure institutions. Income and expenditure can be socialized and thus the local governments do not have initiative, thus possibly resulting in moral risks and adverse selection. Currently, the provincial pooling realized is adjustment payment system without unified income and expenditure. The pension fund is still in the charge of governments of each prefecture-level cities and counties, which is relatively far away from the comprehensive realization of unified income and expenditure.

Viewpoint 2 requests provincial governments to undertake partial responsibility for basic pension. To be specific, a part of social pooling fund is preserved in local governments, while a part of social pooling fund is paid to the central government. Then, pooling fund paid to the central government and the central finance form the sources of basic pension. The key problems faced include: 1. The responsibilities of the central government and the local governments shall be clearly defined. Otherwise, it will easily cause dependence of local governments on the central government or dissatisfaction of local governments; 2. As for determination of ratio of social pooling fund paid by provincial governments, the initiative of local governments shall be protected and the capital demand for smooth implementation of schemes shall be satisfied.

5.3 Viewpoint of This Report

It was put forward in the Third Plenary Session of the 18th Central Committee of the CPC that a system suitable for power of office and expenditure responsibility should be established and the power of office and expenditure responsibility of the central government should be properly strengthened. Nationwide public products and products with regional overflow effect shall be included in the power of office of the central government. The central government can collect a part of power of office according to factors like beneficiary scope, information availability and scale economy. Since basic pension insurance is a common power of office of the central governments and the local governments, the relation of power of office shall be gradually smoothened. This report thinks it necessary to fully mobilize initiative of the central government and the local governments and implement central-provincial two-level basic pooling architecture. The central government and the provincial governments shall jointly undertake responsibilities for pension. Since the rate in regions with relatively low enterprise payment rate is only 11%, the payment rate shall not be forcefully improved without exception. During start-up stage, 10% of social pooling fund of each place can be handed over to the central government and forms central pooling fund with current financial aid of the central finance. The central pooling fund shall be adjusted and used nationwide. Some of pooling fund and individual account fund are preserved in local governments. Each province and district shall comprehensively implement provincial pooling of fund. The provincial governments shall take charge of investing and operating pension surplus fund. In the future, enterprise payment rate of each place shall be adjusted in proper timing based on regional coordinated development of the whole country in the future to finally realize nationwide unification.

The central government and the local governments are jointly responsible for payment demand of basic pension. The payment is based on the principle of equality of citizens. The appropriated amount per capita is determined by dividing the number of retirees taking part in insurance of China from central pooling fund. The central pooling fund is used to determine the amount appropriated to each province according to number of retirees taking part in insurance and appropriated amount per capital as verified by each province. The payment demand of basic pension exceeding the appropriated amount of central pooling fund shall be in the charge of the local governments in each level. Strengthen actuary balance of two-level pooling fund and offer certain autonomous right to local

governments under the precondition that the payment demand of basic pension is guaranteed.

It shall be clarified as how to determine the payment demand of basic pension. Pension substitution rate is involved. In 1952, it was put forward in *C102 - Social Security (Minimum Standards) Convention* released by International Labour Organization that the substitution rate of pension of common grown-up male labour paying pension insurance expenses for 30 years should not be lower than 40%; in 1967, *C-128-Convention for Security Treatment of the Aged, the Handicapped and the Members of the Deceased's Family* released by International Labour Organization improved this substitution rate to 45%. According to *China Social Insurance Development Annual Report 2014*, the enterprise employee pension substitution rate of China from 2009 to 2014 fluctuated around 66%, presenting a general stable operation. The substitution rate calculated in this report is based on wages for payment. Researches based on social average wages regarded that the pension substitution rate of China decline gradually and reaches about 45% at present, which basically reaches the standard stipulated in international society security convention.

6. Supporting Measures for Perfection of Pooling-Account

Combination System of Basic Pension Insurance

6.1 Expansion of Capital Sources beyond System

Gradually improve the payment ratio of capital income of state-owned enterprises to supplement the gap of pension insurance fund and balance and adjust the payment of pension insurance fund. The capital income of state-owned enterprises is a part of fiscal revenue of the government. Therefore, using it as a capital source of social insurance fund is not only reasonable but also feasible. It is recommended that the capital income of central enterprises should be transferred to the central finance, while capital income from local state-owned enterprises should be transferred to local finance for filling the gap of pension insurance fund at this level. Meanwhile, establish and perfect multichannel social fund-raising mechanism (e.g. issuing of social security welfare lottery, charity stamps, charity IC cards and commemorative coins, establishing of social security donation capital, etc., in order to expand fund-raising channels and enrich pension insurance fund. In addition, it should be clarified that National Council for Social Security Fund should have the function of balancing and adjusting payments of social security projects.

6.2 Progressive Postponement of Retirement Age

Postponement of retirement age is a feasible approach to ease financial pressure of pension. Facing the problem of aging of population, western developed countries usually handle it by postponing retirement age. Progressive postponement of retirement age can motivate payment, lower current expenditure and benefit the lightening of expenditure pressure. Good timing shall be selected to postpone retirement age. Retirement age shall be standardized first and equal consideration shall be given to special conditions. Then, it shall be gradually advanced in small steps. Firstly, the selection of timing for postponement of retirement age shall be made clear of. Relevant researches indicate that the stage combining quick growth of scale of aging population and quick withering of working age population shall be the crucial stage for implementation of postponement of retirement⁷; 2. Difference of retirement age of males and females shall be narrowed and flexible retirement system shall be implemented first. As long as the employers and the labourers agree, they may continuously sign labour contracts; 3. Differentiated retirement age policies shall be adopted for different types of labourers (different types of work, levels of education, and genders). The retirement age of heavy workers shall be properly reduced, and manual workers with big labour intensity shall be allowed to retire ahead of time; 4. Practice of progressive adjustment is suitable. The retirement age may be postponed for 2-6 months every year so as to finally gradually postpone retirement age; 5. A motivation mechanism shall be established for in-service labours beyond mandatory age for retirement, and the pension part paid by enterprises for them shall be transferred into individual accounts.

6.3 Full Funding of Pension Insurance Payment Base Number

Since the pension insurance system reform of China accompanied with the process of wages monetization, the total amount of wages for payment was deviated from actual labour income. Compared with other countries, the total amount of wages of urban employees of China took up a relatively low ratio in GDP (continuously declined from 15.77% in 1990 to 11.30% in 1998). Later, this ratio was fluctuated and declined to 11.09% in 2007. In recent years, it was continuously improved to approximately 20%. The ratio of total amount of wages of main developed countries in GDP was basically around 50%. Therefore, in order to fully fund pension insurance payment base number, the gap between wage income and labour income shall be solved first. In addition, allowance

⁷Tang Ruida & Guo Xiuyun. Dynamic Study of Retirement Age Based on Reasonable Supporting Ratio: Model and Simulation. *Social Security Studies*, 2014 (1).

subsidy system shall be standardized and management of total amount of wages shall be strengthened. Secondly, stick to social average wages as payment base number. The enterprise payment base number of urban employee pension insurance of China is social average wages, while the individual payment base number is 60%-300% of social average wages. This provision itself has the function of adjustment of income distribution. A certain viewpoint proposes to cancel concept of social average wages and fully use individual wage income as payment base number. Enterprise payments are also included in individual accounts according to ratios of individual wages of employees, which make the accumulated amount of individual accounts closely related to individual wage income. If 28% of full account system is implemented, it will undoubtedly further expand the gap of wages preliminarily distributed to redistribution field of social insurance. Therefore, enterprise payment base number shall still be social average wages. However, the statistical calibre of social average wages shall be perfected. The wage income of employees of private enterprises shall be included in the statistical category of social average wages; thirdly, under the condition of nationwide pooling of basic pension, payment rate shall be gradually lowered. Reduction of payment rate is closely related to individual accounts. If nominal accounts are implemented, the space for reduction of current payment rate will be increased. However, under the background of aging of population, long-term rate will increase without fund-raising beyond the system; if individual accounts are fully funded, the space for reduction of current payment rate will not be big, but a relatively stable rate can be maintained in a long term.

6.4 Institutionalization of Treatment Adjustment Mechanism

Establish a “three links” adjustment mechanism from system supply and demand to replace administrative adjustment. Firstly, basic pension insurance shall ensure the basic life of the insured. The pension shall be adjusted according to growth rate of consumer price index (CPI); secondly, it shall be ensured that the retirees properly share economic and social development achievements. Treatment gap among systems and groups of people shall be adjusted based on growth rate of CPI and according to the principle that the growth speed of pension shall be generally lower than growth speed of social average wages; thirdly, principle of actuary balance shall be introduced to basic pension insurance system to make the system rely on its financial balance more. If the fund paying capacity or financial paying capacity is greater than or equal to adjusted amount, the adjustment capacity can be fully provided, and full-amount adjustment is available as demanded; fourthly, “guaranteed index” ensuring certain pension substitution rate level shall be established. It can be linked with investment return of national social security fund. It can be used as a supporting policy for principle of pension actuary balance to make up the risk

of decline of pension payment level resulting from adjustment of indexation; fifthly, the number of months for calculation and paying of pension in individual accounts released in 2005 shall be timely revised. The life expectancy of population shall be calculated in a scientific way according to remaining life expectancy per capita after retirement. In addition, the changing conditions of life expectancy of population and retirement age shall be fully reflected.

6.5 Enhancing of Openness and Transparency of Pension Insurance System

Degree of familiarity of social public with basic pension insurance system is an important factor influencing the initiative of individual to take part in pension insurance. Therefore, the openness and the degree of transparency of relevant policies and knowledge concerning basic pension insurance shall be enhanced. Clear and simple individual pension treatment actuary formula shall be established and released to enable the insured residents to conveniently learn the relation between individual payment and treatment and make clear of ratio of individual payments used for pooling and accumulation. The annual appropriated amount per capita in the charge of pooling fund of the central government shall be clarified according to nationwide pooling scheme of basic pension, which has made clear of responsibilities of the central government and the local governments for determination of pension of single insured resident so as to provide clear basis for pension transfer and renewing, effectively supervise the governments and prevent corruption of micro powers like social insurance.

Several Conclusions

Basic pension insurance is an important project of social security system. The process of establishment and perfection of basic pension insurance shall adapt to economic and social development stage and development level of a country. During the transition of China from planned economy to socialist market economy, a basic pension insurance system combining individual accounts and social pooling was discussed and established in the 1990s. During the initial stage of reform, the total Gini coefficient of urban and rural areas does not exceed 0.3. Therefore, reform of distribution system in the 1980s and also the beginning of the 1990s emphasized the breaking of equalitarianism. Under this grand background, it was proposed to introduce the efficiency principle of initial distribution to secondary distribution. A typical example was that individual accounts were introduced to basic pension insurance system, for individual accounts were paid according to certain ratio of wages of employees during work and it reflected the principle of more payment for more gain. In the beginning of the 1990s, comrades claiming the reflection of motivation principle in basic pension insurance designated 16% of individual accounts.

After fierce arguments and summarization of practice of different provinces for exploration of individual accounts, the State Council unified employee basic pension insurance system in 1997. Employees of enterprises in China established individual accounts as 11% in a unified way. Individuals should pay 8% while enterprises should pay 3% of wages of employees. Later, this system was gradually corrected. The ratio of individual accounts declined to 8% and it was fully paid by the employees themselves. Meanwhile, the ratio of social pooling of pension calculation and paying was improved.

After over 30 years of reform and opening up, China's social and economic lives already changed greatly. Despite creation of miracle of high-speed economic development, China also gradually accumulated many problems. An outstanding problem was the growing gap in income distribution. The total Gini coefficient of urban and rural areas of China exceeded the international warning line of 0.4 over 10 years ago, and it approached 0.5. What was more unreasonable, the redistribution system including basic pension insurance did not narrow the gap of initial distribution. Instead, they further expanded this gap. In the new economic and social development stage, facing the growing gap in income distribution, basic social security projects shall have fairness and mutual aid improved so as to stabilize the gap of initial distribution. As one of the most important projects of basic social security, the direction of basic pension insurance system for improvement of fairness and mutual aid shall be clear and definite.

In the current stage, expansion of scale of individual accounts of employee basic pension insurance went against the improvement of fairness of social security. It was pointed out in the Third Plenary Session of the 18th Central Committee of the CPC that, “It is demanded to establish a fairer and more sustainable social insurance system, stick to the social pooling and individual accounts combination and perfect individual account system”, which made clear of the reform direction of basic pension insurance system. However, for perfection of individual account, arguments between “shorting” and “full funding” have always existed. Under the condition that pilot of “full funding” stood still for many years, Notional Defined Contribution seemingly becomes a more practical scheme. However, great controversies concerning as how to design nominal accounts still exist. After release of scheme of merger of basic pension system of government agencies and public institutions and enterprises, the discussion of perfection of individual account system becomes increasingly fierce. Some scholars proposed the inclusion of payments of entities (20% of total amount of wages) and individuals (8% of wage income) into individual accounts to implement 28% of zero-pooling “full account” employee basic pension insurance system. Later, some proposed the expansion of individual accounts to 16% (8% for entities and 8% for employees respectively). Recently, it was proposed to expand

individual accounts to a ratio of 24%. During this system design, employers would pay the pension insurance at an amount approaching 2.5 times or 1 time of individual wages of employees. Therefore, the gap of initial distribution was further expanded to the redistribution field of basic pension insurance, which goes against fairness and mutual aid of basic social security that should be improved in the current stage.

It is not suitable to excessively stress the motivational effect of more payment for more gain in social insurance projects. Social insurance is enforced by the state according to law. During specific scheme design, certain motivation factor can be considered, which has different nature with commercial insurance which completely relies on the participation of the insured. Scholars designing “full accounts” and “lager accounts” publicized the motivational effect of “full accounts” on employees but opposed inheritance of individual accounts on the other hand, for retirees beyond average remaining life expectancy will become very heavy burden of finance if such huge nominal individual accounts are inherited but without actual account accumulation. However, the motivational effect of establishing of “full accounts” and “lager accounts” is completely self-contradictory with the negative motivation of “no inheritance of balance of individual accounts”. If a system design requests that nearly one third of accumulated amount of income of employees in their lives cannot be inherited, so why wouldn’t people deposit this amount in bank, or use it to purchase commercial insurance? Moreover, motivational effect of expansion of scale of individual accounts is not checked through practice.

Conclusions of this report:

Under the condition that the gap of initial distribution of China is already too big, China has to perfect its employee basic pension insurance system and stick to the principles of fairness and mutual aid and narrowing but not expansion of initial distribution gap without any deviation. The effective solving of specific problems currently existing in employee basic pension insurance system can be further discussed only on this basis. This report thinks the optimized scheme is still to remain the existing pooling-account combination system unchanged, encourage fund accumulation and fully fund individual accounts in a gradual and flexible manner. Based on the restriction of realistic difficulties for funding of individual accounts, a stable transition effect can be reached by changing 8% of individual accounts paid by employees to nominal accounts. In addition, the social mutual aid of the system shall be guaranteed. Meanwhile, it is required to firmly implement nationwide pooling of basic pension, expand capital sources beyond the system, promote postponement of retirement age step by step, accelerate “citizenization” of migrant workers to expand payment base number, fully fund pension insurance payment base number, institutionalize treatment adjustment mechanism and enhance fairness and transparency of the system. In the current stage, it is absolutely unnecessary to make a big fuss of expanding the scale of individual accounts, for it not only lowers the mutual aid of employee basic pension insurance but also makes it extremely difficult to link with the existing system. Therefore, it is absolutely not allowed to implement zero pooling of “full accounts” without any social mutual aid.

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Topic 1.3.4.

Multi-tiered design of pension systems

(public pension, enterprise annuity and individual pension)

Dong Keyong, Sun Bo, Wang Gengyu

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China Pension System in transformation: Current Scheme, challenges and paths of reform

Dong Keyong, Sun Bo, Wang Gengyu

Abstract

This report is based on framework and achievements of China's pension system, and analyses its long-term risk and institutional dilemmas. The primary conclusion is that the core issue of China's current pension system is the future pension gap is huge, and it is hard to cope with the risk of aging population. This problem dues to that the existing pension system does not clearly define the relationship among government, market and individual responsibility. The proposal of China's pension reformation is to establish the three pillar pension system: transfer the social pooling account into public pension as the first pillar; The second pillar: merge the refilling personal account by transferred state-owned assets and the enterprise annuity into the occupation pension as the second pillar; promote the personal tax deferral pension plan as the third pillar. The roles and functions of government in the three pillar pension system are different: for the first pillar, it is fully responsible for the system construction, service management and funding security; for the second and the third pillar, they are system construction and operation supervision.

Key Words: Institutional framework, the three pillar model, public pension, occupational pension, personal pension

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Preface

With the trend of the aging population, the existing China pension system faces many challenges, which need to further reform and improve the pension system. According to the communiqué of the third Plenary Session of the 18th CPC Central Committee: “Adhere the basic old age insurance system of the combination of social pooling and individual accounts, improve the individual account system, improve the incentives of ‘pay more and get more’ mechanism to ensure the interests of the insured person”, “Strengthen the management and supervision of social insurance fund, promote the diversified investment operations. Launch some preferential policies, such as tax exemption, tax deferred, etc., to accelerate the development of enterprise annuity, occupational pension, and commercial insurance, to build a multi-level social security system.” The above discussion is a clear direction for the design of China pension system. However, due to the problem of the pension system is intertwined with each other, the pension system reform in the path of the above constraints; the views of the parties are not uniform. This report is based on China pension system practice and foreign pension system reform trend, with the analysis of evolution and problems of China's pension system and the related reform proposals, and the reform thoughts and suggestions to China's pension system will be proposed. The study of this report is developed by the following premises:

Firstly, the study ranges limit to urban pension system, including employees from government institutions and companies excepting rural resident's pension insurance. The reason is that the China pension system contains two parts which are the urban and rural resident's pension insurance and urban employee's pension system. But there has huge distinctions such as contribution method, treatment level, management mode, insured population and so on.

Secondly, it needs to take all-round measures to perfect China pension system, and the academic circles have agreement as well as disagreement about it. This report will focus on discussing the controversy points, excepting the consensus such as delay retirement age. This report agrees that delaying retirement age is an important and sustainable step of improving China's pension system.

Thirdly, China urban employee's pension system faces challenges, but its core issue is unsustainable for the coming peak of ageing population. Consequently, this report will focus on how to realize the long-time sustainable development of China's pension system,

and the related reform suggestions will focus on the medium-term and long-term development.

With such basic study background and premise this report will be presented as followings:

The first part is the structure and achievements of China current pension system, emphasizing on the institution structure of urban employee's pension system, and its twenty years achievements.

The second part is the risks and institutional predicaments faced by China pension system. The risks are mainly including long-term funding gap, unbalanced system structure, low payment level. The institutional predicaments are mainly including that the combination model of "Social Pooling Account and Individual Account" is not really implemented, the empty individual account operates for a long time, and the contribution base is fake, while pension implicit debt is unsolved, etc.

The third part is the goal of China's pension system reformation: the realization of the three pillars model. It mainly includes the international development and practice of the three pillar model pension system, and the proposal, function and of the advantages three pillar pension system in China.

The fourth part will discuss the path of three pillar pension system reformation in China. Establish the PAYG first pillar with social pooling accounts. Refill and separate the personal accounts, to constitute the second pillar with enterprise annuity and occupation pension. Develop the third pillars pensions with implementation of preferential tax policies as soon as possible.

The fifth part is the solutions to relevant problems in the reform. It mainly includes public pension payments evaluation, individual account payment level estimate, and the cash-out way of transferred state-owned assets, transition problem of old workers and middle workers, and evaluation of NDC model of basic old age insurance system.

1. The current pension system structure and achievements

1.1. The current pension system structure

1.1.1. The first layer: the basic pension

The first part is the basic old age insurance system of urban workers. The state council's "Decision on the Reformation of the Old-Age Insurance" in 1991 and "The notification on deepening the reform of the old-age insurance" in 1995 pull open the prelude of old-age security system reformation in China. The state council's "Decision on Establishing a

Uniform Basic Old-Age Insurance System for Enterprise Employees” in 1995 and “Decision about Perfecting the System of Basic Old-Age Insurance for Enterprise Employees” issued in 2005, marked the establishment of basic old age insurance system with the “Combination of social pooling and individual account” mode in China.

The basic pension part of social pooling account is pay-as-you-go mode, through the insurance fund transfer between current and retired workers to promote social redistribution. The individual account part is the accumulation funding system, designed to reduce the pension crisis from peak of aging population and at the same time to keep economic efficiency. The goal of employees’ basic old age insurance system is to guarantee the basic lives of retirees and the policy targets of replacement rate is about 60%. At the end of 2013, the number of participates is 322.18 million, including 241.77 million contributors and 80.41 million pensioners. The total revenue of basic old age insurance fund is 2.268 trillion Yuan in 2013, and the total payment is 1.847 trillion Yuan with the cumulative balances 2.8269 trillion Yuan.

The second part is Retirement System for Government Agencies and Public Institutions (RSGAPI). It is under the changing process, and its payment level is tied to working years and wages. Current policy is based on the Measures for the implementation of RSGAPI issued by MoHRSS and Ministry of Finance in 2006: civil servants’ pension is calculated by the position and wage before retirement. According to official reports at the end of 2013, the employed civil servants are about 7 million, and public institutions employees are about 30 million. There is no official data for civil servants pension payment. In January 2015, “Decision on Reform of RSGAPI” issued by the state council announced that the RSGAPI will be reformed into the same system as the enterprise pension system; the contributions will be collected from the unit and individual; the calculation and payment method of pension will be reformed to dissolve the conflict of “double track”.

1.1.2 The second layer: Occupational pension

The first part is the enterprise annuity system. Since the late 1980s, some enterprises in China began to implement enterprise annuity plan. In 1991 the state council promulgated the “Decision on Reform of the Endowment Insurance System for Enterprise Employees” to encourage enterprises to set up supplementary endowment insurance for the workers for the first time. In Dec 25, 2000, the state council issued “Pilot Plan to Improve the Urban Social Security System”, and firstly mentioned “enterprise annuity” in the government official documents. On May 1, 2004, the “Trial Measures for Enterprise Annuity” and “Trial Measures for Enterprise Annuity Fund Management” began to implement, with the guidance on the enterprise annuity development and the regulation of the enterprise

annuity fund. In 2011 the revised "Enterprise Annuity Fund Management Measures" further improved the basic system structure of China's enterprise annuity plan.

According to "Trial Measures for Enterprise Annuity", the enterprise annuity, also known as worker complement endowment insurance, is a voluntarily established pension system on the basis of attending basic old age insurance, with the guidance and encouragement from government, and based on the enterprise economic conditions to improve the employees' retirement economic security." Despite the basic old age insurance could meet basic living standard guarantee for retirees, the goal of enterprise annuity plan aims to provide higher pension needs. This plan is voluntarily set up by the enterprise and employees. Enterprises contributions will not exceed one-twelfth of the total wage each year, and the total contributions from both employers and workers generally will not exceed one-sixth of the total wage each year.

The second part is the occupational pension, which is designed for the employees in government and institutions, to make up for the payment decline after transformation. Occupational pension policy and the RSGAPI transformation launched together. The "Notice on Occupational Pension Reformation for RSGAPI from the State Council General Office" formally issued on April sixth, 2015, points out the implementation of occupational pension system since October 1, 2014. The contribution of occupational pension is shared by the unit and employees. The proportion of unit contribution is 8% of the total wages, and employee's contribution is 4% of one's total wages. Specific implementation rules have not been released, but the establishment of the occupational pension system is a foregone conclusion, and it will complement and improve China pension system framework.

1.1.3 The third layer: individual tax deferred pension

Individual tax deferred pension is the third layer of China pension system. Since 1980s, Chinese government has begun to introduce and study individual tax deferred pension policy. The state council emphasized that the individual tax deferred pension will be established in appropriate time in 2014. The work plan insurance regulatory commission suggested the pilot program will be launched in 2015, and Shanghai is the only city on the list. Overall, the individual tax deferred pension began to grow up in China.

1.2. The achievements of current pension system

1.2.1. Promoted the transformation of the planned economic system to the market economy system

The state-owned enterprises are the main part of traditional planned economic system, and the endowment insurance liability shall be borne by the enterprises in the first place. Under the background of transformation from planned economy to market economy, the pension burden of state-owned enterprises is too heavy compared with the private enterprises. The current combination of social pooling and individual account has broken the boundary of different ownership enterprise: all enterprises established in accordance with the unified pattern of old age insurance. This created fair competition conditions for the state-owned and private enterprises in the market economy system, for the establishment of the modern enterprise system laid a solid foundation. During the state-owned enterprise restructuring in 1990s, the pension system reformation made the pension liability socialization, and created conditions for the state-owned enterprise bankruptcy and reorganization.

1.2.2. Established a pension system in line with the social and economic development

Traditional old age insurance is obviously divided into different layers, which limits the flow of labour force among different ownership enterprises and different regions. And social characteristics of the current endowment insurance, complied with the requirements of free labour mobility. In addition, modern pension system emphasizes the state, enterprises and individuals sharing the pension liability. The personal individual accounts make ordinary people directly to undertake the duties of a part of the pension, and revise the past idea that pension should be responsible by the state, which reduced the national financial burden.

1.2.3 Achieved the principle of overall coverage and basic payment

One of the core features of current pension system is the widely coverage. According to the officially data, participates of urban employees old age insurance are 341.24 million, including 255.31 million contributors and 85.93 million pensioners by the end of 2014. China current pension system has covered the most urban workers, which greatly extends the traditional insurance limit of state-owned and collective enterprises. At the same time, the current basic pension insurance reformed the payment method, reduced the original replacement rate, which is up to more than 70%, and reduced the pressure of the system. The adjustment mechanism also has been established in 2005. After 11 years consecutive adjustment, the national average pension payment is 2100 Yuan a month in 2014, which could guarantee the basic life of the elderly.

1.2.4 Explored the path of overcoming China aging population crisis

China entered the aging society in 1999. The traditional pension system is single pay-as-you-go mode, and it is difficult to deal with the coming ageing population crisis. Multi-pillar pension system is generally widely adapted by countries around the world. The current pension system in China contains the basic old-age pension plans with government responsibility, the individual account with personal responsibility, and supplementary pension plans such as enterprise annuity and occupational pension plans. Besides, the third pillar of the personal tax deferral insurance plan will be implemented soon. The reformation of China's old-age security system conforms to the trend of the worldwide development of the pension reform, and has significant meaning to cope with the aging crisis.

2. The long-term risk and challenge of China's pension system

2.1 The long-term risk

2.1.1 The core issue: Huge long-term debt, difficult to cope with aging population risk

There are two kind of funding gaps in China pension system, one is “current gap”, or reality gap, and one is “future gap” or whole calibre gap. The reality gap is that the collection of pension insurance does not cover the spending every year. The future gap is refers to the total “current gap” estimated after the period of system transition. According to the statistic of MoHRSS, the current pension gap is as high as 123.1 billion Yuan in 2014, excluding 354.8 billion Yuan fiscal subsidy. In fact, the average growth rate of participants in the basic pension system is 4.04% in last ten years. It has been lower than the average growth rate of retired worker, which is 6.64%, over the past decade. The pension fund mainly depends on the number of contributors, which means the pension incomes will continually be less than the expenditure, and then led to the emergence of the pension fund gap.

The “future gap” is closely related with long-term economic operation condition and population development, and there is not a common understanding. Different institutions and scholars have given different estimates. Ma et al. (2012), from Deutsche Bank, said that the accumulative total gap in China’s pension system will be equivalent to 75 per cent of the current gross domestic product (GDP) in 2050. Cao et al. (2012) calculated the “gap value” will reach 68.2 trillion Yuan in 2033, 38.7 percent of the total GDP.

Table 2-1 - The estimate of China pension system’s fund gap

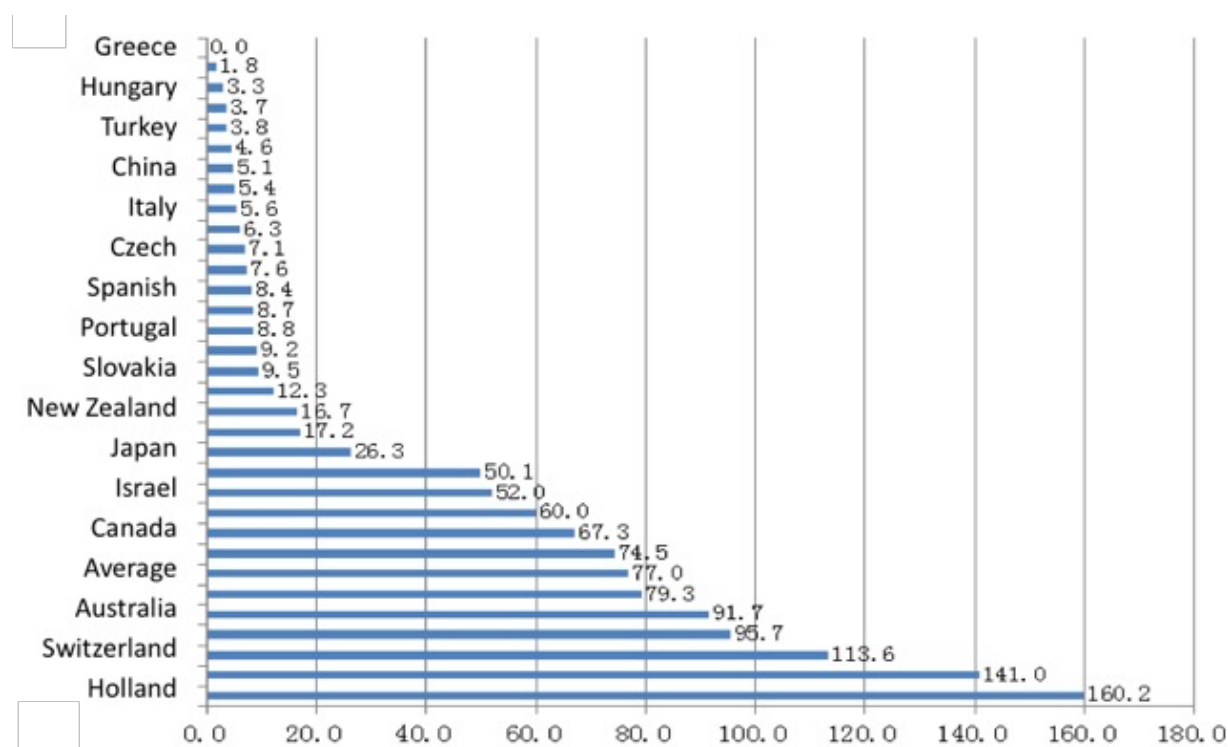
| Estimator | Published time | Based time | The gap size |
|---|----------------|------------|----------------------|
| Ma Jun (Deutsche Bank) | 2012 | 2050 | 75% of GDP in 2050 |
| Cao Yuanzheng (China Bank) | 2012 | 2033 | 38.7% of GDP in 2033 |
| Gao Peiyong (Chinese Academy of Social Sciences) | 2011 | 2050 | 95% of GDP in 2050 |

2.1.2 The structure of pension system is unbalance, and government's liability is too heavy

Most countries in the OECD takes three pillar pension mode and it aims to make the state, employers and individual share the pension liability. In the three pillar mode, the first pillar is public pensions, offering participants the basic life guarantees. The second pillar is occupational pension with tax preferences policies. It encourages employees' contribution during the work phase accumulation, asks enterprise to match a certain proportion of funds, and these funds will be invested to realize fund value preserving and increasing. The third pillar is voluntary pension plan with the same preferential tax incentive for individual voluntary participation. It aims to provide much more pension for flexible workers and high earners. Overall, the second and the third pillar are more and more important for the guarantee of national pension system in the three pillars pension system.

According to the OECD statistics, the second and the third pillar of OECD countries taking the weighted average of the proportion of GDP is 77% at the end of 2012, while the second and the third pillar pensions in China are only 1.1% of GDP (Figure 2-2).

Figure 2-2 Ratio of National Pension asset size to GDP in OECD



Source: OECD, pension market in focus2013

In American three pillar pension system, for example, the asset scale of occupational pension as second pillar is the largest part and followed by the third pillar as personal pension, the least part is the public pension. Focused on the payment level, the public pension can provide 30-40% replacement rate, and the second and third pillar can add up to provide 40% - 50% replacement rate. Despite the government pension's burden is small, the pension for individual old-age security is sufficient.

Table 2-3 - Structure comparison between US and China Pension System

| US | Pillars | The First Pillar Public Pension | The Second Pillar Occupational Pension | The Third Pillar Individual Pension | Total |
|-------|------------------------|------------------------------------|---|--|-------|
| | Size(Trillion Dollars) | 5.6 | 8.9 | 6.5 | 21 |
| | Portion of total asset | 26.7% | 42.4% | 30.9% | 100% |
| China | Layers | The Basic Pension | Enterprise Annuity | Individual Tax Deferred Pension | Total |
| | Size (trillion RMB) | 2.8 | 0.6 | 0 | 3.4 |
| | Portion of total asset | 82.3% | 17.7% | 0 | 100% |

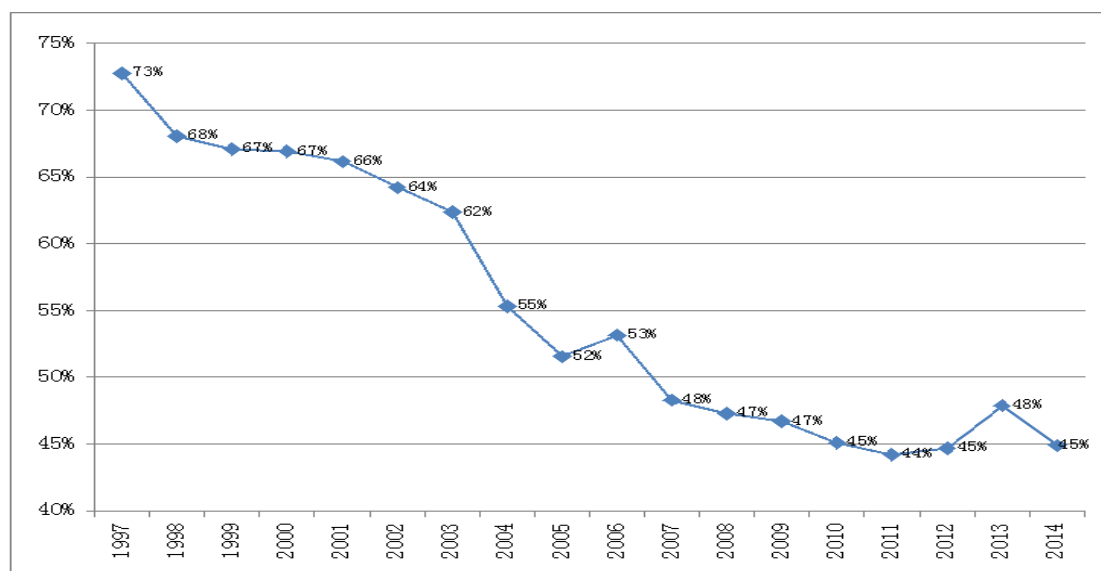
On the contrary, in China's pension system, because of the lack of tax incentives and the contribution ratio of basic pension system is too high, the development of Enterprise Annuity is very slow. By the end of 2014, 73300 enterprises across the country have established the enterprise annuity plans, with 22.93 million participants. It's only 6.7% of the participant workers in basic old age insurance, and majority of workers can't access to the second pillar pension plans. The balance of enterprise annuity fund is RMB 768.9 billion Yuan in the end of 2014, which is 24.17% of total basic pension assets, and its old-age security function is quite limited. In addition, the third pillar individual tax deferred

annuities have not really established, and the national finance will face great pressures in the long term.

2.1.3 The pension payment level is too low, and the basic livelihood security is facing challenges

The current China pension system, the basic old age insurance aims to guarantee the retiree's basic life, and the enterprise annuity plan is a supplement to the system. The basic old-age insurance replacement rate level is about 60% of the social average salary. But because the enterprise annuities plan coverage is very limited, only about 10% of the basic old-age insurance participants, while the fund accumulation is also very small, the most retirees can only rely on the basic old age insurance after retirement. So at the very beginning of the system establishment, the replacement rate of basic old-age insurance is set at high level, around 70%. However, the basic old-age insurance replacement rate continued to decline from 70.79% in 1997 to 45% in 2014⁸. According to the international Labour organization conventions, the warning line of pension replacement rate is around 40-50%. Although after more than a decade of payment adjustment, the basic pension replacement rate in China is still in a low level, and the retired worker's basic life faces risks.

Figure 2-4 The development of replacement rate of China basic pension system



⁸Calculated by the 1997-2009 human resources and social security development statistical bulletin

Source: human resources and social security development statistical bulletin in 1997-2014

2.2 Institutional predicaments

2.1.1 The basic pension system is still essentially the PAYG mode

The basic old age insurance of China current pension system is a “social pooling plus individual accounts” mode. The social pooling part is pay-as-you-go mode, which could promote social redistribution among social members through the process of fund collection and payment. The individual accounts are partly fully funded, attempt to reduce future pension’s crisis by the accumulation and investment of the fund. The perfect combined model should be able to realize the combination function of redistribution and encourage, embodies the principle of combining social aid between each other and personal responsibility. However, because there is no clearly system design for the transitional costs and implied debt in the process of reformation, so in the actual execution, when the social coordination account fund is insufficient, lot of personal account fund will be borrowed, which lead to the "empty account" of individual accounts. Comprised with former reform of pay-as-you-go system, this kind of situation has no real difference. "Combined mode" is just a design of payment, while the retirees pension is still from the current contributors, it is actually still the pay-as-you-go model. In other words, the institutional advantages of combined mode have not been performed, and the initial target of the system is unreached.

2.2.2 The size of personal empty account continues to increase

The basic pension system of China includes individual account with fund accumulation properties. Its original target is the introduction of personal pension liability, to lighten the national financial burden. But due to the reformation process, the scale of "empty account" of individual accounts continues to expand, from 740 billion in 2004 to nearly 3 trillion Yuan in 2013.

During this period, the three provinces of northeast China began trials to refill personal accounts for old-age in 2001, and the state council decided to fully fund the personal old-age pension accounts step by step in the whole country in 2005. However, the state council approved the Liaoning province to borrow personal account fund in 2009, which means the suspension of the trial⁹. Empty individual account means that the individual pension rights cannot be protected, and it is not conducive to encourage individuals to participate pension system.

⁹FuTao. For billions of individual account pension fund units - from Liaoning social security "borrow" phenomenon about [J]. Modern economic information, 201 (5): 168-169

2.2.3 The contribution base is not real, and the contribution rate is too high

The contribution rate of China's current pension system is 28%. The OECD countries public pension average contribution rate is about 20%. If considering China's "five social insurance and housing fund"¹⁰ as a whole, the total social insurance contribution rate of China is 58.5%: enterprise pays 40.3% and individual pay 18.2%. Excessive contribution burden not only affect enterprise competitiveness, but also the individual current wage income.

Table 2-5 - The contribution rate of public pension in OECD countries

| Country | 1999 | 2005 | 2010 | Country | 1999 | 2005 | 2010 |
|---------|------|------|------|-------------|------|------|------|
| Austria | 22.8 | 22.8 | 22.8 | Korea | 9 | 9 | 9 |
| Belgium | 16.4 | 16.4 | 16.4 | Luxemburg | 16 | 16 | 16 |
| Canada | 7 | 9.9 | 9.9 | Holland | 37.7 | 28.1 | 31.1 |
| Czech | 26 | 28 | 32.5 | Poland | 32.5 | 32.5 | 35 |
| Finland | 21.5 | 21.5 | 20.9 | Slovakia | 28.5 | 26 | 24 |
| France | 24 | 24 | 24 | Spain | 28.3 | 28.3 | 28.3 |
| Germany | 19.7 | 19.5 | 19.5 | Sweden | 15.1 | 18.9 | 18.9 |
| Greece | 20 | 20 | 20 | Switzerland | 9.8 | 9.8 | 10.1 |
| Hungary | 30 | 26.5 | 26.5 | Turkey | 20 | 20 | 20 |
| Italy | 32.7 | 32.7 | 32.7 | U.S.A | 12.4 | 12.4 | 12.4 |
| Japan | 17.4 | 13.9 | 14.6 | Average | 20.7 | 20.2 | 21 |

Source: OECD, Pension at glance 2013

The contribution rate cannot be changed because of the law, the enterprise usually try hard to reduce the contribution salary base in order to seek more profit. The government policy sets the contribution base can be determined between 60-300% of local social average wages, but many companies would like to determine the base at the lowest level. Tsinghai university professor Mr. Bay's survey also shows the same facts. Higher

¹⁰ Five social insurance and housing fund are respectively: basic old age insurance (enterprise 20%, individual 8%), medical insurance (10%, 2%), unemployment insurance (1%, 0.2%), birth insurance (0.8%), (0.5%) of industrial injury insurance, housing accumulation fund (8%, 8%).

contribution rate aims to raise more pensions, but fake contribution base largely hedges high contribution rate. In addition, because pension linked the social average salary and the salary is usually higher than contribution base, which can increase the pension's payment. Sum up, high contribution rate lead to fake base, and further affect the sustainability of the pension system.

2.2.4 The defects of basic pension payment calculated by social average wage

The payment calculation of basic old age pension plan links to social average wage, affected system sustainable development. At present, the basic pension of social pooling account is the main part of China basic old-age pension fund. The payment of basic old age pension plan should be linked with last year's social average wages. Such payment method leads to several problems. First of all, it is harmful for stable fund system. As above discussion, the pension payment level is higher than the contribution level. It is not only decreased the enthusiasm of contributors, but also increased the basic old age insurance payment pressure. Secondly, it is restricting the basic old age insurance plan as national level's implementation. The last year social average wage is difficult to determine at national level: if taking the national average wage base, it will lead to early retirement in undeveloped regions; if taking the local social average wage, the reverse redistribution effect as low level of pension payment areas may subsidize developed areas.

2.2.5 The pension implicit debt has not been resolved

Implicit debt refers to the accumulation capital of the current pension system if it immediately stops running, in order to achieve the promises to give the retirees and promises of working contributors. For the reality of China, it is the demanding capital of existing old-age insurance system at the establishment of the combination mode of pension system in 1997. According to official statistics, by the end of 2012, the cumulative personal empty account size of basic old age pension insurance in China is 2.5 trillion Yuan. The Labour Department in 1995, the World Bank in 1996 and the national economic restructuring office in 2000, respectively estimate the old-age insurance implicit debt, and the value is 2.8 trillion Yuan, 1.9 trillion Yuan and 6.7 trillion Yuan. The important reason of implicit debt scale increasing is that the pension reform in China is at the same time of socio-economic transition, and monetization have also taken place in the wage distribution system reform. The low salary welfare under the planned economy system is replaced by market wages. As the wage growth rate remains high, and social salaries and pensions are positive binding, as a result, pension payment increase fast with the increase of wages, which leads to a raise of pension debt within a certain period.

3 China's pension reform objectives: three pillar system

3.1 The evolution of the three pillar pension model

3.1.1 The connotation of the three pillar pension model

In the influence of the population aging crisis gradually appearing in the eighties of the 20th century, it's hard to be sustained in financial balance with PAYG model pension system, burdening the national financial, the elderly living security facing to challenges. In this context, the World Bank proposed the "three pillar" pension system in 1994, after summarizing Chile's pension reform experience, trying to the respond to above problems. The core idea is not finding solutions to the aging problem by seeking in a pension system, but through different modes of multiple pension pillars. The main points are as follows:

The first pillar is a public pension scheme implemented by the government's legislation to provide the minimum pension for retirees, and the government has the ultimate responsibility for the first pillar pension. Generally take the PAYG model, financed by taxation from the current working generation and payments for retirement generation, reflecting intergenerational redistribution.

The second pillar is mandatory occupational pension plan, generally funded by enterprises and individuals, reflecting the corporate and personal pension liability. It is the main part of the three pillar pension system. Different from traditional pay as you go system, the occupational pensions generally take determined contribution and fully funded system. The sources of pension funds are contributions from the participants during the work period and fund investment earnings. The retirement payment is depending on the level of pension accumulation, reflecting actuarial balance, which could be better to cope with the aging population crisis. Total accumulation system will promote the development of capital accumulation and financial markets, and reduce the dependence on the first pillar. It should be noted that in some countries, such as United States, the second pillar of the occupational pension also is taken voluntary implementation, with tax incentives and state support.

The third pillar is a voluntary personal savings pension plan, and it takes full accumulation mode. It is usually funded by the individual voluntary contributions, the state to give tax incentives, embodying the individual pension liability. The goal of third pillar is to provide more financial resources for those who want to have more income after retirement.

3.1.2 Development and perfection of the three pillar model

After the three pillar model raised by the World Bank, it has been promoted and applied in many countries. But it has also been a number of questions. Those are mainly concentrated on two points: one is three pillar pension model is based on employment as the premise, and those who have no employment experience are excluded. The other one is elderly people not only needs economic compensation, but also need to take care and spiritual consolation services. Therefore, the World Bank put forward the "five pillars" of the reformation in 2005. The core idea is based on the original three pillars; it increased zero pillar and fourth pillar.

The zero pillar is none contributory pension plan and it is funded by the government financial, aims to eliminating poverty in old age. This pillar provides the minimum level of economic security for the lifelong poor people, and retired workers who are not eligible to receive formal pensions. Zero pillar is an essential part of any complete retirement system.

The four pillar refers to the informal support from family members for the elderly. The elderly consumption also includes non-pension resources, such as transferring payment within the family, the maintenance of medical care and housing, and other service.

3.1.3 International practice of the three pillar model

After World Bank report recommended the three pillar pension model in 1994, all OECD countries have basically established a multi pillar pension system. Due to the different country conditions, the traditional pension systems are diverse, so as the multi pillar pension system reformation also exist differences, such as the funding and management method of first pillar and the second pillar exist various differences and the payment level of zero pillar also has different numbers. But generally speaking, almost every world major economies have established a multi pillar pension system. The summarized information is as the following:

Table 3-2 - Pension systems in some OECD countries

| | Zero Pillar | First Pillar | Second Pillar | Third Pillar |
|------------------|--------------------|---------------------|----------------------------|-------------------------------|
| U.S. | | Social Security | 401(k) plans, 403(b) plans | Individual retirement account |
| Australia | National Pension | | Superannuation | Individual retirement account |
| Canada | | Public pension | Retirement pension | Individual saving pension |

| | | | | |
|------------------|--|--|----------------------|-------------------------------|
| U.K. | | National Pension State Second Pension | Occupational Pension | Individual Pension |
| Chile | | Public Pension | Individual account | Private supplementary Pension |
| Holland | | National Pension | Occupational Pension | |
| Hong Kong | | | MPF | |
| Singapore | | | CPF | |
| China | | Social pooling accounts Individual accounts | Enterprise annuity | |

3.2 The reform plan of the three pillar pension system in China

3.2.1 The first pillar: public pension plan

The first pillar of the public pension in China should be transferred from current social pooling accounts, taking PAYG mode to achieve the function of redistribution between different generations. The protection level should not be too high, and aim to prevent poverty in old age. The national finance should take all responsibility of first pillar, to ensure the old age safety. For the view of system development, it should achieve national co-ordination level, truly reflect the large numbers law of insurance, and reform the payment method, gradually decoupling the pension payment level and local social average wages, to promote the labour mobility.

3.2.2 The second pillar: occupational pension plan

This pillar plays an important complementary role for the participants, making their life has a certain improvement despite the basic maintenance. The second pillar should be encouraged by the state tax incentives, and initiated by employer taking full accumulation funded mode. In addition, from the perspective of the enterprise, occupational pension is also an important mean of profit sharing, human resource incentive, and maintaining the staff stability. From capital formation perspective, due to the fund accumulation character of occupational pension in long term duration, it is the important long-term capital to provide stable funds for capital market, and provide a powerful support for economic development. Chile's total accumulation of pension funds provides a better capital supply for the country's economic development, and it is a successful interaction model of the pension funds and economic development.

3.2.3 The third pillar: personal pension plan

The third pillar of personal pension plan will be established for the freelancers cannot participate in the second pillar, or for higher income to provide an additional pension savings plan. Its characteristic is the tax incentives, individual voluntary participation, and fully funded system mode. Because the participation of the plan is decided completely by oneself without implications for employers, it's very flexible and convenient. It encourages individuals planning for their own retirement, and it can also help to reduce the country's future pension burden.

3.3 The advantages of the three pillar pension system in China

3.3.1 Help to deal with the ageing risk, and reduce the pension debit

The most significant trend in the development of China's population is getting old before getting rich, and the pension facing a huge funding gap, which lead to the national financial enormous pressure. The biggest constraint in current pension system is the national finance cannot bear huge pension expenditure, and the fundamental reason is the first pillar of the basic pension taking the most part of current system. With PAYG mode, it is very hard to cope with the aging population crisis. In the three pillar pension system, government's fiscal responsibility is limited to the first pillar. After the reformation of the first pillar, the public pension contribution rate and payment level are reduced, corresponding to the future pension fund gap has been reduced. And the reducing of the payment level will be compensated by the second or third pillar of the full accumulation funded system. The core advantage of three pillar mode is balance the duties of PAYG and accumulation fund plans completely, and co-financing of pension funds, to deal with the aging crisis.

3.3.2 Clarify the relationship among government, market and employees

In the three pillar pension system, the government has full responsibility of the first pillar public pension. The second pillar occupational pension is shared by employers and individuals, and the third pillar of personal pension is mainly reflected the individual's self-pension responsibility. Three pillar pension system is get rid of the unlimited pension liability of government in the traditional single PAYG mode, realized the burden sharing among government, enterprises and individuals.

3.3.3 Achieve the redistribution and incentive pension system

The existing old-age security system try to integrate redistribution effect of PAYG model and the incentive effect of accumulation model into one system, but because of the defects in system design and practice difficulties, this goal has not been achieved. The

three pillar pension system will not to seek the PAYG and fully funded mode into one system. The first pillar of the basic pension takes the PAYG system, by all workers' mutual aid and protect the basic livelihood of the elderly, embodies the PAYG system in social redistribution advantage. The second pillar of occupational pension plan and the third pillar of personal pension plan take fully funded system, raising the retirement life level through worker self-accumulation, representing the accumulation of advantage of self-motivation.

3.3.4 Highlight the pension investment, and will not increase the contributions of employers and employees

Number of comparative studies show that the contribution level of pension insurance in China is much higher in the worldwide. Trying to raise the contribution of the basic pension system in China to achieve system financial sustainable is not feasible. After the reformation of the three pillar pension system, the system should pay more attention to investment of pension funds, especially the second and the third pillar of the private pension funds to invest in capital market, to achieve funds accumulation and growth, increasing pension funding, and enhancing sustainability of the financial system.

3.3.5 The system reform could be achieved through a smooth transition process without the need for significant structural adjustment.

The multi pillar pension system is not the subversion of the existing system, but the promotion and deepening based on the current pension system. Therefore, the construction process of the multi pillar system takes full consideration of the existing models. In multi pillar system, the first pillar of the basic pension plan transferred from the current basic old age insurance, both the two kind of plans are implementation of PAYG mode, and there is no need structural adjustment. The second pillar of occupational pension plan integrated by the personal accounts of basic old-age insurance and enterprise annuity, and taking into account the existing policies and regulations, there only need transfer personal account provisions for enforcement, the original enterprise annuity remained voluntarily pattern. Such architecture tries to keep the cohesion and the existing system, and retain the basic experience and management of the existing system. That can effectively reduce the reform resistance, the reform cost, and realize the reform smoothly.

4. The reform path of China's three pillar pension system

4.1 Principles of China's pension reform

The pension reform process in China should pay attention to the following principles: First of all, institutional sustainability. Due to aging population and earlier pension reserve is

relatively insufficient, one of the central challenges the pension system facing is a long-term financial sustainability. Therefore, to promote the long-term sustainable development of the system is one of the basic principles of the pension system reformation. The second is the system wide coverage. Pension insurance is a means to achieve the national old-age insurance, only to achieve the widely coverage can achieve the goal. Third is pension Sufficiency, China's basic pension payment has been eleven consecutive raised since 2006, but China's current pension replacement rate is still in the 40-50% level. It is lower than the international warning line. Despite the long term pension gap, the system still should ensure that the appropriate level of payment. Fourth is the system fairness. The pension system has the redistribution function, especially for basic pension as to prevent poverty in old age and adjust social income by redistribution, which must take the fairness as starting point of system design.

4.2 The first pillar: transfer the social pooling accounts into the public pension plan

In three pillar mode, the core target of the first pillar is to promote social redistribution, in order to prevent the elderly poverty. PAYG mode is effective means to promote social redistribution. Therefore, this report proposed that the social pooling account in the basic pension insurance as a whole part of an independent, transformation of public pensions into the first pillar of the multi pillar pension system.

4.2.1 Reducing the replacement rate of public pension aim to reduce the future pension debit

From the world perspective, public pensions in the three pillar pension model are designed to prevent the elderly poverty, and the replacement rate is relatively low. The average contribution rate of public pension in OECD is 21% in 2012, and the replacement rate is 42.2%. The contribution rate of the social pooling account in China basic pension is 20% in 2013, and the replacement rate is about 48%, there is still space for downward adjustment.

Table 4-1 - The replacement rate of OECD countries

| Country | RR | Country | RR | Country | RR |
|-----------|------|-----------|------|-------------|------|
| Australia | 11.8 | Hungary | 44.4 | Poland | 28.7 |
| Austria | 76.6 | Iceland | 15.0 | Portugal | 53.9 |
| Belgium | 42.0 | Ireland | 29.0 | Slovakia | 26.0 |
| Canada | 38.9 | Israel | 19.4 | Slovenia | 62.4 |
| Chile | 3.2 | Italy | 64.5 | Spain | 81.2 |
| Czech | 50.2 | Japan | 34.5 | Sweden | 35.8 |
| Denmark | 28.9 | Korea | 42.1 | Switzerland | 34.5 |
| Estonia | 25.5 | Luxemburg | 87.4 | Turkey | 64.5 |

| | | | | | |
|----------------|------|-------------|------|---------|------|
| Finland | 57.8 | Mexico | 4.0 | Britain | 31.9 |
| France | 49.1 | Holland | 29.2 | U.S.A | 39.4 |
| Germany | 42.0 | New Zealand | 38.7 | Average | 42.2 |
| Greece | 95.7 | Norway | 46.1 | | |

Source: OECD, Pension at glance 2013

Table 4-2 - The public pension replacement rate of OECD countries (%)

| Country | RR | Country | RR | Country | RR |
|------------------|------|-------------|------|-------------|-------------|
| Australia | 11.8 | Hungary | 44.4 | Poland | 28.7 |
| Austria | 76.6 | Iceland | 15.0 | Portugal | 53.9 |
| Belgium | 42.0 | Ireland | 29.0 | Slovakia | 26.0 |
| Canada | 38.9 | Israel | 19.4 | Slovenia | 62.4 |
| Chile | 3.2 | Italy | 64.5 | Spain | 81.2 |
| Czech | 50.2 | Japan | 34.5 | Sweden | 35.8 |
| Denmark | 28.9 | Korea | 42.1 | Switzerland | 34.5 |
| Estonia | 25.5 | Luxemburg | 87.4 | Turkey | 64.5 |
| Finland | 57.8 | Mexico | 4.0 | Britain | 31.9 |
| France | 49.1 | Holland | 29.2 | U.S.A | 39.4 |
| Germany | 42.0 | New Zealand | 38.7 | Average | 42.2 |
| Greece | 95.7 | Norway | 46.1 | | |

Source: OECD, Pension at glance 2013

It is suggested that the public pension to maintain the current social pooling account contribution rate 20% unchanged, and adjust the payment level to the basic equivalent of the OECD state, that is about 40%. In this case, the basic pension replacement rate level will be lower than it is now, to reduce the future pension gap and the national financial burden. According to current author's estimates, adjusted for the level of contribution and payment, the gap of public pensions will not appear before 2040 (see the 5.1 part of this report). Part of the decline in the level of public pension payment will be compensated by the increase in the level of individual account pension, to ensure the basic living standards of the elderly to be guaranteed.

4.2.2 Strengthen the collection and management method of pension contributions

The current policy of pension insurance allow that the contribution base can be determined by the local average wages between 60-300%, many enterprises will determine the payment base at the lowest level. Public pension system should eliminate the current basic pension contribution fake base, otherwise the pension contributions will be severely affected, and it is not conducive to the true assessment of the pension operation. And to achieve authenticity of base pay, meaning payment efficiency, thus providing possible to reduce the payment burden.

From China's actual situation, to solve these problems: one is to optimize collection management system. The employer wage situation that tax departments master is more authentic. The current author proposes that the employer social security contribution base and tax base must be consistent. In order to ensure the authenticity of the collection base. The second is to establish an incentive mechanism. The pension calculated in many countries, generally select the average wage during the highest-wage work years as the base, for example, select the salary of highest-paid 10-year in 40 work years to calculate pensions. Under this system design, the presence of contribution base and benefits has a positive correlation, which can inspire pay more and get more. It is suggested that the positive incentives between the individual payment and the treatment plan are strengthened in the process of the public pension plan.

4.2.3 Reform the payment of public pension plan with integration of incentive and redistribution

The core function of the first pillar is to realize the social redistribution, which is mainly reflected in the mode of payment. The current basic old-age insurance payment associated with the local social average wage, to achieve a certain social redistribution within the overall area. However, due to different social average wage in different regions, the pension benefits of workers between the overall planning area is very different, and there is no social redistribution function in these area, which is the current basic pension transfer the root causes of difficulties.

Therefore, it should reform the basic pension plan, realize the social redistribution in a wider range and solve the portability issues of the pension insurance. This can refer to the United States the first pillar pension insurance - old age pension calculation method, Survivors and Disability Insurance (OASDI) program. First, the pension of the OASDI scheme is only related to the average monthly wage of the participants, without any relationship with the social average wage in the place of residence, no matter where to pay and where receive, So the pension benefits of the insured will not be changed because of the change of residence, so there is no pension transfer problem. Secondly, OASDI pension plan according to different levels of the average monthly wage indexation segment content ratio calculations showed good redistributive effect, specifically speaking, if the insured person index monthly salary is low, the pension payment proportion is higher, if the insured person average indexed monthly wages are higher, the proportion of pension payment is lower. Therefore, the first pillar of the basic pension level only link to the personal average of wages, and "local social average wage decoupling, avoid the regional differences generated in the average wage linked to the region; plan hair according to the average wage of segment and different proportion of payment, so high

salary pension replacement rate is relatively low, and low wages and pension replacement rate level is relatively high, between different income social redistribution.

4.3 The second pillar: merge the refilling personal account and the enterprise annuity

In the three-pillar system, the second pillar of the occupational pension is the main source of income after the insured's retirement; the payment level depends on the size of contributions and investment income. In our three-pillar pension system. On the basis of a number of channels to supplement individual account funds gap, complementing a personal account funds gap and corporate pension plans merged to form the second pillar pension plans. They were to become mandatory individual account pension and the voluntary nature of corporate pension plans respectively. For individual account pension, maintain the current 8 percent contribution rate unchanged, real posting run, through market-oriented investment, and increase the value and enhance self-support capabilities.

4.3.1 Transfer the state-owned assets to refill personal accounts

Due to our country's personal account funds by borrowing, the scale of the empty account reached 3 trillion Yuan. Therefore, we must run through the transfer of state-owned shares to complement the personal account gap to achieve real accounts running. At present China listed company of state-owned equity (including overseas) market capitalization is around 20 trillion Yuan¹¹, transfer of state-owned equity of personal accounts funds need about 3 trillion, with meticulous possibility. Transfer of state-owned shares of individual accounts is the state-owned assets for repayment of government debt, with internal rationality, helps to maintain the credibility of the government, and does not increase the government's current financial burden; therefore the allocation of state-owned shares can become a main way to complement personal accounts.

It's proposed to distinguish the attributes of the industry and to determine the state-owned equity transfer scale according to different proportion. For fossil energy, aircraft manufacturing, financial services and other strategic industries which need to be absolutely controlled by country, we should maintain 51% of state-owned shares and allocate the rest to the individual account; for transportation, electric power, environmental protection and other utilities industry related to national economy and people's livelihood, we can reserve 34% relative holding right and allocate the rest to

¹¹ Including the SASAC, the Ministry of finance, local state owned assets supervision and Administration Commission and other holdings of shares of listed companies, including overseas listed H-shares and red chips. According to public information, the relevant department to provide data is as the criterion..

individual account; for textile and garment, light manufacturing, bio medicine, real estate and other competitive industries, we can allocate a larger proportion to individual accounts, with 10% retained or completely allocated. In accordance with the above ideas, currently, state-owned assets that are available for allocation estimate at more than 5 trillion Yuan, which can not only complement the empty accounts of personal accounts, but also leave some leeway.

4.3.2 Invest to achieve fund value preserving and increasing

On the basis of a number of channels to supplement individual account funds gap, complementing a personal account funds gap and corporate pension plans merged into the second pillar pension plans, respectively becoming mandatory individual account pension and voluntary nature of enterprise annuity plan. For individual account pension, maintain the current 8% of the payment rate unchanged, real posting run, through market-oriented investment, increase the value and enhance self-support capabilities.

According to contribution for 35 years, receiving payment about 14 years and the second pillar pension with reference to foreign average of more than 6% of the nominal rate of return on investment calculation, personal pension can achieve about 30% of the level of treatment (for details see in Section 5.2), and plus the treatment level of public pension 40%, the total reached 70%, and the current system is basically equivalent to the level of treatment. For a small part of the workers who participated in the enterprise annuity plan, the level of treatment can be further improved.

According to the average investment income data of the stock and bond market in our country during 2001-2012, we simulate the return of the pension investment in different combinations of the above products. The results show that scientific and reasonable investment can effectively achieve the pension value.

Table 4-3 - Simulation of social pooling and individual account investment returns in 2002-2012

| | Social pooling (Public pension) | Individual account |
|-------------------------------|--|---------------------------|
| Asset allocation ratio | | |
| Debt ratio | 80% | 20% |
| Proportion of financial bonds | 10% | 40% |
| Stock ratio | 10% | 40% |

| | Historical investment return simulation | Historical investment return simulation |
|--|---|---|
| 2002 | 1.63% | -5.78% |
| 2003 | 0.12% | 0.67% |
| 2004 | -4.18% | -7.46% |
| 2005 | 8.48% | -0.19% |
| 2006 | 14.02% | 48.25% |
| 2007 | 14.25% | 63.44% |
| 2008 | 8.04% | -17.64% |
| 2009 | 8.44% | 40.21% |
| 2010 | 1.08% | -0.69% |
| 2011 | 3.14% | -8.13% |
| 2012 | 2.86% | 3.28% |
| Average return on investment over the past ten years | 5.12% | 7.91% |

Data source: according to wind related data processing

4.4 The third pillar: individual saving account

4.4.1 Introduce the tax incentives with the reforms of China tax system

Taking IRA in the United States for example, to encourage individuals to save more for retirement to reduce the country's future pension burden, especially convenient individual operators and employee who did not participate in 401 (k) plans, passed by Congress in 1974, the Employee Retirement Income Security Act launched preferential tax deferred individual retirement account plan, tax preferential policies granted by the government, not to tax during individual contributions and investment stage, only to tax in receive stage. In 2014, for example, tax credit under the age of 50 is \$5000, \$5500 over the age of 50. And IRA has a more flexible management mechanism, such as a person from a business turnover, if companies do not have 401k plans next, it is allowed to transfer funds to an IRA account, and so on measures to promote the development of the IRA, the current IRA Program is the largest single pension plan. Thus, China's third pillar pension plan development must be given more adequate tax incentives to mobilize private initiative.

4.4.2 Should pay more attention to the fund investment

Due to long-term survival of the individual account funds, and therefore a reasonable way to invest in value by both the requirements to deal with inflation, but also to achieve asset growth of the demand. The first is to have a suitable investment targets and personal pension docking. First is to have suitable investment subject and individual pension docking, from the point of view of foreign, personal account funds investment choice is widely, but due to the nature of its long-term funds, the general configuration of the fund more, especially in recent years to target date funds, life cycle funds as the representative for the development of pension products and provides a rich and reasonable choice for personal pension investment. Therefore, in the development of the third pillar of our personal account, it should allow individuals according to their different risk preferences to choose insurance products, financial products, funds, equity products. Second is the intermediary organization's development and formation. Because many individuals do not have the professional ability to invest, they need a professional investment consultant to provide specialized guidance, the future development of China's third pillar, also need the cultivation from intermediaries.

5. The evaluation and solution to the key issues in the reform

5.1 Assessments on contributions and payments of public pensions

One of the core objectives of the three pillar pension system reform is to reduce the future public pension gap, reduce the financial burden of the government. So it is necessary to evaluate the income and expenditure of public pension after reform.

5.1.1 The calculation model of revenue and expenditure

One is the pension income model

Yearly income of pension = Urban labour age population × labour-force participation × employment rate × on-the-job worker system coverage × year per capita wage payment × payment ratio

Another one is the pension expenditure model

Yearly pension expense = urban retirement age population × labour participation rate × system coverage × year per capita pension expenses

5.1.2 The basic parameters setting

Table 5-1 - Related parameters setting basis

| Parameters | Parameters setting | Setting basis |
|---------------------------------|--------------------|--|
| Urban labour age population | | According to estimates of the Sun Bo population model, based on the fifth population census |
| urban retirement age population | | |
| labour-force participation | 72.6% | According to Cai Fang, after 2000 China's labour force participation rate will below 70%, and continue a downward trend ¹² . The world bank data shows that the labour force participation rate of 2007-2011 in China is 72.6%. Mature economies such as high income countries or OECD members are generally about |

¹²Ma Zhongdong, LvZhihao, Ye Kongjia. Labor participation rate and labor force growth: 1982-2005[J].Chinese Population Science, 2010, (1) 11-28.

| | | | |
|------------------------------------|--|--|--|
| | | | 72%, so the steady state is set to 72.6% |
| employment rate | 90% | | According to the 2009 "China Academy of social blue book", Chinese urban unemployment rate at 9.4%, so the employment rate was 90% in the urban setting ¹³ . |
| on-the-job worker system coverage | 2012 61.9%, Reach 90% in 2012 | | According to the 2012 national statistical bulletin, urban employment is 371.02 million people, the insured workers is 229.81million people in 2012, accounted for proportion of employment in urban areas was 61.9%, this paper assumes that to 2020 basically achieve full coverage, coverage rate of 90%. |
| Retired labour participation rate | 2012 5.8% Decline year by year to 2.6% in 2020 | | In 2005 the proportion of workers who retired in was 85.8% ¹⁴ . In the long term, it should be consistent with the labour participation rate of the working staff, relatively stable at 72.6% after 2020. |
| System coverage of retired workers | 90% | | Assuming that the number of insured retirees in 2012 accounted for 90% of the number of retirees. |
| The per capita payment base | 28752yuan | | National Urban Non private sector employment average annual wage is 46769 Yuan, the average annual wage of urban private units is 28752 Yuan in 2012, here select the lower average annual salary of the private sector as the standard. |
| rates of wage growth | 2012 10% 2020 5% Average annual growth of -0.63% | | Before 2012, China's average wage growth rate was above 10%, given to country's 2020 income doubling plan; we assume that 10 percent in 2012, after the economy has gradually entered the steady stage, wage growth rate is 5% in |

¹³China Academy of Social Sciences Research Institute. Employment situation under the background of financial crisis [J]. Economic dynamics at home and abroad, 2009, (19):12-15.

¹⁴Cai Fang. The drawbacks of the one-child policy in Chinese [J]. Far Eastern Economic Review, 2007,(3): 8-9

2020.

Payment ratio 28%

According to No. 38 states, a personal account for basic old-age insurance payment rate is 8%, the social pooling account rate was 20%, and the total contribution rate is 28%.

5.1.3 The calculation results of fund balance

According to the results of simulation and calculation of this report (see Appendix 1-2), established in the premise of current population policy, if it continues to the current basic pension system, social pooling funds in 2025 income over expenditure, 2028 fund balances exhausted, fund total revenue cannot meet expenditure. In recent cases, social pooling funds in 2034 income over expenditure, 2047 fund balances exhausted, total fund revenue cannot meet expenditure. Obviously, the reform of the public pension system design can effectively reduce the gap which the current basic pension funds facing, improve the sustainability of public pensions, and reduce the government's financial burden.

5.2 Estimate the payment level of individual accounts

This report presents the three pillars of the reform ideas, public pensions by cut rate of substitution to reduce the burden of providing for the aged in the government. At the same time, through make personal accounts, and scientific investment to achieve pension asset accumulation and growth, in order to compensate for the decline in public pension level. As a result, if the level of individual account treatment can make up for the decline of public pension treatment is the key to the reform, the following is the simulation calculation:

5.2.1 The model and basic parameter setting

According to Wu Zhongdeng (2011)¹⁵, individual account pension replacement rate can refer to the enterprise annuity; personal account payment rate and substitution rate have the following relationship:

¹⁵Wu Zhong,Zhang Peng ,Han Lin.Based on specific target substitute rate of pension preferential tax policy costs and benefits measured [J].The Journal of Shanghai University of Engineering Science,2011(10):28-35.

$$c = \frac{rs \cdot (1+p)^m (b-r) [(1+b)^n - (1+r)^n]}{(1+b)^n (b-r) [(1+b)^m - (1+p)^m]}$$

Among them, rs is the replacement rate. Other related parameters are set as the following table:

Table 5-2 - Personal account pension replacement rate calculation parameter settings

| parameters | Parameter meanings | Parameter setting | Setting basis |
|------------|---|-------------------|---|
| c | Personal account payment rate | 8% | Personal account payment rate, benchmark case. The payment rate can be changed, in the case of other parameters defeminized, depending on the change in the replacement rate. |
| m | Payment period or average working age | 35years | The higher the payment time is, the higher the replacement rate is. The general payment period is 30 years; the minimum age is 15 years. |
| p | Average wage growth rate | 5% | Average wage growth rate and GDP growth rate remained consistent |
| n | Expected number of years | 13.67years | Planned years of Personal account pension. The retirement age is 56 years old, and the total number of years is 164 months, the total is 13.67 years. |
| b | Average nominal return rate on investment | 6% | Reference 6% |
| r | Inflation rate | 2% | Reference 2% |

5.2.2 Simulation calculation of relative payment level of individual account

Generally speaking, when the payment rate is determined, in the case of other parameters unchanged, according to the above model, the rate of substitution can be calculated. If the relevant parameters change, such as the nominal return on investment, the replacement rate will be changed. According to the report of the simulation calculations, in the recent scheme, namely individual account payment rate of 8%, if the rate of return on investment can reach 6%, according to the current personal account requested ages and other requirements, individual account pension can achieve 30.8% of relative treatment level, add to 40% of the public pension levels, total level of treatment remains in 70%, basically equal to current treatment level. In the mid - and long-term plan, namely individual account payment rate of 8%, if the rate of return on investment can reach 7%, individual account pension can achieve 39% relative level of treatment, added to 30% of the public pension levels, total level of treatment is about 69%, can still maintain the current payment level. The specific results are shown in the following table.

Table 5-3 - Replacement rate of individual account under different parameters

| Payment level | Contribution rate | Average contribution years | Average salary increase rate | Expected number of payment years | Average nominal return rate on investment | Inflation rate |
|---------------|-------------------|----------------------------|------------------------------|----------------------------------|---|----------------|
| rs | C | M | p | n | b | r |
| 30.8% | 8.0% | 35 | 5.0% | 13.67 | 6.0% | 2.0% |
| 46.2% | 12.0% | 35 | 5.0% | 13.67 | 6.0% | 2.0% |
| 39.0% | 8.0% | 35 | 5.0% | 13.67 | 7.0% | 2.0% |

5.3 Solutions to cash-out the transferred state-owned assets

Considering the direct transfer of state-owned shares to the personal account may lead to a great impact to the market, and each account equity allocation of specific operational problems, we can take turn to and reduced to go step by step alternative ways.

5.3.1 Ways to transfer the state-owned assets

The first step of the transfer of state-owned assets is owing state-owned shares to the pension fund management institution. In order to keep the property of state-owned shares, the first part of SASAC holdings listed company shares transferred to the establishment of a new basic pension insurance management institutions (It can be the existing National Council for social security fund, and can also be a pension management institution, this report referred to as a social security A). It should be noted that, in order to ensure the stability and stable development of state-owned listing company, in the case of shares have been allocated, its shareholders' rights are still under the exercise of the SASAC.

5.3.2 Way to reduce the holding of state-owned assets

The second step is through the equity pledge, with issuing bonds and commercial loans and to rent from the Ministry of finance or the commercial bank to borrow cash in advance, and make individual accounts ahead of time. There are two main ideas:

The first idea: The Ministry of finance issues special bond to people's bank or commercial bank directly to get cash, so we can make personal accounts. Since then, the social security A use the reduction of state-owned shares and dividend income to pay to the Ministry of finance, so that the Ministry of Finance deal with respond to the maturity of special treasury bonds. Personal account makes it with cash; need to immediately carry out asset allocation to achieve market-oriented operation.

If taking into consideration the individual account began to carry out the operation of the market immediately there is a certain risk, you can take the second approach: firstly a social security A gives the transferred state-owned shares pledged to the Ministry of Finance and the Ministry of finance to the people's Bank and commercial bank loans and lending to social security A, social security A obtains bank loans, according to participants payment allocation of funds to each individual account. At the same time, the Ministry of Finance issued special treasury bonds, which is held by the individual account in cash, and the Ministry of finance will pay the debt of the people's bank or commercial bank. Social security A will use the reduction of holed shares and revenue to repay the debt of the Ministry of finance, the Ministry of finance has received cash assets to deal with Treasury bonds held by the personal accounts. In the meantime, individual accounts would invest in special treasury bonds, with bonds redemption gradually, personal accounts get cash, gradually began to diversify asset allocation, and achieve market operation.

5.4 Solutions to the problem of "middle worker"

5.4.1 Definite payment level for the old worker and the new worker

In 1997 in the reform process of implement integration of accounts of the basic pension system reform process, formed three categories of people: participate in job after the implementation of the reform called the "new worker"; the second is those who retired before the implementation of the reform called the "old worker"; the third is to work before the reform, retire after the reform called the "middle worker". In this paper, the "three pillars" reform, put forward to make it on personal accounts, the effects on these different people are different. "The old worker" retired before 1997, having no business with personal account, so personal accounts had no effect on the "old man". But considering current pension plan exists a phenomenon that earlier retire, lower payment, it is recommended in the treatment of adjustment in the process of "the old man" to give some preferential policies, appropriate to raise the level of treatment of this population. In the process of three pillars reform, those participate in the work as the "new" since 1997, whose personal accounts have all been meticulous, after his retirement benefits plan is not affected. Not involved in the transition of the problem.

5.4.2 "Middle worker" transition payment level

As for those "middle people" who took part in the work before 1997 and retired after that in the implementation of the three pillars of the reform process, Despite the personal account to do it. But 1997 is the year starting from personal accounts, personal accounts would face short of reserves, in public pension benefits reduced circumstances, could face inadequate retirement protection. We believe that the "middle people" should be compensated for loss of interest in the reform process to promote the smooth progress of the reform. Specific ideas are as follows, one is for a human, and locking a target substitute rate, according to the report, proposed to 70% as a benchmark. The "middle people" after his retirement, evaluate its public pension replacement rate and substitution rate of the individual account level. If you cannot reach 70% target level should be subsidized by the financial gap. Taking into account that "middle people" lack of personal accounts, from system transition and complete the "middle people" gap funding requirements should be borne by the Government, sources of funds can be paid out of the current financial and From the transfer of State-owned assets to enrich personal accounts can also be considered when a separate compensation fund.

5.5 Assessment of the NDC mode in China basic pension system

5.5.1 The concept and practice of NDC

NDC (Non-financial Defined Contribution) mode is a system between PAYG model and funded model, in terms of financing, and PAYG system is consistent, from current workers' pay into the pension system, pension payments directly for current retirees. But from the

perspective of treatment benefits, retiree pension benefits are based on the accounts of individual contributions and investment returns and make payments. From the perspective of operational management, this account is an account management only, does not need to deposit funds, but in retirement, became the principles of pension's calculation. It should be noted that is, because the account does not have the actual capital investment, the fee rate set by the Government, rather than market yields real results.

Since 1990s, the NDC mode start to practice in Sweden, Italy, Russia, Latvia, Kyrgyzstan, Mongolia, Poland and other countries. The reform brief summary as shown in the following table.

Table 5-4 - System comparison of NDC mode countries

| Country | Poland | Mongolia | Kyrgyzstan | Russia | Latvia | Italy | Sweden |
|---------------------------------|--|-----------------|---|---|--|--------------------------------|---------------------------|
| Year | 1999 | 1999 | 1999 | 2002 | 1996 | 1995 | 1999 |
| Pillar | First | First | Second | Second | First | First | Second |
| mode | DB | DB | DB | DB | DB | DB | DB |
| Contribution rate of employer | 9.76 | 11.5 | 0 | 16 | 16-10 | 31.7 | 10 |
| Contribution rate of individual | 2.56 | 7.5 | 23 | 0 | 0 | 0 | 6 |
| Rate of NDC | 13.32 | 15 | 23 | 16 | 16-10 | 31.7 | 16 |
| Replacement rate | Downward 10% | Downward 15% | Downward 10% | Stable | Downward 10% | No significant downward | Slightly down |
| Accounting rate | 75% of wages increase rate | | 75% of wages increase rate | Inflation rate | 0.8 of wages increase +0.2 of labour force | Inflation rate | Economic growth rate 1.6% |
| Reform results | The initial reform of financial subsidies, and now improve | Give up in 2011 | Under the inflation, NDC devaluation, reform stagnation | State financial subsidies continued to increase | Forward financial pressure is still in | Pension debt continues to rise | Better sustainability |

Throughout the implementation of the national account system reform in the name results in a decade, in general have the following common characteristics: one is the general

reduction in the level of treatment. These seven countries except Italy, replacement rates in other countries declined 10% per cent. Second, generally lower accounting rates: some countries linked with the inflation rate, but lower than the economic growth rate. Sweden accounting interest rate is 2.6%; real rate of return is 3.5%. Third, reform is not easy; the effect is yet to be tested. Mongolia has been terminated on behalf of accounts reform, Italy reforms pension debt continued to rise, while Russia financial subsidies continued to increase to the pension system. By contrast, Sweden on behalf of accounts reform smoothly.

5.5.2 Analysis on the NDC system in Sweden

The core logic of NDC reform for dealing with PAYG of pension crisis of following: first NDC business increased has incentive function, encourages parameter insurance personnel more paid more have, meanwhile, must solution NDC business brings of income again distribution weakening of problem; second, under NDC business, to lower of accounting interest rate and non-high of actual investment returns rate records personal interests, can reduced pension paid, and increased fund balances. The same time, you must consider the acceptability of treatment of insured persons for fall. From NDC in practice, Sweden's reform is relatively stable, also due to the above two issues have better institutional arrangements.

First, the perfect zero pillar effectively alleviate the NDC redistribution of weak defects. NDC core flaw is personal payment and incentive of receiving treatment, and the lack of income redistribution function among different income groups; in particular the low-income groups may face the dilemma of inadequate protection. Sweden's pension system is divided into three pillars, starting with zero pillar “guaranteed pension “(GP), as the minimum pension benefits for family planning, mainly for low-income groups, and does not require individual payment, General taxes provided by the Government. A 25-year-old person who in Sweden lives 40 years can receive a full guarantee pension. At present, the celibate and non-celibate will receive a guaranteed monthly pension maximum amounts are 7500 Sweden krona and 6800 Sweden krona. Those live in Sweden for less than 40 years whose level of treatment year on year 1/40 Scaling down. Second, the NDC pension, called " income pension "; NDC accumulated pension and pension for income associated DC Plan , Build on top of individual accounts, the total pay for the wages of employees and employers 18.5% , Which 16% Enter NDC, 2.5% Enter the system account. Third level for full account accumulated pension, known as the “Premium Pension ”. Primarily serving residents enjoyed by pension funds, whose rates depend on employment by industry and

insurance personnel age, average rates for the total wage bill of 3%~5%, established by the Union and owners agreed. At present, the Sweden national 90% more working residents participated in the Premium Pension, its investment mainly by private firms.

Second, Swedish higher level of treatment entitlements for NDC business decline in levels of treatment space. Sweden NDC system reform is the actuarial balance, but due to its maintenance ratio of population from 2012 years 33% up to 2040 year 45%, this will make the NDC average accounting rate reduction, which will lead to decline in pension treatment. Under the Sweden Government old-age pension actuarial report predicted that initial retirement pension replacement rate of standard retirees from 2012 year 57% fell to 2030 years 49%. But Sweden cost of third pillar pension coverage is higher, to 80% workers 10-20% replacement rate. Therefore, in General, despite the NDCs reform reduced the Sweden retirees' salary, but Sweden has both higher levels of treatment, as well as other pillars provide supplements for the treatment, making this treatment decreased facing relatively little resistance.

5.5.3 China is lack of NDC institutional basis

First, it is difficult to ease the NDC led to weakening the function of redistribution. The pension treatment under nominal personal pension account system entirely decided by individual payment levels and practice decisions, becoming a pattern similar to Singapore's Central Provident Fund, lack of redistribution of income between the function of insurance, mutual assistance of public pensions and the promotion of equitable loss of function. In this regard, Sweden is obtained by a separate pillar through single zero, compared to basic old-age pension in China taking play a redistributive function and not zero pillar is similar to the national pension system of accounts in the name reveals. It would be expected that if the system of basic old-age insurance accounts in the name, it will take the retirement income gap, some basic lives of the elderly are difficult to guarantee.

Second, the insured cannot afford the fall of treatment caused by NDC system. Different from Sweden's pension system properly structured pension, sources multiple, level of treatment is higher. China's old-age pension system, basic old-age insurance is a single large and enterprise annuity development cannot be delayed slowly. National pension is highly dependent on the basic old-age insurance. Despite 11 winning run, level of basic old-age insurance benefits are only 45% or so, remained near the cordon established by the International Labour Organization. In this context, if the NDCs reform is implemented because accounting interest rate lower the actual rate in the long term, will lead to further decline in the level of insured pension, old ages may fall into poverty.

Third, smaller pension balance, NDC system difficult to give play to fund investment and expansion capabilities. Sweden on behalf of the account after the period for accumulation of pensions through specialized investment to add value, value-added component part into the insured interests, on the other hand rolled into the Fund to meet the peak long-term pension payments. This is the account in the name of one of the core design. 2013 year Sweden account fund balance is the total wages on behalf of 43%, together with Sweden higher wages, the balance is of a larger scale. Despite the fluctuation of proceeds, but in the long run, their investment income also constitutes a necessary source of funding. On behalf of my pension account, due to the smaller size of fund balances, only 3.5 trillion, at current levels, maintains only 16 months to pay. Even if used for investments, return on investment compared with the size and growth rate of the Fund can provide limited support, if taking into account both pension savings can only survive less than 20 years, when the peak of the pension payments is still yet to come. NDCs under the system, do not make personal accounts, and hope that both investment funds and growth and ease pressure on pension payments with greater difficulty.

Finally, the rate of charge is volatile, influence the stable expectation of pension of the insured. As mentioned above, under name account business, personal account actually have no funds, but also need to determine a accounting interest rate, it means the duty of government on personal account of debt, accounting interest rate of determine involves personal pension interests and Government future of responsibility, so accounting interest rate is one of the designed cores name account business, to integrated consider economic growth, and wage growth, and inflation, and fund payments situation determination, annually in dynamic adjustment. This will undoubtedly lead to the insured pension accumulation increased volatility, if an automatic balancing mechanism and special accounting rate, pensions cuts can also occur. Also in Sweden, for example, 2010, Sweden overall imbalance of the old-age insurance system due to system and start the automatic balancing mechanism, when pension growth rate the previous year of 4.6% down to -3%, 2011 Year down to -4.3%. Which does not help the uninsured create stable expectations, is not conducive to rational planning of their old age. But Sweden only 570 million people and systems relative to a single, less difficult policy adjustments and management. China's basic old-age insurance insured workers are now 3 million or more, plus the socio-economic gap between Eastern and Western areas, if the accounting rate design is not precise, could lead to some pension rights which are not guaranteed.

Therefore, overall, NDC though have been practiced in some countries, succeed in individual countries. But under the framework of China's current pension system, do not have the institutional foundation for a transition to a NDC.

Appendix 1: The balance of current social pooling account (billion)

| | Revenue | Payment | Balance | Accumulate Balance |
|------|---------|---------|----------|--------------------|
| 2012 | 13,371 | 16,121 | -2,750 | -2,750 |
| 2013 | 15,808 | 18,283 | -2,475 | -5,155 |
| 2014 | 18,460 | 20,459 | -1,999 | -7,043 |
| 2015 | 21,359 | 22,417 | -1,058 | -8,015 |
| 2016 | 24,508 | 24,521 | -13 | -8,027 |
| 2017 | 27,797 | 26,305 | 1,492 | -6,733 |
| 2018 | 31,318 | 28,767 | 2,550 | -4,585 |
| 2019 | 35,267 | 31,887 | 3,380 | -1,819 |
| 2020 | 39,298 | 34,514 | 4,785 | 1,988 |
| 2021 | 42,149 | 38,056 | 4,093 | 5,153 |
| 2022 | 44,841 | 41,759 | 3,083 | 7,469 |
| 2023 | 47,377 | 45,414 | 1,963 | 8,902 |
| 2024 | 50,191 | 50,082 | 109 | 8,980 |
| 2025 | 53,146 | 54,830 | -1,684 | 7,819 |
| 2026 | 56,254 | 60,266 | -4,012 | 5,130 |
| 2027 | 59,595 | 65,768 | -6,173 | 1,110 |
| 2028 | 62,761 | 71,615 | -8,853 | -4,494 |
| 2029 | 66,168 | 77,737 | -11,568 | -11,609 |
| 2030 | 69,448 | 84,048 | -14,600 | -20,336 |
| 2031 | 73,021 | 90,550 | -17,529 | -30,519 |
| 2032 | 76,718 | 97,363 | -20,645 | -42,174 |
| 2033 | 80,584 | 104,209 | -23,626 | -55,135 |
| 2034 | 84,635 | 111,677 | -27,042 | -69,553 |
| 2035 | 88,868 | 119,735 | -30,867 | -85,547 |
| 2036 | 93,278 | 128,140 | -34,862 | -103,101 |
| 2037 | 97,947 | 137,318 | -39,371 | -122,367 |
| 2038 | 102,629 | 148,012 | -45,383 | -143,949 |
| 2039 | 107,348 | 158,346 | -50,997 | -167,518 |
| 2040 | 112,348 | 168,735 | -56,387 | -192,843 |
| 2041 | 117,149 | 179,166 | -62,017 | -219,911 |
| 2042 | 121,622 | 190,379 | -68,757 | -249,076 |
| 2043 | 126,649 | 202,727 | -76,078 | -280,436 |
| 2044 | 132,022 | 215,349 | -83,327 | -313,816 |
| 2045 | 137,756 | 228,654 | -90,898 | -349,204 |
| 2046 | 143,550 | 242,638 | -99,089 | -386,692 |
| 2047 | 149,277 | 255,953 | -106,676 | -425,914 |
| 2048 | 155,275 | 269,634 | -114,358 | -466,776 |
| 2049 | 161,459 | 283,934 | -122,475 | -509,304 |
| 2050 | 167,830 | 298,380 | -130,550 | -553,359 |

Appendix 2: The balance of public pension after the reform (billion)

| | Revenue | Payment | Balance | Accumulated balance |
|------|---------|---------|---------|---------------------|
| 2012 | 9,550 | 8,871 | 679 | 679 |
| 2013 | 11,291 | 10,061 | 1,230 | 1,875 |
| 2014 | 13,186 | 11,259 | 1,927 | 3,695 |
| 2015 | 15,257 | 12,336 | 2,920 | 6,375 |
| 2016 | 17,505 | 13,494 | 4,012 | 9,953 |
| 2017 | 19,855 | 14,476 | 5,379 | 14,615 |
| 2018 | 22,370 | 15,831 | 6,539 | 20,124 |
| 2019 | 25,190 | 17,548 | 7,643 | 26,380 |
| 2020 | 28,070 | 18,993 | 9,077 | 33,602 |
| 2021 | 30,106 | 20,942 | 9,164 | 40,687 |
| 2022 | 32,029 | 22,980 | 9,050 | 47,487 |
| 2023 | 33,841 | 24,991 | 8,850 | 53,948 |
| 2024 | 35,851 | 27,560 | 8,290 | 59,831 |
| 2025 | 37,962 | 30,173 | 7,788 | 65,202 |
| 2026 | 40,181 | 33,165 | 7,017 | 69,904 |
| 2027 | 42,568 | 36,192 | 6,376 | 74,057 |
| 2028 | 44,830 | 39,410 | 5,420 | 77,487 |
| 2029 | 47,263 | 42,779 | 4,484 | 80,246 |
| 2030 | 49,606 | 46,252 | 3,354 | 82,250 |
| 2031 | 52,158 | 49,830 | 2,328 | 83,603 |
| 2032 | 54,799 | 53,579 | 1,220 | 84,291 |
| 2033 | 57,560 | 57,347 | 213 | 84,408 |
| 2034 | 60,453 | 61,456 | -1,003 | 83,873 |
| 2035 | 63,477 | 65,891 | -2,414 | 82,623 |
| 2036 | 66,627 | 70,516 | -3,889 | 80,665 |
| 2037 | 69,962 | 75,567 | -5,604 | 77,922 |
| 2038 | 73,306 | 81,451 | -8,145 | 74,049 |
| 2039 | 76,677 | 87,138 | -10,461 | 69,214 |
| 2040 | 80,248 | 92,855 | -12,607 | 63,552 |
| 2041 | 83,678 | 98,596 | -14,918 | 57,041 |
| 2042 | 86,873 | 104,766 | -17,894 | 49,451 |
| 2043 | 90,464 | 111,561 | -21,098 | 40,754 |
| 2044 | 94,302 | 118,507 | -24,206 | 31,058 |
| 2045 | 98,397 | 125,829 | -27,432 | 20,378 |
| 2046 | 102,536 | 133,525 | -30,989 | 8,654 |
| 2047 | 106,627 | 140,852 | -34,225 | -3,930 |
| 2048 | 110,911 | 148,380 | -37,469 | -17,318 |
| 2049 | 115,328 | 156,250 | -40,922 | -31,528 |
| 2050 | 119,878 | 164,200 | -44,321 | -46,484 |

SECOND BATCH OF TOPICS

Notes on the Panel discussion meeting

Jean-Victor Gruat and Wang Qingqing (Ms)

Mr. Jean-Victor Gruat is the EU Beijing-based Resident Expert for Component 1

Ms Wang Qingqing was the Assistant for Component 1 within the Beijing office of the EU-China Social Protection Reform project.

EU – China Social Protection reform project, Component 1
REPORT ON A PANEL DISCUSSION MEETING - TOPICS 1.3.1 and 1.4.3
HELD ON FRIDAY, 13 NOVEMBER 2015 IN JINDIYA HOTEL, BEIJING

The second 2015 panel discussion for Component 1 was held on 13 November 2015 in Jindiya hotel, Beijing. It was covering topics 1.1.1 – Public sector pension reform – and 1.4.3 - Integration of social security systems in urban and rural contexts – retained as part of the Component Plan of activities for 2015.

The programme and list of participants are attached. Ms. Ji Ning, NDRC Inspector and national Project leader chaired over session 1 (Public sector pension reform), and the EU Resident expert for Component 1 Mr. Jean-Victor Gruat over session 2 (Integration of urban and rural schemes).

NDRC had invited to attend representatives from the pilot sites visited by a project delegation in September 2015 in Guangdong and Sichuan province. These representatives presented the current situation in their provinces concerning the implementation of the public pension reform. A case study concerning rural urban integration (Huizhou district, Guangdong province) was also presented by academics from Sun Yat Sen University, Guangzhou.

Other participants included officials from NDRC and its ICC, a representative from the EUD Beijing, Chinese experts authors of the reports to be discussed, namely Ms. Zhang Yinghua for Public sector pension reform and Mr. Wang Zeying for the Integration of rural and urban pension schemes, the EU ST Expert on Best practices Mr. Koen Vleminckx for his second mission and the project C1 technical team. More than 30 participants took part in the meeting, for which NDRC had foreseen interpretation services – the project interpreter also taking part – and a full set of documents to be presented.

The first presentation came from the Chinese expert Zhang Yinghua. Her topic was public sector pension reform. Government officials and Public institutions – GOPI -pension system evolved along unified-separate-reunified with Urban Enterprise's. Reform in January 2015 was caused by three main factors: First is the no longer tolerated pension difference not less than 2 times between public and private sectors; the second is labour mobility between public and private sectors was blocked because of losing all pension if leaving original workplace; the third is the exorbitant dependency rate of GOPI pension

system which will never be fiscally sustainable, with as a result making local governments dependent to central government to higher extent. Actuarial results show that in next 75 years, GOPI pension funds will incur deficit in 2050 but exhausted in 2080 due to 7% rate of interest, and a dynamic pension divisor helps solving longevity risk no longer needing fiscal assistance. The bookkeeping method is adopted in GOPI Occupational Pension. It exists an accounting interest rate problem. The replacement rate is higher 70 percentage points in the case of 7% accounting interest rate rather than 2% for a 30-year contribution. So, a qualified real rate of interest and a reasonable accounting interest rate are critical to sustainability of GOPI Basic Pension system and supplement of GOPI Occupational Pension system respectively. The policy proposals include: First is the whole remuneration should be calculated into contribution base and be supervised by participants; the second is the accrued pension rights of immigrants should be secured and the pension should be calculated separately and paid in one place; the third is to adjust system parameters such as taking floating contribution rate, adopting dynamic pension divisor, pooling GOPI pension funds with Urban Enterprise Basic Pension funds, cancelling the ceiling of contribution, and raising the minimum contribution years; the forth is to establish a dependent agency to be appointed to invest the GOPI Basic Pension funds, and to evaluate investment performance on a long term basis, and give participants a limited investment option for their Occupational Pension funds and a guaranteed ROI is necessary

Local officials introduced the actual operation of the case. First was the official coming from Guangdong province. Guangdong was the pilot in the reform of public pension system. To carry out the reform, the officer said they had conducted several special investigations. There was heavy workload to develop calculation analysis software. A third aspect of their work was to hold forums and discussions to collect suggestions from different parts. A fourth aspect of their work is policy propaganda. Finally, they also developed the scheme of reform and issued social security card. The reform was without much difficulty. But implementation issues will arise in the future: For example, the scope of government departments and institutions was hard to define. It is difficult to distinguish who is suitable for the new institution. There was no detail about how to invest the pension; new regulations need to have information in this area. Furthermore, there was no specific institutional management, like how to manage investment income. Central government did not have the policies about how to join the private and public sectors; this was the common problem in all local governments. The suggestion of these problems was put up according to the problems themselves, details and implementation issues should be addressed by the central government as soon as possible.

Next was the presentation on the current progress, difficulties and suggestion on public pension reform in Sichuan. Sichuan has achieved some progress in public pension reform, which was the establishment of the organs and institutions of staff pension system reform leading group and new institutions. Also, Sichuan has accelerated the introduction of relevant supporting documents study and improved the social insurance management. But there were some difficulties, like the supernumerary staff insured greater contradiction, pay gap leads to unbalanced treatment, disposable retirement subsidy rules not clear, funeral treatment standards not unified and disposable retirement subsidy rules not clear. To solve the problems and difficulties, six measures were discussed. First, at the national level, there should have relevant guidance documents as soon as possible, particularly in connection transferring pension, occupational pension and other benefits calculated and specific measures. The second is to study and formulate the basic wage and the basic pension normal adjustment mechanism. Thirdly, the introduction of a one-time retirement subsidies for the implementation details as soon as possible, while focusing on convergence with the relevant laws and regulations. Fourthly, there should be pay-calibre research and improvement. Fifthly, we should study and solve the insurance problem supernumerary staff, especially for some difficult, remote non-staff positions, considering their individual contributions and the value of work. Last but not least, we need to increase financial resources on the part of the poor provinces finance special transfer payments in order to alleviate these places especially at the grassroots level by the implementation of the new system and the new expenditure pressures.

In the afternoon session, first was the report presentation by Mr. Wang Zeying about the integration of social security systems in urban and rural contexts. The presentation summarized achievements, regulations, transfer and continuation, operation of the basic pension insurance, system. It analysed problems on its development below: the pension insurance system to be improved; the overall planning level of pension insurance low; policies on pension insurance transfer and continuation to be improved; operation management capacity to be improved; information construction behind operational need. It proposed the suggestions on the integration of basic pension insurance systems: (1) To integrate the basic pension insurance system for urban enterprise employees and the pension insurance system for state organs and public institutions into a unified basic pension insurance system for urban employees. (2) To promulgate policies to encourage urban and rural residents to voluntarily participate in the basic pension insurance for urban enterprise employees. To improve the policies on the integration of urban and rural pension insurance systems. To improve the policies on transfer and continuation of credentials of basic pension insurance for urban employees. (3) To raise the overall

planning level of basic pension insurance, Basic pensions of basic pension insurance for urban employees should be planned as a whole in China. The overall planning level of basic pension insurance for urban and rural residents should be raised gradually. (4) To improve the capacity of pension insurance operation management service. Pension insurance operation management regulations should be sorted and operation service resources should be integrated. The construction of basic-level public service platforms should be enhanced. The standardization and normalization of pension insurance service agencies should be facilitated and the agency service for transfer and continuation of urban and rural pension insurance should be normalized. Efforts should be made to enhance social insurance supervision, normalize the purchase of insurance. (5) To strengthen the promotion of information technology. The nationally unified pension insurance information system should be advanced to realize electronic transfer and continuation. Promotion of regional access to network should be accelerated and the nationwide network for trans-provincial transfer and continuation should be realized as soon as possible. The application of the transfer and continuation information system should be propelled further. Existing functions of the system should be improved. Intensified trainings should be provided to the staff members of social insurance agencies to have them familiar with the functions and operation of the transfer and continuation information platform.

Next was the presentation on Huizhou case by Peng Haoran, professor from Sun Yat-sen University. The specific regulations of Huizhou case including: determine Migrant Workers issued to pension benefits; unify Migrant Workers transferring pension handling procedures; Migrant Workers meeting the standards in the city issued can apply for retirement benefits in Huizhou; flow interface between urban and rural employment pension system. The number of transferring for Migrant Workers in Huizhou was increasing in the past years. The "Interim Measures" in favour of the introduction of balanced funds pressures of the regional co-ordination, to a certain extent, promote the rational flow of labour. But in the actual implementation, the policy effects would still be constrained by the low level of co-ordination, financial "eating in separate kitchens" and other objective factors. At last, five measures for perfection of Chinese Migrant Workers transferring pension were discussed. First, we need to eliminate of obstacles to the household registration, to allow the flow of employment in rural hukou household registration in order to participate as flexible employment pension insurance enterprise workers. Second, we can use the "sub-computing, unified payment" principle when faced with the employment mobility shift in urban basic old-age insurance. Thirdly, if the participation in the worker's pension is less than 15 years, it also need to calculate the

basic pension equity segment corresponding to the insured person during the insurance payment service, after its retirement by social pooling fund for payment. Fourthly, the government should increase subsidies for urban and rural residents basic pension of old-age insurance, and gradually narrow the gap between the basic pension for enterprise employees, urban and rural pension insurance system to create favourable conditions for convergence. Finally, the government should strengthen the basic pension insurance of positive publicity, encourage and create conditions for Migrant Workers Employment live in urban areas, and to participate in corporate employee pension insurance, employees enjoy pension benefits after retirement.

Professor Yue Jinglun from Sun Yat-sen University also expressed his ideas. He thought the reasons for the problem of the pension system were the floating population shift connection, one was between the regimes, and the other one was on space. Suggestions can be based on these two dimensions. Firstly, to improve the system and reduce trouble, the easiest way was to reduce system level and make institutional consolidation. We should improve the system in terms of co-ordination on the basis of the national pension. Secondly, we need to improve the overall management level, which can reduce problems. It was better to achieve the provincial level and these provinces can learn from the EU mechanism. Furthermore, to solve the problem technically, we need to know how to reduce the differences in household registration, how to make the inflow of migrant workers have sufficient resources to survive, how to set up the new urbanization and shift connection link. And a lot of people did not participate in the social security system; their pension was the biggest challenge.

Participants as well as NDRC expressed their satisfaction with the work accomplished. The Best practices examples provided by the EU short-term expert as well as the information received on the European mechanisms for coordination of legislation were considered as particularly relevant.



From left to right, NDRC Ms Ji Ning (Project leader), Zhang Xinmei (Division director), Tang Ling (Project coordinator), EUD Beijing Ms Yi Xiaolin



EU-China Social Protection Reform Project

The Second Panel Discussion of C1 - 13th, November, 2015 Beijing Jindiya Hotel
(No.5 Sanlihe North Street, Xicheng District)

| Morning Session | | |
|--|---|--|
| Chairman : Mme. Ji Ning, Director General, NDRC | | |
| 09:00-09:30 | Report presentation on Public sector pension reform | Ms Zhang Yinghua, CN Expert |
| 09:30-10:00 | European comments and best practices | Mr. Koen Vleminckx, EU Best practices Expert |
| 10:00-10:20 | Discussion and Communication | EU & CN experts |
| 10:20-10:30 | Break | |
| 10:30-11:00 | Presentation on the current progress, difficulties and suggestion on Public Pension Reform in Guangdong | Mr. Zhuo Qiang, DHRSS, Guangdong Province |
| 11:00-11:30 | Presentation on the current progress, difficulties and suggestion on Public Pension Reform in Sichuan | Mr Zhong Ling, Sichuan DRC |
| 11:30-12:00 | Discussion and Communication | |
| 12:00-13:10 | Working Lunch | |
| Afternoon Session | | |
| Chairman : Mr. Jean-Victor Gruat, the EU Resident Expert of C1, SPRP | | |
| 13:10-14:00 | Report presentation Integration of social security systems in urban and rural contexts | Mr. Wang Zeying, CN Expert |
| 14:00-14:30 | Presentation on Huizhou Case | Mr. Peng Haoran, Zhongshan University, Guangzhou |
| 14:30-15:00 | European comments and best practices | Mr. Koen Vleminckx, EU Best practices Expert EU & CN experts |
| 15:00-15:50 | Discussion and Communication | |
| 15:50-16:00 | Wrap-up and conclusion | |

PROGRAMME

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Topic 1.3.1.

Public pension sector reform

Zhang Yinghua (Ms)

Ms Zhang Yinghua holds a Philosophy doctorate in Economics from Northwest University of Shaanxi, China. She is Associate Professor with the Institute of Latin American Studies, Chinese Academy of Social Sciences (ILAS CASS), China and Researcher at the Centre for International Social Security Studies, Chinese Academy of Social Sciences (CISS CASS). Her research fields cover social policy of Latin American countries, pension system reform in international comparison, public policy studies in long-term care for the elderly. Ms Zhang published several articles and reports on social security reform issues, and notably on the concept of social security for the public sector in China.

Public sector pension reform**Zhang Yinghua****Abstract**

In China, the public sector refers to government organs and public institutions (hereinafter, GOPI pension). The GOPI pension system and enterprises pension system had evolved from “uniform” to “different” and finally to “re-uniform” to a social insurance system. Since the Basic Pension System of Urban Enterprise was established in 1997, the pension gap between public and private sectors had expanded; labor flow between public and private sectors had become more difficult; and the pension expenditure burden on local governments had become heavier because of ageing. The GOPI pension reform in 2015 made the traditional fiscal-based public sector pension system change to a comprehensive social insurance system. Public sector and the private sector achieved a unified pension system. Meanwhile, there were several supporting reforms include wage adjusted, the GOPI occupational pension system introduced, and the Investment Act of Basic Pension Fund released.

The main content of GOPI pension system reform are: First, to establish a two-pillar mandatory pension system constructed by Basic Pension system (hereinafter BP system) and Occupational Pension system (hereinafter OP system); the second is to explicit the responsibility of workplaces to contribute 20 percent of total wage expenditure to BP system and additional 8 percent to OP system, and individuals to contribute 8 percent of individual wage to BP system and additional 4 percent to OP system, the total contribution rate is 40 percent; the third is to establish a financing mode combined by social pooling and individual accounts, elementary pension comes from social pooling fund which is financed by employer's contribution, individual basic account pension comes from employee's contribution; the forth is to establish occupational pension system which is financed by both of employer's and employee's contribution and operates in accordance with the market-oriented investment; Fourth, established a virtual account, taking into account the fiscal pressure at the beginning of reform, virtual account approach is adopted in OP system, that means employer does not pay any real money into individual occupational pension account, the contribution is credited until the employee retires,

when the employee retires, the government will pay lump-sum of accumulated contribution and its accrued interest into the individual OP account.

There are two potential risks in GOPI pension system: the first is financial sustainability risk. To predict fiscal sustainability of GOPI system should make some hypotheses to system parameters such as the long-term ROI (7%), accounting interest rate (equals to wage growth which is decline linearly from 9.36% in year 2014 down to 3.09% in year 2090), reasonable pension divisor (should be adjusted dynamically and be lower than the existing divisor at same retirement age level) as well as population, economic growth, revenue growth, and then it is found: from 2015 to 2090, the Basic Pension revenue increases gradually, accounting for 4-6% of homochronous fiscal revenue ; between 2015 and 2035 the Basic Pension expenditure decreased slightly and after 2035 increased sharply, accounting for 4-9% of homochronous fiscal revenue; the current value of history debt accounts for 430 percent of fiscal revenue of year 2014 and will be repay completely in 50 years; the fund shortfall accounts for less than 3% of homochronous fiscal revenue as well as 0.8% of homochronous GDP; cumulative fund will run out in 2080. The Pension Divisor in 2015 reform is too low, which will speed up the depletion of Basic Pension funds of GOPI. The second risk is lack of persistent contribution abilities in some local governments. For example, in 2013, the maximum per capita fiscal revenue exceeds the minimum one more than six times among all provinces, and more than 5 times among different cities of Shandong Province. After the 1994 tax reform, the local governments bore more and more social affairs while fiscal revenue declined sharply from 75 percent of national fiscal revenue to 48 percent, just because fiscal powers were centralized. Therefore, local governments dependent largely on central government transfer payments. From 2011 to 2014, more than 90% of GOPI pension expenditures are paid by the local government. But not all the money comes from local revenue. Because lack of data availability, from social security and employment fiscal expenditure in which the proportion of central financial transfer payment is more than 40%, it can be estimated GOPI pension expenditures of local governments have to depend largely on central government transfer payments. The establishment of occupational pension system is an important part of the GOPI pension reform in 2015. The occupational pension system is characterized as follows: First, it is mandatory; the second is the employers and employees have to pay; the third is that employer's contribution is notional before employee retires; the forth is to take DC system. OP benefit level is influenced by four important factors: First, Pension Divisor is too low, which will magnify longevity risk. The second is contribution period. To extend contribution period will increase pension benefit significantly. For example, Assuming ROI is 7 percent, replacement rate of OP in the case of

30 years contribution will be 45 percentage points higher than 20 years contribution. The third is ROI. Assuming 30 years contribution period, OP pension replacement rate in the case of 7% ROI will be 70 percentage points higher than that in the case of 2% of ROI. The fourth is accounting interest rate of virtual contribution from employers (governments). Assuming 30 years contribution and 2% accounting interest rate (one-year deposit interest rate on average in the last 20 years, equals to the prescribed accounting interest rate of individual pension account in Urban Enterprise Pension system), the OP replacement rate is 46 percentage points lower than the replacement rate in the case of 7% ROI.

EU public sector pension systems can be category into independent and mixed systems. In recent years, many EU countries reform their public sector pension systems to fit for ageing and labor mobility speeding up. The major reform measures include: First is reducing pension benefit via cutting down payment or compressing the replaced wage base; the second is transferring public sector employees into general pension system; the third is introducing DC system; the fourth is establishing risk reserve funds. After studying on pension reforms of Germany, France, Britain, Belgium, the Czech Republic, Poland and the Netherlands, the following lessons can be learned: First, reduce DB pension benefits; the second is to defer retirement age or increase contribution years; the third is to cut down survivor pension benefits; Fourth, establish a occupational pension plans as a complement; the fifth is to transform DB plans into DC mode; the sixth is to establish a mechanism of punishing early retirement and encouraging delay retirement; the seventh is improving pension portability via settle accrued pension rights in lump-sum way or calculate pension separately in different pension plans; the last but not least is using actuarial technical to adjust system parameters to achieve financial sustainability.

To improve GOPI pension system, the policy recommendations are as following. First of all is to enhance rights equity. The participants have right to supervise investment of pension fund. The interest rate of virtual account should be credited in accordance with market ROI and not less than a guarantee interest rate. The second policy proposal is to improve portability of GOPI pension.

To improve GOPI pension system, the policy recommendations are as following. First of all is to enhance rights equity. The participants have right to supervise investment of pension fund. The interest rate of virtual account should be credited in accordance with market ROI and not less than a guarantee interest rate. The second policy proposal is to improve portability of GOPI pension. When participants change their jobs, their all accrued pension contribution (both of employers' contribution and employees' contribution) should be roll-out and transferred into pension system in new workplace. The third is to

enhance the financial sustainability of GOPI pension system via actuarial technical. Floating contribution rates should be adopted. Based on floating rates, policy makers can determine a reasonable contribution rate which can help expanding pension fund revenue. Developing a more dynamic and scientific Pension Divisor, cancelling the contribution wage ceiling, merging GOPI pension fund and Urban Enterprise pension fund into one fund pooling, and increasing the minimum contribution years at same time raise the related pension benefit level, all of these measures will promote GOPI pension system more scientific and more sustainable. The forth is to improve the performance of pension fund investment. It should set up a more independent investment institution as fiduciary, and establishment of performance evaluation mechanism should be based on a long-term assessment. It is necessary to endow limited option right to invest his/her OP funds, and preset a guarantee investment return rate to minimize the investment risk.

Key Words: Public Sector; Government Organ and Public Institute; Pension Reform; Occupational Pension; EU; Fiscal Sustainability; Virtual Account

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1. History of GOPI retirement system

After the founding of new China, pension system established in SOEs first. In 1955, imitating the enterprise model GOPI pension system was established, reformed in 1985, 1993, 2006 and 2015. The latest reform changed the mode of GOPI pension system completely from the traditional fiscal support mode to the social insurance. The pension reform determines contribution responsibility of participants and uniforms the pension system of the public sector and private sector.

1.1 From early 1950s to early 1990s, pension systems between GOPI and enterprise were similar

In 1955, according to enterprise pension system, pension system in GOPI established, two kinds of systems were basically identical. In March 1950, the central government introduced retirement system only covered workers in industries like railway, the customs and post and telecommunications. It was stipulated that workers aged 50 years old and over who worked at least for 10 years could retire and pension was paid lump sum. The retiree could gain 1/3 last monthly salary per working year. The accumulated pension would not exceed six months' salary. This was the first pension system in new China, but the pension level illustrated that workers retirement was not encouraged.

In 1951 the first Labor Protection Law was issued and the workers in the industries of railway, shipping, post and telecommunications employing 100 workers and over could get pension when retiring without contributing. The enterprises contributed 3% of total payroll, of which 30% was managed by ACFTU and 70% was used to pay for pension by trade union. Enterprise male worker aged 60 years old and over and worked for 25 years, female worker aged 50 years old and over, and worked for 20 years could retire. According to the working years, for the replacement rate was 35% to 60%. In 1953 the labor protection system expanded to manufacturing, mining, transport industry and construction. In February 1958, the minimum work years for the maximum pension benefits was shortened from 22.5 years to 15 years, and the maximum replacement rate was improved from 60% to 70%.

In December 1955, with reference to enterprise pension system, GOPI pension system was introduced. This was the first retirement system of GOPI in new China. The retirement age and replacement rate were same as that of enterprise while the acquired minimum work years for male and female workers were 25 years and 20 years respectively, 5 years more than that of enterprise pension system.

In 1978, pension benefits and retirement age were adjusted both in GOPI and enterprises, while retirement age of female workers diverged. The adjustments included: First, the acquired minimum working years for pension cut down from 20 years to 15 years, and the replacement rate was 60%, 70% and 75% for retirees worked for 10 to 15 years, for 15 to 20 years and for 20 to 25 years respectively, 80% for whom retired before October 1 in 1949 and 90% for whom retired before the end of 1945; the second is cutting down the retirement age of enterprise female workers from 55 years to 50 years, 5 years earlier than that of GOPI.

In this period, the pension system in China evolved to a pension system with universal coverage and retirement conditions loosened gradually. However, the pension system was the product of the planned economy system. Although retiree left work position, but was still managed by the labor department of former work unit, and pension was still labor cost and was not a real social insurance system.

Wage system reform in 1985 expanded pension gap between GOPI and enterprise. In planned economy period, the Department of Treasury earmarked funds including wages and pensions to SOEs on the basis of amount of positions, not changing along with number of staff and workers. The rule of allocation was equalitarianism which could not encourage SOEs to improve production efficiency. In January 1985, in order to enhance the vitality of SOEs, the policy was changed to allocate on the basis of operating efficiency. Thereafter, wage differentials between GOPI and SOEs began to emerge.

In June 1985, GOPI wage reformed. The wage of GOPI was divided into Basic Wage, Duty Wage, Seniority Pay and Premium Wage. The central government set wage standards to Base Wage and Duty Wage, and allowed local governments to determine levels of Seniority Pay and Premium Wage. Wage standards of the same position were divided into several ranks (see Annex 1.1). For example, in the governments of central level and province level, the highest Position Wage of the governor of province was 315 Yuan per month, 7.5 times of that of the clerk (42 Yuan per month). The gap of pension between GOPI and SOEs expanded synchronously

1.2 From early 1990s to the end of 2014, Urban Enterprise pension system diverged from GOPI pension system and transitioned to social insurance mode.

1.2.1 Wage system reformed of 1993 changed pension structure of GOPI and enterprise

In 1990s, the pace of SOEs reform accelerated. Pension expenditure was always heavy burden on SOEs, so the central government planned to replace the transition traditional pension system by a social insurance system.

In 1991 local governments reformed their enterprise pension systems. In new pension system, the work units and their workers were asked to contribute for social pooling pension fund. The GOPI remained the traditional pension system. Since then, the pension system modes of GOPI and enterprise became divided.

In 1993 the National Civil Service System was introduced, and the wage system of national civil servants reformed (see Annex 1.2 and Annex 1.3). Contrasted with the previous wage system, the number of position levels was integrated from 26 degrees to 12 degrees. The structure of wages was changed to Basis Wage, Duty Wage, Rank Wage and Seniority Pay, and the Duty Wage and Rank Wage were in the majority. In addition, the state civil servants could get regional allowances and other allowances, and increased salary regularly and got bonuses on the basis of work performance. For example, the maximum Duty Wage and Rank Wage of the governor of province was 530 Yuan per month and 382 Yuan per month respectively, 4.4 times and 2.8 times of that of clerks (120 Yuan per month). Compared with before, the wage differentials between different positions didn't expand. At the same time, the wage of public institutes reformed synchronously. The wage of professional technicians was divided into Duty Wage and Work Premium (see Annex 1.4).

In Wages reform of 1993, the pension benefit of GOPI was adjusted. The authority of determining pension benefit standards was decentralized, and the central government set ceiling of the pension benefit. Taking Shaanxi province as an example, the Basic Wage and Seniority Pay were paid in full to retirees, and Duty Wage and Rank Wage were paid at a certain proportion which was 75% to 88%. It is estimated approximately the replacement rate was at least 80%.

In the first half of 1990s, salary monetization was improved in enterprises, while a large proportion of hidden welfare in GOPI. To maintain living standard, except for pension, the retired staff of GOPI were paid subsidy for food, meat, and so on. Because of lack of controlling, the local governments constantly pushed up the Pension Subsidy. So, the pension gap between GOPI and enterprise come out.

1.2.2 Enterprise social pension insurance system was established in 1997, and pension system of GOPI and enterprises operate in "dual track" way

To coincide with the reform of state-owned enterprises, the enterprise worker pension insurance system implementation of coordinated reform. In 1995 proposed to establish a pension insurance system which combining Social Pooling fund and Individual Basic Pension Account. Regulate the enterprise and Individual capture to expend scale, Individual Basic Pension Account size and pension insurance gold extend standard. All of enterprises implemented social pension insurance system. After business implemented the system of social pension insurance, Enterprise pension system completely separated with GOPI. Formed a GOPI staff oriented financial retirement system and the system of social pension insurance for enterprise employees (see Table 1.1). GOPI pension related to the rank of the title and working years before retirement and the social average wages and town enterprise Pension Individual Basic Pension Account accumulation amount.

Table 1. 1 After reform of 1997, comparing Urban Enterprise system with GOPI pension system

| | GOPI pension system | Urban Enterprise Pension System |
|------------------------------|--|--|
| Retirement conditions | Male 60 years old, female 55 years old, no age limitation for disabled workers; male aged 55 who have Worked for 30 years or and female aged 50 who have worked at least 20 years, can apply for early retirement. | Male 60 、 female cadres 55 、 female workers 50, Accumulative total capture at least 15 years. |
| Pension benefit | $(\text{basic pay and seniority pay}) \times 100\% + (\text{position salary} + \text{rank level salary}) \times n$, n is equal to: 88% (work for at least 35 years); 82% (work for 30 to 35 years) ; 75% (work for 20 to 30 years) . | Basic pension = local social average wages multiply by 20%; Individual Account Basic Pension equals to accumulated fund in individual account divided by 120; The "transition workers" ¹⁶ |

¹⁶ Transition workers "refers to those in the new system prior to the implementation of the work, and after the implementation of retired people in the system, associated with" old man "and" new man ", the "old man" mean in the new system before retired people, "the newcomer" refer to begin to work after the new system implementation.

Allowance: according to rank, title or position, working years and financial burden ability, determined separately.

| | | |
|------------------------------------|---|--|
| Replacement rate | More than 80% (estimate value). | Not lower than 58.5% (target value). |
| Contribution responsibility | Individual didn't contribute. The governments paid pension. | Work units and participants contributed at the rate of 20% of the total payroll (in which 3% storing in Individual Account) and 8% of individual wages (all for storing in Individual Account) respectively. |

Source: edited by the author.

1.2.3 Wage reform of 2006 resulted in the pension gap between GOPI and enterprise expanded

In July 2006, wage reformed in GOPI. The Basic Wage and Seniority Pay in previous wage system of government organs were cancelled and added Rank Wage from 15 grades to 27 grades (see Annex 1.5 and Annex 1.6). It is stipulated that Rank Wage rose up 1 grade every 2 years if passing performance appraisal. At the same time, Post Performance Salary Mechanism was carried out in public institutes. The wages were divided into Duty Wage, Rank Wage, Performance Wage and Subsidy and Allowance.

After wage reform, the proportion of subsidy in pension increased. It is estimated that subsidy accounted for 60-70%¹⁷ of pension of civil servants. Take Shaanxi province as an example, in 2007, the average wage of workers in post was 21239 Yuan, and The Pension Subsidy of GOPI retirees was from 660 Yuan to 1760 Yuan per month on the basis of ranks, accounting for 37% to 100%¹⁸ of average wage in post. Due to soft budget constraint, constant increasing of Pension Subsidy widened the pension gap between GOPI and enterprise.

In 2005, Urban Enterprise Basic Pension system adjusted as follows: First, pension replaced social average wage instead of the average of sum of social average wage and individual indexation wage, which was benefit to encouraging hard work to get higher

¹⁷ "subsidies and allowances is 70% of civil servant salary, was accused of not conducive to integrity", People's Daily, 2014-9-11, <http://news.sina.com.cn/c/2014-09-11/001030821953.shtml>.

¹⁸ From the internal investigation report.

salary; the second is the replacement rate was changed from fixed 20% to a proportion relative to work years, 1% for every work year, which was benefit to encouraging to work longer. Table 1.2 shows the difference between pension system of GOPI and enterprise after 2005.

Table 1. 2 Comprising Urban Enterprise pension system and GOPI pension system after wage reform in 2006

| | GOPI pension system | Urban Enterprise pension system |
|---|--|--|
| Benefit qualification | Male workers aged 60 years old and over, female workers aged 55 years old and over, or the disabled. The workers who have worker for at least 30 years, or worked for 20 years and less than 5 years away from retirement age, could apply for early retirement. | Male workers aged 60 years old and over, female workers aged 50 years old and over, and contribution accumulated at least 15 years. |
| Pension benefit | <p>Pension replacement rate:</p> <p>90% (work for 35 years);</p> <p>85% (work for 30 to 35 years);</p> <p>80% (work for 20 to 30 years);</p> <p>70% (work for 10 to 20 years);</p> <p>Allowance: according to rank, title or position, working years, and at the financial ability, determined by the local governments.</p> | <p>The parts of pension benefit:</p> <p>Basic pension = (social average wage of last year + indexed individual wage) / 2 x 1% x work years;</p> <p>Individual Account Basic Pension = accumulated fund in Individual Account / pension divisor (the pension divisor can be seen in Annex 1.7);</p> <p>Transitional annuities = the social average wage of last year x the index of individual wage x accrued work years with no contribution x 1.4%.</p> |
| Qualification for early retirement | Workers who worked for at least 30 years, or worker for 20 years and less than 5 years away from retirement age, could apply for early retirement. | Workers in special jobs could apply for early retirement. |
| Replacement rate | More than 80% (estimate). | Not lower than 58.5% (system target). |
| Contribution | Individual didn't contribute. The governments paid pension. | Work units and participants contributed at the rate of 20% of the total payroll |

(all for payment of pension) and 8% of individual wages (all for storing in Individual Account) respectively.

Source: edited by the author.

1.3 The pension reform of 2015 transitioned GOPI pension system to social insurance mode

On January 14, 2015, the state council promulgated the GOPI Pension System Reform Decision (Guofa[2015] No.2), announced that the GOPI pension system had been established. As the second file published by the State Council in 2015 shows the importance of GOPI pension reform.

1.3.1 The reform background

After wage reform in 2006, the GOPI pension structure altered obviously, and Pension Subsidy were increased dramatically under soft budget constraint pension. The pension gap between GOPI and enterprise were too large. The "dual-track mode" pension systems in public and private sectors had been criticized increasingly. It badly needs reform. Before the reform, the GOPI pension was paid in DB way and participants take no payment obligation. The difference of pension system mode resulted in Portability loss of labor mobility between public and private sectors. Moreover, the local governments faced the problem of uneven scale of fiscal revenue and pension expenditure. This reform is to deal with these problems under principles like fairness, portability and sustainability.

(1) The widening pension gap between GOPI and enterprise caused more and more criticism

Before the year of 2006, the pension gap between GOPI and enterprise was obvious. Table 1.3 shows the pension gap was expanding during 2000 to 2004. It is can be seen that the average wage of GOPI and enterprise was near, but the pension per capita and pension replacement rate were very different. From 2000 to 2004, the pension replacement rate of Urban Enterprise Basic Pension system declined from 66.8% to 50.3%, and the difference to the pension replacement rate of GOPI expanded from 10 percentage points to 20 percentage point.

From 2000 to 2004, the average wage of enterprises and public institutions rose by about 70%, and that of government organs rose by 78.3%; while the average pension of enterprise rose 27.5%, and that of public institutes and government organs rose by 51.7%

and 68.6% respectively. As a result, the differentials of pension between enterprise to public institute and government organ increased by 19% and 32.2% respectively.

Table1.3 The comparison of pension and wage between enterprise and GOPI (in 2000 to 2004)

| Year | 2000 | 2001 | 2002 | 2003 | 2004 | difference in 2000 to 2004 |
|---------------------------------|--------|--------|--------|--------|--------|----------------------------|
| Average pension (Yuan per year) | | | | | | |
| Enterprise | 6142 | 6373 | 7364 | 7732 | 7831 | 27.5% |
| Public Institute | 9655 | 10490 | 12110 | 13809 | 14644 | 51.7% |
| Government Organ | 9451 | 11570 | 12988 | 14654 | 15932 | 68.6% |
| Average wage (Yuan per year) | | | | | | |
| Enterprise | 9189 | 10453 | 11873 | 13578 | 15559 | 69.3% |
| Public Institute | 9634 | 11491 | 13246 | 14564 | 16489 | 71.2% |
| Government Organ | 10020 | 12125 | 14005 | 15736 | 17869 | 78.3% |
| Pension replacement rate (%) | | | | | | |
| Enterprise | 66.8 | 61.0 | 62.0 | 56.9 | 50.3 | -24.7% |
| Public Institute | 100.2 | 91.3 | 91.4 | 94.8 | 88.8 | -11.4% |
| Government Organ | 94.3 | 95.4 | 92.7 | 93.1 | 89.2 | -5.5% |
| Difference of pension (%) | | | | | | |
| Public Institute / Enterprise | 157.2% | 164.6% | 164.4% | 178.6% | 187.0% | 19.0% |
| Government Organ / Enterprise | 153.9% | 181.5% | 176.4% | 189.5% | 203.4% | 32.2% |

Source: The author calculates on the basis of *China's Labor and Social Security Statistics Yearbook 2005*, National Statistics Bureau, 2005.

After the year of 2006, the pension gap between enterprise and GOPI continued to expand. After the wage reform in 2006, GOPI pension is divided into two parts: one is retirement wage, the other is Pension Subsidy which accounts for large proportion of pension. In Shaanxi province as an example, wage reform determined Pension Subsidy standard from 660 to 1760 Yuan per month which accounted for 47% to 125% of average wage (16918 Yuan) in 2006.

The “double track” status of pension system has been heavily criticized and is considered to be an unfair social policy. The investigations to “What is your most concerned issues during NPC & CPPCC?” which is organized by People's Daily Online and People's Daily Press continued from 2002 to now. The investigation result in 2012 showed

that more than 92% of respondents hoped to increase the pension of enterprise¹⁹; in 2013, 97% of respondents expressed dissatisfied to the increase extent of pension and 98% of respondents considered to change “dual track” status of pension system²⁰; in 2014, 86.29% respondents supported to coincide the two pension systems of GOPI and enterprise²¹.

(2) Labor mobility between GOPI and enterprise are not smooth

After enterprise pension system was established in 1993, the resistance of labor mobility from GOPI to enterprises was increased. Because in Fiscal-Beard pension system, if staff and civil servants left to enterprise, his/her accrued pension rights with no contribution in GOPI wouldn't be added to “work years” when he/she participated in enterprise pension system, which meant he/she gained inadequate pension when retiring. Even though retrospect contribution by the enterprise was allowed, the employer would be hesitating to pay for such huge labor cost in lump sum.

(3) Ageing of GOPI staff will increase local governments' pressure on pension expenditure

Seeing from Table 1.4, grouped by 5 years, it can be found that more than 40% of staff in post will retire in next 5~15years, and more than 40% of retirees are aged 60~69 years old who will receive pension at least for 10~20 years. Aging problem in GOPI will become more serious in next 10 to 20 years.

Table 1.4 The proportion of staff at different age group (in 2013, %)

| Age | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | 50-54 | 55-59 | 60+ |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| proportion of staff at different age group | 0.0 | 2.5 | 14.6 | 18.2 | 15.7 | 17.2 | 15.7 | 9.5 | 6.4 | 0.1 |
| Age | 40-49 | 50-54 | 55-59 | 60-64 | 65-69 | 70-74 | 75-79 | 80-84 | 85-89 | 90+ |
| proportion of staff at different age group | 1.0 | 3.5 | 15.1 | 23.3 | 19.4 | 16.1 | 11.3 | 6.8 | 2.7 | 0.8 |

Source: Provided by the research team of *Study on China's Pension System Reform*

¹⁹ *Social security in the "NPC&CPPCC" survey top again ,by more than ninety percent netizens hope to improve the pension.* People's Daily Online,20/2/2012. <http://politics.people.com.cn/GB/17159215.html>

²⁰ http://news.ifeng.com/gundong/detail_2013_03/05/22735599_0.shtml

²¹ *To report to the people: in 2013, introduced the New Deal with social security.* People's Daily Online,26/2/2014. <http://politics.people.com.cn/n/2014/0226/c1001-24468137-2.html>

The pension expenditure of public sectors in OECD countries accounts for 2%²² of GDP on average, while the above proportion was much smaller relatively, between 0.5% ~ 0.6% (see Table 1.5). Despite the overall expenditure scale can be controlled, the local governments especially the grassroots governments have difficult to afford.

Table 1.5 Proportion of GOPI pension expenditure in GDP

| Year | 2011 | 2012 | 2013 | 2014 |
|--|----------|----------|----------|----------|
| Fiscal expenditure for GOPI pension (100 million Yuan) | 2737.75 | 2848.84 | 2851.41 | 3294.67 |
| GDP (100 million Yuan) | 484123.5 | 534123.0 | 588018.8 | 636138.7 |
| Proportion of GOPI pension expenditure in GDP | 0.57% | 0.53% | 0.55% | 0.58% |

Source: Final Fiscal Accounting in every year published by Department of Treasury and annual National Economic Accounting published by National Statistics Bureau.

After implemented the reform in 1994²³, the proportion of central fiscal revenue in national fiscal revenue is increasing, while the gap between fiscal revenue and expenditure in local governments is expanding (see Figure 1.1). Local governments have to ask more and more fiscal transfer of central government to offset the gap; thereafter, local governments depend on central government more and more.

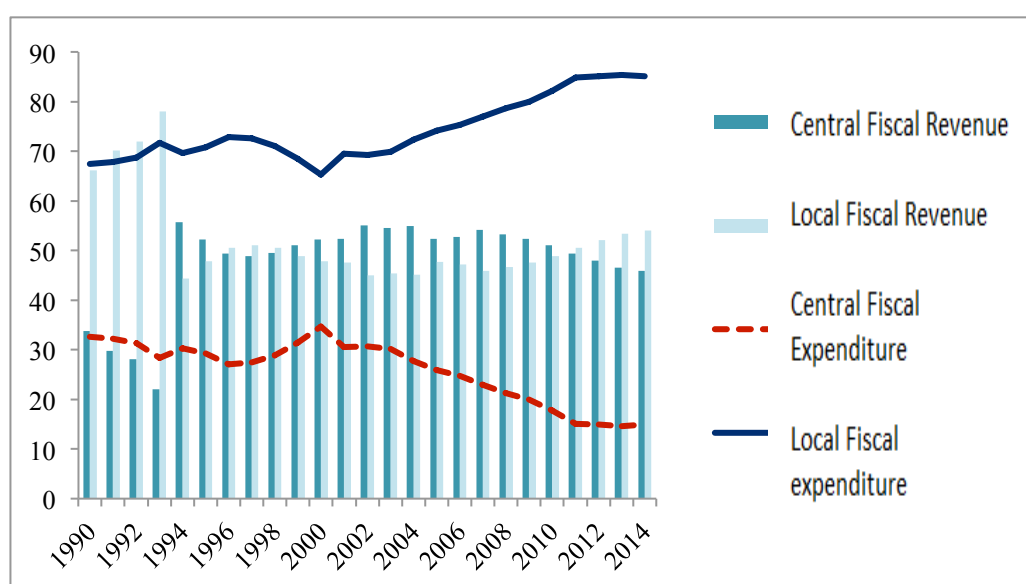


Figure 1.1 The proportion of central and local fiscal revenue and expenditure (%)

Source: Annual data of Fiscal Revenue and Fiscal Expenditure published by National Statistics Bureau.

22 Kings, J., E. Turkisch and N. Manning (2007), "Public Sector Pensions and the Challenge of an Ageing Public Service", OECD Working Papers on Public Governance, No. 2, OECD Publishing.

<http://dx.doi.org/10.1787/285530706017>

23 In 1994 China began to implement tax system reform, the taxes were divided into central tax, local tax and shared tax by the central and local governments. After this reform, proportion of central fiscal revenue increases, which helps to enhance control power of the central government to macro economy.

1.3.2 Reform content

Fairness, liquidity and sustainability is the goal of this GOPI pension insurance reform and it aims to build a social pension insurance that financially independent of GOPI. It will be a social pension insurance system, which source of funds is various and the preservation mode is multiple-level and management socialized.

Coverage and participants. The GOPI pension system covered all civil servants and other staff work in public institutions, not including temporary employees. On basis of official data published by 18 provinces, it is estimated that the number of government organ staff was 11.0666 million and the number of public institution staff was 26.8435 million nationwide, and the sum was 37.9101 million (see table 1.6). According to estimation, the GOPI staff accounted for 9.9% of employment in cities and towns (382.4 million) and 4.9%²⁴ of total employment nationwide (769.77 million) in 2013.

Table 1.6 population of the GOPI staff in post (in 2013, 10 thousand)

| | Population at the end of a year | Government organ | Public institute | Total |
|------------|---------------------------------|------------------|------------------|-----------|
| Tianjin | 1472 | 13.21(a) | 34.97(a) | 48.18(a) |
| Shanxi | 3630 | 45.98 | 101.39 | 147.37 |
| Nei Mongol | 2498 | 33.29(a) | 71.82(a) | 105.12(a) |
| Jiangsu | 7939 | 54.14 | 153.20 | 207.34 |
| Zhejiang | 5498 | 51.17 | 118.75 | 169.92 |
| Anhui | 6030 | 40.11(a) | 103.83(a) | 143.94(a) |
| Fujian | 3774 | 29.14(a) | 68.34(a) | 97.48(a) |
| Shandong | 9733 | 84.40 | 213.00 | 297.40 |
| Henan | 9413 | 71.92(a) | 195.97(a) | 267.89(a) |
| Guangdong | 10644 | 86.62(a) | 186.53(a) | 273.15(a) |

24 Data is cited from human resources and social security development statistical bulletin in 2013.

| | | | | |
|-------------------|--------|-------------|-------------|-------------|
| Guangxi | 4719 | 35.39 | 109.01 | 144.40 |
| Hainan | 895 | 9.02 | 21.88 | 30.90 |
| Chongqing | 2970 | 23.48(a) | 60.03(a) | 83.51(a) |
| Sichuan | 8107 | 73.14(a) | 159.20(a) | 232.34(a) |
| Guizhou | 3502 | 36.03(a) | 76.95(a) | 112.98(a) |
| Shaanxi | 3764 | 44.35 | 104.36 | 139.79 |
| Qinghai | 578 | 8.34(a) | 15.70(a) | 24.04(a) |
| Ningxia | 654 | 7.42 | 17.40 | 24.81 |
| footing | 85820 | 747.16(a) | 1812.33(a) | 2550.56(a) |
| nationwide | 135516 | 1106.66 (b) | 2684.35 (b) | 3791.01 (b) |

Note: (a)estimated, employment multiplied by 0.94, 0.94 is the proportion of GOPI staff in total employees. (b)estimated, the sum of staff population in GOPI published by 18 provinces is divided by 0.675145, hereinto 0.675145 is an adjusted proportion of permanent residents in total residents of those provinces.

Source: statistical yearbook 2014 of each province.

Financing: The governments contribute 20% of the total payroll for social pooling and the GOPI staff in post contribute 8% his/her earning to his/her Individual Basic Pension Account. The “earning” is based on the whole remuneration except for the subsidies that always are used to compensate wage insufficiency due to cutting down implicit benefit under traditional planned economy system.

If individual contributive salary is lower than the local serving officer’s average wage of 60% last year, then according to the 60% of the previous year average wage of serving officer to contribute. The ceiling and floor of contribution is 60% and 300% of salary respectively. In Beijing, for example, in 2014 the social average wage is RMB 6463 Yuan per month, if individual contributive wage is 3500 Yuan, the contribution base will be 3877.8 Yuan per month (see Table 1.7).

Table 1.7 Calculation of the contribution base (Beijing, 2014, Yuan per month)

| Individual contributive wage | average social wage | Contribution base |
|------------------------------|---------------------|-------------------|
| 3500 | 6463 | 3877.8 |
| 5000 | 6463 | 5000 |
| 10000 | 6463 | 10000 |
| 15000 | 6463 | 19389 |

Source: calculated by the author.

Contribution Years. The GOPI employees must contribute to the pension insurance at least 15 years. Individuals who are insured by the basic pension insurance and reach the legal retirement age, if his/her accumulative contributed less than 15 years, he/she will continue contributing to reach 15 years. If the extended contribution years are still less than 15 years after five years, he/she can contribute a one-time premium to reach 15 years.

Individual Basic Pension Account. Individual basic pension account is calculated with the unified interest published every year by the state, free of tax. The pension shall not be in advance withdrawn. Individual Basic Pension Account balance can be inherited if the contributor was dead.

Pension benefit and its adjustment. Basic pension consists of elementary pension and individual account pension. The contribution base of elementary pension is according to the local GOPI staff monthly average wage and the average number of him self's indexed average wage monthly. It will pay out 1% of the pension while you contribute per full 1 year. For the people get job before the reform and retired after reform, according to the length of contribution year to pay off the transitional pensions. Retired during the reform, continue to be benefited according to the regulations of the state's primary basic pensions.

The basic pension is adjusted according to wage growth rate. The standard of monthly pension of individual account equals to individual account stores divided by pension divisor. Among them, pension divisor is calculated according to the urban population average life expectancy, the retirement age and the interest to define. The

pension divisor is almost linear and weak especially for staff aged 55 to 65 years old to encourage deferring retirement age (see Figure 2.1).

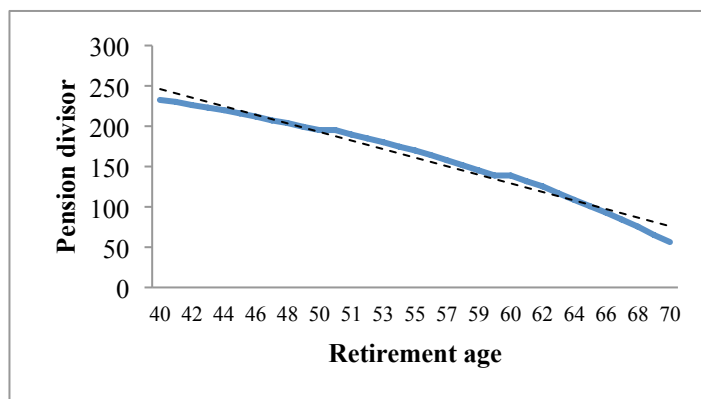


Figure 2. 1 Pension divisor and its trend

Transitional program for "transition worker". The staff that are employed before the reform and retire after the reform and meet qualification conditions can receive the elementary pension, individual account pension, and transitional pension extra.

In Shaanxi Province, there is a 10-year transition period for the people who employed before the reform (1/10/2014) and retired after the date. During the transition period, make a comparison between the pre-reform benefit and the benefit after reform. If the benefit of new system (including occupational pension benefits) is lower than the old system, then according to the old standard approach to pay off. If the benefit of new system is higher than the old way, then pay off 10% of the extra part to the first year retirees, pay off 20% to the second year retirees, and so on, pay off 100% of the extra part until the end of transition period (1/1/2024 to 30/9/2024). Retired after the transition period²⁵, according to the new system to pay the pension.

Fund supervision. The basic pension insurance fund of GOPI is financed by the provincial level or provincial transfers. The fund account established alone, and independent with enterprise employees basic pension insurance funds. It implements budget management of the fund, financial accounts into the social security fund, the income and expenditure are independent and earmarking.

²⁵ *Opinions about GOPI pension system reform, shaanxi province.* http://www.gov.cn/xinwen/2015-10/21/content_2950971.htm

Pension transferring. When GOPI participant leave to enterprise or public sector in other province, his/her individual contribution and its investment revenue can be transferred to pension management agency in receptive place; and his/her employer' (government') contribution will be transferred at 12% contribution rate, which means 25% of contribution from employers will not transferred to receptive place.

Occupational Pension system. The employees of GOPI are insured by the basic pension, in the meantime, 8% of the total wage, individuals contribute by 4%, respectively payment, to contribute to the occupational pension schemes.

Organization and management. The Human Resources and Social Security Department of China is responsible to manage the basic pension insurance of the GOPI in Beijing and the occupational pension fund. The management of the basic pension insurance of GOPI, which workplace outside Beijing, is responsible by the local government. The local social insurance agencies responsible for the GOPI pension insurance registration, payment reporting, relationship between the transfers, the benefit approved and paid work.

Comparison of systems. After the reform, the GOPI pension system has completely changed the front clear fiscal responsibility, personal responsibility, from a single-level pension security into a multi-level security. (see Table 1.9)

Table 1.9 Comparison of GOPI pension systems before and after the reform

| | Before | After |
|---------------------------------|---|---|
| System mode | Government supporting | Social insurance |
| Financing | Paid by governments | Contributed by governments and staff, and subsidized by governments |
| Benefit | Determined mainly by participant's position/title | Elementary Pension is relative to position/title and work years; Individual Account Basic Pension and Occupational Pension are determined by contribution and its investment revenue; |
| Participant's obligation | none | Contribute to Individual Basic Pension Account as well as Occupational Pension Account. |

1.3.3 Supporting policies for GOPI pension reform

(1) Increase the basic wages and pensions of retirees in GOPI

After the salary reform in 2006, the GOPI all serving officer's basic wages vary with the changes in positions and ranks, only basic wage no adjustment. Civil service and GOPI promotion with a long cycle, so their salary growth slower than companies employee, for example, wage level automatically every 2 years to the next level, increase of 5-6%, the level of GOPI wage growth significantly lower than the town companies serving officer average wage. Post wage increase associated with the promotion of positions and titles, positions and titles per level promotion pay increase of 25-30%, but need at least 5 to 10 years, and the vast majority of people can only 2-3 level promotion. Companies serving officer average wage, by contrast, all the year round to keep more than 10% annual growth rate, for example, 2006-2014 average annual compound growth rate of 13.2%²⁶. The GOPI did not form a normal wage adjustment mechanism, wage growth rate significantly slower than the social average

This reform needs the GOPI on-the-job personnel according to his or her wages by 8% and 4% respectively contribute to the basic pension insurance and occupational pension, this means that the contributor's wage will be reduced 12%. Due to the salary of some civil servants at the grass-roots level and rank low young people is not high, coupled with the GOPI wages always not according to the economic growth rate and social average wage rises for automatic adjustment, therefore, the contribution to insurance will make its income greatly reduced. According to the Ministry of Human Resources and Social Security, if the 12% of his salary payment, the salary of GOPI in about 40% will be lower than town companies serving officer average wage. Therefore, on January 12, 2015, the State Council issued a scheme about "Adjusting the GOPI staff basic wage standard and increase the GOPI retirees pensions" ([2015] no. 3), will increase the office basic wages of civil servants and public institution staff by 20% on average, the greater the rise in the lower positions and ranks. At the same time, increase the GOPI pension by 10%. The funds needed for the wage increases and pension all from the governments at various levels and the central fiscal transfer payment.

(2) Establish compulsory occupational pension system

The notice about *the GOPI occupational pension* ([2015] no. 18) was released on March 27, 2015 by the State Council, aimed at build the occupational pension system, as the GOPI compensatory pension insurance system. Including basic content:

²⁶ According to the data from National Bureau of Statistics, calculated by the author.

Contribution. The GOPI contribute 8% of the worker total wages 8%, individual contribute 4% of salary payment.

Accounts management. Individual contribution calculate in individual account, the GOPI contributes in an accounting mode, calculated with the interest published by the state unified plan, when workers retire, according to the cumulative amount of the account of the worker's occupational pension account and pay off by the local government.

Pension transfer and continuity . Changes in employers, professional along with the pension personal account transfer. If the new employment did not practice the occupational pension or annuity system, the occupational pension personal account by the original management agencies continue to manage operations.

Payment of benefit. When individual retired, he(her) can choose a one-time to buy commercial pension insurance products, or choose a monthly plan receive occupational pension until finished, select either no longer changes after receiving way. It can inheritance the occupational pension personal account.

Organization and management. Managed by the society insurance agency organization at all levels.

Fund Management. Investment management, conducted by the market. It does not allow all people can participate in fund investment operation decision, that is to say, the individual contributor of the occupational pension has no choice of the fund investment.

So, after the reform, the GOPI pension insurance system consists of two parts, basic pension insurance and occupational pension and the pension consists of elementary pension and individual account pension and occupational pension. The man insured by the previous system not to take part in the new system, "transition worker" in addition to the above three pension, also receive the transitional pension. The transitional pension of specific payment is determined by the local governments (see Table 1.10).

Table 1.10 The GOPI pension insurance in 2015

| | Basic pension insurance | Occupational pension |
|--------------------------|--|--|
| Financing methods | The GOPI contribute according to 20% of the total amount of wages, personal contribute according to 8% of his salary | The GOPI contribute according to 8% of the total amount of wages, personal contribute according to 4% of |

| | |
|---|--|
| <p>Benefit</p> <p>Basic pension monthly= (Last year's serving officers monthly average salary + individual indexed monthly average payment wage) ÷2×contribution year×1%. Individual account pension monthly = individual account calculation ÷ pension divisor.</p> <p>"Transition worker" transitional pension received with specific measures by local government s.</p> | <p>his salary</p> <p>The first choice: Buy commercial pension insurance products one-time.</p> <p>The second choice : Paid monthly.</p> <p>Cannot be changed after it is selected.</p> |
|---|--|

Source: According to the “Reform decisions about the GOPI pension insurance system”(2015,NO.2) and the “Notice about occupational pension system in GOPI”(2015,NO.18),collated by the author.

After the reform, the GOPI pension insurance system and urban basic pension system for enterprise, the difference is the parameters (see chapter 2). It is mandatory of the GOPI occupational pension, at the beginning of system implementation can be covered, and enterprise pension system is voluntary, since 2004 the implementation of this system, have operated more than 10 years, currently covered 23.0865 million people, of all employment in cities and towns (at the end of 2014 to 2014) of 5.9%²⁷.

(3) Formulate the manage methods of pension insurance fund

By the end of 2014, the town enterprise basic pension insurance fund balance reached 3.5645 trillion Yuan cumulatively, the funds only can be used for bank deposits and buy bonds, and the former accounted for more than 95%²⁸. Most of these bank deposits was 1-3 years short-term, and not matched the long-term pension insurance fund, which affected the profitability of the fund. The average profit rate of fund of basic pension insurance during 2001 to 2011 annually was less than 2%, and less than 2.47% the

²⁷ According to the ministry of human resources and social security fund supervision: the national enterprise pension fund business data (in the second quarter of 2015)

"<http://www.mohrss.gov.cn/SYrlzyhshbzb/zwgk/szrs/qttjcl/201509/W020150912763024435640.pdf>

²⁸ According to the national audit office announced in August 2012, *the national social security fund audit results*, 95.02% of town enterprise fund of primary pension insurance is bank deposits, urban residents pension insurance fund is all bank deposits.

average inflation rate over the same period, reducing by more than 600 billion Yuan²⁹. The GOPI pension insurance system reform involved 38 million the GOPI workers. These people had a strong political voice and lower tolerance for the losses of profit because the fund cannot be invested.

In August 2015, the central government issued the measures for the administration of the pension insurance fund investment (hereinafter referred to as "investment management method"), and made specific provision in investment on the basic old-age insurance fund management. "Investment management method" applies to enterprise employees, the staff GOPI and urban and rural residents' pension funds and the entire existing public pension plans. Investment and supervision adopts the principle of prudent regulation, in order to obtain high yield as much as possible with ensuring the basic old-age insurance fund under the principles of security.

Provincial institutions entrusted investment. According to the rules, the provincial institutions entrust investment operations and the institutions authorized by the State Council are entrusted with investments. Although there is no clear trustee, concerning that Guangdong and Shandong respectively signed an agreement with the National Council for Social Security Fund in March 2012 and in February 2015, which was entrusted with running 100 billion Yuan that was fund of primary pension insurance for enterprise employees, the National Council for Social Security Fund will be the institute to invest and operate the enterprise basic pension insurance fund.

Investment scope. Fund of basic pension insurance is limited to domestic investment. Comparing with the net fund assets, investment proportion on the wages shall not be less than 5% of that, and investment proportion on the bond fixed income securities, stocks and the major construction projects shall not exceed 135%, 30% and 20% of that respectively.

2. Prediction and Evaluation on GOPI pension system of 2015 reform

In 2014, the actuarial team of MoHRSS cooperated with the research team of Centre of International Social Security of CASS to predict GOPI pension system fiscal sustainability. This chapter will use actuarial results of this research to evaluate the GOPI pension system operation effect.

²⁹ Bing-wen zheng: *China's pension insurance fund "shrink" nearly 600 billion Yuan in the past ten years*, business network, 9/11/2012.

2.1 Demographics in GOPI

China's public sector has 37.91 million in-staff employees and 16.28 million retirees. Assuming the staff amount of GOPI will not increase and be static at 37.91 million in 2015-2024 and change in accordance with the overall demographic after 2025. It can be predicted that in-staff employees will reach 42.21 million and retirees will reach 25.51 million by 2050, and increase by 11.3% and 56.7% respectively (Table 2.1).

Table 2. 1 Demographic Prediction of GOPI (2015 to 2090, 10 thousand)

| | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 | 2060 | 2070 | 2080 | 2090 |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Staff in post | 3791.0 | 3791.0 | 3848.3 | 4121.4 | 4173.6 | 4210.6 | 4228.8 | 4220.7 | 4011.2 | 3798.0 | 3606.0 | 3452.3 |
| retirees | 1628.3 | 1729.1 | 1799.7 | 1898.5 | 1971.1 | 2107.6 | 2308.0 | 2550.7 | 2572.4 | 2684.8 | 2872.5 | 2993.9 |

Source: Zhang, Yinghua, "Notional Defined Contribution Pension System of GOPI and Analysis on Its Long-term Fiscal Sustainability", *Research on Development*, No.3, 2015, p.8.

The average age of GOPI staff is higher than that of enterprises because GOPI staff has experienced longer period education in general, which results in higher dependency ratio in GOPI. Assuming retirement age is deferred gradually from 2015 to 2035 and reaches 65 years old for male staff and 60 years old for female staff by 2035. The dependency ratio in GOPI is 43% in 2015, reaching 50% in 2040, and in the whole prediction period 10 to 15 percentage points higher than dependency ratio of Urban Enterprise Pension system as well as 15 to 30 percentage points higher than dependency ratio nationwide (see Table 1.12).

Table1. 1 Dependency Ratio of GOPI or Urban Enterprise Pension system (prediction value, 2015 to 2090, %)

| Year | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 | 2060 | 2070 | 2080 | 2090 |
|--|--------------------|------|------|------|------|------|------|------|------|------|------|------|
| GOPI pension system | 43.0 | 45.6 | 46.8 | 46.1 | 47.2 | 50.1 | 54.6 | 60.4 | 64.1 | 70.7 | 79.7 | 86.7 |
| Urban Enterprise pension system | 32.2 | 27.5 | 27.0 | 29.1 | 32.9 | 38.3 | 44.6 | 53.4 | 65.4 | 63.0 | 65.2 | 66.9 |
| National Population | 13.7 ³⁰ | 18.0 | - | 25.6 | - | 38.1 | - | 44.0 | 53.6 | 49.1 | 50.5 | 54.0 |

Note: National population dependency ratio equals to the amount of population aged 65 and over divided by the amount of population aged 15 to 64. The prediction value is based on medium rate of fertility.

³⁰ In 2014. Data comes from: National Bureau of Statistics, *National Economic and Social Development Statistics Bulletin 2014*, February 2015.

Source: Zhang, Yinghua, "Notional Defined Contribution Pension System of GOPI and Analysis on Its Long-term Fiscal Sustainability", *Research on Development*, No.3, 2015, p.7; Zheng Wei, "Characteristics of China's Aging Trends and the Potential Impact on Economic Growth", *Quantitative and Technical Economics Research*, No.8, 2014, p. 14.

2.2 Financial Sustainability Prediction of GOPI Basic Pension System³¹

2.2.1 Analysis on Payment Ability of GOPI Basic Pension

(1) Revenue of GOPI Basic Pension Fund

The revenue of GOPI Basic Pension comes from:

First is employers' contribution which is at the ratio of 20 percent based on total payroll and is used to pay Elementary Pension of retirees.

The second is employees' contribution which is at the ratio of 8 percent based on their wages. Employees' contribution is credited to their own Individual Pension Account which will be used to pay for Individual Account Pension in the future.

The third is investment return of accumulated funds.

The forth is fiscal subsidy in the case of deficit.

(2) Balance of GOPI Basic Pension Fund

Hypothesis. Increasing the retirement age from 2018, to delay the retirement age for female and male at the same time, increase the retirement age of female workers by 1 year every 2 years, and increase the retirement age of female cadres and all male workers by 1 year every 4 years; by 2037, the retirement age for female will reach 60 years old, and the retirement age for male will be 65 years old.

The average remaining life expectancy of the population aged 60 will gradually increase from 20.65 years projected by the sixth census in 2010 to 29 years in 2090.

The total fertility rate will gradually increase from 1.44 in rural areas and 0.98 in urban areas according to the sixth census in 2010, and will remain unchanged when it reaches the generation replacement standard of 2.1 for rural areas and 1.6 for urban areas in 2050.

³¹ If not indicate specially, the data in this section are from: Zheng BingWen (ed.), *China Pension Development Report 2014*, Economic Management Publishing House, December 2014.

Assuming the actual GDP growth rate will drop from 7.5% in 2014 to 2.0% in 2090, and the nominal GDP growth rate will drop from 9.5% in 2014 to 2% in 2090.

It is forecasted and assumed that the proportion of fiscal revenue accounting for GDP will gradually increase from 22.7% in 2013 to 25% in 2030, and then will remain stable afterwards, from which, it can be calculated that the fiscal revenue growth rate will drop from 10.15% in 2014 to 2.51% in 2090.

It is calculated and assumed that the growth rate of average salary of staff in post will drop from 9.36% in 2014 to 3.09% in 2090. It is assumed that accounting interest rate of Individual Pension Account equals the growth rate of average salary of staff in post in the previous year.

Assuming ROI of accumulated balance of Basic Pension system and ROI of Occupational Pension fund is 7%.

The Pension Divisor is calculated based on interest rates, life expectancy, wage growth rate and benefits adjustment rules, so it is dynamic (see Table 2.1). It should be noted that the assuming Pension Divisors are greater than those set in the existing reform scenario. For example, the pension divisor is 161 in 2015 for a 60-year-old retiree, and when he/she is 70 years old, the divisor will be adjusted to 171, in contrast, the existing divisors are too low.

Table 2. 2 Dynamic Pension Divisor³²

| Age Year | 60 | 65 | 70 | 75 | 80 | 85 | 90 |
|-------------|-----|-----|-----|-----|----|----|----|
| 2015 | 161 | 135 | 110 | 86 | 66 | 51 | 39 |
| 2020 | 166 | 140 | 113 | 90 | 69 | 53 | 41 |
| 2025 | 171 | 144 | 118 | 94 | 72 | 56 | 43 |
| 2030 | 176 | 149 | 122 | 97 | 76 | 58 | 44 |
| 2035 | 182 | 153 | 126 | 101 | 79 | 61 | 47 |

32 Except otherwise mentioned, data and calculation results in this chapter are from ZhengBingWen editor: "China Pension Development Report 2014", Economic Management Publishing House published in December 2014

| | | | | | | | |
|-------------|-----|-----|-----|-----|-----|----|----|
| 2040 | 187 | 158 | 131 | 104 | 82 | 63 | 48 |
| 2045 | 193 | 163 | 134 | 108 | 85 | 65 | 50 |
| 2050 | 198 | 168 | 139 | 112 | 88 | 68 | 52 |
| 2055 | 204 | 173 | 143 | 116 | 91 | 71 | 53 |
| 2060 | 210 | 179 | 148 | 119 | 94 | 73 | 55 |
| 2065 | 216 | 184 | 152 | 123 | 98 | 75 | 56 |
| 2070 | 221 | 188 | 157 | 127 | 101 | 78 | 58 |
| 2075 | 227 | 194 | 161 | 131 | 104 | 80 | 59 |
| 2080 | 232 | 198 | 165 | 134 | 107 | 83 | 61 |
| 2085 | 236 | 203 | 169 | 138 | 110 | 85 | 62 |
| 2090 | 240 | 206 | 173 | 141 | 112 | 86 | 64 |

The calculation result is as following:

Revenue. In the calculation period, the fund revenue will keep increasing, but the growth range will increase first and then decrease, and fund revenue will account for 4%~6% of homochronous fiscal revenue. Before 2050, the ratio will rise from 4% to 5.5%, after 2050, it will rise slightly from 5.5% to 6%, primarily as a result of expectation that the permanent staff of GOPI will increase first and decrease.

Expenditure. In the calculation period, fund expenditure will decrease first and then increase, which will account for 4%~9% of the homochronous fiscal revenue. **Before 2035**, the **delay retirement policy** restrains the growth in the number of beneficiaries, and the ratio of fund expenditure to homochronous fiscal revenue drops; **after 2035**, the transition period of delay retirement will be over, and the **dependency ratio** will rise and remain high, the scale of the fund expenditure will begin to expand (see Figure 2.1).

Ratio of Fund
Revenue in Fiscal
Revenue

Ratio of Fund
Expenditure in Fiscal

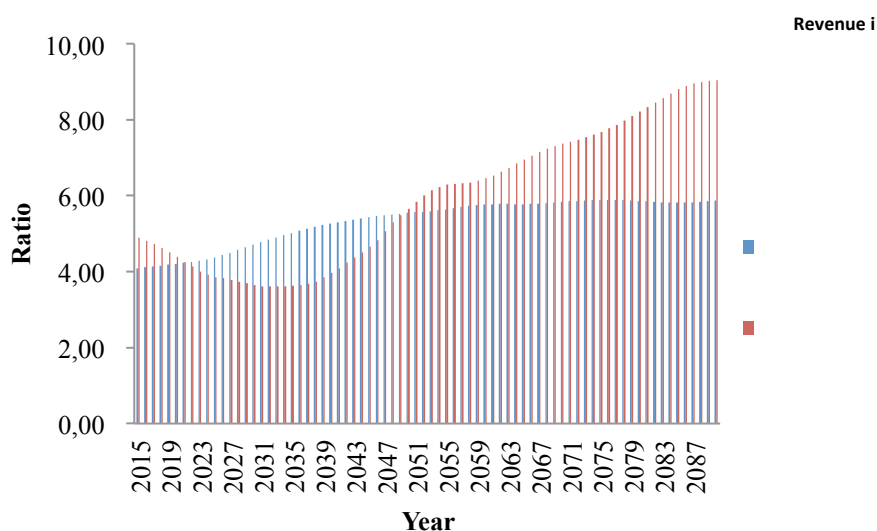


Figure 2. 2 The ratio of fund revenue and fund expenditure to homochronous fiscal revenue respectively (%)

Current gap between fund revenue and expenditure. Table 2.3 shows current gap as well as the scale of the gap in the calculation period. Before 2021, the gap will account for less than 1% of the fiscal revenue, and will reduce year by year. The fund gap in the period is mainly due to the **historical debts** of the new system will pay pension for participants who have retired under old system; after 2050, the scale of current gap will expand year by year, and will finally reach 3.2% of homochronous fiscal revenue, which is mainly because the system dependency rate rises and breaks -through 50%. Overall, the current fund gap will be basically controlled within 3% of homochronous fiscal revenue, and the gap in all years will not exceed 0.8% of GDP.

Table 2. 3 Current gap accounts for homochronous fiscal revenue and GDP (%)

| Year | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | / | |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Ratio to fiscal revenue | 0.81 | 0.70 | 0.58 | 0.47 | 0.33 | 0.18 | 0.02 | / | |
| Ratio to GDP | 0.19 | 0.16 | 0.13 | 0.11 | 0.08 | 0.04 | 0.01 | | |
| Year | 2050 | 2055 | 2060 | 2065 | 2070 | 2075 | 2080 | 2085 | 2090 |
| Ratio to fiscal revenue | 0.12 | 0.64 | 0.68 | 1.18 | 1.53 | 1.79 | 2.36 | 2.99 | 3.16 |
| Ratio to GDP | 0.03 | 0.16 | 0.17 | 0.29 | 0.38 | 0.45 | 0.59 | 0.75 | 0.79 |

Accumulated fund balance. In 2015-2021, due to unbalanced contribution revenue and pension expenditure, there is no accumulated fund balance in the Basic Pension. After 2021, the accumulated balance will begin to increase, the ratio of which to homochronous fiscal revenue will increase from 0.1% to 26% in 2050; after 2050, the fund will again occur current gap, and the accumulated balance will begin to reduce, by 2079, the ratio of the accumulated balance to homochronous fiscal revenue will fall to 0.7%, by 2080 the accumulated balance will run out (see Table 2.4). The year that the fund runs out (in 2080) is 30 years later than the year that current gap occurs (in 2050).

Table 2.4 The ratio of accumulated fund balance to homochronous fiscal revenue (%)

| Year | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|
| Ratio of accumulated fund balance to homochronous fiscal revenue | 0.00 | 0.00 | 1.36 | 5.41 | 11.72 | 18.74 | 23.98 | 25.82 |
| Year | 2055 | 2060 | 2065 | 2070 | 2075 | 2080 | 2090 | / |
| Ratio of accumulated fund balance to homochronous fiscal revenue | 24.46 | 22.95 | 20.21 | 15.19 | 8.43 | 0.00 | 0.00 | / |

History Debts of the system. That is Transition Cost of pension system which equals to the current value of the pension rights and interests accumulated under the old system, including two parts of the “old workers” pension expenditure and “transition workers” pension expenditure which is corresponding to deemed contribution. The overall historic debts is expected to 60.6 trillion YUAN which accounts for 430% of fiscal revenue in 2014. The history debts do not exceed 5% of homochronous fiscal revenue, which declines by one percentage point approximately every 10 years, by 2056, the historic debts of “old workers” will be paid off, and all historic debts will be digested completely by 2066, it requires 50 years to repay all historic debts (see Table 2.5)。

Table 2.5 The proportion of history debts in homochronous fiscal revenue (in 2015 to 2090, %)

| Yeal | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 | 2060 | 2067 |
|--|------|------|------|------|------|------|------|------|------|------|
| “Old workers” pension expenditure | 4.83 | 3.59 | 2.57 | 1.76 | 1.16 | 0.70 | 0.37 | 0.18 | 0.02 | 0.00 |
| “Transition workers” pension expenditure | 0.07 | 0.56 | 0.64 | 0.65 | 0.58 | 0.50 | 0.41 | 0.29 | 0.11 | 0.05 |
| Total | 4.90 | 4.15 | 3.21 | 2.41 | 1.74 | 1.20 | 0.78 | 0.47 | 0.13 | 0.05 |

(3) Potential payment risk of Basic Pension

Ageing will expand pension expenditure and fiscal subsidy. The dependency rate of GOPI population will exceed 60 percent in 2050. According to the principle of PAYG system, the contribution rate will reach 33.3 percent in order to balance the fund revenue and expenditure. Except for ageing, the GOPI pension system will face two challenges:

Firstly, in the beginning period of GOPI pension system, the scale of accumulated OP fund is too small to raise the whole pension level. The staff of GOPI is aging, and the dependency rate has reached 40.7% in 2013. According to principle of PAYG system, the replacement rate must be 49.1% in the existing employers' contribution rate 20% to social pooling. This replacement rate 49.1% is much lower than before reform. For ensuring adequate pension of those "transition workers", fiscal subsidy is necessary.

Secondly, financial risk is amplified just because the existing Pension Divisor is too low. The dynamic divisors in prediction above are higher than those of existing system. The sixth census shows that the Chinese population life expectancy was 74.8 years in 2010 compared with 71.4 years in 2000. The dynamic divisor is 161 when retiring at 60 years old, which is much higher compared with 139 in existing system. Pension divisor must be adjusted periodically according to demographic change and economic growth. Explicitly, the existing divisor does not take the change of life expectancy into account, which means the Individual Pension Account fund will run out long before participants' death quite possibly. So, if the Pension Divisor is static, the pension system will suffer to longevity risk.

2.2.2 Analysis on affordability of local fiscal revenue

The central and local governments and the public institutes affiliated contribute for their staffs separately. In China, there are five levels governments such as central, provincial, municipal, county (district) and subcounty (street authority), and the fiscal revenue and social expenditure (thereby the contribution capacity) are quite different even in same government level.

(1) Large gap of fiscal capability between provinces

In GOPI pension system, the governments contribute as employers, and the contributions are 20 percent to Basic pension system and 8 percent to Occupational Pension system on the basis of total payroll. In some undeveloped regions, the local governments cannot afford the contribution by their Local Fiscal Revenue. Table 2.6 shows the difference of Local Fiscal Revenues per capita between provincial governments. The total amount of national population is 1.36 billion and the total amount of Local Fiscal

Revenue is 6.9 trillion Yuan in 2013, thereby 5 071 Yuan per capita on average. The maximum per capita Local Fiscal Revenue is 17 312 Yuan (in Beijing where have 21.55 million population and 366.1 billion Yuan Local Fiscal Revenue in 2013) while the minimum one is 2 352 Yuan (Gansu province where have 25.82 million population and 60.7 billion Yuan Local Fiscal Revenue in 2013), and more than 6 times gap between them.

Table 2. 4 The gap of Local Fiscal Revenue per capita between provinces (in 2013)

| Provinces | Population by the end of year (10 thousand persons) | Local Fiscal Revenue (100 million YUAN) | Local Fiscal Revenue Per capita (Yuan) |
|----------------|---|--|--|
| Nationwide | 136072 | 69011.16 | 5071.7 |
| Beijing | 2115 | 3661.11 | 17311.8 |
| Tianjin | 1472 | 2079.07 | 14122.1 |
| Hebei | 7333 | 2295.62 | 3130.7 |
| Shanxi | 3630 | 1701.62 | 4687.9 |
| Inner Mongolia | 2498 | 1720.98 | 6890.5 |
| Liaoning | 4390 | 3343.81 | 7616.9 |
| Jilin | 2751 | 1156.96 | 4205.2 |
| Heilongjiang | 3835 | 1277.40 | 3330.9 |
| Shanghai | 2415 | 4109.51 | 17015.5 |
| Jiangsu | 7939 | 6568.46 | 8273.2 |
| Zhejiang | 5498 | 3796.92 | 6906.0 |
| Anhui | 6030 | 2075.08 | 3441.4 |
| Fujian | 3774 | 2119.45 | 5615.9 |
| Jiangxi | 4522 | 1621.24 | 3585.1 |
| Shandong | 9733 | 4559.95 | 4684.8 |
| Henan | 9413 | 2415.45 | 2566.0 |

| | | | |
|-----------|-------|---------|--------|
| Hubei | 5799 | 2191.22 | 3778.6 |
| Hunan | 6691 | 2030.88 | 3035.4 |
| Guangdong | 10644 | 7081.47 | 6653.0 |
| Guangxi | 4719 | 1317.60 | 2792.1 |
| Hainan | 895 | 481.01 | 5372.8 |
| Chongqing | 2970 | 1693.24 | 5701.2 |
| Sichuan | 8107 | 2784.10 | 3434.2 |
| Guizhou | 3502 | 1206.41 | 3444.7 |
| Yunnan | 4687 | 1611.30 | 3438.1 |
| Tibet | 312 | 95.02 | 3045.2 |
| Shaanxi | 3764 | 1748.33 | 4644.9 |
| Gansu | 2582 | 607.27 | 2351.8 |
| Qinghai | 578 | 223.86 | 3874.4 |
| Ningxia | 654 | 308.34 | 4713.3 |
| Xinjiang | 2264 | 1128.49 | 4983.8 |

Source: The author calculates based on *China Statistical Yearbook 2014*.

(2) Large gap of fiscal capability between municipal governments

The Local Fiscal Revenue is not only greatly different between provinces, but also between municipal governments in same province. For example, there are 17 municipal governments in Shandong province. In 2013, the total Local Fiscal Revenue of Shandong province sums up to 432.4 billion Yuan and total population in Shandong province is 9.612 million, so Local Fiscal Revenue per capita in Shandong province is 4 498 Yuan. The gap between the maximum 10197 Yuan (in Qingdao) and the minimum 1664 Yuan (in Heze) is more than 5 times (see Table 2.7). Calculated by employed population, the Local Fiscal Revenue per employed person is 6571 Yuan, and the maximum 13807 Yuan (in Qingdao) is greater 3.5 times than the minimum 3026 Yuan (in Linyi).

Table 2. 5 Gap of Local Fiscal Revenue between municipal governments in Shandong province

| Cities | Local Fiscal Revenue in 2013 (10 thousand Yuan) | Population by the end of 2013 (10 thousand) | Local Fiscal Revenue per capita (Yuan) | Employed population by the end of 2013 (10 thousand) | Local Fiscal Revenue per employed population (Yuan) |
|---------------|--|---|--|--|---|
| Province-wide | 43239198 | 9612.05 | 4498.4 | 6580.4 | 6570.9 |
| Jinan | 4820722 | 613.25 | 7860.9 | 454.4 | 10609.0 |
| Qingdao | 7889313 | 773.67 | 10197.3 | 571.4 | 13807.0 |
| Zibo | 2730688 | 425.28 | 6420.9 | 316.3 | 8633.2 |
| Zaozhuang | 1307206 | 395.96 | 3301.4 | 291.3 | 4487.5 |
| Dongying | 1837943 | 186.99 | 9829.1 | 148.2 | 12401.8 |
| Yantai | 4372295 | 651.17 | 6714.5 | 493.3 | 8863.4 |
| Weifang | 3839158 | 882.88 | 4348.4 | 563.1 | 6817.9 |
| Jining | 3022366 | 847.79 | 3565.0 | 548.2 | 5513.3 |
| Taian | 1688136 | 558.8 | 3021.0 | 405.1 | 4167.2 |
| Weihai | 1952242 | 253.75 | 7693.6 | 198.4 | 9839.9 |
| Rizhao | 1000923 | 290.13 | 3449.9 | 207.7 | 4819.1 |
| Laiwu | 467616 | 126.52 | 3696.0 | 110.6 | 4228.0 |
| Linyi | 2161016 | 1090.43 | 1981.8 | 714.1 | 3026.2 |
| Dezhou | 1500169 | 578.81 | 2591.8 | 351.7 | 4265.5 |
| Liaocheng | 1355503 | 597.52 | 2268.5 | 407.7 | 3324.8 |
| Binzhou | 1700901 | 381.64 | 4456.8 | 285.4 | 5959.7 |
| Heze | 1593001 | 957.46 | 1663.8 | 513.5 | 3102.2 |

Source: The author calculates on the basis of *Shandong Statistical Yearbook 2014*.

The local governments is responsible not only to pay for pension to whom have retired before GOPI pension reform, but also to contribute in pension system as employers

for in-post employees, and also to subsidy when the pension system suffers to deficit. When the local governments cannot afford social expenditure, they need to depend on grants of the central government.

(3) The local governments depended on central government greatly since tax reform in 1994

Since tax system reformed in 1994, the Local Fiscal Revenue accounted for 48% of the country's total fiscal revenue) on average, 20 percentage points lower than before, while the proportion of local fiscal expenditure accounted for 75% of the national fiscal expenditure which 5 percentage points higher than before. It shows the local governments have more responsibility on social affair while have less fiscal revenue (see Figure 2.2).



Figure 2. 3 The proportion of Local Fiscal Revenue in national fiscal revenue and the proportion of Local Fiscal Expenditure in national fiscal expenditure (in 1990 to 2014, %)

Source: Final accounts of Local Fiscal Revenue and Expenditure released by Ministry of Finance in every year

In recent years, the increased social spending programs have expanded the scale of local fiscal expenditure, and local governments need a lot of central government transfer payments. In the disclosed official data, most of SOEs governed by central government are monopolistic and profitable and the proportion of pension subsidies to them in central fiscal expenditure are smaller than the proportion of subsidies to local enterprises in local fiscal expenditure (see Table 2.8).

Table 2. 6 Fiscal expenditure of pension payment to GOPI retirees and fiscal subsidy to Urban Enterprises' Basic Pension system (100 million Yuan)

| | | Fiscal subsidy to Urban Enterprises' Basic Pension system | | Fiscal expenditure of pension payment to GOPI retirees | |
|------|--|---|------------|--|------------|
| | | Amount | Proportion | Amount | Proportion |
| 2011 | Local Fiscal Expenditure | 2130.73 | 97.2% | 2477.99 | 90.5% |
| | Central Fiscal Expenditure excluding fiscal transfer | 60.99 | 2.8% | 259.76 | 9.5% |
| | Total | 2191.72 | 100.0% | 2737.75 | 100.0% |
| 2012 | Local Fiscal Expenditure | 2451.54 | 97.0% | 2570.8 | 90.2% |
| | Central Fiscal Expenditure excluding fiscal transfer | 75.76 | 3.0% | 278.54 | 9.8% |
| | Total | 2527.3 | 100.0% | 2848.84 | 100.0% |
| 2013 | Local Fiscal Expenditure | 2762.64 | 96.9% | 2936.76 | 91.5% |
| | Central Fiscal Expenditure excluding fiscal transfer | 88.77 | 3.1% | 271.67 | 8.5% |
| | Total | 2851.41 | 100.0% | 3208.43 | 100.0% |
| 2014 | Local Fiscal Expenditure | 3191.96 | 96.9% | 3339.22 | 91.0% |
| | Central Fiscal Expenditure excluding fiscal transfer | 102.77 | 3.1% | 328.79 | 9.0% |
| | Total | 3294.67 | 100.0% | 3668.01 | 100.0% |

Source: The author calculates based on fiscal final accounting of fiscal expenditure on nationwide, central level and local level.

Because of lack of official data about central government transferring payment to subsidy pension expenditure of local GOPI, the central government transferring payment to subsidy social security and employment affairs of local governments can be used to replace. In all local fiscal expenditure in social security and employment affairs, 40 percent comes from central government transfer payment (see Table 2.9). Accordingly, the central government transfer payment for GOPI pension is an important resource of local fiscal GOPI pension expenditure, which indicates that local GOPI pension depends to large extent on central government.

Table 2. 7 Fiscal expenditure to social security and employment affairs on different government levels (100 million Yuan)

| | National fiscal expenditure | Central Fiscal Expenditure | | | | Local Fiscal Expenditure | | | |
|------|-----------------------------|----------------------------|---------------|-------------------------------|------------|--------------------------|------------------------------|--------------------------------------|------------|
| | | total | Central level | Transfer to local governments | | total | Net Local Fiscal Expenditure | Be transferred by central government | |
| | | | | Amount | Proportion | | | Amount | Proportion |
| 2011 | 11109.4 | 4715.8 | 502.5 | 4213.3 | 89.3% | 10606.9 | 6393.6 | 4213.3 | 39.7% |
| 2012 | 12585.5 | 5753.7 | 585.7 | 5168.0 | 89.8% | 11999.9 | 6831.9 | 5168.0 | 43.1% |
| 2013 | 14490.5 | 6571.8 | 640.8 | 5931.0 | 90.2% | 13849.7 | 7918.8 | 5931.0 | 42.8% |
| 2014 | 15968.9 | 7066.1 | 699.9 | 6366.2 | 90.1% | 15268.9 | 8902.7 | 6366.2 | 41.7% |

Note: Net fiscal expenditure of local governments equals to Local Fiscal Expenditure to social security and employment affairs deducts Central fiscal transfer payment in it.

Source: The author calculates based on fiscal final accounting of fiscal expenditure on nationwide, central level and local level.

It is no hard to imagine that the local governments game ceaselessly with central government for gaining more fiscal transfer payment. Actually, for balancing benefit of all local governments, central government has to subsidy not only to local governments with deficient pension fund but also to those with adequate pension fund. This is not efficient either in economy or in politics.

2.3 Evaluation to management of Occupational Pension fund

2.3.1 Characteristics of OP

(1) Mandatory

China's Enterprise Annuity system covers the urban enterprises employees, occupational pension system is intended for GOPI employees. Enterprise Annuity first appeared in 1980s, but developed very slowly until 2004 the former Ministry of Labor and Social Security issued the Enterprise Annuity Trial Measures. Enterprise Annuity is voluntary, and ask issuers to meet the following three conditions: First, to participate in the Basic Pension system and fulfill contribution obligation; and second, with the corresponding economic affordability; third, has established collective negotiation mechanism. These three conditions for small and medium enterprises appear to be too harsh, so even if the Enterprise Annuity can play an important positive role in human resource management, but enterprises issuing plans are not many, and more concentrated in large enterprises or SOEs. After 10 years of development, by the end of 2014, China had 73,261 enterprises to have issued Enterprise Annuity plans, covered 22.928 million

workers, accumulated 768.895 billion YUAN; but only 33.5 thousand YUAN per participants. The Enterprise Annuity system only plays limited role of supplementing social pension schemes.

Occupational Pension is supplementary for GOPI pension; to the contrary with Enterprise Annuity, it is mandatory and covers all GOPI in post staff when it begins to carry out. That means all of 38 million GOPI staff will participate Occupational Pension system this year.

(2) Contribution by both governments and staff in post

In GOPI Occupational Pension system, the governments and the staff in post contribute 8 percent of total payroll and 4 percent of individual wage respectively. In contrast, the sum contribution rate in Enterprise Annuity system is 1/6, 4.7 percentage points higher than that in GOPI Occupational Pension system. Thereafter, the amount of OP contribution on nationwide average is slightly lower than that of Enterprise Annuity (see Table 2.10).

Table 2. 8 Contrast of Occupational Pension with Enterprise Annuity

| Contribution rules | | Average salary of workers in post o in 2014 (Yuan) | Amount of contribution (Yuan) | |
|-------------------------------------|--|---|---|---|
| GOPI Occupational Pension | Enterprise Annuity | | GOPI Occupational Pension * | Enterprise Annuity |
| Employers (governments): 8%; | Less than 1/6 of payroll are tax exempted | 57346 | 7569.6; including | Maximum 9557.6; including |
| Employees (staff in post): 4% | | | 2523.2 Yuan (individual contribution) | 4778.8 Yuan (individual contribution) |

Note*: Occupational Pension contribution is calculated on the basis of 1.1 times of average salary of workers in post.

Source: The author calculates according to the regulations in *Management Act of Occupational Pension Fund of 2015* and *Enterprise Annuity Trial Act of 2004*.

(3) Book-keeping for government's contribution replaces real money in Individual Occupational Pension Account

Individual contributions of all Occupational Pension Accounts are real money that can be invested while contribution of governments as employers are bookkeeping until the insured retires. This is a compromise is to ease the financial pressure and promote reform to implement smoothly.

After the reform, because government at all levels continue to not only burden pensions, but also to contribute in Basic Pension system and Occupational Pension system for GOPI staff in post, fiscal expenditure will be significantly increased. Table 2.11 shows this situation. It is found that before reform the governments only pay for pension of retirees, which accounts for 2.6 percent of current fiscal revenue in 2014, and after reform the governments have to spend additional expenditure, that is contribution for staff in post, which will increase fiscal expenditure up to 4.34 percent. That means fiscal expenditure will increase sharply by 65.8 percent. For some undeveloped regions, it is hardly to afford it in short-term. Therefore, the government's contributions to Occupational Pension system are in a virtual bookkeeping method.

表 2.9 Fiscal expenditure will increase sharply (take the year of 2014 for an example)

| Retirees (10 thousand) | Total pension of "old retirees" (100 million Yuan) | Nationwide fiscal revenue (100 million Yuan) | Staff in post (10 thousand) | Average salary of workers in post (Yuan) | Contribution (Yuan per person) | | Ratio of governments' contributions to current fiscal revenue (%) | | |
|---------------------------|---|---|--------------------------------|---|-----------------------------------|-----------------------------|---|--|--|
| | | | | | Basic Pension system | Occupational Pension system | Pension for "old retirees" | Contribution to Basic Pension system for staff in post | Contribution to Basic Pension system for staff in post |
| 786 | 3669 | 140349.7 | 3790 | 57346 | 11469.2 | 4587.7 | 2.61 | 3.10 | 1.24 |

Source: Total pension of "old retirees" in the table equals to fiscal expenditure for pension of GOPI in *Nationwide Final Accounting of Fiscal Expenditure of 2014* and the data of fiscal revenue in the table comes from *Nationwide Final Accounting of Fiscal Revenue of 2014*, both are released by Ministry of Finance in 2014. The data of retirees and staff in post of GOPI is provided by the project team of "China's Pension Reform".

(4) Defined Contribution payment

Unlike Defined Benefit (DB) mode of Occupational Pension system in most developed countries, GOPI's Occupational Pension system starts on the use of Defined Contribution (DC) payment mode. This means that the investment risk of accumulated fund and

inflation risk in the long term will be taken by the participants. The DC payment revolutionizes the mode of complementary pension of GOPI.

2.3.2 Pension benefits and its influencing factors

(1) Pension Divisor of Occupational Pension

In GOPI pension reform, when retiring the participants will perform one-off obligations to choose to be paid pension in either lump-sum or annuity way. In annuity way, the accumulated fund in participant's Occupational Pension Account is withdrawn monthly, and the Annex 1.8 shows the pension divisor that is same as pension divisor of Urban Enterprise Basic Pension and pension divisor of GOPI Basic Pension. Just like the analysis above, the pension divisor is too small to deal with longevity risk.

(2) Influences of contribution years and investment revenue on Occupational Pension benefits

The Occupational Pension benefits are determined by accumulated contribution and its investment revenue. So the scale of Occupation Pension Account fund is influenced by two factors: one is contribution years; the other is ROI which is more important in "new normal" of China's economy development trend.

Assuming the average salary grows up by 4 percent from the year of 2014, and assuming all the contribution of employers and employees is real money and can be invested in capital market. Occupational Pension replacement rates of different contribution years and at different ROI are shown in Table 2.11. If the ROI is 2%, the Occupational Pension replacement rate is 17.8%, 21.7% and 24%, corresponding to contribute for 20 years, 30 years and 35 years respectively; if the ROI is 7%, the replacement rate is 46.4%, 91.3% and 128.1% respectively. Though the calculation is too simple, it indicates that Occupational Pension benefit level is concave function of contribution years and ROI, which shows that deferring the existing retirement age (55 years old on average) and improving ROI are very important to Occupational Pension benefits level.

Table 2. 11 Occupational Pension replacement rates of different contribution years and at different ROI (%)

| ROI Contribution years | 2% | 3% | 4% | 5% | 6% | 7% |
|---------------------------|------|------|------|------|------|------|
| 1 | 12.2 | 12.4 | 12.5 | 12.6 | 12.7 | 12.8 |
| 2 | 12.5 | 12.7 | 13.0 | 13.2 | 13.5 | 13.7 |
| 3 | 12.7 | 13.1 | 13.5 | 13.9 | 14.3 | 14.7 |
| 4 | 13.0 | 13.5 | 14.0 | 14.6 | 15.1 | 15.7 |
| 5 | 13.2 | 13.9 | 14.6 | 15.3 | 16.1 | 16.8 |
| 6 | 13.5 | 14.3 | 15.2 | 16.1 | 17.0 | 18.0 |
| 7 | 13.8 | 14.8 | 15.8 | 16.9 | 18.0 | 19.3 |
| 8 | 14.1 | 15.2 | 16.4 | 17.7 | 19.1 | 20.6 |
| 9 | 14.3 | 15.7 | 17.1 | 18.6 | 20.3 | 22.1 |
| 10 | 14.6 | 16.1 | 17.8 | 19.5 | 21.5 | 23.6 |
| 11 | 14.9 | 16.6 | 18.5 | 20.5 | 22.8 | 25.3 |
| 12 | 15.2 | 17.1 | 19.2 | 21.6 | 24.1 | 27.0 |
| 13 | 15.5 | 17.6 | 20.0 | 22.6 | 25.6 | 28.9 |
| 14 | 15.8 | 18.2 | 20.8 | 23.8 | 27.1 | 30.9 |
| 15 | 16.2 | 18.7 | 21.6 | 24.9 | 28.8 | 33.1 |
| 16 | 16.5 | 19.3 | 22.5 | 26.2 | 30.5 | 35.4 |
| 17 | 16.8 | 19.8 | 23.4 | 27.5 | 32.3 | 37.9 |
| 18 | 17.1 | 20.4 | 24.3 | 28.9 | 34.3 | 40.6 |
| 19 | 17.5 | 21.0 | 25.3 | 30.3 | 36.3 | 43.4 |
| 20 | 17.8 | 21.7 | 26.3 | 31.8 | 38.5 | 46.4 |
| 21 | 18.2 | 22.3 | 27.3 | 33.4 | 40.8 | 49.7 |
| 22 | 18.6 | 23.0 | 28.4 | 35.1 | 43.2 | 53.2 |
| 23 | 18.9 | 23.7 | 29.6 | 36.9 | 45.8 | 56.9 |

| | | | | | | |
|----|------|------|------|------|------|-------|
| 24 | 19.3 | 24.4 | 30.8 | 38.7 | 48.6 | 60.9 |
| 25 | 19.7 | 25.1 | 32.0 | 40.6 | 51.5 | 65.1 |
| 26 | 20.1 | 25.9 | 33.3 | 42.7 | 54.6 | 69.7 |
| 27 | 20.5 | 26.7 | 34.6 | 44.8 | 57.9 | 74.6 |
| 28 | 20.9 | 27.5 | 36.0 | 47.0 | 61.3 | 79.8 |
| 29 | 21.3 | 28.3 | 37.4 | 49.4 | 65.0 | 85.4 |
| 30 | 21.7 | 29.1 | 38.9 | 51.9 | 68.9 | 91.3 |
| 31 | 22.2 | 30.0 | 40.5 | 54.5 | 73.1 | 97.7 |
| 32 | 22.6 | 30.9 | 42.1 | 57.2 | 77.4 | 104.6 |
| 33 | 23.1 | 31.8 | 43.8 | 60.0 | 82.1 | 111.9 |
| 34 | 23.5 | 32.8 | 45.5 | 63.0 | 87.0 | 119.7 |
| 35 | 24.0 | 33.8 | 47.4 | 66.2 | 92.2 | 128.1 |

Source: The author calculates.

(3) Effect of accounting interest rate on Occupational Pension benefits

It is regulated that the contribution rate of Occupational Pension is 8% (by employer) in bookkeeping way and 4% (by employee) in real money way. That means 2/3 of total contribution of Occupational Pension is virtual.

The accounting interest rate of the virtual contribution influences largely on Occupational Pension benefit level. For example, if RIO is 7%, the accumulated contribution from staff at 4% rate of individual is invested in capital market and gain 7% RIO every year, while the accounting interest rate of accumulated virtual contribution from governments at 8% rate of total payroll is 2% (almost equals to average interest rate of one-year deposit in last 10 years), the replacement rate is 27.4% and 44.9% in the case of contributing for 20 years and 30 years respectively (see Table 2.13).

Table 2. 10 The Occupational Pension replacement rate in the case of 2% fixed accounting interest rate to government's virtual contribution and 2% to 7% RIO to individual real contribution (%)

| RIO Contribution years | 2% | 3% | 4% | 5% | 6% | 7% |
|---------------------------|------|------|------|------|------|------|
| 1 | 12.2 | 12.3 | 12.3 | 12.4 | 12.4 | 12.4 |
| 2 | 12.5 | 12.6 | 12.6 | 12.7 | 12.8 | 12.9 |
| 3 | 12.7 | 12.9 | 13.0 | 13.1 | 13.3 | 13.4 |
| 4 | 13.0 | 13.2 | 13.3 | 13.5 | 13.7 | 13.9 |
| 5 | 13.2 | 13.5 | 13.7 | 13.9 | 14.2 | 14.4 |
| 6 | 13.5 | 13.8 | 14.1 | 14.4 | 14.7 | 15.0 |
| 7 | 13.8 | 14.1 | 14.5 | 14.8 | 15.2 | 15.6 |
| 8 | 14.1 | 14.4 | 14.8 | 15.3 | 15.7 | 16.2 |
| 9 | 14.3 | 14.8 | 15.3 | 15.8 | 16.3 | 16.9 |
| 10 | 14.6 | 15.1 | 15.7 | 16.3 | 16.9 | 17.6 |
| 11 | 14.9 | 15.5 | 16.1 | 16.8 | 17.5 | 18.4 |
| 12 | 15.2 | 15.8 | 16.6 | 17.3 | 18.2 | 19.2 |
| 13 | 15.5 | 16.2 | 17.0 | 17.9 | 18.9 | 20.0 |
| 14 | 15.8 | 16.6 | 17.5 | 18.5 | 19.6 | 20.9 |
| 15 | 16.2 | 17.0 | 18.0 | 19.1 | 20.4 | 21.8 |
| 16 | 16.5 | 17.4 | 18.5 | 19.7 | 21.1 | 22.8 |
| 17 | 16.8 | 17.8 | 19.0 | 20.4 | 22.0 | 23.8 |
| 18 | 17.1 | 18.2 | 19.5 | 21.1 | 22.8 | 24.9 |
| 19 | 17.5 | 18.7 | 20.1 | 21.8 | 23.8 | 26.1 |
| 20 | 17.8 | 19.1 | 20.7 | 22.5 | 24.7 | 27.4 |
| 21 | 18.2 | 19.6 | 21.2 | 23.3 | 25.7 | 28.7 |
| 22 | 18.6 | 20.0 | 21.8 | 24.1 | 26.8 | 30.1 |
| 23 | 18.9 | 20.5 | 22.5 | 24.9 | 27.9 | 31.6 |
| 24 | 19.3 | 21.0 | 23.1 | 25.8 | 29.1 | 33.2 |
| 25 | 19.7 | 21.5 | 23.8 | 26.7 | 30.3 | 34.8 |
| 26 | 20.1 | 22.0 | 24.5 | 27.6 | 31.6 | 36.6 |
| 27 | 20.5 | 22.5 | 25.2 | 28.6 | 32.9 | 38.5 |
| 28 | 20.9 | 23.1 | 25.9 | 29.6 | 34.4 | 40.5 |
| 29 | 21.3 | 23.6 | 26.7 | 30.7 | 35.9 | 42.7 |
| 30 | 21.7 | 24.2 | 27.5 | 31.8 | 37.5 | 44.9 |
| 31 | 22.2 | 24.8 | 28.3 | 32.9 | 39.1 | 47.4 |
| 32 | 22.6 | 25.4 | 29.1 | 34.1 | 40.9 | 49.9 |
| 33 | 23.1 | 26.0 | 30.0 | 35.4 | 42.7 | 52.7 |
| 34 | 23.5 | 26.6 | 30.9 | 36.7 | 44.7 | 55.6 |
| 35 | 24.0 | 27.3 | 31.8 | 38.1 | 46.7 | 58.7 |

Source: The author calculates

3. Public sector pension system in EU countries and their experiences

Public sector pension systems in EU countries could be divided into two basic modes "independent system" and "hybrid system": Germany, France, Denmark, Luxembourg, Spain (central government civil servants) and Belgium, which have independent civil service pension plan; Britain, civil servants in Sweden, the Czech Republic, Hungary, Poland, Greece, Austria and other countries participate in the national plan, but there will be some differences in the treatment of issuance. Compared with the private sector pension system, public sector pensions calculated and paid more generous, with a higher level of treatment, for example, Germany, Denmark, Spain, the Netherlands, Portugal, the United Kingdom and other countries of the civil service pension calculated and paid in accordance with the last month wage, Austria is in accordance with the highest wages during their career, and all are defined benefit type.

Recent years, for the heavier fiscal burden and fiscal pressure spending on pension system, increasingly dissatisfied with the treatment gap between the private sector and public sector and extending retirement age to avoid human resources loss³³. EU countries have reformed their public sector pension system.

Specific measures below³⁴:

First, reduce the benefits of public sector pension, including Finland, France, Germany, Italy, Portugal and Sweden;

Second, public sector employees will be integrated into the general pension system, including Austria, the Czech Republic, Greece, Hungary, Poland and Spain;

Third, Defined contribution will be introduced to the pension system, including Denmark, Hungary and Poland, but Hungary stopped payment to the fund accumulation system at the end of 2010, and gradually back to the PAYG system, Poland in early 2011 also dropped contribution rate to the fund from 7.3% to 2.3%.

Fourth, the establishment of public-sector pension reserve fund, such as Belgium, Finland, Germany, Ireland and Sweden.

³³ Kings, J., E. Turkish and N. Manning (2007), "Public Sector Pensions and the Challenge of an Ageing Public Service, *OECD Working Papers on Public Governance*, No. 2, OECD Publishing.

<http://dx.doi.org/10.1787/285530706017>.

³⁴ Pond's, Sven Leeson, Boyer ink: "Public Sector Implicit Pension Debt: An International Comparison", "Social Security Research," 2012 4, page 10.

The following is the introduce of EU public sector retirement system from basic pension and occupational pension.

3.1 The basic pension

3.1.1 Germany

German basic pension of civil servants are directly payed by the government through the budget, without individual contributions. Retirement age is 65 years old, special occupations (police, firefighters and prison staff) are 60 years old, required for at least 5 years service; early retirement age is 63, and each year in advance with pension decreased by 3.6 percent, up to 10.8% reduction ; pension level according to the last month's wage, less than 10 years of seniority with 35% of total pension; 10 to 25 years of seniority, one year beyond for additional 2% of the original salary; more than 25 years of seniority ,each year with additional 1% of the original wage; pension will not exceed 75 percent of the last month's wage. In addition, if the total pension or other statutory supplementary pension exceeds a predetermined maximum that civil servants and their survivors receive , then pension reduced correspondingly. If pensioners or their survivors receive income through paid work, such income plus total monthly pension over the salary before retirement, the excess deducted from the pension.

Since 1992, to enhance financial capability of the system, the German public sector pension system has undergone several reform: in 1992 the basic pension system reform reduced early retirement pension benefits, and gradually expanded to the public sector ; in 1997 launched the civil service pension reform bill, in 1998 introduced pension reserves. "Pension Reform Act of 2001," measures are as follows: ① 2003- 2010, the pension benefits growth rate declined by 0.5% per year , whereby pension replacement rate from 75% down to 71.75%. ② 50% of the cut down on pensions to expand pension reserves. ③ Civil servants who conduct voluntary savings , can receive the special allowances or tax incentives provided by the State in accordance with "Retirement Assets Act" .

German public sector pension are from the finance, under the pressure of old aging, lowering treatment to alleviate the financial burden. Indeed, from the 1990s German began to reduce civil service pensions, to 2006, retired civil servants and judges pensions are 3.4% lower than 1994³⁵. 2003--2010, the highest wage replacement rate dropped to

³⁵ Gabriela Maria Graf, AKA – Germany, "The German Civil Servants pension can still be financed", Euro Pension Bulletin, No.33, 09/2009, p.2, http://portal.versorgungskammer.de/portal/pls/portal/!PORTAL.wwpob_page.show?_docname=3749028.PDF.

71.75% from 75%, replacing the 60 percent rate of survivors' pension to 55%. Every year German civil servants have a vacation allowance and Christmas allowance, but from 2004, the year-end allowance of pensioners declining from 4.17% to 2.085% in 2007. After lowering treatment, the size of the public sector pension spending under control, measurement data showing that the proportion of civil service pension expenditure accounts about 2% of financial revenue, gradually decline to 1.8% in 2050³⁶.

3.1.2 France

France public-sector pension system is independent of the private sector, within the public sector also including different sub-systems according to different industries, including the central government civil service plan, CNRACL, EDF-GDF, SNCF, RATP pension plan, and so on. The central government civil service pension are from the financial burden, but local civil servants join the contributory pension system.

Individual contribution rate is 7.85% of local government civil servants, the unit need to rata payment, usually about 25%. French public sector basic pension base on the last six months salary, replacement rate of 75%, while the private sector base on the best 25-year average salary, replacement rate of 50 percent. Since 2003, the minimum contribution from 37.5 years increased to 40 years in 2008 to get full basic pension for civil servants, until 2012 the condition reached 41 years³⁷. In addition, basic pension of civil servants is no longer linked with changes in wage, but according to price changes.

There are three specific agencies for French public sector pension : ① Treasury Pension Board located in Nantes is responsible for national civil servants retirement relating to audit and pension budgetary arrangement, and 27 accounting payment center branches distribute pension; ② France Bordeaux Trust Agency branch located in Bordeaux, are responsible to raise and pay disability insurance and pension for local civil servants and medical system servants ; ③ Angers Trust Agency branch, is responsible for mobilizing and paying supplementary pension of public sector workers and contract personnel of state-owned enterprises, banking, electricity. When personnel flow, agreement between three institutions has been settled that people meet the conditions of retirement, pension can be calculated piecewise or several agencies to pay pension together ; if do not meet the conditions for retirement, the transfer-out mechanism can transfer agencies and individuals paid pension into the transfer-in mechanism, which pay the final pension at the time of their retirement.

³⁶ Ditto

³⁷ OECD (2013), "France", in *Pensions at a Glance 2013: OECD and G20 Indicators*, OECD Publishing. http://dx.doi.org/10.1787/pension_glance-2013-56-en.

3.1.3 United Kingdom

In April 2013 the UK issued the "2013 public pension law" , which reforms public sector pension system. First, the pension adjustment index changed from retail price index to consumer price index, which growth rate much less, and saving pension expenditures. The second is the establishment of defined contribution plan, using average income base instead of the last income to calculate pension. Third, retirement age gradually extend to 67 years old to come to a agreement with national pension, except for firefighters, police and military in the public sector. Fourth, get rid of the dual track between the public sector and private sector pension , and transferring among the different system freely. Fifth, increase the contribution rate of high-income employees, the minimum contribution of British local government employees is 5.5%, the maximum rate increase from 7.5% to 12.5%, the high-income employees with annual income more than 150,000 pounds contribute 12.5%. After the reform, the public sector pension replacement rate reduce from 23% to 15%. Pension liability of the government and employers reduced, in 2065 government spending on public sector pension reforms will decline to 0.8% from the former 1.1%³⁸.

3.1.4 Other countries

Belgium. Belgian public sector pension system without individual contribution, contribution rate of employers is 7.5% , while employers and employees in private sector contribute 8.86% and 7.5% respectively, that showing significant contribution liability gap between public and private sector. On the treatment issuance, certain proportion according to the reference wage in both two sector is same, except that: First, reference wage, pension of civil servants reference salary is the average wage of the last five years, while the private sector reference wage is the product of wage ceiling and CPI index, wage ceiling is average of the sum of all working years wage (maximum 45 years); Second, calculation ratio, proportion of public sector pension equal work experience in addition to 60, and up to no more than 75%, while the proportion of private sector pension were 75% (with spouses) and 60% (without spouse).

Czech Republic. Implementing defined benefit PAYG system, in addition to the army, fire police and other armed forces that have special pension system, this pillar covers all personnel engaged in economic activities, all managed by the Czech Social Security Administration. Contribution rate is 28%, 21.5% of employers, 6.5% of employees. Pension is calculated in two parts:basic part of a unified national level, depending on the country's

³⁸ Li Guijiang: "The UK public sector pension reform and its Implications",scientists" 2014 Section 4, page 40.

level of economic development and consumption levels; floating part links to retired workers average wage level for nearly 30 years and payment time .

Since the Czech pension system started in the civil service and the danger department staff, then gradually extended to the private sector, thus pensions of the private sector and public sector have certain gap. With the transformation of the Czech economy development in the 1990s, the implementation situation of these various occupational pension gradually improved in the reform. In 1990-1992, unified pension benefits, eliminating prejudice and discrimination, especially discrimination against self-employed staff; in 1995, a unified pension system linking pension benefits with contribution established , the discriminatory pension plan of occupational categories base abolished ³⁹.

Poland. Poland's largest pension system is General Pension System, to provide retirement income security for the elderly, employee survivors, employment injury disability, sickness and maternity and other groups . Poland's mandatory retirement age for men is 65 years old, women 60 years old, but in fact, in 2007 the average retirement age is only 57.1 , male 59.7, female 55.8⁴⁰.

To adopt to aging population, ensure the sustainability of the pension funds ,and accelerate Poland's economic development. In 1999, an overall thorough reform the structure of basic pension from the defined benefit to defined contribution. Thus, the compulsory first pillar pension system is divided into two parts: Non-financial Defined Contribution(NDC)and financial defined contribution(FDC), the former operate and manage by Social Insurance Institution(ZUS) ,the latter by general pension fund societies and other private sector societies. Accordingly, each pensioner has two accounts,NDC can not be traded in the financial markets, yield growth rate of total wages; FDC may invest in the capital market to obtain return on investment. When reform taken ,people who less than 30 years old(born after 1969), must attend FDC; people aged 30 to 50 (born between 1949 to 1968) can choose freely. Contribution rate is 19.52% of the total wage , the employer and employee share average. Since 2011, to fund Open Pension Funds with

³⁹ Pu Wei: "Czech pension system reform and Decision", "Russian Central Eastern European markets", 2010 No. 11, p. 37-41.

8. Economic Policy Committee and Directorate-General Economic and Financial Affairs .

"Pension schemes and pension projections in EU-27 Member States, 2008-2060", Occasional Papers 56, October 2009, p.316.

contribution of employer and employee of 2.3% (previously 7.3%), remaining part remains in NDC for current payment. In 2011, the net replacement rate reached 68.2%⁴¹.

After NDC reform, the Polish pension and personal income are close positive correlation, financial status will be significantly improved. Future with aging population, pension expenditure is expected to continue drop share of GDP slightly⁴².

Austria. Prior to the 2005 reform, the civil servant has special independent pension system, without unemployment or pension insurance, but directly apply for a pension from their employers, because of the different sector (federal government, state government, local government, the railway sector, etc.) , the benefits are different.

"Pension System Reconciliation Act" was implemented in 2005, providing that civil servants aged less than 50 in 2005 must join the social pension insurance. Contribution rate of 22.8%, all borne by the state fiscal. The statutory retirement age is 65 for men, 60 years for women, and the retirement age for women will gradually be extended to 65 years in 2024-2033 ; early retirement pension will be deducted 4.2% each year (who aged between 62-65 years with 37.5 years full pay, the proportion of early retirement deduction is 2.1%), the highest deduction of 15%; one-year delay retirement will be issued additional 2.1%, pension until 68 years old. Pension will be adjusted annually based on the CPI in order to guarantee the purchasing power of pension .

If the retirement pension calculation base are too low, or contribution time too short to causes pension below this baseline, the state will issue subsidies to guarantee minimum standard of living after retirement. Baseline year will be dynamically adjusted according to the situation.

3.2 Supplementary pension

3.2.1 Germany

Set VBL for example, the program is divided into occupational pension and supplementary pension: the former one is statutory right, mandatory program regulated by the Federal Ministry of Finances; The latter is determined by collective agreement, a voluntary plan, including supplementary pension of local government staff and teaching

⁴¹ IZA Research Report No.42, "Pension Systems in the EU-Contingent Liabilities and Assets in the Public and Private Sector", December 2011, p.126.

⁴² Agnieszka Chłoń-Domińczak, Daniele Franco, and Edward Palmer, "The First Wave of NDC Reforms: The Experiences of Italy, Latvia, Poland, and Sweden", in *Nonfinancial Defined Contribution Pension Schemes in a Changing Pension World, Volume 1*, Robert Holzmann, Edward Palmer, and David Robalino, edited, World Bank, Washington, D.C., 2012, p.66.

staff, national and state employee old-age insurance, the non-salaried city employees and state employees offered collective agreement voluntary insurance by the Federal Financial Services Supervisory Authority. Manager of VBL can be either independent legal person, independent agency or local government authorities. If it is an independent legal entity, the Council and the Executive Committee shall be set up, the former is responsible for strategic decision-making, policy development, which is responsible for policy implementation, review annual reports, members representing the two sessions are recommended by the government-appointed and trade unions. In addition, members will also elect two sessions to form a special committee, responsible for finance and investment matters.

Financing of VBL include PAYG system, funds and mixed system ,and other forms of treatment can also choose defined benefit (DB) or defined contribution (DC), and take the points system. After 2006, tax incentives of VBL plan gradually shift the form of the EET to TEE .

In the West region, contribution rate of employers and employees respectively are 6.45% and 1.41% of salary, take the PAYG system, a refinancing plan was introduced in 2002 to this region to provide additional contribution by employers with the 2% highest rate to compensate people have participated in the work before pension system established; In East Germany, after 2004 the PAYG system was shifted into a mixed system, the employer pay 1% wages to PAYG system ,after 2010 all switched to funding system, 2% contribution rate by employers and employees respectively. System does not permit to increase their own contributions. Prior to 2001, VBL require a minimum payment of 120 months, and then changed to 60 months.

If the public sector employees departure, only voluntary supplementary pension insurance relationship programs and funds can be transferred, but fund in PAYG and mixed-fund are non-transferable. 2004, VBL and AKA signed a recognition agreement, that change jobs between the government and the church, without the transfer of pension rights and interests; if an employee requested transfer, the payment must meet at least 60 months; upon retirement, employee can extract pension from two a system .

Supplementary pension fund in Germany implement market-oriented operation, management fees by a certain percentage amount of assets, payment of income, expenses, or other indicators of annuity payments, asset allocation to fixed income securities and cash-based assets, both accounting for more than 50%.

DC and NDC system contribution rate is 4%, in order to ensure purchasing power of retirement income, this defined contribution system provides a guaranteed rate of return, guaranteed rate of return was 3.25% working period, retirement period is 5.25%. NDC take the points system, pension pay points depends on reference salary and age factors.

Employees reach retirement age and retirement time and apply for retirement, you can choose to receive monthly or lump sum. the minimum age is 62 years old to draw VBL supplementary pension, a month early retirement, the treatment will be reduced by 0.3%, the maximum percentage not more than 10.8%. After 2009, the divorce shall split the existing pension rights and interests, in order to guarantee the one out the pension system.

3.2.2 Netherlands

Occupational pension is the largest pillar of Dutch pension system, with semi-mandatory feature, withholding by the employer, the employer contribution enjoy tax benefits, this system covers almost all wage earners, including civil servants. Dutch take defined benefit occupational pension (DB) calculated and paid, the employer to assume pension fund operational risk. In the system design, to encourage longer working life, the provisions of premium payment for each additional year, occupational pension equity increased by 2% (in pre-retirement salary as the base) and 2-2.25% (based on work average wage). Four category operators involved in occupational pension market: First, company-specific pension fund, mainly for large enterprises and services; the second is industry-wide pension fund providers, all companies facing an industry; third, insurance providers, for all kinds of enterprises to provide more than 3000 kinds of life insurance; fourth, pension funds for professional groups, for the self-employed and other independent companies. By the end of 2008, the Dutch pension system consists of 651 pension funds, covering about 6,000,000 employed.

Occupational pension of civil servants is the largest Dutch pension fund, covering government employees, public utilities and education sectors, which assets account for a quarter of market, operate by the ABP, which is a non-profit organization. Centralized management, supervised by the central bank. Employees can choose the following pension products

First, ABP Multi-Option Pension. The principal may retire from 60 years, 5 years after the retirement age up to the national basic pension (AOW). Working longer then pension rights and interests will be higher, but pension depends on the amount of accumulation.

Second, ABP Incapacity Pension. Trustee ill or unable to work during the first two years receive a salary from the employer. Two years later, UWV (Social Security Agency) would be compensated, ABP subsidies play a role in additional income. On condition that the pension rights of people from the first day of illness payment of pension and accept the UWV disability benefits.

Third, ABP Surviving Dependents Pension. In the case of death of the trustee, your partner enjoy survivor's pension. Children under 21 years old and ex-wife can apply.

By the end of 2014, the company provide services for 2.8 million insured persons and nearly 4,000 employers, total assets reached 344 billion, the return on investment is 14.5%. However, the fund's income in 2014 is the first time lower than the fund expenditures, showing the financial sustainability pressure caused by aging population. Currently, in the Netherlands, the total occupational pension and basic pension replacement rate can reach 70 percent of pre-retirement wages⁴³.

3.3 EU major nations public sector pension reform experience

In recent years, the main purpose of the public sector pension system reforms in EU countries are to reduce the financial pressure, a variety of measures, including:

First, reduce the pensions of DB plan. One approach is to directly cut pension, for example, German pension replacement rate of civil servants will fall to 71.75% from 75% in 2030, Luxembourg from 83.33% to 72%, Austria pension replacement rate ceiling up to 80%. UK public sector pension wage replacement rate 23% down to 15%. Another approach is to modify the plan hair base, for example, by modifying the calculation method, Finnish reforms through plan hair base to reduce pension expenditure, 1987 pension plan hair base is the average salary of the last four years; in 1996 changed to the last 10 years of the average wage; in 2005, adjusted the average wage to the entire work period average salary. France implement reform to adjust the basic pension from the civil service and wage movements linked price changes.

Second, delaying the retirement age, especially for women, to extend the payment period. For example, in 2006, minimum retirement age of the Dutch public sector increasee from 55 years old to 60 years old. Luxembourg and Finland will extend the payment period from 30 years to 40 years; France, a full pension of contribution years was 150 quarter, and in 2008 extended to 160 quarters. Portugal also extended to 40 years from August 2005.

⁴³ Annual Report 2014, <http://www.abp.nl/en/receiving-pension/pension-products/>

Third, lower level of survivor annuity benefits. For example, the Swedish phasing survivor annuities, Netherlands will compress half of survivor annuities .

The fourth, the establishment of occupational pension fund. Such as Austria, Spain, Belgium, Poland, France and Italy.

The fifth, change the defined benefit into defined contribution. Thus, not only can enhance the premium payment initiative, but also conducive to the long-term balance of the financial system. In the pressure of aging population and the economic slowdown ,the European welfare states have abandoned defined benefit pension system, turning to defined contribution, or to enhance the relevance of treatment and payment. Treatment associated with the payment, work or contribution years, contribution base, billing rates or investment returns and other factors as direct factors of pension levels. Pensioners can make the best decisions basing on the effectiveness of pension and personal time preference. Policymakers can also be made by adjusting the count in the equation coefficients work or contribution years, to guide people to make decisions in line with policy needs of retirement, especially delay retirement.

The sixth, punish early retirement but incentive to delay retirement to avoid wasting of human capital. If the treatment is associated with the contribution can indirectly lead people to delay retirement, then the effect will be more direct incentive mechanism. France, Germany, Italy, the Netherlands, Finland, Portugal, Greece, Luxembourg and Hungary and other countries have regulations that early retirement pension will be reduced by a certain percentage of pension. France, each year ahead of retirement that the pension will be reduced by 5% to the maximum, using date of birth instead of the entry time into pension system to measure eligible for retirement. Luxembourg, deferred one year than the normal retirement age , receive more 2.3% of the last wage until the replacement rate up to 110%; Hungary, delaying one month to retire, multiple final wages by 0.5%. Finnish pension system reform that retire after 55 years old, each year increased 2.5% pension . After 2005, the retirement age of 53-62, the annual pension increase by 1.9 percent, the retirement age 63-68 increased by 4.5% annually.

The seventh is to enhance the portability of pension funds. For example, in Belgium, reform implemented in 2003, if the pensioners delegated to international organizations, the pension rights and interests can work with the mobilization and transfer .Firstly pension rights and interests must be one-time settlement in the country , then the funds can transferred to the new pension system in the workplace. Provision before is subrogation mechanism without the transfer of one-time financial transfer. When Belgian public sector employees move to the private sector, the pension interests enjoy

independent calculation. When they conversion work between the public sector, pensions paid according to the treatment of pre-retirement work units , but will take full account of the performance and working life of the entire work period.

The eighth is to establish a risk reserve fund to strengthen the financial sustainability of the system.

4. Policy proposals on improving GOPI pension insurance system

Target of GOPI reform is to achieve justice, liquidity and financial sustainability. Justice embodies in unify treatment, corresponding rights with responsibilities, and narrowing gap between GOPI and Urban Enterprise Pension system; the liquidity reflects in the pension interests can be protected with labor mobility, without "portability loss"; Financial sustainability requires to guarantee certain level of replacement rate, balance of payments, or the deficit is controllable that can be made up without bring unbearable pressure on the government at all levels.

4.1 Strengthen the justice of system

4.1.1 Set reasonable contribution base

GOPI pension system is designed to achieve uniform with urban enterprises basic pension insurance, but the statistics contribution base are inconsistent .Pension contribution base is basically all labor income with higher degree of labor remuneration monetization , while GOPI have much higher proportion of implicit wage, most GOPI remain the reform subsidies (transportation allowance, communications allowance, housing allowance, education and medicaid, heating subsidies which covered by the previous system), but contribution wages of GOPI do not include allowances and subsidies. From the perspective of the unit, it is advantageous that can reduce current contribution expenses, and postpone the financial burden; but from personal point of view, future pension will be affected by the reduced the contribution to personal accounts of basic pension insurance and account of occupational pension .

In view of this, we should improve the supervision mechanism, and establish pension supervision committee which consist of employees and retirees on behalf, principal of the relevant government departments, experts and scholars, to insure pension rights fully understood, and be able to supervise unit to contribute pension insurance in accordance with labor income agreements, to ensure individual right of knowing and future pension benefits.

4.1.2 Ensure the revenue and interests rights of the virtual bookkeeping part of the account

Personal accounts of GOPI basic pension and unit contribution of occupational pension both use virtual bookkeeping way, but with slightly different: the basic pension of individual contributions to personal accounts, but the funds have been incorporated into the social pooling fund for the current payment for retirees. In fact , it is "financial transform "between the social pooling account and individual pension accounts.⁴⁴Unit contribution to occupational pension accruals accounts implement virtual bookkeeping without actual capital until retirement , in fact, it postpone the unit payment time from each month of working time to retirement .It is general practice to reduce the current financial burden.

The biggest drawback of "Virtual bookkeeping" is the loss of investment income , and then will affect the participants' future retirement income. "Decision of the State Council on the reform of GOPI pension system" and "Government Organs and Public Institutions Pension Rules", stipulate that personal accounts of GOPI basic pension and unit contribution of occupational pension should calculate interests annually in accordance with the national unity bookkeeping interests rate, but do not clearly defined how to determine the accounting interest rate.

To avoid loss of pension benefits, we should define the accounting interests rate equal or close to the market investment interest rate . Further, in order to protect the safety of the fund account, we also need to determine a security rate.

4.2 Strengthen liquidity of pension system

According to "Decision of the State Council on the Reform of Government Organs and Public Institutions Pension System", if the insured leaves the original unit, and continues to insure in the new unit, the pension payment period can be accumulated; transfer of pension relationship divided into two situations: First, flows between organizations and institutions within the same range of contribution, only transfer pension relationship, without funds; second, the overall range of flow between different GOPI or enterprises, both transfer pension relationship and fund, with all fund in personal accounts of the basic pension insurance and 12% of the social pooling fund according to actual wages for each year to transfer. This shift measure is consistent with the existing connection measure of basic pension insurance for urban enterprise, but according the actual operation of basic

⁴⁴ Hu Xiaoyi, vice minister of human society on the GOPI pension system reform answer,

http://www.mohrss.gov.cn/SYrlzyhshbzb/zwgk/SYzhengcejiedu/201501/t20150119_149495.htm

pension insurance across region transfer. Resistance of pension fund transfer is not completely eliminated, due to local protectionism and subject opposed of vested interests, local government do not want to transfer the funds especially region in loss.

4.2.1 Pension insurance relationship transfer between different contribution regions

In the short term, GOPI pension insurance cannot realize national co-ordination, different financial sources of funds result in fragmentation daily operation, investment management, the gap between the contribution scale and benefits level. In the labor mobility process, if treatment fall, personal against; if treatment uplift, the receiver oppose. Currently policy stipulate that labor mobilize among different contribution region ,leave the 8% personal actual contribution of wages in the original place, for the outflow of labor, this is a kind of compensation for the loss of human capital, but for labor inflows speaking, it is a loss of the pension system, because inflow region accept all the contribution years, but received only partial payment ,equals with 12 % contribution rate, to some extent, increase the financial burden of the inflow.

French pension system is managed by various agencies; transfer of pension insurance relationship is through consultation between agencies. According to the agreement, transfer mechanisms can compute contribution years segments and pay pensions respectively, if pensioners meet retirement condition; if employees do not meet retirement conditions, relationship of pension insurance and all contributions can be transferred to the receiver agency, while meeting retirement condition pension paid by the last receiving agency.

Implications for China: only all contribution from units and individuals transfer to the receiving agencies so that pension will not be an obstacle to labor mobility. Therefore, when public sector pension relationship transfers among different contribution region, in addition to the amount of personal savings accounts, pension should be fully transferred to the labor inflow, in accordance with the actual contribution rate during the work time.

4.2.2 The pension relationship transfer between public sector and private sector

When the GOPI staff departure and employed by enterprise, the transfer issue in addition to the basic pension insurance relationship and funds , but also involves the transfer of occupational pension accounts. For the basic pension relationship between the transfers, agencies can refer to existed methods, but it is more complex for the transfer of occupational pension accounts:

First, the GOPI occupational pension take virtual bookkeeping way, but established enterprise annuity take account operation, two operating mode cannot be directly transferred.

Second, if the enterprise does not establish enterprise annuity plans, in accordance with established practice, occupational pension account will remain in the original unit, which result in occupational pension account holders lose the accounts domination rights and the account fund investment supervision. Over time, some of the accounts may become bad debts.

Therefore, before complete the successful transfer of enterprise annuity with occupational pension accounts, fiscal need to save money to occupational pension accounts. For the enrolled enterprises which do not establish enterprise annuity plan, we need establish a transitional mechanism for the fund under the supervision of an independent government agency, occupational pension funds should be fully transferred from the original unit when departure happens , but in order to avoid personal extraction and discretionary before retirement, so that fund should be transferred to a designated account . Trustee take unified management and execution functions until the funds to be transferred to the enterprises to establish enterprise annuity, and then incorporated the occupational pension fund to annuity account.

4.3 Strengthen the financial sustainability of system

After the GOPI pension reform, calculation and contribution base change from the last month's wages to career wage indexation, so that narrowed contribution base reduce the financial expenses of GOPI pension system. This is in line with the international trend of pension system reform in the public sector, and also to ensure the unify with Urban Enterprise Pension system. However, due to the serious old aging problem, the GOPI pension system still exists financial sustainability problem . So, the following recommendations:

4.3.1 Taking long-term actuarial technology, use reasonable system parameters

Sweden and Poland and other countries to implement the NDC account, combine the advantages of the payment type (DC) and the PAYG system together. because the system is too complicated, result in few followers , but it is still a great reference.

Similarly with the NDC account , China's GOPI pension system also has virtual billing design, the current accounting year deposit interest rate is still the interest rate. If we get experience from the NDC account of Poland as reference , that is taking the factors of economic growth and demographic changes into the account of the accounting rate in this

way can the use of actuarial techniques to help determine reasonable and appropriate methods of calculation and payment rates, thus contribute to long-term financial sustainability of system. There are several important parameters in the GOPI pension system: contribution rates, the number of months calculated by individual account pension, accounting and pension growth rates. Parameters of system will have a significant impact on financial sustainability .

Contribution rate. The decisive factor of system revenue collection. From the view of operation of the basic pension insurance system for urban enterprise, because the maintenance burden vary widely, regions with heavy maintenance burden pension bear over 30 percent contribution rate , regions with lighten burden that pension contribution rate is less than 10%. It is foreseeable that this problem in the implementation of the GOPI pension insurance system will also appear. Obviously, this problem, indicating that the contribution rate design is unreasonable, without sufficiently thinking of the differences over the maintenance burden.

Recommendation: a floating rate should be considered, on the basis of the reference rates fluctuated, so the local government can select the appropriate contribution rate based on the actual situation and long-term revenue projections.

Pension divisor. Under the current regime, the number of personal accounts of payment months of basic pension insurance are fixed, such as 60-years-old count the number of months is 139. This means that for people retired at 60-years-old, the amount of personal savings accounts can only be distributed to 71.6 years, thereafter it will be a long-term risk system that individual account pension needs full financial commitment.

Recommendation: consider using dynamic counting of months, as the Swedish and German pension reform have done, considering changes in demographic trends ,the wage growth and changes in market interest rates in the payment number of months.

Accounting interest rate. Accounting rates are the most critical factors of pension treatment. At present, accounting rates of the basic pension insurance for urban enterprise personal account is one-year deposit interest rate, it has long been lower than the inflation rate, leading to the real purchasing power of pensions personal accounts shrinking.

Recommendation: set guarantee interests, when the market interests of return lower than the guarantee interests, using the security interest; when the market interests is higher than the guarantee one , the investment interests of return in accordance with the actual market interests.

Pension growth rate. Pension growth rate can not less than the rate of inflation, otherwise it would be difficult to guarantee the basic life after retirement. Linking the pension with the price level, to ensure that pensions are not devalued; meanwhile, pensions should be linked to a certain percentage of wage growth, which would allow retirees to share the achievement of economic development.

4.3.2 Improve the earning capacity of the pension fund

Reference on the Reform of the United Kingdom. UK public sector pension not only do not set an upper limit of contribution, but also set a higher contribution rate for high-income earners. China's GOPI pension insurance and basic pension insurance for urban enterprise has contribution up-limit, that the wage of three times higher than social average wage income is out of contribution base, which is the protection of high-income groups, in the short term, it may keep high-income groups in the social insurance system, to avoid adverse selection problems, but in the long run, it will reduce the pension income.

In terms of social equity or to enhance the ability of the Fund's income, we need to cancel the contribution up-limit, but considering the system the hardness of implement, we can consider raising the upper limit of the contribution base when needed, to put more income into high-income groups in base pay.

4.3.3 Expand the scope of co-ordination by the "big social co-ordination" to improve the financial sustainability

The so-called "big social pooling" is to the pooling fund of GOPI pension insurance and urban basic pension insurance to the realize free transfer of all wage-earning class employees pension fund.

The reform stipulate that "GOPI pension insurance establish independent account, separately managed with enterprise employees basic pension insurance funds" ([2015] No. 2), it means that the GOPI pension contribution will form an independent pooling fund, not co-ordinate with urban enterprise basic pension insurance fund. This arrangement may be considered a higher dependency ratio of GOPI. Co-ordinate use means that urban basic pension insurance fund may compensate to GOPI. To implement reforms smoothly, in view of the current public opinion trends, separated account management reform may be the path of least resistance, but it weakens the social insurance mutual aid capabilities at all levels, finance will continue to burden the GOPI pension, the aging population problem inside GOPI can not be diluted through population structure by the whole society, the financial endowment do not completely turn to social insurance.

As mentioned earlier, the Czech Republic, which is a country in transition, after restructuring its economy, the pension system in the public sector and private sector eliminate the difference in treatment between different groups, to achieve social justice, and labor mobility promoted.

Recommendation:GOPI and urban enterprise system have been unified on the basic pension insurance, should gradually unify system parameters and pooling fund, forming a basic pension plan that cover informal sector (to ensure contribution of employers) ,all employment, and secure universal retirees living.Reasonable gap can exist between pension plans in the public sector and the private sector , but this gap should not appear in the basic pension insurance. Differences of basic pension insurance contribution years only show individual wages (contribution level). Public and private sector pension benefits gap can be reflected in the occupational pension, the employer contribution rates of occupational pension reflect that necessary means of human resource management, the number of occupational pension employer contribution also reflect prices in different human capital in the labor market .

4.3.4 Encourage delayed retirement

Recently, the Minister of Human Resources and Social Security announced in news conference, that postpone the statutory retirement age gradually from 2017. Delay the retirement age has been proposed for years, but has been unable to practice, mainly because of public opposition is relatively large. Under the current regime, the basic pension insurance for urban enterprise personal contribution rate is 8%, the individual total contribution rate of GOPI pension insurance and occupational pension is 12%, while each additional year of contribution, the pension replacement rate only one percentage increased. In other words, under this plan hair mechanism, deferred retirement is actually negative. Unless hidden job wages and bonuses accounts high ratio, 1 percentage does not have any incentive to delay retirement.

Contrast the different delay retirement policies of Germany, France and Austria .It can be found that the public only accept such policy that delay retirement benefits outweigh early retirement. German public sector personal pension without individual contributory , payment of the public sector in Austria borne entirely by the state finance, therefore, the two countries are taking incentive delay retirement mechanism that will significantly reduce the early retirement pension, retirement is significantly delayed increase pensions. Instead, the French local government civil servants required to pay pension premiums, increase the proportion of pensions does not motivate people to take the initiative to

delay retirement, the government forced to increase the retirement age only through legal means.

Only when individuals do not bear contribution or contribution rate is relatively low, it is incentive to postpone retirement using that "delay retirement with the additional pension, early retirement reduce pension,". Therefore, China's GOPI pension insurance can increase the minimum contribution years and the corresponding level of pensions, to inspire people to delay retirement.

4.4 Improve the performance of pension fund investment operations

Operations experience of the basic pension insurance for urban enterprise show that due to personal accounts fund is in the social pooling accounts with social pooling funds for payment, The provinces of deficit expenditure can get central government subsidies, and provinces with profit surplus can form accumulation fund. From the national point of view, the total basic pension insurance fund accumulated surplus reached 3.5645 trillion Yuan.⁴⁵ Because GOPI pension insurance without national co-ordination, the central government will fund the same "deficit" of provinces subsidy, and the fund "surplus" province will accumulated surplus funds, we will face the operation problem of fund investment.

4.4.1 Independence of trustees

At present, the investment and operation of basic pension insurance for urban enterprise funds are based on National Council for Social Security Fund as the trustee, for example, Guangdong Province, commissioned 100 billion Yuan in March 2012 for NSSF investment operation, obtained 17.336 billion Yuan of investment income in 2014.⁴⁶ Shandong Province in February 2015 commissioned 100 billion Yuan pension fund for the NSSF investment operation. Since its inception in August 2000, the National Social Security Fund Council annual investment rate of return is 8.38%, while the inflation rate is 2.42 percent over the same period, to achieve better increasing the value of the fund. It should be said, the investment performance of the National Social Security Fund Council is quite good.

However, the National Social Security Fund Council belongs to the State Council institutions, whose assets are mainly from the central government budget allocations, the

⁴⁵ Human Resources and Social Security Department: "2014 Annual Human Resources and Social Security Statistical Bulletin"

⁴⁶ National Council for Social Security Fund: "The National Council for Social Security Fund Fund Annual Report (FY2014)."

transfer of state-owned capital, investment income and personal accounts . Institutions and assets have close ties with the government, the independence of market institutions will be affected.

From perspective of institutions independence and decentralized of competition: choosing independent market institutions of the GOPI as trustee of the basic pension insurance fund.

4.4.2 Trust management and investment performance evaluation

The establishment of provincial government departments and institutions pension insurance council, entrusted all levels of government in the province, account records on behalf of managed funds and investment operations services; use trust management mechanism, improve the principal - agent mechanism, by choosing the appropriate market institutions investment operations, and establish a sound performance appraisal system occupational pension fund investment operations.

In recent years, from operator feedback of the situation of the enterprise annuity market , the biggest problem is the investment appraisal cycle is too short. Annuity performance generally for one-year short-term assessment period, for the three-year long-term assessment period, and to take the bottom out of the way, forcing the investment manager of corporate pension assets portfolio change hands frequently, greatly improving the management costs.

Recommendation: establish a long-term investment performance appraisal system, lengthen the investment performance appraisal cycle, determine a reasonable target return on investment.

4.4.3 Establish personal limited investment option of occupational pension funds

Occupational pension accounts are personal property, though can not withdraw before retiring for other purposes, but a complete account holders should include the right to choose investment property. Clearing the right of the account owner to choose to invest occupational pension fund, on the one hand there is conducive to enhancing the personal responsibility of the pension, on the other hand can also reduce pressure on the government in terms of increasing the value of the fund.

In order to protect the security of fund , we recommend: limited investment given account holders the option that individuals can choose the investment manager in several compliance mechanism, giving up the right to choose can start the automatic default

mechanism to automatically determine the default combination. Of course, the default portfolio investment risk is relatively low.

Prior to the implementation of the right to choose their individual occupational pension account, need to address issues of the unit contribution to occupational pension of account . There are two drawbacks of "Empty Account": First, it can not be invested, if the billing rates is lower than the market rate of investment, and the scale of fund account will be less than the real accumulated account, which of political risks; Second, if the accounting in accordance with the market rate of return, then formed a huge cumulative account size to do real-time at the point of retirement, the future certainly can not afford the financial burden, the system need a second reform. Thus, in the long running, it should be clear occupational pension unit pay liability and achieve real occupational pension account operations.

4.4.4 Set guaranteed return rate

The importance of pension investment security is self-evident, but how to operate in market that achieve profitability and can put an end to excessive investment risk? Supplementary pension insurance operations experience from the German point of view, the pre-established rate of pension fund investments guaranteed return can lock the maximum loss. In fact, when the current National Council for Social Security Fund in local commission entrusted with the management of basic pension insurance fund operations, will be in the trust agreement clearly a guaranteed return rate when the actual rate of return is lower than the guaranteed rate of return, by the trustee compensate for the loss.

ANNEXES

Annex 1. Basic Wage and Duty Wage of GOPI in 1985 wage reform (Y/m)

| | Position | Basic Wage | Duty Wage | | | | | | | |
|-------------------------------|--|------------|-----------|-----|-----|-----|-----|-----|-----|----|
| In Central and Province level | President, Vice President and Prime Minister | 40 | | | 490 | 410 | 340 | | | |
| | Vice Prime Minister | 40 | | | 340 | 340 | 300 | | | |
| | Minister and Governor | 40 | 315 | 300 | 270 | 240 | 215 | 190 | 165 | |
| | Vice Minister and Vice Governor | 40 | 270 | 240 | 215 | 190 | 165 | 150 | 140 | |
| | Director General | 40 | | 190 | 165 | 150 | 140 | 130 | 120 | |
| | Deputy Director General | 40 | | 150 | 140 | 130 | 120 | 110 | 100 | |
| | Division Chief | 40 | | | 130 | 120 | 110 | 100 | 91 | 82 |
| | Deputy Division Chief | 40 | | | 110 | 100 | 91 | 82 | 73 | 65 |
| | Section Chief | 40 | | | 91 | 82 | 73 | 65 | 57 | 49 |
| | Deputy Section Chief | 40 | | | 73 | 65 | 57 | 49 | 42 | 36 |
| | Section Member | 40 | | | 57 | 49 | 42 | 36 | 30 | 24 |
| | Clerk | 40 | | | 42 | 36 | 30 | 24 | 18 | 12 |
| In municipal level | Mayor | 40 | 190 | 165 | 150 | 140 | 130 | 120 | | |
| | Deputy Mayor | 40 | 150 | 140 | 130 | 120 | 110 | 100 | | |
| | Division Chief | 40 | | 130 | 120 | 110 | 100 | 91 | 82 | |
| | Deputy Division Chief | 40 | | 110 | 100 | 91 | 82 | 73 | 65 | |
| | Section Chief | 40 | | 82 | 73 | 65 | 57 | 49 | 42 | |
| | Deputy Section Chief | 40 | | 65 | 57 | 49 | 42 | 36 | 30 | |
| | Section Member | 40 | | 49 | 42 | 36 | 30 | 24 | 18 | |
| | Clerk | 40 | | 42 | 36 | 30 | 24 | 18 | 12 | |
| In county level | County Chief | 40 | 130 | 120 | 110 | 100 | 91 | 82 | | |
| | Deputy County Chief | 40 | 110 | 100 | 91 | 82 | 73 | 65 | | |
| | Section Chief | 40 | 82 | 73 | 65 | 57 | 49 | 42 | | |
| | Deputy Section Chief | 40 | 65 | 57 | 49 | 42 | 36 | 30 | | |
| | Section Member | 40 | 49 | 42 | 36 | 30 | 24 | 18 | | |
| | Clerk | 40 | 42 | 36 | 30 | 24 | 18 | 12 | | |

Annex 2 Basic Wage and Duty Wage of GOPI in 1993 wage reform (Y/m)

| Position | Basic Wage | Duty Wage | | | | | | | | Seniority Pay |
|--|------------|-----------|-----|-----|-----|-----|-----|-----|-----|----------------------|
| President, Vice President and Prime Minister | 90 | 480 | 555 | 630 | | | | | | 1 Yuan per work year |
| Vice Prime Minister | 90 | 400 | 460 | 520 | 580 | | | | | |
| Minister and Governor | 90 | 330 | 380 | 430 | 480 | 530 | | | | |
| Vice Minister and Vice Governor | 90 | 270 | 315 | 360 | 405 | 450 | | | | |
| Director General | 90 | 215 | 255 | 295 | 335 | 375 | 415 | | | |
| Deputy Director General | 90 | 175 | 210 | 245 | 280 | 315 | 350 | | | |
| Division Chief | 90 | 144 | 174 | 204 | 234 | 264 | 294 | | | |
| Deputy Division Chief | 90 | 118 | 143 | 168 | 193 | 218 | 243 | | | |
| Section Chief | 90 | 96 | 116 | 136 | 156 | 176 | 196 | 216 | | |
| Deputy Section Chief | 90 | 79 | 94 | 109 | 124 | 139 | 154 | 169 | | |
| Section Member | 90 | 63 | 75 | 87 | 99 | 111 | 123 | 135 | 147 | |
| Clerk | 90 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | |

Annex 3 Matching of rank with position in 1993 wage system (Yuan per month)

| Rank | Rank Wage | Matching rank with position | | | | | | | | | | | | | | |
|------|-----------|-----------------------------|---------------------|-----------------------|---------------------------------|------------------|----------------------------|----------------|---------------|----------------------|----------------|-------|--|--|--|--|
| 一 | 470 | Prime Minister | | | | | | | | | | | | | | |
| 二 | 425 | | Vice Prime Minister | | | | | | | | | | | | | |
| 三 | 382 | | | Minister and Governor | | | | | | | | | | | | |
| 四 | 340 | | | | Vice Minister and Vice Governor | | | | | | | | | | | |
| 五 | 298 | | | | | Director General | | | | | | | | | | |
| 六 | 263 | | | | | | Deputy Director or General | | | | | | | | | |
| 七 | 228 | | | | | | | Division Chief | | | | | | | | |
| 八 | 193 | | | | | | Deputy Division Chief | | | | | | | | | |
| 九 | 164 | | | | | | | | Section Chief | Deputy Section Chief | Section Member | Clerk | | | | |
| 十 | 135 | | | | | | | | | | | | | | | |
| 十一 | 111 | | | | | | | | | | | | | | | |
| 十二 | 92 | | | | | | | | | | | | | | | |
| 十三 | 77 | | | | | | | | | | | | | | | |
| 十四 | 65 | | | | | | | | | | | | | | | |
| 十五 | 55 | | | | | | | | | | | | | | | |

Annex 4 Wage and Subsidy of professional technician in public institute in 1993 (Y/m)

| Position | Duty Wage | | | | | | | | | | Subsidy |
|----------------------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------|
| | 一 | 二 | 三 | 四 | 五 | 六 | 七 | 八 | 九 | 十 | |
| Professor | 390 | 430 | 470 | 520 | 620 | 670 | | | | | |
| Associated professor | 275 | 305 | 335 | 365 | 395 | 435 | 475 | 515 | 555 | | 30% of salary |
| Lecture | 205 | 225 | 245 | 265 | 285 | 315 | 345 | 375 | 405 | 435 | |
| Assistant | 165 | 179 | 193 | 213 | 233 | 253 | | | | | |

Annex 5 Basic Wage and Duty Wage of GOPI in 2006 wage reform (Yuan per month)

| Position | Duty Wage | |
|--|-----------|------|
| President, Vice President and Prime Minister | 4000 | |
| Vice Prime Minister | 3200 | |
| Minister and Governor | 2510 | |
| Vice Minister and Vice Governor | 1900 | |
| Director General | 1410 | 1290 |
| Deputy Director General | 1080 | 990 |
| Division Chief | 830 | 760 |
| Deputy Division Chief | 640 | 590 |
| Section Chief | 510 | 480 |
| Deputy Section Chief | 430 | 410 |
| Section Member | | 380 |
| Clerk | | 340 |

Annex 6 Basic Wage and Rand Wage of GOPI in 2006 wage reform (Yuan per month)

| Rank | Rank Wage | | | | | | | | | | | | | |
|------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 一 | 3020 | 3180 | 3340 | 3500 | 3660 | 3820 | | | | | | | | |
| 二 | 2770 | 2915 | 3060 | 3205 | 3350 | 3495 | 3640 | | | | | | | |
| 三 | 2530 | 2670 | 2810 | 2950 | 3090 | 3230 | 3370 | 3510 | | | | | | |
| 四 | 2290 | 2426 | 2562 | 2698 | 2834 | 2970 | 3106 | 3242 | 3378 | | | | | |
| 五 | 2070 | 2202 | 2334 | 2466 | 2598 | 2730 | 2862 | 2994 | 3126 | 3258 | | | | |
| 六 | 1870 | 1996 | 2122 | 2248 | 2374 | 2500 | 2626 | 2752 | 2878 | 3004 | 3130 | | | |
| 七 | 1700 | 1818 | 1936 | 2054 | 2172 | 2290 | 2408 | 2526 | 2644 | 2762 | 2880 | | | |
| 八 | 1560 | 1669 | 1778 | 1887 | 1996 | 2105 | 2214 | 2323 | 2432 | 2541 | 2650 | | | |
| 九 | 1438 | 1538 | 1638 | 1738 | 1838 | 1938 | 2038 | 2138 | 2238 | 2338 | 2438 | | | |
| 十 | 1324 | 1416 | 1508 | 1600 | 1692 | 1784 | 1876 | 1968 | 2060 | 2152 | 2244 | | | |
| 十一 | 1217 | 1302 | 1387 | 1472 | 1557 | 1642 | 1727 | 1812 | 1897 | 1982 | 2067 | 2152 | | |
| 十二 | 1117 | 1196 | 1275 | 1354 | 1433 | 1512 | 1591 | 1670 | 1749 | 1828 | 1907 | 1986 | 2065 | |
| 十三 | 1024 | 1098 | 1172 | 1246 | 1320 | 1394 | 1468 | 1542 | 1616 | 1690 | 1764 | 1838 | 1912 | 1986 |
| 十四 | 938 | 1007 | 1076 | 1145 | 1214 | 1283 | 1352 | 1421 | 1490 | 1559 | 1628 | 1697 | 1766 | 1835 |
| 十五 | 859 | 924 | 989 | 1054 | 1119 | 1184 | 1249 | 1314 | 1379 | 1444 | 1509 | 1574 | 1639 | 1704 |
| 十六 | 786 | 847 | 908 | 969 | 1030 | 1091 | 1152 | 1213 | 1274 | 1335 | 1396 | 1457 | 1518 | 1579 |
| 十七 | 719 | 776 | 833 | 890 | 947 | 1004 | 1061 | 1118 | 1175 | 1232 | 1289 | 1346 | 1404 | |
| 十八 | 658 | 711 | 764 | 817 | 870 | 923 | 976 | 1029 | 1082 | 1135 | 1188 | 1241 | 1294 | |
| 十九 | 602 | 651 | 700 | 749 | 798 | 847 | 896 | 945 | 994 | 1043 | 1092 | 1141 | | |
| 二十 | 551 | 596 | 641 | 686 | 731 | 776 | 821 | 866 | 911 | 956 | 1001 | | | |
| 二十一 | 504 | 545 | 586 | 627 | 668 | 709 | 750 | 791 | 832 | 873 | | | | |
| 二十二 | 461 | 498 | 535 | 572 | 609 | 646 | 683 | 720 | 757 | | | | | |
| 二十三 | 422 | 455 | 488 | 521 | 554 | 587 | 620 | 653 | | | | | | |
| 二十四 | 386 | 416 | 446 | 476 | 506 | 536 | 566 | 596 | | | | | | |
| 二十五 | 352 | 380 | 408 | 436 | 464 | 492 | 520 | | | | | | | |
| 二十六 | 320 | 347 | 374 | 401 | 428 | 455 | | | | | | | | |
| 二十七 | 290 | 316 | 342 | 368 | 394 | 420 | | | | | | | | |

Annex 7 Pension divisor of GOPI pension system in pension reform of 2015

| | | | | | | | | | | | |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Retirement age | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| Pension divisor | 233 | 230 | 226 | 223 | 220 | 216 | 212 | 207 | 204 | 199 | 195 |
| Retirement age | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| Pension divisor | 195 | 190 | 185 | 180 | 175 | 170 | 164 | 158 | 152 | 145 | 139 |
| Retirement age | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| Pension divisor | 139 | 132 | 125 | 117 | 109 | 101 | 93 | 84 | 75 | 65 | 56 |

Topic 1.4.3.

Strategy of integrating social security system in urban and rural context also through the portability of social insurance

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Strategy of integrating social security system in urban and rural context also through the portability of social insurance

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I. Overview on the Pension Insurance System of China

(I) History of reform in the pension insurance system

To adapt itself to the reform of the market economic system, China started to transform its conventional pension insurance system into a multi-level one in the 1980s.

The reform started from enterprises. In 1995, the State Council issued the *Notice of the State Council on Deepening the Reform in the Pension Insurance System for Enterprise Employees (No. 6 [1995] of the State Council)* on the basis of summarizing the experience of local reform pilots, carried out the pattern that combines social pooling with personal accounts and then kept improving the pension insurance system for urban enterprise employees. Subsequently, the State Council promulgated the *Decision of the State Council on Establishing a United Pension Insurance System for Enterprise Employees (No. 26 [1997] of the State Council)* in 1997 and the *Decision of the State Council on Improving the Pension Insurance System for Enterprise Employees (No. 38 [2005] of the State Council)* in 2005.

Years later, on the basis of summarizing the experience of local pilots of rural pension insurance system construction, the State Council issued the *Guiding Opinions of the State Council on Implementing Pilots of New Rural Social Pension Insurance (No. 32 [2009] of the State Council)* in 2009, the *Guiding Opinions of the State Council on Implementing Pilots of Social Pension Insurance for Urban and Rural Residents (No. 18 [2011] of the State Council)* in 2011, and on the basis of combining both the foregoing systems, the *Opinions of the State Council on Establishing a Unified Basic Pension Insurance System for Urban and Rural Residents (No. 8 [2014] of the State Council)* in 2014, when a unified basic pension insurance system for urban and rural residents was established across China. Furthermore, the State Council circularized the *Notice on Issuing the Plan for the Pilot Program on the Reform of the Pension Insurance System for Employees of Public Institutions (No. 10 [2008] of the State Council)* and piloted the reform in the pension insurance system for public institutions in five provinces and municipalities, such as Shanghai and Guangdong, in 2008 and in 2015, it promulgated the *Decision on the Reform of the Pension Insurance System for Employees of State Organs and Public Institutions (No. 2 [2015] of the State Council)* and started to establish the pension insurance system for the state organs and public institutions throughout China.

Basic pension insurance has gone through an orderly and classification-based reform from urban state-owned enterprises to collectively-owned and private enterprises, from employees of normal entities to flexible employees, overall employees and residents, from cities and towns to villages and from enterprises to state organs and public institutions. At present, China has built up a basic pension insurance system that consists of the basic

pension insurance system for urban enterprise employees, the pension insurance system for urban and rural residents and the pension insurance system for state organs and public institutions.

In the meantime, improvements have been witnessed in the connection among the three basic pension insurance systems, the security for the rights and interests of the insured in the floating employment and the institutional fairness. Firstly, the *Interim Measures on the Transfer and Continuation of Basic Pension Insurance Credentials for Urban Enterprise Employees* (No. 66 [2009] of the State Council 办公厅) was promulgated in 2009, providing policy basis for the transfer and continuation of basic pension insurance credentials of the trans-regional flowing employees; Secondly, the *Interim Measures for the Integration of Urban and Rural Pension Insurance Systems* (No. 17 [2014] of the Ministry of Human Resources and Social Security) was issued in 2014, with stipulations on the transfer of credentials and integration of benefits between the basic pension insurance for employees and the one for urban and rural residents; Finally, the *Decision of the State Council on the Reform of the Basic Pension Insurance System for State Organs and Public Institutions* was promulgated in 2015, defining the measures to transfer and continue the pension insurance credentials of employees flowing among state organs and public institutions. The above-mentioned laws and regulations effect the provision that “a laborer shall be entitled to social insurance benefits and after his retirement, the pensions” as specified in the *Labor Law* and the provision that “an employee shall be entitled to participate in the basic pension insurance system and enjoy the pensions according to law. When an individual is employed in a different overall planning area, his basic pension insurance credentials shall be transferred accordingly. The state shall establish and improve the new rural social pension insurance system and the social pension insurance system for urban residents” as specified in the *Social Insurance Law*.

Meanwhile, China has established the enterprise annuity system and the occupational annuity system to encourage old-age insurance by personal savings and propel the establishment of the multi-level pension insurance system.

(II) Regulations of the basic pension insurance system

1. Regulations of the three basic pension insurance systems

According to the regulations of the basic pension insurance system for urban enterprise employees, (1) Employees of enterprises of all types and flexible employees in urban areas and foreigners employed in China shall be covered. (2) The institutional pattern that combines social pooling with personal accounts shall be implemented. (3) An enterprise shall pay the pension insurance premium at 20% of its gross payroll and an individual shall pay it at 8% of his wage. (4) The pooling fund shall be composed of entity payment and fiscal subsidy and personal account shall consist of individual payment and income from investment. (5) The pensions for retirees shall consist of basic pensions, transitional pensions and pensions of the personal account. The basic monthly retirement pensions shall

be 1% of the mean value of the local average monthly wage for on-post employees in the previous year and the retiree's index-linked average monthly wage, based on which the pension insurance premium was paid, for every full year of premium payment. The monthly pensions of the personal account shall be the deposit amount of the individual account divided by the number of months of pension payment, which shall be determined according to the average life expectancy for urban populations when the employee retires, the retirement age of the employee, interest and etc. The amount of pensions shall be adjusted year by year.

The basic pension insurance system for state organs and public institutions covers the institutions administered as per the civil servant law, the state organs (institutions) administered by reference to the civil servant law, public institutions and the staff members within their authorized sizes. The measures for premiums and benefits are basically as same as those of the basic pension insurance system for urban enterprise employees, with the major difference in the deadline of deemed years of payment and the index of deemed payment.

The basic pension insurance system for urban and rural residents: (1) Coverage: Urban and rural residents who are aged 16 or above (excluding students), not staff members of state organs or public institutions and beyond the coverage of the basic pension insurance system for employees may participate in the pension insurance for urban and rural residents in the place of registered residence. (2) Payment: The fund of pension insurance for urban and rural residents is composed of individual payment, collective allowance and government subsidy. There are 12 grades of yearly individual payment standard—100 RMB, 200 RMB, 300 RMB, 400 RMB, 500 RMB, 600 RMB, 700 RMB, 800 RMB, 900 RMB, 1000 RMB, 1500 RMB and 2000 RMB. The provincial, regional and municipal people's governments may add the grades of payment according to the actual situation. In principle, the maximum payment standard shall not surpass the annual premiums paid by local flexible employees to participate in the basic pension insurance for employees. Local people's governments shall provide subsidies according to the grade of individual payment, which shall be 30-60 RMB per person every year according to the state standard. (3) Pension benefits. The benefits of pension insurance for urban and rural residents consist of basic pensions and pensions in personal account and are paid for a lifetime. Local governments may increase the benefits on the basis of the minimum basic pensions as determined by the central government. Monthly pensions from personal account shall be the entire balance of deposit in the personal account divided by 139, when the insurant starts to obtain the benefits.

2. Regulations on the connection of the three basic pension insurance systems

Classification of transfer and continuation of pension insurance interest: (1) Seen from the type of system, the pension insurance interest may be transferred and continued between any two of the basic pension insurance for urban enterprise employees, the basic pension insurance for state organs and public institutions and the basic pension insurance for urban and rural residents. (2) Seen from the overall planning area, when an insurant is employed in a different overall planning area, basic pension insurance credentials will be transferred accordingly. Where the insurant is employed in a different overall planning area and a

different insurance system, pension insurance credentials will be transferred accordingly as well.

(1) Transfer and continuation of basic pension insurance credentials for urban enterprise employees

According to the regulations on the transfer of basic pension insurance credentials when an urban enterprise employees, or a migrant worker, gets employed in an urban area in a different province as specified in the *Interim Measures for the Transfer and Continuation of Basic Pension Insurance Credentials for Urban Enterprise Employees* promulgated by the Ministry of Human Resources and Social Security and the Ministry of Finance:

(1) The social insurance agency at the place where the insurance is purchased (hereinafter referred as “social insurance agency”) shall issue the insurance premium payment certificate and the basic pension insurance relation shall be transferred to the new place. When an insurant meets the conditions for obtaining the basic pension insurance benefits, the number of years when insurance premiums have been paid shall be calculated on a consolidated basis, and the amount of deposit (including principal and interest, same below) in his personal account shall be calculated on a cumulative basis. Before reaching the age for obtaining the insurance benefits, no one may terminate the basic pension insurance relation or handle the insurance withdrawal formalities.

(2) During the transfer of basic pension insurance relation, the amount of deposit in the personal account to be transferred shall be the cumulative total of the principal and interest of personal payments before January 1, 1998 and the amount to be transferred shall be the total amount of deposit in the personal account after January 1, 1998. As for the transfer of pooling funds (payments made by the employer), the amount to be transferred shall be the total amount of 12% of the actual wage based on which the insurance premium is paid in each year after January 1, 1998.

(2) Transfer and continuation of basic pension insurance relation: If the insurant returns to the place (province, autonomous region or municipality directly under the central government, same below) of his registered permanent residence for employment and insurance, the local social insurance agency shall transfer and continue his pension insurance relation without undue delay. If the insurant doesn't return to the place of his registered permanent residence for employment and insurance, the social insurance agency of the new place shall transfer and continue his pension insurance relation without undue delay. But for a male aged 50 or above or a female aged 40 or above, his/ her basic pension insurance relation shall be kept at the place where he/ she purchases the insurance and a temporary basic pension insurance payment account shall be established at the new place to record all payments made by employer and individual. When the insurant gets employed again in another province or meets the requirements for obtaining the insurance benefits at the new place, the information of all payments in the temporary pension insurance payment account shall be transferred to the place where he purchases the insurance or to the place where he obtains the benefits.

(4) When the insurant meets the requirements for obtaining insurance benefits, the place where he shall obtain the benefits shall be determined in accordance with the following regulations. If the basic pension insurance relation is at the place of his registered residence, the place of registered residence shall be responsible for going through the formalities for the insurant to obtain benefits and enjoy the basic pension insurance treatment. If the basic pension insurance relation is not at the place of his registered residence and the insurant has made the payments at the place of the basic pension insurance relation for 10 or more years, the insurance shall go through the formalities for obtaining the benefits and enjoy the local basic pension insurance treatment there. If the basic pension insurance relation is not at the place of his registered residence and the insurant has made the payments at the place of the basic pension insurance relation for fewer than 10 years, his basic pension insurance relation shall be transferred to the previous place, where the payment has been made for 10 or more years, and the insurant shall go through the formalities for obtaining benefits and enjoy the basic pension insurance treatment there. If the basic pension insurance relation is not at the place of his registered residence and the insurant has not made the payments for 10 or more years in any place, the basic pension insurance relation and corresponding funds shall be transferred to the place of his registered residence and the insurant shall go through the formalities for obtaining benefits and enjoy the basic pension insurance treatment at the place of his registered residence.

(5) If the insurant meets the conditions for obtaining benefits after the transfer and continuation of basic pension insurance relation, his basic pensions shall be calculated according to his wage, on which the premium payment is based in each year, number of years of premium payment and the average wage of on-post employees of the place, where the insurant obtains the benefits, for each year in accordance with the *Decision of the State Council on Improving the Basic Pension Insurance System for Enterprise Employees (No. 38 [2005] of the State Council)*.

(6) Procedures for transfer and continuation of basic pension insurance relation: After the insurant establishes a basic pension insurance relation and makes the payment in the new place where he gets employed, the employer or the insurant shall submit a written application to the new social insurance agency for transferring and continuing his basic pension insurance relation. The new social insurance agency shall check the application in 15 workdays. If the insurant meets the specified conditions, the new social insurance agency shall issue an acceptance letter and provide relevant information to the social insurance agency in the original place of his basic pension insurance relation. If the insurant fails to meet the specified conditions, the new social insurance agency shall issue a written explanation to the applicant. The social insurance agency in the original place of the basic pension insurance relation shall complete the procedures of transfer and continuation in 15 workdays upon receiving the acceptance letter. Then, the new social insurance agency shall finish going through related formalities and notify timely the confirmation to the applicant in 15 workdays after receiving the basic pension insurance credentials and funds transferred from the original social insurance agency.

(7) Where a migrant worker fails to keep the payment for suspending employment or returning home, the original social insurance agency shall reserve his basic pension insurance credentials and all records of his payments and his personal account and the interest shall be accrued continually for the deposit in his personal account. Where a migrant worker keeps the payment even though he returns home and gets employed in the place where he purchases the insurance or in another urban area, the number of years of premium payment shall be calculated on a cumulative basis and the amount of deposit in his personal account shall be calculated on a consolidated basis as per the above-mentioned provisions. When he meets the conditions for obtaining insurance benefits, the migrant worker shall be entitled to the basic pension insurance treatment as same as urban employees. If the migrant worker will never get employed in the urban area, all of the records of urban insurance payments and personal account shall remain effective and according to his actual situation, the migrant worker shall be entitled to the basic pension insurance treatment for urban employees when he meets the conditions for obtaining insurance benefits or be transferred into the new rural social pension insurance system. The establishment of the unified basic pension insurance payment information inquiry service system is accelerated and the nationwide-applicable social security card is issued to provide efficient and convenient technical service for the insurants to inquire relevant information.

(2) Integration of urban and rural pension insurance systems

According to the provisions on the integration of pension insurance relations for those who have participated in both the basic pension insurance for urban employees and the basic pension insurance for urban and rural residents as specified in the *Interim Measures for the Integration of Urban and Rural Pension Insurance Systems*:

(1) Those who have participated in the basic pension insurance for urban employees and the basic pension insurance for urban and rural residents, reached the statutory retirement age of the former and paid the premium of the former for 15 or more years (or the extended payment for 15 or more years) can apply for transferring from the basic pension insurance for urban and rural residents to the one for urban employees and obtain the benefits as per the measures on the pension insurance for urban employees. Those who have paid the premium of the pension insurance for urban employees for fewer than 15 years can apply for transferring from the pension insurance for urban employees to the one for urban and rural residents and after meeting the conditions for obtaining benefits, enjoy the treatment as per the measures on the pension insurance for urban and rural residents.

(2) The insurant who need transfer between the pension insurance for urban employees and the one for urban and rural residents shall confirm and transfer his relation of pension insurance for urban employees to the place where he should obtain the benefits in accordance with the regulations on pension insurance for urban employees and then, go through the formalities for transferring the system. If the insurant applies from transferring from the pension insurance for urban and rural residents to the one for urban employees, the application shall be submitted at the place where he should obtain the benefits of pension insurance for urban employees. If the insurant applies for transferring from the

pension insurance for urban employees to the one for urban and rural residents, the application shall be submitted in the place where he should obtain the benefits of pension insurance for urban and rural residents.

(3) If the insurant transfers from the pension insurance for urban and rural residents to the one for urban employees, the deposit of the personal account of the former shall be included totally into the personal account of the latter, but the number of years of premium payment of the former shall not be included or converted into that of the latter.

(4) If the insurant transfers from the pension insurance for urban employees to the one for urban and rural residents, the deposit of his personal account of the former shall be included totally into the personal account of the latter and number of years of payment of the former shall be consolidated into that of the latter.

(5) If the insurant participates in both the pension insurance for urban employees and the one for urban and rural residents in a year, the number of years of payment for the latter alone shall be validated during the period (number of months, same below) of repeated payments and the corresponding personal payments and collective subsidies for the pension insurance for urban and rural residents for the period of repeated payments will be refunded to the insurant.

(6) The insurant shall not obtain both the benefits from the pension insurance for urban employees and those from the insurance for urban and rural residents at the same time. If the insurant does it, his relation of pension insurance for urban and rural residents will be terminated and cancelled, the balance of his personal account, except government subsidy, will be refunded, and the basic pension for urban and rural residents obtained by the insurant shall be returned. If the insurant fails to return the said basic pension, the social insurance agency shall be responsible for deducting it from the balance of his personal account of pension insurance for urban and rural residents or the basic pension from the insurance for urban employees.

(7) Transferring between urban and rural pension insurance systems, the insurant shall abide by the following procedures. At first, the insurant shall submit a written application to the social insurance agency in the place where he obtains the benefits. Then, the social insurance agency shall accept and check the application. If the insurant meets the specified conditions, the social insurance agency shall issue a contact letter and provide relevant information to the social insurance agency in the original place of his relation of pension insurance for urban employees or for urban and rural residents in 15 workdays. If the insurant fails to meet the specified conditions, the social insurance agency shall give an explanation to the applicant. The social insurance agency in the original place of his relation of pension insurance for urban employees or urban and rural residents shall finish delivering insurance payment information and transferring funds in 15 workdays upon receiving the contact letter. Finally, the social insurance agency in the place where the benefits are obtained shall finish going through related formalities and notify timely the situation to the applicant in 15 workdays after receiving the said funds.

The unified basic pension insurance payment information inquiry system is established, the nationwide social insurance credentials transfer system is improved and the popularization of the nationwide applicable social security card is accelerated to provide efficient and convenient technical support for the insurants to inquire payment information and transfer between urban and rural pension insurance systems.

(3) Transfer and continuation of pension insurance for state organs and public institutions

If the insurant flows between different state organs or public institutions under a unified range of planning, his pension insurance relation, other than the insurance fund, shall be transferred. If the insurant flows between any two overall planning areas or between a state organ or public institution or an enterprise, the deposit in his personal account for pension insurance shall be transferred along with the pension insurance relation and the fund to be transferred shall be 12% of the total of his wages, on which the payment for premium is based, for the years after the reform. If the payment for premium has been made for less than one year, the fund to be transferred shall be calculated according to the number of months of actual payment. After the transfer, the number of years of payment for basic pension insurance premium (including the deemed number of years of payment) and the amount of deposit in the personal account shall be calculated on a cumulative basis.

A specific coverage is stipulated for each system. The basic pension insurance system for urban enterprise employees covers enterprises of all types and flexible employees that get employed in urban areas and foreigners that get employed in China. The pension insurance system for state organs and public institutions covers the entities administered as per the civil servant law, organs (institutions) administered by reference to the civil servant law, public institutions and staff members within their authorized sizes. The basic pension insurance system for urban and rural residents covers urban and rural residents who are aged 16 or above (excluding students), and are not working in state organs or public institutions and not covered by the basic pension insurance system for employees.

Due to the stipulations on the coverage of each system, the types and number of people of transfer between different systems differ from those within a system.

(1) Size control and identity management are applied to the basic pension insurance system for state organs and public institutions. There are few people transferred between it and the pension insurance system for urban enterprise employees or the one for urban and rural residents, including (a) those who are employed by state organs or public institutions and are participating or participated in the basic pension insurance for urban enterprise employees or urban and rural residents; (b) those who are dismissed or discharged by state organs or public institutions and are participating in the basic pension insurance for urban enterprise employees or urban and rural residents; and (c) Officials of state organs or public institutions who are assigned to work in enterprises or officials of enterprises who are assigned to work in state organs or public institutions. When the people mentioned above flow between different overall planning areas, their pension insurance will be transferred and continued between different systems and different overall planning areas. Meanwhile, transfer and continuation among different overall planning areas and within the pension

insurance system for state organs and public institutions will be involved as well—as for a small number of staff members of state organs or public institutions who are transferred between different overall planning areas under the approval of organizational and personnel departments.

(2) There will be a year-on-year increase in the number of people transferred between the basic pension insurance system for urban and rural residents and the basic pension insurance system for urban enterprise employees. According to the regulations, a resident's pension insurance relation shall not be transferred or continued unless the resident has participated in both of the said insurance systems and reached the statutory retirement age for urban employees. As the pension insurance system for urban and rural residents was established not so long ago and only some mobile workers among the urban and rural residents close to the statutory retirement age for urban employees participated in the basic pension insurance for urban employees, few people have transferred between these two systems in recent years. As the pension insurance for urban and rural residents grows older, the people transferred will increase in the future. If they flow between different overall planning areas, their insurance relations will be transferred between different systems and overall planning areas as well. But such transfer will mainly take place during migration of population and the people involved will not be too many.

(3) There are many people transferred between different overall planning areas within the basic pension insurance system for urban enterprise employees. Due to rapid urbanization, the number of migrant workers was 242.23 million, 252.78 million, 262.61 million, 268.94 million and 273.95 million and the number of outgoing migrant workers was 153.35 million, 158.63 million, 163.36 million, 166.10 million and 168.21 million every year from 2010 to 2014 in China. From 2010 to 2014, the number of migrant workers participating in the basic pension insurance for urban enterprise employees was 32.84 million, 41.40 million, 45.43 million, 48.95 million and 45.74 million, with the insurance rate being 21.4%, 26.1%, 27.8%, 29.5% and 27.2%. As the laborers can choose jobs independently in the market economic system, most migrant workers get employed in different overall planning areas, leading to a huge number of migrant workers with transferred pension insurance relations. Thanks to the enlarged coverage and the enhanced collection of premiums of pension insurance for urban employees, there will be increasingly more migrant workers participating in the basic pension insurance for urban enterprise employees and transferring and continuing pension insurance relations.

II. Achievements from Establishment of Basic Pension Insurance System

(I) Establishment of system

A basic pension insurance system with Chinese characteristics has been established. The social insurance pattern is applied to the basic pension system in the principles of combination of fairness and efficiency and correspondence between rights and obligations. The patterns of system are unified basically. In the basic pension insurance system for urban enterprise employees and the basic pension insurance system for state organs and public

institutions, social pooling and personal account are applied, pooling funds are collected and paid in cash, social mutual aid and fairness are shown; funds in the personal account are accumulated partially and owned by the owner of the account. In the pension insurance system for urban and rural residents, for no payment is from employers, the basic pensions are borne by government finance and included in current budget of government and the pensions are adjusted at regular intervals. By virtue of statutory payment and financial aid financing, the basic pension insurance is shouldered by the state, the enterprise and the individual jointly, instead of the state alone. The reform of the measures for payment of basic pensions has intensified the incentive and constraint mechanism that connects the benefits from pensions with the years and the base of payment. Furthermore, improvements are realized in the link-up of policies, the security for the rights and interests of the insureds in floating employment and the institutional fairness.

Overall planning level has been raised gradually. The level of overall planning of the basic pension insurance for urban enterprise employees has been improved step by step. In the 1990s, the county-level or municipal-level planning was applied generally. At the end of the 20th century, it was changed gradually to prefecture-level or municipal-level planning and industrial planning was handed over to local government. In 2000, the provincial-level planning was launched and in 2007, the standard of “unified system, unified payment rate, unified pension payment items, unified pension payment measures, unified fund budget management and unified insurance agency management” at the provincial level was put forward. At the end of 2009, the provincial-level planning or adjustment system for pension insurance was built up in 31 provinces and Xinjiang Production and Construction Corps and provincial/ municipal-level planning was adopted in Beijing, Shanghai, Tianjin and Shaanxi. As for the basic pension insurance for urban and rural residents, county, prefecture or municipal-level planning is being changed into provincial-level planning. As for the basic pension insurance system for state organs and public institutions, provincial-level planning has been implemented since the reform in 2015. Where the conditions are not met, the prefecture/ municipal-level planning is carried out and provincial-level fund adjustment system is established. The level of planning is improved to unify the systems to the largest extent, enhance fairness, strengthen the fund payment capacity and reduce the transfer of pension insurance relations incurred by flows among different overall planning areas.

The management service system has been improved gradually and the capacity of service has been strengthened further. By virtue of the social insurance agencies at all levels and the banks and various fixed service agencies and on the basis of the labor security platform of communities, the social insurance management system and the service network have stretched gradually to towns and administrative villages and labor security service stations have been built up in most towns and villages of China. By the end of 2014, there had been 8031 social insurance agencies at the county level or above, with 178,598 staff members, over 190,000 basic service stations in urban sub-districts, communities, countryside villages and towns and administrative villages and over 300,000 people providing social insurance and other comprehensive public service in basic service platforms. During the Twelfth Five-Year Plan, the construction of the Golden Insurance Project has been intensified, information technology has been improved significantly, interconnectivity, basic unification

of utility software and centralized management of data resources of ministries, provinces and municipalities have been promoted and the channels for information exchange among human resource and social security departments at all levels have been established basically. By the end of 2014, the networked data of basic pension insurance (for urban enterprise employees and urban and rural residents) of 747 million people had been submitted and more regions had joined the ministerial-level cross-regional service system, providing efficient means for trans-regional coordination, such as transfer of pension insurance credentials and assistance for attestation of the qualification of those living non-locally for obtaining social insurance benefits. More social security cards have been distributed and the financial capacity has been improved. By the end of 2014, 712 million pension insurance cards had been issued. Service provision has been more normative and standard. During the Twelfth Five-Year Plan, nearly 20 social insurance standards have been issued, the pension insurance service regulations have been refined and regional standards have been promulgated in Beijing, Shanghai, Shaanxi, Zhuhai of Guangdong, Suzhou of Jiangsu and etc. Hence, technical platforms and convenience have been offered for the masses to access the services of social insurance.

(II) Operation of system

The mass retirees (the aged) have had full access to the achievements of social and economic development, thanks to the three basic pension insurance systems with steady operation, large coverage, huge flow of capital and stable increase in benefits.

In relation to the basic pension insurance for urban enterprise employees, the number of insurants (including some of the insured staff members of state organs and public institutions) in 2014 was 341.24 million, an increase of 19.06 million, namely 5.9%, over the previous year; the gross funds collected and paid reached 4706.5 billion RMB, an increase of 591.5 billion RMB, namely 14.4%, over the previous year; total income from funds was 2531.0 billion RMB, total expenditure on funds was 2175.5 billion RMB and accumulative total of balance was 3180.0 billion RMB. The State Council has raised the basic pension for enterprise retirees by 10% averagely for the 10th year since 2005. In 2014, the per capita pension was 2061 RMB (4664 RMB for honored retirees), 190% higher than that during the first adjustment in 2005. The pension replacement rate was 67.5%, 1.5 percentage points more than the previous year and basically equivalent to that in 2010 (67.5%). The required number of years of payment for the basic pension insurance for urban enterprise employees is 15 or bigger while the number of years of work is from 30 to 40. Due to the insufficient publicity of policy, the insurants believe they may stop the payment after having made it for 15 years and the flexible employees, who shall pay 20% of the social average wages as premiums, usually stop it after 15 years of payment. As the interest rate of personal accounts is generally lower, from 2.5% to 5%, in all overall planning areas, more powerful cost-benefit incentives are needed to promote the payment after 15 years.

In relation to the basic pension insurance for urban and rural residents: the number of insurants in 2014 was 501.07 million, an increase of 398.30 million over the year 2010, with an annual average increase of 48.6%. Among them, the number of insurants aged below 60

was 353.66 million, accounting for 70.6%. The income from funds was 231.0 billion RMB, an increase of 185.7 billion RMB compared to 2010, with an annual average growth of 50.2%. The expenditure on funds was 157.1 billion RMB, an increase of 137.1 billion RMB over 2010, with an annual average growth of 67.3%. The accumulative total of balance was 384.5 billion RMB, an increase of 342.2 billion RMB compared to 2010, with an annual average growth of 73.6%. The monthly per capita pension for those obtaining insurance benefits was 90 RMB, of which the basic pension subsidy from the central finance had been increased from 55 RMB to 70 RMB.

The basic pension insurance system for state organs and public institutions is being reformed. State organs and public institutions, except those participating in the pension insurance system for urban employees, are under the transition to a new system. In 2012, the number of on-post employees was 31.44 million and 8.21 million, the number of retirees was 11.60 million and 3.82 million and the average monthly retirement pension was 3284 RMB and 3645 RMB respectively in state organs and public institutions. It is estimated that by the end of 2014, the number of on-post employees be 40.00 million, the number of retirees be about 16.00 million and the average monthly retirement pension be around 4000 RMB in state organs and public institutions.

(III) Gradually standardized transfer and continuation of pension insurance

1. Transfer and continuation of pension insurance for urban enterprise employees

The trans-provincial transfer and continuation of basic pension insurance have been carried forward orderly and steadily since the implementation of the measures on the transfer and continuation of basic pension insurance credentials for urban enterprise employees. **At first, more people have transferred and continued their insurance credentials between different provinces.** The person-times of transfer increased from 287,000 in 2010 to 1.56 million in 2013, an increase of 3.788 million person-times totally, accounting for a higher percentage. In 2012, 305,000 person-times of migrant workers transferred their basic pension insurance credentials between different provinces, accounting for 26.6% of the trans-provincial transfer and continuation of China, which was then improved to 25.7% in 2013. Regional characteristics have been witnessed: 74.6% of the trans-provincial transfer and continuation took place in Guangdong, Jiangsu, Henan, Zhejiang, Sichuan, Beijing, Hubei, Anhui, Jiangxi, Fujian, Shanghai and Hunan. Accumulatively, 5.604 million person-times of transfer and continuation of pension insurance have been completed since 2010. **Furthermore, a huge scale of fund has been transferred.** 93.12 billion RMB has been transferred accumulatively since 2010. In 2013, the trans-provincial transferred fund reached 26.81 billion RMB, of which 14.96 billion RMB was pooling fund and 11.85 billion RMB was funds of personal accounts. **Additionally, the completion rate of transfer has been raised year on year,** from 35% in 2010 to 93.62% in 2012. **Finally, the operation management service system has taken its initial shape and the trans-regional transfer system has started to work.**

To implement the document No. 66 completely, the Ministry of Human Resources and Social Security has issued a series of specific procedures and regulations on transfer and continuation, unified and normalized the information sheets and essential data and

enhanced the foundation of agency management. Besides, it has intensified the communication among local agencies, promoted the construction of social insurance information system throughout China and issued a group of documents on system construction, information technology standards and data interface codes and in November, 2010, started to use the “social insurance credentials transfer system” (hereinafter referred to as trans-regional transfer system), requiring local governments to finish transforming their service systems and joining the ministerial-level trans-regional transfer system within the prescribed time. By May 31, 2014, 30 provinces had officially joined the national transfer and continuation network platform and 310 prefecture-level cities and 2491 agencies had been allowed to provide service through the unified transfer and continuation platform of the information system. Increasingly more services have been provided through the network platform. By the end of 2013, the services provided online through the system had accounted for one third of the actual transfer services of China, of which the collected contact letters accounted for 41.2% and the sent received information sheets accounted for 19.1%. A significant increase has been witnessed in the services of system application and a normal mechanism where pension insurance credentials are transferred through the system has been formed in more regions.

2. Integration of urban and rural pension insurance systems

The measures on the integration of urban and rural pension insurance systems stipulate on the transfer and continuation between the basic pension insurance for urban enterprise employees and the basic pension insurance for urban and rural residents and thereby have secured the rights and interests to pensions of migrant workers who spend years away from hometown and participate in the basic pension insurance system for urban enterprise employees. From July to December, 2014, 112,000 people transferred from the pension insurance for urban and rural residents to the one for urban employees and most of them are migrant workers who had long got employed and insured away from hometown and paid the premiums for 15 or more years, as required by the pension insurance for urban enterprise employees; 43,400 people transferred from pension insurance for urban employees to the one for urban and rural residents and most of them are migrant workers who had got employed and insured away from hometown for a short time and paid for the basic pension insurance for urban enterprise employees for fewer than 15 years and can enjoy the pension insurance benefits instantly after being transferred into the pension insurance for urban and rural residents.

III. Problems Confronting the Development of Basic Pension Insurance System

(I) The pension insurance system is to be improved.

At present, China’s basic pension insurance system is classified into the basic pension insurance system for urban enterprise employees, the basic pension insurance system for state organs and public institutions and the basic pension insurance system for urban and rural residents according to the types of jobs and employers. On the one hand, the social insurance system is a product of economic development, industrialization and urbanization.

The basic pension insurance system for urban enterprise employees and the basic pension insurance system for state organs and public institutions of China are derived from its traditional pension system and develop gradually in consistence with the reform of state-owned enterprises, management of civil servants and reform of public institutions during the reform of the market economic system. The above-mentioned systems are established respectively on the basis of the different employment systems, income distribution systems and reform time of employers of different types and in consideration of the system connection and smooth transition of benefits for retirees before and after the reform. On the other hand, as China's economic development level is not so high and urban and rural residents have no employer to pay the premiums for them, they have to follow the pattern of basic pension at a lower level and personal account.

From the perspective of development, the basic pension systems for urban enterprise employees, for state organs and public institutions and for urban and rural residents are still bothered by the following defects: (1) Though they are all employed groups, the staff members of urban enterprises and those of state organs and public institutions are included into different pension insurance systems, leading to the starting unfairness of the system. Besides, when an employee flows between two entities of different categories and need transfer and continue pension insurance credentials, difference will be incurred in the retirement benefits and operation management will get more expensive; (2) The social insurance system follows the principle of correspondence between rights and obligations, which means on the whole that the income of the employed groups should be higher than that of the unemployed groups. It is reasonable to establish the said systems on the basis of employment or not. However, there are also some urban and rural residents with higher household income are willing to participate in and capable to pay the premiums for the pension insurance for urban employees. In the present system, urban and rural residents are restricted to do so, leading to the unfairness in the starting of insurance. The foregoing problems are to be solved through the integration of urban and rural systems.

(II) The overall planning level of pension insurance is low.

Up to now, provincial-level planning, where the funds of basic pension insurance for urban enterprise employees are charged and paid uniformly, has been realized in several provinces only, such as Shaanxi and Jilin, while the pattern of budget management and fund adjustment is still applied in most regions. Local governments are still confronted with such problems as imbalanced funds and imbalanced financial burden. At the end of 2012, a surplus of over 100 billion RMB of basic pension insurance funds for enterprise employees and a bigger imbalance in the distribution of basic pension insurance funds were witnessed in Guangdong, Jiangsu, Zhejiang, Shandong and other provinces with developed economy and huge labor input. Among them, Guangdong had a surplus of 363.7 billion RMB, Jiangsu, Zhejiang and Shandong over 150.0 billion RMB, Tibet only 2.5 billion RMB, and Hainan, Qinghai, Xinjiang and other provinces or planning entities less than 10.0 billion RMB. As the nationwide planning has not been realized, funds cannot aid one another and enterprises in different regions are faced with unfair investment environment and competition due to the different rates. In 2012, the average rate of Tibet, Shanghai, Jiangsu, Liaoning and

Heilongjiang was bigger than 20% and that of Sichuan, Chongqing, Shandong, Fujian and Zhejiang was smaller than 20%, the highest rate of Tibet was 23%, the lowest rate of Guangdong was 12%, the rate of Zhejiang was 13% and that of Fujian was 16%. Imbalance in regional economic development results in the huge gaps in payments and pensions of provinces and municipalities. For instance, the highest monthly average payment base is 4195 RMB in Tibet, followed by 4054 RMB in Beijing, while the lowest one is 1773 RMB in Fujian. The highest monthly average pension for retirees is 2853 RMB in Tibet, followed by 2566 RMB in Beijing while the lowest one is 1332 RMB in Jiangxi. All of these make the nationwide planning more difficult. The economic development of regions differs from one another, even in Guangdong and other provinces with developed economy. So they have surmounted numerous difficulties to establish provincial-level budget management. Besides, the vast number of planning entities increases the cost and workload of transfer and continuation of insurance credentials.

Presently, most basic pension systems for urban and rural residents are planned at the county level or the prefecture or municipal level. In the design of system, more autonomous rights regarding basic pensions and individual payments are granted to local governments. Besides, regions differ greatly from one another in economic development. So, there are distinct differences in the basic pensions and individual payments for residents of different regions. For instance, in 2014, the per capita monthly basic pension of residents was 580 RMB in Beijing and merely 75 RMB in the underdeveloped provinces in western China. The gaps among pensions should be controlled reasonably and the overall planning level should be improved according to the gaps in regional economic development and the living needs of residents.

The reform of state organs and public institutions is being carried out. As local finance operates separately from the central finance and the financial resources are not corresponding to the powers of office.

(III) Policies on pension insurance transfer and continuation are to be improved.

The flow of labor force between urban areas and rural areas and among regions is a major feature of market economy and economic globalization. Presently, there are over 10 million rural people getting employed or settled in urban areas and millions of migrant workers flowing frequently between urban areas and rural areas every year in China. The flow will continue for decades until the completion of urbanization. At present, China is still suffering from such problems as imbalanced interest in transfer and continuation, onerous formalities and high cost in connection.

Implementation of the policies on the transfer and continuation of pension insurance for urban enterprise employees is under the influence of the non-uniform local regulations. For instance, should the deemed years of payment as specified in the document No. 66 start “before the implementation of the individual payment system” or “before the establishment of the personal account”? Should the amount of payments prior to the establishment of the personal account be transferred or not? Should the total of interest of personal account sealed be distributed into each year or not? In some provinces and municipalities, individual

quota payment was applied, without any record of payment base, before December 31, 1997, inconsistent with the provisions on payment base as specified in the document No. 66. Besides, should the places where the insurant should obtain benefits be placed in sequence or coordinately, according to the document No. 66? How to continue the pension insurance credentials when an entity is transformed as a whole? According to applicable policies, the accumulative total of 8% of personal account and 12% of pooling fund of pension insurance shall be transferred in the flow of employees and the rest shall be left to developed regions. Therefore, the transfer of pension insurance credentials is to the disadvantage of the fund balance of the destination, where the fund transferred in is much lower than the pension to be paid. In addition, it goes as well against the fund balance of the places providing higher benefits. With regard to the individuals who flow into regions with developed economy and higher pensions, their retirement pensions will be higher than those in economically undeveloped areas and they will benefit from the transfer. Particularly, employees who have paid the premiums for fewer years will benefit more from the transfer if the minimum pension standard is set up in developed regions.

According to the measures in force for the time being with regard to the integration of urban and rural pension insurance systems, (1) the insurants who transfer from the pension insurance for urban and rural residents to the pension insurance for urban employees will lose the qualification to obtain the basic pensions from the pension insurance for urban and rural residents and also have their years of payment for the same insurance decreased. It is to the disadvantage of the insurance of residents in rural-urban continuums, for most of them will become land-lost farmers or get employed in urban areas and to purchase pension insurance for urban and rural residents will not bring about insurance benefits and can be supplemented by increasing the payments for pension insurance for urban employees in the future; (2) When transferring from the pension insurance for urban employees to the one for urban and rural residents, the insurants are exchanging some pooling fund payments for pension insurance for urban employees and high basic pensions for lower basic pensions for urban and rural residents. In principle, the foregoing regulations are to encourage insurants to transfer from the pension insurance for urban and rural residents, with lower benefits, to the pension insurance for urban employees, with higher benefits. However, there are still defects in the policies.

With regard to the transfer and continuation of pension insurance between state organs and public institutions and enterprises, the measures supporting the reform of the pension insurance for state organs and public institutions should be taken into account to improve the measures on the trans-overall planning area transfer of staff members from state organs and public institutions to the pension insurance for enterprise employees and realize the simultaneous transfer of fiscal subsidy during the deemed years of payment, with the aim of avoiding the disputes among regions incurred by the non-equivalence between powers and responsibilities.

(IV) Operation management capacity is to be improved.

Despite of its significant progress, the construction of pension insurance operation management service system is still left far behind the institutional improvement and the

needs of the masses. There are still prominent contradictions and problems regarding the system and mechanism of operation management service.

Firstly, the management system is not smooth. The division of powers and responsibilities for social security between the central government and local governments at all levels is to be improved. The setup of social insurance agencies should be planned uniformly and scientifically and their names should be unified. The abundant branches of pension insurance agencies are to the disadvantage of reasonable utilization of administrative resources and make it inconvenient for the masses to handle affairs regarding social insurance.

Secondly, service security capability is inadequate explicitly. With the growing coverage of pension insurance, the objects and contents of service are increasingly more, accompanied by the prominent conflicts in the adequate staff members of agencies and supply of funds and the overload work of staff members. Surveys indicate in Hunan Province, the average number of basic-level platform staff (of whom 30% are part-time workers) for each town is 2.07, with each providing employment, social security and other human resources and pension insurance services for over 6180 registered people (over 5730 permanent residents), the ratio between staff members of social insurance agencies and the objects of service is as high as 1:25,000 and the conflict between increased services and unchanged staff members is increasingly prominent. For many basic-level social insurance agencies, the normal work expenditure can be hardly ensured, let alone the reward and punishment mechanism for payment expansion.

Thirdly, infrastructure is inadequate. Some social insurance agencies have no specific sites to provide service and the existing sites are small and less functional. Especially in the basic-level agencies in some regions in Midwest China, there are no sites, agencies and staff members to provide social insurance service. The lagged construction of basic public service platforms for social security can hardly meet the demand of actual work.

Finally, the transfer and continuation is to be normalized and its efficiency is to be raised. For instance, when a fund is transferred for several people or several funds are transferred for one people, the social insurance agency of the destination cannot confirm whether a fund of a specific insurant has arrived after receiving the information sheet from the place where the insurance is purchased. In remote areas short of financial facilities, the social insurance agencies cannot transfer all funds through bank and thus make the transfer in cash sometimes. No unified measures are formulated to deal with the errors in transfer, the coordination among inter-provincial social insurance agencies is to be improved, and service information is not connected with financial information in time. Some regions are suffering from high pressure of fund balance and no accumulation of funds, so when an employee flows out, the pooling payment and individual payment of both current year and past years are transferred out, which imposes huge pressure of current fund payment on local agencies and make them less active about transfer-out. However, in economically developed areas with higher pensions, the transfer-in of females close to 40 and males close to 50 will increase the future payment pressure of local funds and thus is discouraged subjectively. The handling of transfer and continuation is less efficient. Seen from the regions surveyed, the time spent on trans-provincial transfer surpasses the prescribed time, though it has been reduced from 124 days in 2010 to 95 days in 2013 in average. Seen from financial cost, the average cost for the trans-provincial transfer of a person is less than 10 RMB and 1-5 phone contacts are made, 1.1-1.2 letters are sent and 8-10 documents are printed. As the communication among social insurance agencies is not unblocked and the

phone numbers in the payment vouchers and information sheets issued by many agencies are invalid, the time-consuming transfer assistance letters alone can be adopted.

(V) Information construction is left behind operational need.

Information technology is left behind the need of improvement in the pension insurance system. Firstly, the operation management information system for every basic pension insurance systems is established independently, so the information can hardly be shared fully, in real time and accurately, which is inconvenient for the unified management of basic pension insurance services and effective prevention of repeated and ignored insurance and leads to wasting of resources. According to the two questionnaire surveys conducted by the Ministry of Human Resources and Social Security, the employees who are registered as agricultural populations and participate in two pension insurances account for 9.5% and those who are registered as non-agricultural populations and participate in two pension insurances account for 5%. Secondly, the information network platform construction is to be improved. Some underdeveloped regions and some basic-level communities and villages are not covered by network and manual operation is adopted mainly in some areas. Thirdly, the software system of the management information system is to be improved. Computer-based management has not been realized for all services, some functions of the existing management systems are to be improved and the quality of the data in the systems is to be enhanced. Among the historical data of the information systems of some regions, there are much incomplete and incorrect data, hindering the provision of service. Fourthly, the running information construction is left behind the rapidly growing operational need. The computers equipped for the basic-level social insurance agencies of many remote areas are aged generally and the service systems are outdated, imposing strong impacts on the efficiency of service. Finally, though widely issued, social insurance cards are not applied comprehensively and banking networking is not realized in some regions.

The defective information system platform is unable to support effectively the population flow and timely exchange and sharing of information across China. Firstly, most information is delivered manually and the information system doesn't work fully. Due to the lack of a real-time information exchange platform, insurance credentials are still transferred by sending and receiving letters, packing and unpacking documents and reviewing and auditing data manually, which takes a large amount of time and effort, incurs errors easily and reduces the efficiency and quality of work. Secondly, because of the inconformity in formats and the systematic differences, the information transferred can hardly be entered into the ministerial-level trans-regional transfer systems. Thirdly, the trans-provincial transfer and continuation system is to be improved. For instance, the systems of some regions are less compatible and operate unsteadily and slowly. The computers in a same place cannot be logged in at the same time. Finally, the transfer information platform is used at a lower rate. Manual operation and information technology are applied jointly. Exchange of paper materials serves as the major method for trans-provincial transfer and continuation, incurring huge workload in sending paper notes and longer waiting periods. Social insurance information management systems differ from one another and the information management methods are outdated and operations are not normative in some regions, due

to which the information in the transfer information sheets is incomplete, data is of poor quality and basic work is not sturdy.

IV. Policy Proposals for the Integration of Basic Pension Insurance Systems

(I) Overall thinking

Efforts should be made to implement the spirits of the Eighteenth National People's Congress and the Second, Third and Fourth Plenary Sessions of the Eighteenth Communist Party of China Central Committee, follow the overall requirements of comprehensive deepening of reform and comprehensive ruling by law, center on the overall objectives of building comprehensively a moderately prosperous society, adhere to the principles of nationwide coverage, basic security, and multilevel and sustainable development, focus on improving fairness, adapt to mobility and securing sustainability, advance the multilevel construction of pension insurance system, further integrate and improve the basic pension insurance system, improve the measures on pension insurance transfer and continuation, raise the overall planning level, enhance agency capacity building and establish a nationally unified pension insurance information system.

(II) Integrate basic pension insurance systems further

Efforts should be made to integrate the basic pension insurance system for urban enterprise employees and the pension insurance system for state organs and public institutions into a unified basic pension insurance system for urban employees, promote institutional fairness and remove the barriers between the said two pension insurance systems.

Basic assumptions: The staff members of urban state organs and public institutions, flexible employees and foreigners who get employed in China should be covered; The institutional pattern that combines "social pooling and personal account" should be implemented; Employers should pay 20% of the overall wage and individuals shall pay 8% of personal wage as pension insurance premium; The pooling fund should be composed of employer payment and fiscal subsidy and the personal account should be made up of individual payment and investment income; The pension for retirees should consist of basic pension, transitional pension and pension of personal account. The basic monthly pension for retirement should be 1% of the mean value of the local monthly average wage of on-post employees in the previous year and the personal index-based monthly average wage, on which the payment of premium is based, for every full year of payment. The monthly pension of personal account should be the amount of deposit in personal account divided by the number of months of pension payment, which is determined according to the average life expectancy of urban populations at the retirement, the retirement age of the individual and the interest. The amount of pension should be adjusted year on year.

The measures on payment of transitional pensions as specified in the pension insurance system for state organs and public institutions and the pension insurance system for enterprise employees should remain unchanged.

The payments of staff members and the pensions of retirees of state organs and public institutions and enterprises (including flexible employees and contracted employees of state

organs and public institutions) should be accounted independently in order to prevent the funds of pension insurance for state organs and public institutions from embezzling or occupying the surplus of funds of pension insurance for urban enterprise employees and to divide reasonably the payment and supplementation responsibilities of finance in the operation and management of pension insurance system for state organs and public institutions.

(III) Improve the policies regarding basic pension insurance

According to the *Social Insurance Law*, the government shall bear the basic pension insurance premiums payable during the deemed period of payment and the cost for transition of basic pension insurance for urban enterprise employees and state organs and public institutions shall be raised through various channels to facilitate institutional fairness. Efforts should be made to improve personal account policies and raise the interest for personal account to attract long-term individual payments. Besides, pension adjustment mechanism should be improved and the factor of payment years should be taken into consideration to make the insurants more active about constant payment. Age of retirement and the minimum number of payment years for obtaining pensions should be raised gradually. In addition, the following improvements should be made.

1. Promulgate policies to encourage urban and rural residents to voluntarily participate in the basic pension insurance for urban enterprise employees

Policies should be promulgated to encourage urban and rural residents to voluntarily participate in the basic pension insurance for urban enterprise employees. Urban and rural residents should be allowed to choose the basic pension insurance for urban employees according to their personal and household income and bearing capacity in the identity of flexible employees and to enjoy the fiscal subsidy for individual payment as per the policies on basic pension insurance for urban and rural residents.

2. Improve the policies on the integration of urban and rural pension insurance systems

Efforts should be made to safeguard the pension insurance interest of migrant workers and other employees flowing between urban and rural areas and improve the policies for connecting the basic pension insurance for urban enterprise employees and the basic pension insurance for urban and rural residents in the principle of fairness and convenience. Besides, the *Interim Measures on the Integration of Urban and Rural Pension Insurance Systems* should be adjusted. As for the people who participate in both the said insurance systems and have reached the statutory retirement age for the pension insurance for urban employees: (1) If the insurant has paid the premium for the pension insurance for urban employees for 15 or more years (or the extended payment reaches 15 years) and transfers from the basic pension insurance for urban and rural residents to the basic pension insurance for urban employees, the deposit of personal account should be calculated on a consolidated basis and the number of years of payment for pension insurance for urban and rural residents should not be calculated on a cumulative basis; or the deposit of the personal

account for the basic pension insurance for urban and rural residents may be converted, according to payments of flexible employees over the years, into the number of years of payment for pension insurance for urban employees and the personal account may be included into pooling fund and personal account respectively; or the pooling payments may be supplemented according to the insurance payment standard for flexible employees and the number of years of payment for pension insurance for urban and rural residents may be calculated on a consolidated basis. Pension should be paid according to the policies on the basic pension insurance for urban employees.

(2) If insurant has paid the premium of the basic pension insurance for urban employees for fewer than 15 years, the insurant may apply for transferring from the basic pension insurance for urban employees into the basic pension insurance for urban and rural residents, the entire deposit of the personal account for pension insurance for urban employees and 12% of employer payment over the years and its interest should be included into the personal account of pension insurance for urban and rural residents, the number of years of payment for pension insurance for urban employees should be converted on a consolidated basis into the number of years of payment for pension insurance for urban and rural residents. After meeting the conditions for obtaining the benefits of pension insurance for urban and rural residents, the insurant should obtain the benefits as per the measures on the pension insurance for urban and rural residents. If having paid the premium of pension insurance for urban employees for fewer than 15 years, the insurant may also convert the entire deposit in the personal account of pension insurance for urban and rural residents into the number of years of payment for pension insurance for urban employees according to the payment of a flexible employee over the years; or supplement the pooling payment according to the payment of a flexible employee over the years and calculate the number of years of payment of pension insurance for urban and rural residents on a consolidated basis. If the cumulative number of years of payment is smaller than 15, the payment can be extended for 5 or fewer years. If it is still smaller than 15 after the payment is extended for 5 years, the residual payment may be supplemented in a lump sum.

3. Improve the policies on transfer and continuation of credentials of basic pension insurance for urban employees

At first, the deemed years of payment should be normalized and defined further, the refund and disposal of repeated payments should be normalized and the measures on disposal of temporary payment accounts should be improved. Furthermore, in the transfer of funds, the accounts should consist with the actual funds and information flows should synchronize with fund flows. One fund should be transferred or a person and one fund for several people or one people with several funds should be avoided. Pooling fund should be transferred along with personal account. Finally, the measures on delayed payment, supplemented payment and prepayment should be improved. Migrant workers who get employed in urban areas, native or not, should be allowed to participate in the pension insurance according to the policies applicable to individual business owners and flexible employees. After cancelling or terminating the labor relationship with their employers, the insurants should be allowed to

continue paying insurance premiums as flexible employees and participate in the pension insurance for urban enterprise employees in the principle of free will.

(IV) Rise the overall planning level of basic pension insurance

Nationwide planning is the statutory objective as specified in the social insurance law as well as the objective need for building a unified labor force market, narrowing the gap of economic and social development among regions and equalizing public service. It can remove the problems regarding the pension insurance relation transfer and interest security of employees flowing among different regions and improve the bearing capacity and usage rate of funds.

Basic pensions of basic pension insurance for urban employees should be planned as a whole in China. Efforts should be made to divide reasonably the responsibilities between the central government and the local governments and classify the present basic pensions into national basic pension and regional additional pension. The national basic pension should consist of the fund raised by the central government according to the number of on-post employees of each province and the unified payment standards and the central government subsidy and be paid according to unified standards and the number of retirees of each province. The central finance should be responsible for the supplementation and the central government should control the budget of basic pensions. Regarding regional additional pension, local governments should raise the funds and pay and adjust the benefits and local finance should be responsible for the supplementation. The powers of office and finance of the central government and the local governments should be defined and the central government and the local governments should support jointly the steady operation of pension insurance systems and funds.

The overall planning level of basic pension insurance for urban and rural residents should be raised gradually. On the basis of promoting provincial planning, efforts should be made to realize national planning. At first, efforts should be made to facilitate the provincially unified management of basic pension insurance funds for urban and rural residents, centralize the data of the province, provide social insurance service locally, conduct supervision at provincial and municipal levels and realize provincially unified management of personal account funds. Then, efforts should be made to unify the levels of basic pensions and personal account subsidies gradually within every province, propel the nationally centralized management of basic pension insurance funds for urban and rural residents, centralize all data, provide social insurance service in every prescribed region, conduct supervision and central and provincial levels and realize nationally unified management of personal account funds.

(V) Improve the capacity of pension insurance operation management service

Pension insurance operation management regulations should be sorted and operation service resources should be integrated. Efforts should be made to integrate gradually the basic pension insurance for urban enterprise employees, the basic pension insurance for state organs and public institutions and the basic pension insurance for urban and rural residents into one organization for management, steadily facilitate the vertical management

of pension insurance and provide support for the integration of basic pension insurance systems and the raising of planning level. Active attempts should be made to administer vertically the pension insurance agencies below the provincial level and improve gradually relevant administrative measures as per the *Social Insurance Law* and in the principles of “safety, effectiveness and authoritativeness”. Furthermore, efforts should be made to start with the vertical management of service where the vertical management conditions are not met. First, the authority of administering the pension insurance funds and service data should be improved to the provincial level and the unified dispatching of funds and centralized management of data should be strengthened. Then, the vertical management at the provincial level should be promoted in due time.

The construction of basic-level public service platforms should be enhanced. Full play should be given to the governments and the society and efforts should be made to integrate and utilize the network and service resources of basic-level service organizations and social service institutions, establish employment and social insurance service platforms in all sub-districts, villages and towns of China, strive to set up employment and social insurance service stations in all communities and administrative villages and implement the social insurance assistant system generally in administrative villages; and improve the operation management service network with the focus on cities (including counties and districts) and on the basis of sub-districts (towns), communities (administrative villages) and other basic-level service network stations.

The standardization and normalization of pension insurance service agencies should be facilitated and the agency service for transfer and continuation of urban and rural pension insurance should be normalized. On the one hand, efforts should be made to reinforce further the foundation of the agency service, normalize the records of pension insurance interest, sort the archives of insurants and ensure the completeness and consistency of information. On the other hand, efforts should be made to establish provincial-level transfer and continuation service centers, transfer pension insurance credentials from a province to another. Problems of a province should be solved within it.

Efforts should be made to enhance social insurance supervision, normalize the purchase of insurance and encourage migrant workers to participate in pension insurance.

(VI) Strengthen the promotion of information technology

While the policies on the integration are improved, the nationally unified pension insurance information system should be advanced to realize electronic transfer and continuation.

Firstly, such infrastructure as the “Golden Insurance Project” should be promoted and utilized proactively, the construction of the national unified information system should be accelerated, the standards on pension insurance service data should be unified, the data should be sorted and a feasible data sharing mechanism should be formulated. Besides, social insurance card management should be realized, social insurance cards should be distributed to all objects of service and the multi-functional and generally used social insurance cards, through which the insurants can pay the premiums, inquire the payment

information and obtain insurance benefits, should be popularized. In addition, basic standards for “electronic social insurance” service should be formulated, the whole-people insurance registration system and the national service system for online inquiry of records of individual rights and interests as well as the trans-provincial pension insurance transfer and continuation system and the trans-regional pension insurance management system should be established. The function of comparing the trans-system repeated payments should be added to the information system. Secondly, promotion of regional access to network should be accelerated and the nationwide network for trans-provincial transfer and continuation should be realized as soon as possible. Thirdly, the application of the transfer and continuation information system should be propelled further and local service systems and trans-regional transfer systems should be connected closely to ensure service operation. Fourthly, existing functions of the system should be improved and functional defects should be rectified. Finally, intensified trainings should be provided to the staff members of social insurance agencies to have them familiar with the functions and operation of the transfer and continuation information platform.

Consolidated Report on Relevant Best Practices in Europe

Koen Vleminckx

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Consolidated Best Practices Report (draft)**Koen Vleminckx****Introduction**

The purpose of the EU-China Social protection reform project is to contribute to the improvement and inclusiveness of China's social protection system through strengthening the institutional capability for developing policies, for implementing legal and regulatory frameworks and for supervising systems of social insurances, social assistance and financial management in the area of social security. In particular, the project's purpose will be pursued through the following three components in relation to which specific Chinese government entities playing the role of partner of the consortium have been identified:

Component 1: Consolidation of institutional capacity for social protection policy development and reforms in collaboration with the National Development and Reform Commission ("NDRC");

Component 2: Enhancing of institutional capacity for financial management and supervision concerning social security funds in collaboration with the Ministry of Finance ("MoF"); and

Component 3: Improving of legal framework and policy for social assistance in collaboration with the Ministry of Civil Affairs ("MoCA" and, together with NDRC and MoF, the "Chinese Ministries").

Within the framework of the project plan of activities Component 1 (C1) for the year 2015, a European senior social security specialist was expected to perform, in close cooperation with the EU C1 Resident expert and the short-term Chinese experts working on topics related to the project C1 component, the following activities:

- collect, analyse and compile most relevant EU best practices from both Consortium and non-Consortium member states;
- collect, analyse and compile in a specific report European experience related to European response to economic crisis in the area of social security adjustment and reform;
- collect information from NDRC and other Chinese stakeholders on their updated needs for technical knowledge from European countries in topics to be covered through C1 activities, and submit relevant information and data on the said topics to the same counterparts;
- take part in technical meetings, peer reviews and other relevant meetings held in China under the auspices of the project C 1;
- act as a member of the project technical team.

The mission was planned to be conducted in two phases, corresponding to the two batches of topics to be addressed by the project during the year 2015. The topics to be considered were those listed in attached NDRC Need list of Top level design.

During the first phase of the assignment, held in July 2015, the following three topics were to be addressed:

1. Social insurance administration systems reform [contributing to the elaboration of the XIIIth National Five Year Plan (2016-2020),
2. Multi-tiered design of pension systems (public pension, enterprise annuity and individual pension),
3. Evaluation of the combination of basic pension and Individual accounts.

For the drafting of the reports on these three topics, short-term Chinese experts were recruited in consultation with NDRC:

1. Mr. TAN Zhonghe
2. Mr. DONG Keyong
3. Mr. SONG Xiaowu

During the second phase of the assignment, held in November 2015, the following two topics were to be addressed:

4. Pension reform of the public sector,
5. Strategy of integrating social security system in urban and rural context also through the portability of social insurances.

For the drafting of the reports on these two topics, short-term Chinese experts were recruited in consultation with NDRC:

1. Ms ZHANG Yinghua
2. Mr. WANG Zeying

Koen VLEMINCKX, a Belgian civil servant, was recruited as European senior social security specialist (EU S4). He obtained a doctorate in social policy from the University of Leuven (K.U. Leuven) in 2006, the thesis being: “Towards a New Certainty: A Study into the Reform of the Continental Welfare States.” He is currently director of research and international cooperation at the Belgian Federal Ministry of Social Affairs (FPS Social Security). He prepared himself for this mission by collecting background information on social security in China and pension reform in particular. Thus, he was able to situate the activities of this mission within the context of the broader reform debate in China.

1. Method

On the basis of the reports drafted by the Chinese short-term topical experts⁴⁷, relevant issues were selected for which relevant ‘best practices’ in the EU member states could be found. For several topics, EU level activities and networks were also deemed to be of interest for China. Furthermore, as the topics of the authors partially overlapped, particularly as far as the reform of the second tier individual accounts system was concerned, an emphasis was put on the issues that are particularly well developed and emphasized in the respective papers. Each expert was also situated within the context of the broader pension reform debate in China.

2. The pension reform debate in China: contextual analysis

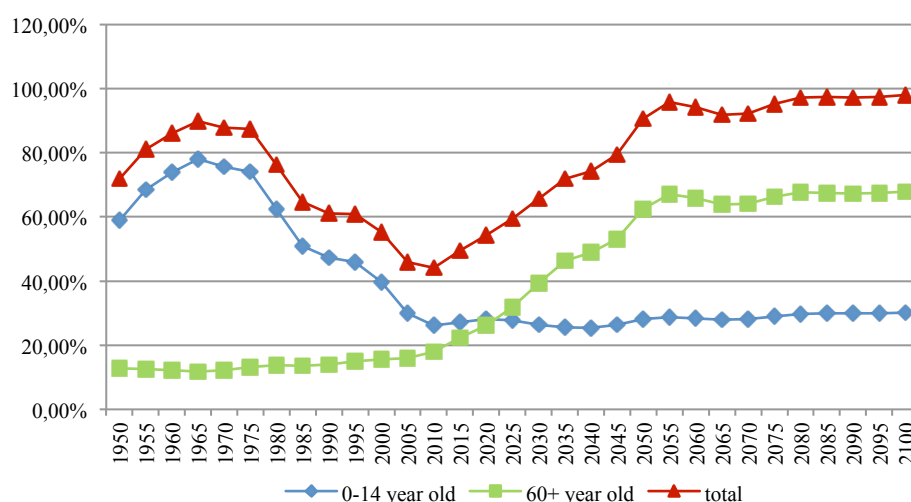
The contributions of the Chinese short-term experts can be situated in a broader context. Within China we recognize different “schools of thought” about the way the Chinese pension schemes should be adapted in response to some important challenges.

2.1. Triple challenge

The current Chinese pension system is confronted with a triple challenge:

- 1) Sustainability: The main medium-term threat comes from a rapidly ageing population. The main cause of this ageing problem is the imbalance that was created by the one-child policy introduced in the 1970s. Furthermore, the strong improvements in well-being have had a very positive effect on the average life-expectancy of the Chinese population. These factors have an important impact on the evolution of China’s population dependency ratio (figure 1).

Figure 1. The evolution of China's population dependency ratio, 1950-2100.



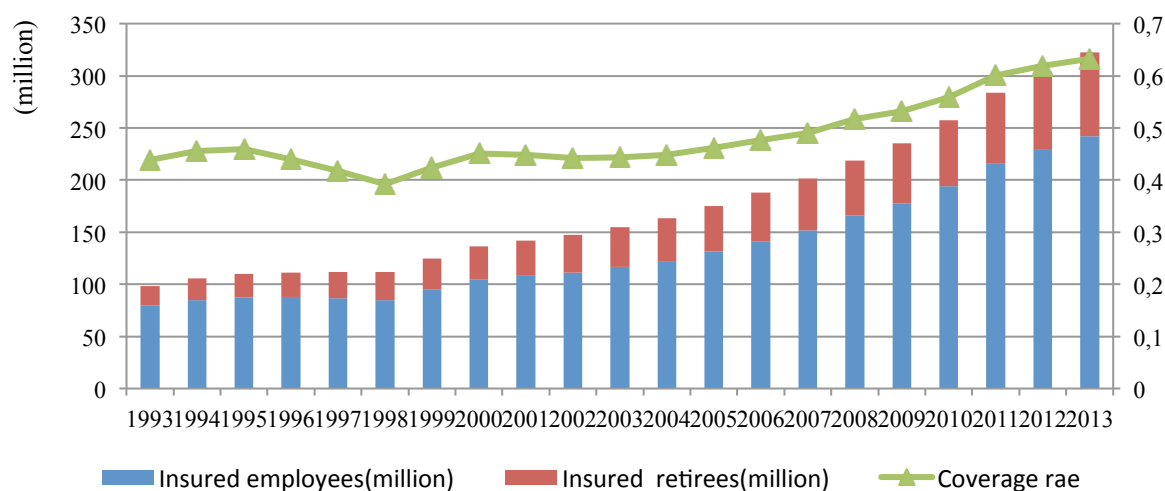
⁴⁷ During the drafting process the expert also provided information to the Chinese experts on their request or, in some cases where he thought it to be useful on his own initiative, but he respected their academic freedom.

The problem of sustainability is particularly acute with regard to public sector pensions, as it is a closed system with a specific age composition. As in many countries, public sector employees are on average older than those in the private sector (see section 3.2.1).

However, spending on retirement pensions in China as a percentage of GDP is currently rather low in comparison with OECD countries. According to OECD, public social spending in China amounted to around 7% of GDP in 2009, comparable to average social spending in the Asia/Pacific region (OECD, 2014, *Society at a Glance, Asia/Pacific*). Spending on old-age cash benefits amounted to about 2.5% of GDP with social assistance payments making up just over half a percent of GDP.

- 2) Adequacy: China's pension system is relatively inadequate because of both a relatively low coverage rates and a relatively low level of retirement benefits. The current pension schemes does not realise a universal coverage of the Chinese population. The first pillar pensions only cover 63% of urban employees, while the second pillar pensions only cover 5.38%. In rural areas the coverage rate is as low as 25% (figure 2).

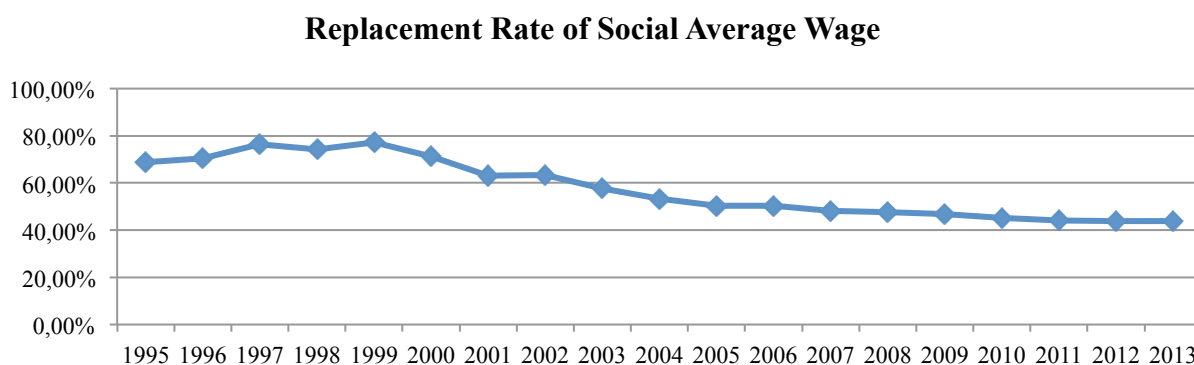
Figure 2. Coverage Rate of Public Pension for Urban Employees.



Furthermore, average retirement benefits are relatively low. The replacement rate as a percentage of social average salary of urban employees dropped sharply between 1997 (76%) and 2013 (44%), while the initial policy objective was a replacement rate of 60% (figure 3). Since the replacement rates offered by the traditional retirement system were deemed to be too high, the new system offers only basic protection to pensioners. The final-wage replacement rate of workers was replaced by a social-average-wage replacement rate. And the replacement rate was reduced from 80% to 60%. The actual target replacement rate: is 59% of the social average wage, of which 35% is to be assured by the social pooling system and 24% by the individual account system.

Although the Chinese government has adjusted the level of pension benefit level on year by year basis, benefit levels are still too low to sustain basic living standard for some urban employees.

Figure 3. Evolution of replacement rates.



- 3) Regional differences: There are important regional differences in the way the pension schemes are implemented throughout China. There has always been a tension between the implementation of unified rules and the degree of autonomy and choice of regional authorities to implement pension policies. The current regulations allow for considerable differences in interpretation. This is reinforced by regional social and economic inequalities. This has led to a number of problems which appear to have a structural cause, such as the problem of the so-called “empty pension accounts”: the capital invested in pension fund accounts that were reallocated by regional authorities for the payment of current pension benefits. As a result central government funding has become permanent and indispensable.

2.2. Two sensitive problems

2.2.1. Civil service pensions

As in many countries, the oldest and most generous pension system in China was the budget-funded pension scheme for civil servants and employees of public cultural, educational and scientific institutions, providing coverage for about 40 million public sector employees (about 20% civil servants and 80% other employees) and about 9 million public sector pensioners. This non-contributory public sector pension scheme provides replacement rates of up to 90 percent⁴⁸ of the salary at retirement after a career of 35 years and are indexed with the salary increase of currently active public sector employees of the same rank.

However, the generous benefits for civil servants and public servants coupled with rapidly improving life expectancy have made pensions increasingly expensive for the government.

⁴⁸ Civil servants in general were entitled to lower replacement ratios than public servants, but given their higher base pay, they still received better pension benefits.

The total cost of civil service and public service pensions has increased by more than 20 times in the past two decades, and such cost relative to the wages bill has more than doubled at the same time. This is aggravated by the fact that the pension system for civil servants and public sector workers is a closed system and, as in many other countries, China's civil servants and public sector employees are on average older than private sector employees. Over the next decade a large cohort of public sector workers will retire. As the implicit guarantee of pension for the public sector was not monetized or portable, this prohibited public sector employees to enter private sector. Furthermore, the inequality between China's public sector pension system and the urban employees' basic old-age insurance system has become a source of social dissatisfaction.

In order to streamline the scheme features between the systems for public servants and urban workers, the State Council launched a trial pension reform programme for public servants in five provinces and municipalities. In 2013 it was decided to speed up reform of pension programs for employees in government departments and public institutions. During that year public sector workers were for the first time required to pay social contributions. In January 2015 the Decision on Reforming the Old-Age Insurance Program of Civil Servants and Public Service Sector Employees was issued by the State Council, which brought all the civil servants and public service unit employees into a basic pension system similar to urban enterprise employees. In March 2015, the Notice on Circulation of the Measures on Occupational Annuity for government departments and public institutions was issued by the General Office of the State Council, which introduced an occupational system for civil servants and public service unit employees to supplement the basic old-age insurance.

2.2.2. Pensions for internal immigrants

The Regulations on *Hukou Registration of the People's Republic of China* were introduced in 1958. The *hukou* is a household registration system that restricts population mobility by binding people to their place of origin. This has important consequences for social protection coverage, as various social policies and welfare systems became attached to the household registration system. Initially China established a social security system for people with urban *hukou*, while the right of land use was considered to be sufficient as a guarantee to the basic livelihood of the rural population⁴⁹. As a result people with urban *hukou* and those with rural *hukou* still receive different forms of social protection.

People seeking to change residence permanently or formally are required to obtain approval for *hukou* (identity card) change from the local authorities. For urban residents, changing *hukou* residence within the same city or town is generally permitted. So are rural residents moving within rural areas along with their *hukou* because of marriage or other family reasons. However, formal or "permanent" moves, implying a *hukou* change, such as crossing city, town and township boundaries, are strictly regulated and require approval by the public

⁴⁹ The rural land system stipulated that land was collectively owned by the rural population but the peasants had rights of land use. Herd et al. (2010) and OECD (2010) provide useful insight into the complex relationships between old-age support and land ownership, especially with regard to the changes in property rights in rural areas and converting land to non-agricultural use, including new property laws issued in 2002 and 2007.

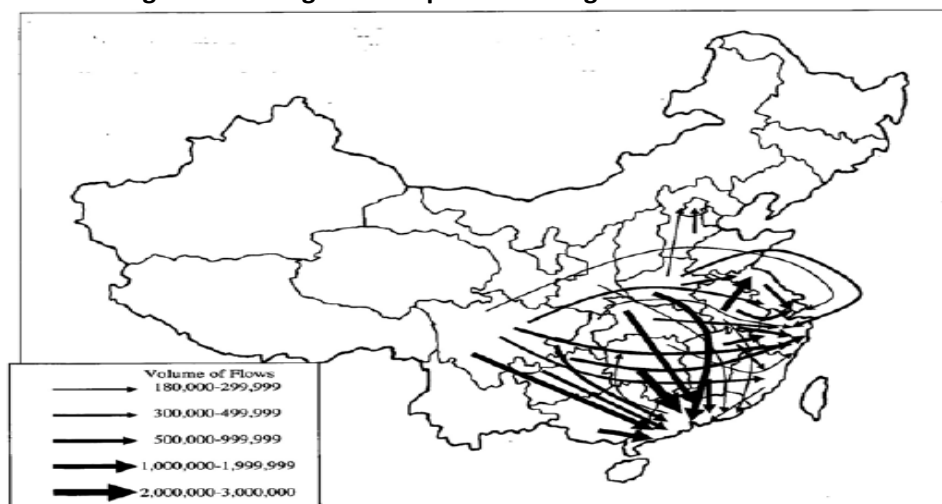
security authorities. This approval is granted scarcely and only when there are good reasons for the proposed move, and if the move serves the central or local state interests and policies.

Generally speaking, it is very difficult for an ordinary person to change *hukou* from rural to urban areas, or from smaller cities to larger cities. Rural migrants are allowed to move to and work in cities under the "temporary residents" category, but they cannot have a *hukou* in the destination where they stay. Therefore, these migrants are ineligible for many local benefits and rights, which ordinary local urban residents qualify for automatically. Thus, when internal migration in China became an important part of the national industrialization strategy (Chan, 2009), the maintenance of the *hukou* created a segmented urban population.

In China, officially only *hukou* migration is considered *qianyi* ("migration"). Migrants in that category are eligible for the same array of social benefits and rights other local residents have. Other types of moves are considered *renkou liudong* (population movements or "floating" population), implying a "temporary" move to a destination where the person is not supposed to, and is legally not entitled to, stay permanently.

With the deepening of market-oriented reforms, the binding force of the household register system on population mobility was de facto weakened, resulting in a lot of rural population shifting into urban areas, spurred by significant wage differentials between provinces. Thus, the so-called floating population became an important component of urban informal employment. The volume of internal migration has expanded steadily since the early 1980s, accelerated in the first half of the 1990s and, again in the first decade of the twenty-first century. While the volume of annual *hukou* migration remained quite stable in the last 30 years, non-*hukou* migration has become more voluminous. The major constituent group of non-*hukou* migrants, the rural migrant workers, numbered about 150 million at the end of 2009. A significant portion of the rural migrant labourers are circulators. In fact, most of them are not expected to stay in the destination permanently.

Figure 5. 30 largest inter-provincial migration flows



Source: State Council and National Bureau of Statistics (2007)

It is generally estimated that by the mid-1980s about 30 million people from the rural areas population moved into the urban areas, 50 million around the mid-1990s, and 140.41 million in 2008, which means that roughly 1/3 of the rural labour force are working in the urban areas at present (Cai Fang, 2009).

Thus, the creation of a unified pension system or "an integrated pension system that is impartial to where people live or work by 2020," (China's State Council), is a significant decision. Social pension insurance for rural residents has been rolled out gradually since 2003, to cover 240 million in 2009. A separate scheme covers urban workers that are not covered by the schemes for civil servants or private employees was introduced in 2011. Since 2014 both social pension systems are combined in the social pension system for the rural and urban nonwage population.

2.3. Three "schools of thought"

In the search for solutions for these problems various "schools of thought" emerged. Most Chinese and foreign experts agree on a number of measures. Most agree that the retirement age should be increased in order to deal with population ageing, although there is some debate about the speed of the gradual increases, the necessity to have different retirement ages for men and women, a differential treatment of various categories of workers (e.g. arduous professions). Most agree that the coverage of the pension schemes need to be enlarged, and that more coordination is needed to deal with regional differences and inequalities.

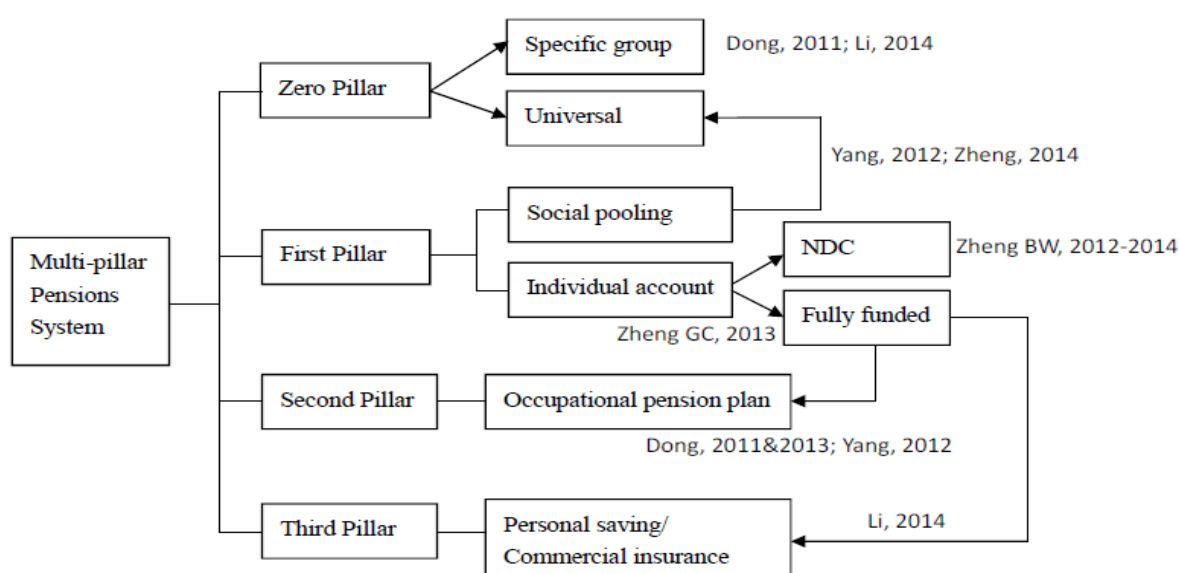
Three main "schools of thought" can be identified:

- 1) Social Insurance Defined Benefit – PAYG: This "school of thought" promotes social insurance based pay-as-you go pension schemes (defined benefit). This school adheres to the view that the government remains the broker of intergenerational solidarity and other forms of solidarity between various social categories of the population (lower income groups, immigrants ...) and should protect the population against market failure. Related to this viewpoint is the idea of the so-called "pension promise": the government guarantees security in old age to its citizens, even if this guarantee can be conditional. This viewpoint is challenged by population ageing and the main challenges are rigidities, such as fixed retirement ages and fixed replacement rates. However, various adjustments have been proposed to deal with these issues.
- 2) Defined contribution – partially or fully funded: This "school of thought" is associated with the pillar approach promoted by the World Bank during the nineties. This school of thought is centred on the idea that a more differentiated way of financing reinforces pension systems and protects them to a variety of shocks. Pay-as-you-go systems are better adapted to economic instabilities, but are challenged by population ageing. Funded defined-contribution pension schemes are better adapted to the challenge of population ageing, but are challenged by market risks. Funded defined-contribution pension schemes depend on the rate of return, minimally above wage growth and require regulations with respect to financial management.
- 3) Notional Defined Contribution – PAYG: The third "school of thought" emerged during the second half of the last decade and has been strongly promoted by the World Bank (Holzman, Wang Dewen, 2013). The main feature of this school is that NDC systems can protect pension

schemes against the consequences of population ageing. Benefits are automatically adjusted for ageing risks (balance + longevity) and can be made self-sustaining in a “steady state” situation. They also promote a strong link between the payment of contributions and the level of pension benefits. Due to this strong link NDC systems have less room for social corrections. Moreover, if the population does not respond well to these behavioural incentives, average replacement rates can be sharply reduced. Thus, NDC systems give priority to sustainability over adequacy.

Figure 4 gives an overview of the main characteristics of the various “school of thought” in the Chinese pension reform debate and situates the proposals of the three short-term experts within this broader context. Professor Dong Keyong has been a strong promoter of the pillar approach, with an important role for funded ‘second pillar’ occupational pension plans. Professor Song Xiaowu is in favour of a strong first pillar, based on social pooling, complemented by reinforced individual accounts (funded or notional). Professor Tan Zhonghe’s preference with respect to this broader pension reform debate is less explicit.

Figure 4. Overview of the main reform proposals in the Chinese pension reform debate.



3. The topical reports

Research Report I: “Development of China’s Old-age Insurance for the 13th Five Year Plan Period”, by Professor Tan Zhonghe⁵⁰

From the onset of the 12th Five Year Plan period, a social security system covering urban and rural residents has been tentatively established, with expanding coverage, growing participants, and enhanced the social security. Significant stride has been made in the undertaking of social security, which laid a solid foundation for the development of social

⁵⁰ Professor Tan also drafted a Research Report on “Social Insurance Administration System Reform”.

security during the 13th Five Year Plan period. The 13th Five Year Plan period is a critical stage in reforming the Chinese social security system, and a key period in integrating social security systems for urban and rural residents. Old-age insurance scheme is one of the most important components of China's social security system, and was among the earliest for reform among China's social security programs during China's transition from planned economy to socialist market economy. Although an old-age insurance scheme covering urban and rural areas has been basically established, there are still prominent problems, such as unsound policies and mechanisms, unbalanced development, and unsustainability. Mr. Tan's report puts forward the development targets, reform tasks, measures and suggestions for the development of old-age insurance scheme, on the basis of the achievements of reform and development during the 12th Five Year Plan period, analysing the situation and major existing problems.

Professor Tan Zhonghe particularly stressed the need to:

- enhance the governance of China's social security system and its pension system in particular;
- to improve China's legal and regulatory framework of social security, its management and servicing system;
- to improve communication and training of employers and employees;
- To improve the contribution base and compliance, He also stressed the need to improve the actuarial system, modelling, and enhancing social security research.

Best practices related to Research Report I:

Improving management and servicing system

New scientific tools for managing social security administrations and networks (e.g. performance agreements) Belgium, ...

Systematic use of electronic data to improve administrative performance and for strategic policy support Belgium, Spain, ...

Improve actuarial system, modelling, enhance social security research

Best practices identified by European EPC's Subgroup on Pensions working groups on actuarial modelling

Actuarial expertise and pension modelling Belgium, Czech republic, France, ...

Economic and budgetary projections Spain, ...

Improve communication towards employers and employees

Communication strategy to increase pension awareness Poland, Spain, Estonia, Ireland, Sweden, ...

Improve contribution base compliance

Improvement of contribution base and the monitoring of compliance France, Belgium, ...

Anti-fraud strategy based on data-mining Belgium, ...

Research Report II: “The Chinese Pension System in Transition: Current Challenges and Reform Path”, by Professor Dong Keyong

In its current set-up the Urban employees’ pension system has difficulties in coping with the challenge of China’s ageing crisis. Hence the reform proposals for the establishment of China’s three-pillar pension model. In Mr. Dong’s view, on the basis of combination of social pooling and individual accounts, the separation of existing social pool and personal accounts are to be converted into first and second pillar. The first pillar basic pension would be based on an actuarial basis PAYG system related to the collection of contributions based on individual workers salary base with tax collection and national coordination, paying attention to the burden on enterprises. Benefits should in a way be linked to contributions but at the same time should avoid regressive redistribution mechanism and establish normal pension adjustment mechanisms in order to achieve the basic functions in the first pillar. To turn the personal account into the second pillar, the fact that individual workers currently pay 8% into the funds forms a solid basis for the establishment of this pillar, investment returns leading to improve pension income replacement rate. Mixed ownership economic reform provides the opportunity, through the reduction of state-owned assets, to replenish the currently empty personal accounts and to reduce the implicit pension debt. To accelerate the enterprise annuity system while achieving a fair system, organizations and institutions should be subject to mandatory occupational pension system, while annuity coverage rate is only about 7% currently. The introduction of preferential policies to accelerate the construction of enterprise annuity is therefore necessary. To achieve the implementation of voluntary private savings system, tax incentives should be developed to speed up the trial of voluntary private savings policies. The system should focus on solving the pension issues for those who are not covered by employer pension or occupational pension. According to Mr. Dong the considered mechanisms to improve pension operations represented an opportunity to promote the construction of China’s capital market.

Professor Dong Keyong’s main proposal is to merge the second tier individual accounts with the second pillar occupational pension plans that are currently underdeveloped in China. The second pillar would become mandatory and tax subsidized. The first pillar’s basic pension would be reserved for social pooling. This structure reminds us of the Dutch pension system. Professor Dong also suggests to further develop the third pillar as these are more individual and flexible and could thus provide a solution for covering freelance workers etc.

that could not be covered by the second pillar. The development of the third pillar would be supported by tax incentives.

On the basis of these priorities best cases were selected on the regulation of investments by pension funds, on tax incentives for occupational pension plans, on the portability of occupational pension plans, and on tax incentives for individual pension plans.

Best practices related to Research Report II:

Investment regulation of pension funds

Belgium, Czech republic, France, Italy, Poland, ... (Dutch case is particularly interesting)

| | |
|---------------|--|
| Other sources | OECD regularly reviews regulations, UNJSPF |
|---------------|--|

Tax incentives for occupational pension plans

Most EU Countries: In EU 90% of 140 occupational pension plans catalogued by EIOPA benefited from tax incentives, mostly EET system (Italy: ETT)⁵¹

Cross-national information EIOPA

Portability of Occupational Pension Plans

European Commission EU Directive 98/49/EC and new “Portability Directive”

Pan European Pension Plans (EU Directive 2003/41/EC)

Tax incentives for third pillar individual pension plans (deductibility of premiums, taxation of benefits, ...)

Belgium, Italy, Spain (both premiums and benefits), France (benefits)

Research Report III: “Evaluation of the combination of social pooling and individual accounts techniques schemes for urban employees”, by Professor Song Xiaowu

In his report Prof. Song's argues that in order to further improve the basic old-age insurance system, solidarity mechanisms should be reinforced, while the size of individual accounts cannot be expanded to the detriment of the pooled part of the system. With regard to the personal accounts, the main question remains whether they should remain funded ("real") or become "notional". Professor prefers the first option and argues that the conditions should be created to gradually reinforce the funded individual pension accounts. But he

⁵¹ EET: a system that exempts contributions from tax, does not tax fund income, but does tax the pension in payment. ETT exempts contributions, taxes fund income and pensions.

acknowledges that there may be some practical problems that may justify small NDC accounts, his second option.

Thus, Professor Song Xiaowu wants to maintain the current pension structure for urban workers, including the repartition of funding (20/8), but he wants to improve and modernize the individual accounts system, for which he identifies two options:

- 1) Reinforcing the funding of the individual accounts, or
- 2) Replacing the funded individual accounts with notional individual accounts, in line with the NDC model. Professor Song prefers the first option and motivated his choice in his report.

Thus, European best practices decided to select European best practices for both options. Furthermore, best practices on pension calibration and indexation were provided on Professor Song's request.

Best practices related to Research Report III:

Option 1: funded individual accounts as 2nd tier

| | |
|---|--|
| Clearing house model | Poland Sweden, ... |
| Creation of pension fund regulatory authority | Italy, Czech Republic, ... EIOPA (European Insurance and Occupational Pensions Authority) |
| Relationship Basic Pension and supplementary pensions | France, ... |

Option 2: introducing notional individual accounts (NDC type or mimicked)

| | |
|----------------------|----------------------------|
| NDC practices | Italy, Poland, Sweden, ... |
| Mimicked within PAYG | Germany (point system) |

Calibration of pensions

| | |
|--------------------------------------|----------------------------|
| Retirement (dis)incentives - NDC | Italy, Poland, Sweden, ... |
| Retirement (dis)incentives – PAYG DB | Belgium |

Adjusting to longevity

| | |
|--|-------------------------|
| Within NDC | Italy, Poland, Sweden |
| Within PAYG DB or altered PAYG DB with NDC characteristics | Germany, Czech Republic |

Taking into account specific circumstances Czech Republic, France
(e.g. arduous occupations)

Indexation of pensions

Inflation+age -> CPI

Czech Republic

Research Report IV: “Public Sector Pension Reform in China”, by Dr. Zhang Yinghua

The public sector pension reform in 2015 established a two-pillar mandatory social insurance pension system for China’s public sector, with a basic pension pillar and an occupational DC pension pillar similar to the Urban employees’ pension system. Public employers are expected to contribute 20 percent of total wage expenditure to the basic pension system and a ‘notional’ 8 percent to occupational pension system. Public employees are expected to contribute 8 percent of individual wage to the basic pension system and an additional 4 percent to the occupational pension system.

According to Dr. Zhang the new civil service sector pension faced two potential risks. The first is financial sustainability risk, mainly because the pension divisor of the new public sector pension system is too low. The second risk is the lack of persistent contribution abilities in some local governments. As a result, expenditures of local governments will have to depend largely on central government transfer payments.

The author recommends:

- The need to set a reasonable contribution base.
- The implementation of measures to facilitate the mobility of employees between different public sector employers and between private and public sector employers.
- The implementation of measures to improve the sustainability of the new public sector system:
 - i. Implementation of long-term actuarial technology
 - ii. Enlarge investment capacity of pension fund
 - iii. Enlarge the social pooling
 - iv. Encourage deferred retirement
- The need to improve investment performance of the pension fund:
 - i. Keep fiduciary independent from government
 - ii. Evaluate investment performance
 - iii. Establish personal limited investment option for occupational pension funds
 - iv. Set guaranteed return rates

Best practices related to Research Report IV:

Portability of Pension Rights (between public sector and public sector/private sector)

France (separate civil sector scheme), Sweden, Netherlands (both separate but similar)

Deferred retirement in the public sector

Belgium (experience with bonus system to promote deferred retirement among public sector employees)

Public Sector Occupational Pension Fund Management

France (ERAFP - French public service additional pension scheme)

Investment regulation of pension funds

Belgium, Czech republic, France, Italy, Poland, ... (Dutch case is particularly interesting)

Other sources

OECD regularly reviews regulations, UNJSPF

Creation of pension fund regulatory authority

Italy, Czech Republic, ...

EIOPA (European Insurance and Occupational Pensions Authority)

Research Report V: “Research Report on the Integration of Urban and Rural Pension Insurance System”, by Mr. Wang Zeying

Mr. Wang identifies a number of elements in China’s pension system that complicate the portability of pension rights. Most basic pension systems for urban and rural residents are planned at the county level or the prefecture or municipal level. Provincial-level planning, where the funds of basic pension insurance for urban enterprise employees are charged and paid uniformly, has been realized in only a few provinces, such as Shaanxi and Jilin. Budget and fund management are situated at a regional level. Regional economic differences complicate the introduction of provincial budget management. Without nationwide planning funds cannot be pooled and enterprises in different regions are faced with unfair investment environment and competition due to the different rates⁵². But the large number of planning entities also increases the cost and workload associated with the implementation of the portability of pension rights, while differences in local regulations makes it the portability of pension rights hard to implement. Current regulations also create a number of injustices.

⁵² In 2012, the average rate of Tibet, Shanghai, Jiangsu, Liaoning and Heilongjiang was above 20% and that of Sichuan, Chongqing, Shandong, Fujian and Zhejiang was below 20%. The highest rate of Tibet was 23%, the lowest rate of Guangdong was 12%, the rate of Zhejiang was 13% and that of Fujian was 16%.

Furthermore, there are prominent contradictions and problems regarding the system and mechanism of operation management service. The management system is not smooth because of various inconsistencies, while service capability and infrastructure is inadequate. Procedures need to be made more efficient and standardized. The use of information technology in the pension insurance system needs to be improved. Firstly, the operation management information system for every basic pension insurance systems is established independently, so the information can hardly be shared fully, in real time and accurately. Secondly, the information network platform construction is to be improved. Some underdeveloped regions and some basic-level communities and villages are not covered by network and manual operation is adopted mainly in some areas. Thirdly, the software system of the management information system is to be improved. Fourthly, computerisation is not following the rapidly growing operational need.

Mr. Wang formulates a number of policy recommendations:

- 1) Integrate basic pension insurance systems further
- 2) Improve the policies regarding basic pension insurance
 - a. Promulgate policies to encourage urban and rural residents to voluntarily participate in the basic pension insurance for urban enterprise employees
 - b. Improve the policies on the integration of urban and rural pension insurance systems
 - c. Improve the policies on transfer and continuation of credentials of basic pension insurance for urban employees
- 3) Rise the overall planning level of basic pension insurance
- 4) Improve the capacity of pension insurance operation management service
- 5) Strengthen the promotion of information technology

Best practices related to Research Report V:

Portability of Pension Rights

EU Social Security Coordination, Regulation (EEC) No 1408/71, Regulation (EC) No 883/2004

The Mobility Network of legal and statistical experts on free movement of workers and social security coordination

Coordination agreements

Portability of Occupational Pension Plans

EU Directive 98/49/EC and new "Portability Directive

Pan European Pension Plans (EU Directive 2003/41/EC)

Systematic use of electronic data to improve administrative performance

Belgium, Spain, ...

4. Best practices

In this section we elaborate more on the various priorities and the selection of the best practices. Furthermore, we discuss the importance of the proposed best practices within the context of the planned Chinese pension reform. We also discuss the possibilities for technical cooperation on these best practices.

4.1. Improving the management and servicing system

Professor Tan Zhonghe stressed the need to enhance the governance of China's social security system and its pension system in particular. He specifies the need to improve China's legal and regulatory framework of social security, its management and servicing system. Most experts agree that more coordination and supervision of various pension administrations is needed.

During the last decade Belgium has introduced new scientific tools for managing social security administrations and networks. In order to improve coordination and supervision, while respecting the autonomy of administrations performance agreements were introduced between the central government and decentralized agencies and administrations. These performance agreements specify the SMART management objectives to be realized within the time-framework of the performance agreements, while the resources needed are specified in pluriannual budgets. The supervising authorities' commitments are also specified. The decentralized administration in return receive a certain degree of autonomy, but are accountable for achieving the specified objectives. Examples of management objectives are:

- Optimising the tools for analysing the social fraud
- Building up internal audit & control and efficiency measures
- Seeking collaboration with other organisations for common managements problems
- improve the delivering of HR data to central databanks
- ...

Furthermore, most experts agree on the need for systematic use of electronic data to improve administrative performance and to improve the Chinese government's capacity for strategic policy support. During the recent decade China's social security administration have greatly improved the construction of computerized administrative data sources and streams, which could be used both for monitoring and the improvement of bureaucratic efficiency. An example is the Crossroads Bank of Social Security in Belgium, a best practice within the European Union, which dramatically improved bureaucratic efficiency and constructed a Data warehouse that made anonym administrative data accessible for scientific research and ex-ante policy evaluation.

Spain has introduced a new way to manage the collection of contributions "Direct System Incomes"

- The new direct system of payment of social contributions will allow to take an active role in the collecting process to the enterprises, moving from a model of self-settlement to a new billing model.
- The priorities are to minimize the mistakes in the implementation of the contribution rules, to compare the data in advance and to facilitate the payment of the contributions through telematics means.
- The system will automatically apply the price increases and/or reductions, achieving greater legal security, and will give an individual calculation for each worker contribution. In conclusion, the system will be guarantee against possible irregular situations in the collection of quotas.
- The system apply to 12,314,519 companies with 1,420,412 employees, and more than 3,000,000 self-employed workers.

This system is aimed to simplify the duty of collecting contributions by the companies and to reduce administrative burdens to the employers, communicating less data than before.

4.2. Improve actuarial systems, modelling, enhance social security research

While the Ministry of Human Resources and Social Security has constructed an actuarial model, the Chinese administration could improve its capacity for ex-ante population by getting inspiration from best practices identified by European working groups on actuarial modelling. Furthermore, several countries within the consortium (Belgium, Czech Republic, France ...) have considerable experience with actuarial expertise and experience with pension modelling. Spain has relevant experience with economic and budgetary projections.

This capacity is crucial for policy makers in order to calculate the medium- and long-term budgetary and social-economic impact of pension reform proposals and could be used to fine-tune planned policy measures. Thus, costly mistakes could be avoided by avoiding that faulty measures are implemented in the first place. One faulty measures have been implemented they become very difficult to adjust or retract. This is particularly the case for a large country such as China. The use of simulation models in addition to standard actuarial modelling could also supplement Chinese policymakers' strategy of testing reforms measures on a more limited scale in selected regions.

4.3. Improve communication towards employers and employees

Several European countries have benefited from the implementation of a communication strategy to increase pension awareness. Defined Contributions in particular, demand a greater awareness of individual citizens as the risks are borne directly by the individual, who is required to make a variety of complex financial decisions (how much to save, in which funds, which retirement income product to choose, which pay-out solution to select, etc.). National Pension Communication Campaigns are also important to inform citizens when important pension reforms are introduced.

National Pension Communication Campaigns are usually designed and delivered by a government department or agency, often in collaboration with key stakeholders, such as regulators, private providers, and employers and unions. The design of the National Pension Communication Campaigns depends on its goals and target audience. The objectives of each NPCC reflect the relevant stage of reform reached, for example advance announcement, phased implementation and post-implementation changes. National Pension Communication Campaigns can be largely informative (e.g. setting out the individual's rights, responsibilities and choices), they may seek to change individual views (e.g. support a pension reform) or they may be aimed at changing individual behaviour and engagement (e.g. to increase contributions to pension plans).

Poland and Spain, both consortium members, have experience with National Pension Communication campaigns. Italy, with the project "My Pension", has also initiated communication campaigns to improve awareness and increase proactivity of future pensioners. Furthermore, National Pension Communication Campaigns in Estonia, Ireland and Sweden are considered to represent best practices. Furthermore, OECD organized an International Network on Financial Education (INFE) in order to facilitate information sharing, research and the development of policy instruments and analytical tools.

4.4. Improve contribution base compliance

During the mission the need to improve China's contribution base and the monitoring of compliance was identified as an important issue, a fact that was acknowledged by the Chinese topical experts as well as by representatives of the Ministry for Human Resources and Social Security. Evidence indicates that many employers do not or do not fully contribute. Contributions are paid on fixed wages, but not on variable wages, etc... One of the reasons is a prohibitively high contribution rate, but a reduction of the contribution rate could be realized when a successful campaign to improve compliance is implemented. For this the monitoring of compliance needs to be improved and a more effective anti-fraud strategy needs to be implemented. France has recently improved the monitoring of compliance.

In Belgium a very successful anti-fraud strategy based on data-mining was implemented recently. To inform this anti-fraud strategy electronic administrative data from various sources were matched, as this allowed the identification of anomalies in various declarations by both employers and individual beneficiaries. Simply said, it is very difficult for a fraudster to lie consistently to all administrations. Data-mining strategies are used to identify individual fraudsters but also to identify risk groups. This strategy has led to the discovery of many fraudsters, while potential fraud was discouraged by the awareness that the administration had become much more effective in identifying fraud.

4.5. Investment regulation of pension funds

Investment regulations of Chinese pension funds need to be improved, especially when the government decides to reinforce funded individual accounts. Various forms of quantitative portfolio restrictions (minima and maxima) can apply to pension funds at different legal

levels (law, regulation, guidelines, etc.). Regulations can also vary depending on the type of plan (occupational, personal, mandatory, voluntary, DB, DC, etc.).

Most countries impose a ceiling on investments by pension funds by type of asset class (among consortium countries only Belgium does not). Investments in equities, in particular in unlisted equities, are capped in most countries regulating pension funds' investments. Countries regulating investments in bonds often reduce or remove the limit on government bonds. Investment in real estate is not allowed in Italy and Poland.

Most European countries have quantitative limits on the investments of pension funds. All consortium members (Belgium, Czech Republic, France, Italy, and Poland) have implemented such regulations, as well as many non-consortium members. The Dutch case is particularly interesting, as the country has a long experience in mandatory DB schemes, while DC systems have recently become more prominent. Furthermore, OECD regularly reviews quantitative limits on the investments of pension funds.

4.6. Tax incentives for occupational pension plans

Occupational pension plans in China are still underdeveloped. In order to promote occupational pension plans several tax incentives could be considered. Within the European Union 90% of 140 occupational pension plans catalogued by EIOPA benefited from tax incentives, mostly EET system (Italy: ETT). Thus, most consortium members could report on their experiences with their tax incentives for the promotion of occupational pension schemes. Furthermore, very useful cross-national information can be provided by EIOPA, the European Insurance and Occupational Pension Plan Authority, an independent advisory body to the European Parliament, the Council of the European Union and the European Commission.

Interesting is Belgium's experience with the Law on Supplementary Pensions. This Law provides for important tax incentives for occupational pension plans on both a sectorial and company level, but these tax incentives are made conditional on the introduction of specific elements within these occupational pension plans. The most important characteristic is the "democratic character" of the occupational pension plan. This clause was introduced because in the past occupational plans were mainly provided to male, white collar workers, and was far less common for blue collar workers and female workers. This Law, which was introduced in 2001 led to a great expansion of occupational pension plans (most sectors have a sectorial plan) and the coverage of blue collar workers by these plans.

4.7. Portability of occupational pension plans

The portability of occupational pension plans is an important issue in China as internal regional migration is of considerable importance. European experience in portability issued is situated on a European level (e.g. EU Directive 98/49/EC). A lot of information has been produced by the European Commission within the context of the preparation of the new portability directive. Furthermore there is an interesting EU directive on Pan European Pension Plans (EU Directive 2003/41/EC).

4.8. Tax incentives for third pillar individual pension plans

Professor Dong Keyong also wants to promote the development of third pillar private pension plans. In order to promote private pension plans several tax incentives could be considered, such as the deductibility of premiums, partial taxation of benefits, etc...

Most consortium members have experience with these measures. Belgium, Italy and Spain have tax incentives for both premiums and benefits, France for benefits.

4.9. Option 1: funded individual accounts as 2nd tier

Professor Song Xiaowu prefers a reinforcement of the funded individual accounts, although this would require some important improvements in the management and organisation of pension funds.

Some European member states, including Poland and Sweden, have introduced an organisational innovation that could be interesting to consider from a Chinese perspective: the Clearing House Model. With the Clearing House Model the public authorities remain responsible for the collection of contributions and payments, but the pension funds are managed by the private sector. However, they do so under strict regulations. This allows the government to make use of the considerable experience of the private sector in investing funds, while retaining the oversight.

Another important element is the creation of pension fund regulatory authority? Such regulatory authorities exist in many European member states, including Italy, Czech Republic, Belgium, More information could also be provided by EIOPA, the European Insurance and Occupational Pensions Authority.

Furthermore, the modernisation of the funded individual accounts would require and adjustment of the relationship between basic zero pillar (or first pillar) pensions and supplementary pensions. This experience could be provided by France.

4.10. Option 2: introducing notional individual accounts (NDC type or mimicked)

According to Professor Song Xiaowu, the second best solution for the personal accounts would be the introduction of notional accounts (NDC). Different European Member States introduced NDC systems, including Italy, Poland, and Sweden. However, Sweden was a pioneer with regard to the introduction of the NDC system and has recently evaluated the results of its introduction. As a result they have also introduced some adjustments to the system. Therefore, I consider the Swedish system to represent a best practice.

Furthermore, some European member states have introduced features of the NDC system in their PAYG Pay as You Go system, thus mimicking to some extent the NDC system. An important example is the German point system. Belgium's pension reform commission has also proposed the introduction of a point system, although this system has not yet been implemented. These adjustments are mainly focussed on protecting the PAYG pension system from the consequences of population ageing.

4.11. Calibration of pensions aimed at fostering longer professional careers and later retirement

Professor Song Xiaowu was also very interested in different built-in calibration methods within the pension system to stimulate longer professional careers and later retirement. Several methods exist in the European member states. Here we should distinguish between countries with NDC systems (Italy, Poland and Sweden) and countries with PAYG systems.

Belgium has experimented during the last decades with adjustments within its PAYG system aimed at delaying the retirement of individuals. A so-called “pension bonus” was introduced, which provided a pension supplement for individual pensioners for every year that they had delayed their retirement after the minimum retirement age. This bonus was evaluated in 2013 and the introduction of a malus system was proposed instead.

In 2013 Spain introduced a number of pension reforms aimed at fostering longer careers and later retirement:

- 1) Persons who reach the pensionable age and have met the contribution period required for entitlement to 100% of the pension may combine a pension with work, either on a self-employed or employed basis. In this case, and for the duration of such a situation, the pensioner will receive 50% of the pension. Once the work has concluded, the pension will be restored in full amount, with any revaluations that may have been made. Furthermore, Act 27/2011 allows the old-age pension to be combined with self-employed activities if the total annual income received does not exceed the national minimum wage calculated on an annual basis, with no Social Security contributions being payable on such income.
- 2) Another incentive introduced within the Spanish system was the introduction of a bonus, which increased pensions by between 2% and 4% for each full additional year of work after pensionable age is reached, depending on the number of years of contributions previously made.

4.12. Adjusting to longevity

Chinese is facing an accelerated ageing of its population, not only due to the consequences of the one-child policy, but also because the increases in longevity, no doubt a consequence of the social and economic transformation of the last 30 years. However, longevity also leads to longer pension careers, which can be unsustainable unless some changes to the system are introduced. One such change is the gradual increase of the legal retirement age for both men and women. However, other measures could be considered too.

Notional Defined Contribution systems are equipped with automatic adjustments to deal with the consequences of longevity. Per cohort, pension benefits are actuarially adjusted to take longevity into account. This leads to lower pension benefits for these cohorts unless they delay their retirement. As we mentioned before, Italy, Poland, and Sweden have an NDC system with this kind of built-in actuarial corrections.

Social insurance based PAYG DB systems can also be adjusted to take into account the consequences of increases in longevity. This can be done on an ad hoc basis, for instance

by gradually increasing the legal retirement age in order to compensate the increases in longevity. This can also be done in a more structural way, as was done in Germany, by introducing a point system with actuarial corrections for longevity. The Czech Republic, which has a more traditional PAYG system, has a strong correlation between the increase in retirement age and prolongation of working life.

In 2013 Spain introduced a “sustainability factor” in its pension system, which will come into force in 2019 and will be applicable to the new retirement pension amounts. This factor takes into account the growth of the life expectancy of the new pensioners.

Most experts agree that elements of pension formula to account for average increase in longevity should take into account the special requirements of categories working in arduous occupations, which life expectancy may be shorter. In that regard, the experience of countries like the Czech Republic or France – where individual “hardness accounts” will be introduced from 2015 – is worth studying further.

4.13. Indexation of pensions

Old-age pension beneficiaries depend on their benefit for the rest of their life. This means that their benefits should be adjusted to take into account the rise in consumer prices and, if possible, wage increases. Retirement pensions in China are currently corrected for both increases in consumption prices and average wage increases. However, the correction for wage increases is deemed to be unsustainable, especially if the current coverage and benefit levels of the current pension system are to be increased. Therefore, experts have suggested limiting indexation to adjustments for increases in consumer prices.

In Italy retirement pensions are no longer corrected for wage increases, but limited to adjustments for increases in consumer prices. The Czech Republic also has indexation based on a CPI and wage increase, but altered the indexation formula in 2012 and 2015.

In 2013 Spain introduced a new pension revalorization index which eliminates the compulsory indexation to the evolution of price index. Pensions will be indexed according to a mathematical formula that considers the evolution of the systems incomes and expenses, searching to reach the equilibrium in the middle and long term. There is a minimum revalorization limit, 0,25%, and a maximum revalorization limit, price index + 0,50.

4.14 Portability of pension rights between schemes

Various EU Member States have specific social security schemes for different professional categories. Most EU Member States, with the notable exception of the Central European Member States, have separate pension scheme for employees and civil servants. Some (e.g. Belgium, France, Germany, Italy, Spain, ...) have separate pension schemes for (various categories of) self-employed.

However, as lifetime careers have become rare, more people move between various professional categories and, thus, social security schemes. Self-employment is promoted as part of business innovation strategies or as part of re-employment strategies offered to unemployed workers. Cross-fertilization between the public and private sectors is also

increasingly promoted, while employees can move between both sector due to privatisation or contracting out.

4.15. Portability of pension rights between regions

European Social Security Coordination: The EU provides common rules to protect social security rights of people legally residing in a European member state (+ Iceland, Liechtenstein, Norway and Switzerland) when moving within Europe. EU provisions on the coordination of social security schemes have existed since Regulations No 3 and 4 of 1958. During the seventies a major reform was introduced as Regulation (EEC) No 1408/71 was introduced (Implementation: Regulation (EEC) No 574/72). As from 1 May 2010, new Regulations on modernized coordination (Implementation: Regulations 883/2004 and 987/2009) apply.

Four basic principles:

1. EU residents are covered by the legislation of one country at a time and only pay contributions in one country at a time. The decision on which country's legislation applies to you will be made by the social security institutions.
2. Migrating EU residents have the same rights and obligations as the nationals of the country where they are covered. This is known as the principle of equal treatment or non-discrimination.
3. When EU residents claim a benefit, their previous periods of insurance, work or residence in other countries are taken into account if necessary.
4. If EU residents are entitled to a cash benefit from one country, they may generally receive it even if they are living in a different country. This is known as the principle of exportability.

The following information can be interesting for the Chinese administrations working on interregional portability of pension rights:

- EU legislation and agreements
- Provides an overview of EU legislation on social security coordination and its agreements with third countries. Includes links to download regulations and find further information.
- Official documents
- Provides access to updated versions of Structured Electronic Documents (SEDs) and Portable Documents (PDs) as well as all the decisions, recommendations and other documents agreed on by the Administrative Commission for Social Security Coordination.
- EESSI
Provides an overview of the Electronic Exchange of Social Security Information system. Includes access to technical and other useful documents and to software downloads.
- The Mobility Network of legal and statistical experts on free movement of workers and social security coordination is a network of independent legal and statistical experts on these topics. It provides the Commission with legal and statistical expertise via reports and ad hoc analytical support. The network is composed of a Network of legal experts (FreSsco) and a Network of experts on statistics.

Furthermore, individual Member States conclude bilateral social security coordination agreements with third countries. These agreements set up a system of coordination rules for persons moving between the two countries. Most agreements with third countries typically contain rules on applicable legislation, equal treatment and pensions. The pension provisions protect migrants' acquired rights when they leave the national territory and allow payment of the pension in the other territory. In some cases, provision is made for aggregating insurance, employment or residence periods. The applicable legislation rules generally include 'posting' provisions. These enable workers who fulfil certain conditions to remain subject to the social security legislation of the sending country and exempt them from paying social security contributions in their country of work. The principle of equal treatment guarantees migrant workers the same treatment as nationals of the country of work.

EU migration rules have imposed standards that national social security legislation must meet in the case of third-country nationals who reside in a Member State. For example, after five years' legal residence in an EU Member State, and assuming certain conditions are met, third-country nationals acquire the same rights as nationals in respect of social security, social assistance and social protection as defined by national law. In addition, there are three EU migration directives, the so-called "Single Permit" Directive, the so-called "Blue Card" Directive and a Directive dealing with third-country researchers, which guarantee third-country nationals admitted to Member States – subject to certain limited exceptions - equal treatment in social security with nationals of the state where they reside. This guarantee includes equal treatment as regards the transfer of their state pensions to a third country and is not dependent on the existence of bilateral agreements.

The introduction of a new instrument, an EU social security agreement, is currently under active consideration. Such an instrument would allow EU Member States to act jointly on social security coordination in respect of a given third country on an ad hoc basis.

Annex I. Summary table on selected topics and best practices.

1 Improving management and servicing system

New scientific tools for managing social security administrations and networks (e.g. performance agreements) Belgium, ...

Systematic use of electronic data to improve administrative performance and for strategic policy support Belgium, Spain, ...

2 Improve actuarial system, modelling, enhance social security research

Best practices identified by European working groups on actuarial modelling EPC's Subgroup on Pensions

Actuarial expertise and pension modelling Belgium, Czech republic, France, ...

Economic and budgetary projections Spain, ...

3 Improve communication towards employers and employees

Communication strategy to increase pension awareness Poland, Spain, Estonia, Ireland, Sweden, Italy ...

4 Improve contribution base compliance

Improvement of contribution base and the monitoring of compliance France, Belgium, Italy ...

Anti-fraud strategy based on data-mining Belgium, Italy ...

5 Investment regulation of pension funds

Belgium, Czech republic, France, Italy, Poland, ... (Dutch case is particularly interesting)

Other sources OECD regularly reviews regulations, UNJSPF

6 Tax incentives for occupational pension plans

Most EU Countries: In EU 90% of 140 occupational pension plans catalogued by EIOPA benefited from tax incentives, mostly EET system (Italy: ETT)

Cross-national information EIOPA

7 Portability of Occupational Pension Plans

European Union initiatives EU Directive 98/49/EC and new "Portability Directive

Pan European Pension Plans (EU Directive 2003/41/EC)

8 Tax incentives for third pillar individual pension plans

| | |
|--|--|
| Deductibility of premiums, taxation of benefits, ... | Belgium, Italy, Spain (both premiums and benefits), France (benefits) |
|--|--|

9 Option 1: funded individual accounts as 2nd tier

| | |
|---|---|
| Clearing house model | Poland Sweden, ... |
| Creation of pension fund regulatory authority | Italy, Czech Republic, ... EIOPA (European Insurance and Occupational Pensions Authority) |
| Relationship Basic Pension and supplementary pensions | France, ... |

10 Option 2: introducing notional individual accounts (NDC type or mimicked)

| | |
|----------------------|----------------------------|
| NDC practices | Italy, Poland, Sweden, ... |
| Mimicked within PAYG | Germany (point system) |

11 Calibration of pensions

| | |
|--------------------------------------|----------------------------|
| Retirement (dis)incentives - NDC | Italy, Poland, Sweden, ... |
| Retirement (dis)incentives – PAYG DB | Belgium |

12 Adjusting to longevity

| | |
|----------------------------------|-------------------------|
| Within NDC | Italy, Poland, Sweden |
| Within PAYG DB | Germany, Czech Republic |
| Adjusting for arduous occupation | France, Czech Republic |

13 Indexation of pensions

| | |
|------------------------|----------------|
| Inflation+wages -> CPI | Czech Republic |
|------------------------|----------------|

Supplement A

Reform of China's Social Insurance Administration Service System

Tan Zhonghe

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Reform of China's Social Insurance Administration Service System

Tan Zhonghe

Abstract

The reform of social insurance administration system is an integral part in the building of social insurance system in China. Although China has by and large established a social insurance administration service system covering both urban and rural areas of the country, sever problems still remain in terms of the management, service provision, distribution of resources, operation and safety of the system. Therefore, it is important to develop social insurance public service, further coordinate government resources, and unify the currently different urban and rural administration and service systems, so as to achieve sustained development of the social security system, precise management, convenient, efficient and safe service, and a fair and sustainable social security system as a whole.

This Report is based upon the writer's in depth studies of social insurance situations in 15 districts in 7 Provinces, Autonomous Regions, and Municipalities directly under the Central Government, namely, Shanghai, Guangdong, Shaanxi, Liaoning, Inner Mongolia, Tibet and Jiangsu. It summons up social insurance theories and the 20-year history of social insurance administration system in China, and analyses the current situation, problems and challenges of this system, by drawing upon success and failures of foreign systems. In the end, the Report makes policy suggestions concerning the goals and strategies of social insurance administration system reform in China.

Social insurance administration system in China consists 3 parts. First, social insurance policy making system, second, social insurance administration and service system, third, supervision system participating by the government, social groups and professional teams. This Report focuses on the reform of social insurance administration and service system.

Starting from zero, social insurance administration system in China has gradually developed into one that has administration institutions at all levels, covering the majority of citizens, with information technology and the Social Insurance Card of China widely adopted, and supplemented by private social insurance service institutions. Such a system has played an important role in implementing social insurance policies. With the social and economic development and rising demand for better social insurance service, problems of the system began to draw attentions from the general public. Such problems include loopholes in the management system, unbalanced distribution of resources, low quality service at local level, backward technology, shortage of financial and human resources, etc.

The reform of the social insurance administration system should be based upon China's national condition and carried out in accordance with the law. It should protect the rights and interests of both social insurance administration institutions and the citizens. While the government should shoulder the responsibilities of policy making, the whole society should actively participate in the system and the general public should take the supervision role. The basic principle of the reform is to provide efficient, convenient and safe social insurance public service, and the ultimate goal is to achieve a national universal and standardized social insurance administration system with sound internal structure, providing high quality service, adopting advanced information technology.

While currently the Ministry of Human Resources and Social Security and its local Departments are in charge of the administration of social insurance administration, efforts are required to establish a new and specialized Social Security Administration Bureau, as one of the measures of the reform. Thus, government functions in the fields of social security, social welfare and assistance, which are currently scattered in Human Resources and Social Security Departments, Civil Affairs Departments, Health and Family Planning Departments as well as China Disabled Persons' Federation, should be coordinated and merged to be put under the charge of single one government authority. Platforms for information sharing concerning the social insurance accounts of migrant workers, as well as for real-time monitoring of service should be established.

This Reports suggests to better coordinate resources to form a unified administration and operation system. First, the current rural and urban old-age insurance operation systems should be merged; second, the social insurance contributions collecting mechanism should be improved. The local tax authorities' responsibility to collect social insurance contributions should be transferred to commercial banks; third, a new State Administration of Social Security (SASS) should be established under the Ministry of Human Resources and Social Security, and other social welfare items such as old-age subsidies and family planning subsidies currently under the charge of various different government departments should be gradually incorporated into the charge of SASS and its local offices. Categorized management of social insurance workers and legal person governance structure should be gradually adopted. Standardization, professionalization and widely adoption of information technology should be promoted. The current shortage of social insurance workers should be tackled by the use of high technology, which can also improve service quality and efficiency. At the same time, a list of social security service items that could be transferred from government to commercial institutions should be made, and "social insurance service procurement" should be gradually incorporated into the government procurement, and its transparency should be strictly supervised.

It will take a long way to reform the current social insurance administration and operation system, and a two-step strategy is suggested by this Report: first, by 2020, main efforts should be made in reforming and improving the structure and organization of the system, improving service and establishing a universal platform; second, take another 10 years to coordinate resources currently scattered in Human Resources and Social Security, Health and Family Planning, Civil Affairs Departments, streamline structure, and form a national universal social insurance operation system. Special efforts should be made to consolidate social insurance administration and service at grass-root level communities and villages. Cloud computing and big data technology should be promoted. The legislation framework for social insurance management should be improved and a legal person governance structure should be gradually adopted.

Chapter 1 Evolution and Current Condition of Social Insurance Administration System in China

I. History and features of each period

Social insurance administration system in China has been developed together with the Chinese social security system. With a 60-year history, social insurance administration system in China has experienced 4 periods.

1. The first period is from the founding of the People's Republic of China to Reform and Opening Up. In this period, Labour Insurance and public-funded free medical care were adopted in urban area, while Land Insurance and rural cooperative medical care were the system in rural area. Trade Unions at all levels and employment unities were responsible for the management and operation of insurance within employment unities themselves. Soon after the founding of the People's Republic, Labour Insurance Regulations was enacted. The former Ministry of Labour was in charge of policy making of Labour Insurance, and Trade Unions at various levels established administration and operation agencies for the funding, management and coordination of Labour Insurance. The personnel department and trade union of each enterprise carried out service, including payment of benefits. Government Labour Departments were eliminated and Trade Unions at all levels were suspended from activities (including fund-raising, management and coordination of Labour Insurance funds) due to the Cultural Revolution, during which Labour Insurance was changed into Enterprise Insurance, and personnel department of each enterprise took charge of its internal insurance issues, mainly the management of retirees of the enterprise, calculation and payment of pension. As for medical care, specific departments of hospitals (mainly the Insurance Department) was responsible for the reimbursement of medical expenses of the patients. It should be said that "social insurance" as well as its administration in their real meanings did not exist in China at that time.

2. The second period is from the Reform and Opening up to the early years of this century. In the 1980s, China started a transition from "employment unit-provided insurance" to social security, featured by the reform of SOEs and the establishment of social insurance schemes mainly for the employees. A multi-layered social security system led by the government and participated by various stakeholders including the general public and the market was by and large formed in this period. Therefore, to establish a national social insurance administration system became a must. With the development of market economy and the reform of social insurance system, in 1993, the 3rd Plenary Session of the 14th CPC Central Committee made the decision of establishing a nationally unified social insurance administration authority, and separating the administrative management of social insurance and the management of social insurance funds. Following this decision, at the end of the same year, the Social Insurance Administration Bureau (its name was later changed into Social Insurance Administration Centre) was established under the former Ministry of Labour. The Bureau was given the responsibility of making guiding policies at national level for the administration of social insurance. Under the guidance of the Bureau, social insurance administration institutions were gradually set up at county or above county levels across the whole country. The main features of this period were: first, social insurance administration and operation system was established from national level to local level, in charge of the registration, contributions collection, payment of benefits, management of funds, etc.; second,

the management system mechanism was reformed. Responsibilities previously scattered in different government institutions were all put into the Labour and Insurance Departments; third, a professional team of social insurance workers were trained during this period; fourth, the administration and operation of social insurance began to be considered as a public service benefiting the whole life of an individual citizen; fifth, the standardization, computerization and professionalization of social insurance administration institutions have been greatly improved during this period.

3. The third period is from the 16th National Conference of the CPC to the 18th National Conference of the CPC. It is a period when the establishment and improvement of social insurance public service was accelerated. After 2002, social insurance public service began to be expanded from counties to grass-root levels. As a result, most streets and communities in urban China had established their local platforms for labour and social security issues. At the 17th National Congress of the CPC, a task of establishing a social security network covering all rural and urban areas was set, and as a result, New Rural Cooperative Medical Insurance, Basic Old-Age Insurance and Medical Insurance for Urban Residents were rapidly expanded across the country and by and large covered the whole country by 2012. The management of social insurance transited from simple business operation to public service providing platform for rural and urban citizens. Legislation framework for social insurance management was greatly improved, and social insurance service quality was improved.

4. The fourth period is after the 18th Conference of the CPC. The focus of this period is to optimize the distribution of resources and achieve better legislation framework as well as the standardization of management. The 18th Conference of the CPC and the 3rd Plenary Session of the 18th CPC Central Committee incorporated the improvement of social security administration system and service system into the overall building of a fair and sustainable social security system and the modernization of national governance, and raised the goal of establishing a social security administration and service system that is well-structured and highly efficient. The 4th Plenary Session of the 18th CPC Central Committee made the improvement of the legislation framework of social insurance management an important content of achieving the rule of law.

Starting from zero, social insurance administration system in China has gradually developed into one that has administration institutions at all levels, covering the majority of citizens, with information technology and the Social Insurance Card of China widely adopted, and supplemented by private social insurance service institutions. Such a system has played an important role in implementing social insurance policies. With the social and economic development and rising demand for better social insurance service, problems of the system began to draw attentions from the general public, and further improvement and reform of the system and service are required.

II. Major Success and Lessons

1. Major Success

(i) Social insurance administration system and relevant institutions have been by and large formed. After 20 years development, by the end of 2013⁵³, four levels

⁵³ If without further explanation, all data are those by the end of 2013.

(national, provincial, municipal and county) of Human Resources and Social Security Departments have established 8,363 administration and operation institutions, among which 1 is at national level, 65 at provincial level, 992 at municipal level and 7306 at county level. 40497 social insurance offices⁵⁴ have been established at towns, and 680,000 offices have been set up at communities and villages (among which 589,000 are at villages and 94,620 are at communities). In terms of service, “one-stop” service has been provided at the “service hall” of many institutions. Cities in advanced regions, such as Shenzhen, Xiamen and Qingdao even provide on-line service. 600 million Chinese now hold the “Social Security Card of the People’s Republic of China”. Social insurance consulting could be reached through the free-dial 12333 hotline in 319 cities. Now apart from visiting service halls of social insurance institutions, other multi channels and forms of service, including telephone and on-line service are easily accessible, forming a comparatively efficient and convenient service system⁵⁵. As for the information network, 32 institutions at provincial level have been connected with the social insurance data centre at national level, and 323 cities (that is 96.1% of all cities in China) have been connected with social insurance data centres at provincial level. Social Insurance Service Network has reached to 92.5% social insurance administration institutions, and is continued to be expanded to towns and villages. These institutions have been serving as important public service providers at grass-root levels.

(ii) Efficient service have been provided. Firstly, social insurance coverage has been expanding rapidly since the mid-1990s. Urban Basic Old-Age Insurance, Urban Basic Medical Insurance, Unemployment Insurance, Work Injury Insurance and Maternity Insurance have basically achieved full coverage⁵⁶. This is mainly attributed to the hard work of social insurance administration institutions, which have endeavoured to make sure that all eligible participants are covered. Secondly, reform policies have been fully implemented. Social insurance system in China was started in the Planned Economy Era, therefore many difficult problems needs to be solved to make the transition to a modern social insurance system. Such problems include making sure pensions are paid on time and in full, covering laid off workers of bankrupt SOEs, achieving portability of social insurance accounts, etc. Each of these problems require detailed and complex solutions.

(iii) Management and service quality continuously improved during the endeavour to achieve computerization, professionalization and standardization.

In terms of computerization, 1.95 billion people⁵⁷ participating in social insurance schemes have been covered by the data base established under the *Golden Insurance Project*. The computer network has been extended to by and large all social insurance administration institutions in counties and even communities in the advanced Eastern regions. A standardized process, from registration to benefits calculation and payment, from service for the retirees to internal supervision system have been formed. New forms of service such as “on-line social insurance service” and “e-social insurance service” are promoting the progress of computerization of social insurance administration. In the beginning, information technology was only used to deal with social insurance service, but now it has been widely used in the

⁵⁴ Data concerning social insurance institutions at town, village and community level are quoted from 2013 Social Service Development Statistics by the Ministry of Civil Affairs. See the 2014 Statistics Yearbook of the Ministry of Civil Affairs.

⁵⁵ See the Appendix for the main contents of social insurance administration service.

⁵⁶ See Appendix 2 for the coverage of each social insurance schemes.

⁵⁷ Accumulating all the participants in the five social insurance schemes.

supervision of social insurance funds, early warning of possible risks in the management of the funds, and policy making support. The data base collects information including the situation of employers and individuals, the payment of benefits, as well as the microeconomic, demographic and public service situation of the region. Such information will be used to submit regular statistics report to relevant government departments, as well as in analysis for future policy making. Some regions have established social insurance funds supervision and early warning system as well as actuarial system for old-age insurance and medical insurance. The actuarial system, by adopting scientific modules and ways of calculation, provides a reliable way to analyse and predict the earnings and expenses of funds, so that risks could be well prevented.

In terms of professionalization, a team made up of both full time and part time social insurance workers has been trained. By the end of 2013, and above 177430 staff are working at social insurance administration institutions at county level and above. Among them there are 33993 administrators, 65387 clerks, 56953 professionals, and 21907 other workers⁵⁸. 90.6% of them (160819 workers), have bachelor and above degrees; 32.2% of them (57217 workers) have professional certificates; and 79.1% of them (140419 workers) are below the age of 45. Therefore, judging by the age structure, education background and professional level, social insurance workers are of high quality even among all civil servants. At the same time, trainings of social insurance workers have been stressed, and 17 national training sessions for administrators of social insurance administration institutions have been held, training over 1000 people.

In terms of standardization of administration, firstly, national standards, industry standards, local standards, general standards, professional standards, operation standards have been widely adopted. National standards include *Social Insurance Service General Instruction*, *Social Insurance Service Institution Facility Instruction*, *Social Insurance Visual Identity System*, etc. And many local standards are under making. Secondly, social insurance service operation process has also been standardized, by adopting scientific business dealing methods. Focus of such process standardization was mainly put on “coverage expansion” and “funds management”. Each step of the process, such as registration, account opening, change of registration information, payment of benefits, funds management, liability, etc., now has its detailed guiding standards.

(iv) A social insurance administration system guided by the government, participated by all walks of life in society and supervised by the general public by and large formed. Now among social insurance administration institutions which are at above county levels, 1 is at Department level, 34 are at Deputy Department level (26 at Provincial level and 8 at Municipality level), 194 at Division level, 622 at Deputy Division level, 1790 at Section level, and 5723 are below Section level. 4388 of these institutions, or 52.5%, are managed in accordance with the *Civil Service Law of the PRC*, among which 56 (86.2%) are at Provincial level, 702 (70.8%) are at Municipality level, 3630 (49.7%) are at County level. The *Social Insurance law of the PRC* stimulates that all social insurance administration institutions are public administration institutions.⁵⁹ After 2012, all social insurance administration

⁵⁸ Administrators are director generals of the institution and directors of departments; professionals are financial workers, statistics workers, computer software workers and inspecting workers; clerks are those who deal with

⁵⁹ Article 72 of the *Social Insurance Law of the PRC* stimulates that “Social insurance institutions shall be established in the overall planning areas. Social insurance institutions may, as needed for their work,

institutions have become fully publicly financed. At the same time, state-owned commercial banks, some local postal banks and local commercial banks are now participating in the collection of social insurance contributions and the payment of benefits. In recent years, some regions have explored ways of involving commercial insurance companies to deal with some of social insurance business. With social insurance schemes expanded to cover all citizens, participating employers and individuals are more and more aware of and executing their rights to know, and rights to supervise, concerning the collection, payment and management of social insurance funds, thus greatly supports the building of a social insurance administration system guided by the government, participated by all walks of life in society and supervised by the general public.

2. Lessons Learned

Years of development and reform in social insurance has made policy makers realized that social insurance administration is in the domain of public administration, and that it is crucial to use limited resources to provide better management and service. The structure, function, staffing and budget of social insurance administration institutions are the foundation for providing better social insurance service. Reviewing the progress made in the 20 years development of social insurance system in China, there are many valuable lessons that are worth to be learnt:

First, social insurance administration should be put in the general picture of national reform. While clear direction should be mapped out, strategies and plans should be strictly implemented. Second, the idea of “putting people first” should be adhered to, and more innovations should be made to improve service. Third, based upon current national condition, at every stage of reform, a focus should be found and efforts should be concentrated on this point. Fourth, foundations of social insurance should be consolidated. Fifth, problems such as shortage of workers and heavy work load should be overcome, and detailed and accurate management should be achieved. Sixth, service quality, in particular, safeguarding social insurance funds and protecting social insurance rights of the citizens.

establish branches and service outlets in their respective overall planning areas upon approval of the local social insurance administrative departments and institutional staffing administrative organs.”

Chapter II Major Problems and Challenges

I. Major problems

Although great progress have been made in social insurance administration, which greatly contributed to building a social security system that covers the majority of Chinese citizens, the current system, in terms of its capacity and quality of service, still lags far behind the demands of the general republic. Now it is a crucial time for the work in the field of social insurance administration, which faces the following problems:

1. Defective management system and unsound resources distribution

Resources distribution, power structure and ways of operation, efficiency and quality are all determined by the institutional frame work of a system. However, for a long time, “how to manage social insurance administration institutions” has been a controversial problem, to which different, even contradictory answers exist:

First, the question of a “super department” or a “small department”.

Those advocating a “super department” call for reorganizing social insurance, social welfare and social assistance into one single department. Currently these issues are under the charge of several different government agencies. The Human Resources and Social Security Departments are responsible for the 5 social insurance schemes, the Civil Affairs Departments are in charge of social welfare and social assistance, and

Health and Family Planning Departments, Trade Unions, Disabled Persons’ Federation, and CPC Committees are responsible for old-age subsidies, supports for difficulties, disabled persons’ welfare, New Rural Cooperative Medical Insurance, family planning subsidies, supports for major diseases, etc. Those who call for a “small department” advocate the establishment of an agency specialized in social insurance administration. But even the coordination among departments in charge of social insurance are currently in disorder. For example, at present, both the Human Resources and Social Security departments and the Health and Family Planning departments are responsible for the New Rural Cooperative Medical Insurance. The overlapping of responsibilities and lack of coordination have caused double charge of contributions, double subsidies, redundant capacity building and waste of resources. Another example is the collection of social insurance contributions. In some regions the social insurance administration institutions collect them, some other regions give this authority to local tax departments, and there are regions where social insurance institutions and local tax departments share responsibilities. Such confusing ways have caused great difficulties in funds management. In most of the regions where collection of contribution and funds management are under separated departments, there exist inconsistency of accounts receivable and funds actually collected. Some regions even encounter difficulties in distinguish between deposits in individual accounts and social pooling funds.

Second, the ambiguous identity of social insurance administration institutions. Organizations in China are usually categorized into government agencies, public institutions, enterprises, etc. However, social insurance administration and operation institutions, which shoulder the responsibility of providing social insurance service, did not have clear identification for a long time. Although the *Social Insurance Law of the PRC* clearly stipulates that governments at all levels

should establish social insurance administration and operation institutions, in practice, there are different opinions concerning the identity of such institutions. Hot discussions centred upon whether these institutions should be “government agencies” or “public institutions” or social organizations. As a result, in some regions social insurance administration and operation institutions are set as institutions managed in accordance with the *Civil Service Law of the PRC* (accounting for 52.5% of the total number of such institutions in 2013), and their staff are also under the charge of the *Civil Service Law* (accounting for 45.5% of the total number of the staff of social insurance administration and operation institutions in 2013); and other regions designate social insurance administration and operation institutions as public institutions. The lack of nationally unified definition of nature for social insurance administration and operation institutions result in disorder in management, as well as difficulties for the country to set remuneration standards for the staff of these institutions.

Third, the lack of standardized internal structure. Some regions set different management and operation institutions for different social insurance schemes, such as institutions responsible for dealing with old-age insurance (Old-Age Insurance Management Bureau/Centre), institutions specialized in medical insurance (Medical Insurance Management Bureau/Centre), work injury insurance administration and operation institutions (some regions combine them with old age insurance institutions or medical insurance institutions), and unemployment insurance institutions. In some regions, new administration institutions are set up whenever there is a new insurance scheme established by the government. There are also regions which set up different institutions for different groups of participants in a same insurance scheme. To take Old-Age Insurance Scheme as an example, some regions set up Old-Age Insurance Administration and Operation Institution for Government Agency Employees, Old-Age Insurance Administration and Operation Institution for Enterprise Employees, Old-Age Insurance Administration and Operation Institution for Urban and Rural Residents, etc. Also there are regions where “general business” (including registration, contributions collection, and “specialized service” (service of each insurance scheme) are separated in different institutions. According to statistics⁶⁰, in 2013, 5 Provinces, 110 Municipalities and 763 Counties had institutions specialized for managing old-age insurance for government agencies, 5 Provinces, 108 Municipalities and 1397 Counties had institutions for social insurance institution for rural residents (see Appendix 4 for the setting of social insurance in China). Overlapped institution settings and redundant capacities are detrimental to the provision of convenient and efficient service.

Fourth, the lack of standardization in “administrative level” of social insurance institutions. In some Provinces (e.g. Shanxi Province), Basic Old-Age Insurance for Employees are administered at provincial level, and its detailed operation is given to comparatively independent institutions. Business of other social insurance schemes in Shanxi Province are mainly operated at municipality or county level. In the majority of regions, social insurance administration and operation institutions are subsidiaries of the local Human Resources and Social Security Departments at the same levels, but in a few regions, for example, in Wuxi City of Jiangsu Province, the Wuxi Social Insurance Centre directly reports to the City Government.

Fifth, the lack of standardized naming pattern of social insurance institutions. Now in China these institutions all have very different names, some are named as “Bureaus”

⁶⁰ Source: *Staff and budget of Social Insurance Management and Operation Institutions 2013*

while others are named as “Centres” or “Divisions”. For example, in a certain Province, among its 179 Old-Age Insurance administration and operation institutions, 147 are “Bureaus”, 10 are “Centres”, 14 are “Divisions” and 8 are “Offices”. And in those 147 Bureaus, 40 different names exist, such as “Old-Age Insurance Bureau”, “Old-Age Insurance Administration Bureau”, “Old-Age Insurance Affairs

Administration Bureau”, “Social Insurance Administration Bureau”, “Social Old-Age Insurance Administration Bureau”, “Social Labour Insurance Administration Bureau”, “Labour Insurance Affairs Bureau”, “Branch Bureau ofLabour Insurance Bureau”. Such confusing names have made it very difficult for the country to make a sound and reasonable whole social insurance system.

2. Unsound service system with weak link at grass-root levels

First, currently service methods and channels are still quite limited. Most business have to be done at counters in social insurance institutions, which are concentrated in downtown areas. Online service and E-social insurance have not yet played their full roles. At present, self-service machines, Internet, and telephones can only provide simple information search and bills printing service, lagging far behind the demands of the general public. Second, service branch are not easily found in many communities, and many community branches’ business do not cover contributions collection, application evaluation, pension calculation, etc. Many local level information networks are only physically connected to the system, without actual sharing of information. In particular, some towns and villages in mid and western regions even face the situation of “3 no”: no fixed workplace, no necessary office facilities, and no long-term staff. Such situation in poor and remote areas is even worsened by the scarcity of commercial banks there, making it difficult for people to participate in social insurance schemes, pay their contributions and get payments.

3. Underdeveloped information network infrastructure development

First, the current functions of information network are not comprehensive enough. At present the social insurance information network only supports common everyday business, and is unable to support policy making and provide convenient and fast service. The main problems are: data not sufficiently utilized; data only accessible by institutions rather than general public; data unable to be utilized due to lack of proper methods.

Second, social insurance data have become an “information island”. In most regions, social insurance data can only be transferred and shared in the vertical way, but not in the horizontal way, thus unable to serve the needs of transfer of social insurance accounts. Third, the quality of data base urgently needs to be improved. Duplicated data record, data missing and fake data exist in many regions, according to field studies. Fourth, defects exist in information network infrastructure construction and maintenance system. Many regions outsourced key business, such as layout of information network, management of servers, maintenance of data bases, settings of network communication facilities (such as switchboards and routers), to private computer companies, and adopted systems that are still under development. This has made the operation and maintenance of system too much dependent upon the private sector, who then has chance to grasp key information concerning social insurance funds, resulting in serious risks of funds safety. Moreover, the current network platform at local level only has simple functions, such as inquiries and information collection, and is unable to deal with other business. At the same time,

there are some network systems that are too complicated for the use of the clerks and the general public.

4. Shortage of financial and human resources, difficult to achieve management with accuracy

Since 1997, participants in social insurance are increasing by an average of 16% annually, reaching 1.95 billion in 2013. The rapid rise of participants resulted in greatly increased workload and complexity for social insurance institutions. At the same time, with the diversity of social background of participants, the work is becoming more complex. Before 2005, participants in social insurance schemes were mainly urban employees, with comparatively stable work and income, and employers (human resources division or financial division of enterprises) were responsible for the operation of their social insurance issues. With large number of rural migrant workers coming to cities and the diversification of employment, there is great increase in people with flexible employment, self-employed people, and others who pay social insurance contributions by themselves, resulting in geometrical rise of workloads for social insurance institutions. According to field studies, workload for dealing with social insurance issues of migrant workers or people with flexible employment is three times the amount of workload concerning people stably employed.

Due to the requirement of approval from the Staffing Quota Department for each increase of social insurance workers, and the general trend of cutting public employees by the country, it is very difficult for the number of social insurance workers to be increased at the same pace with the rapid increase of social insurance work. In recent years, the actual number of social insurance workers were maintained at some 170,000. Faced with the increase of workload, on the one hand, social insurance workers have to work overtime frequently (according to statistics⁶¹, in 2012, 87% of social insurance administration and operation institutions across the country are still open at public holidays, and 90% of social insurance workers work over 60 hours per week on average, 50% more than national standard working hours); on the other hand, social insurance administration and operation institutions have to hire large amount of temporary workers and assign work at counters to them. These temporary workers are usually untrained and low paid, thus it is hard to safeguard high quality service. On the other hand, due to the lack of incentives, while most social insurance institutions complain about the shortage of workers, there are cases where “formal” workers don’t work on the first line and are unwilling to do difficult jobs while temporary workers shoulder most heavy tasks but are less paid.

Moreover, there is a lack of public financial support for social insurance administration and operation institutions. In most regions, these institutions are publicly financed as public institutions, added by some special funds. The budget they can get from the public finance is calculated based upon “average business expense per civil servant” multiplied by the staff number. In poverty stricken mid and western regions, some social insurance institutions even cannot get enough budget for their daily operation and are at the edge of being shut down. For example, the “average business expense per civil servant” in Zhongwei City and Lingwu City in Ningxia Hui Autonomous Region is less than 2000 RMB. Due to financial difficulties, even petrol, telephone and computer software are

⁶¹ He Ping and Tan Zhonghe, *Survey on the Payment Standards of Medical Insurance*, 2007

unaffordable. Thus they can neither go for field supervision nor use the Internet. They fill in data by hands and make calculation by abacus or calculators.

5. Imperfect social insurance legislation framework

With the increasing complexity of social insurance business and increasing demand, there has been a prominent mismatch between social insurance supply and demand. Facing diversified requests of different social groups, it is impossible to manage everything with administrative measures. Only by law could fair and sustained social insurance service for everyone achieved, with rights matched with obligations. However, the lack of legislation and the difficulty in law enforcement have become a problem for social insurance work. On the one hand, legal awareness of the general public has strengthened, and any mistake in any process by the workers might result in a law suit. On the other hand, the newly amended Law of Executive Accusation has incorporated social insurance, and the rule of law, administration in accordance with the law and strengthened law enforcement have been highlighted by the current top leadership, making it high time for the improvement of legal framework. However, apart from the *Social Insurance Law of the PRC*, which set some broad principles concerning the administration and operation of social insurance, there has been no specific and detailed law in this regard. In some places there occurred several disputes or even confrontations between customers and social insurance workers, a few of them were serious. Also there are problems such as misbehaviours of social insurance institutions and workers, fraud concerning social insurance funds, etc. Therefore, a special law in the field of social insurance administration and operation is urgently needed so as to protect the legitimate rights and interests of the general public and maintain the order of the social insurance system.

II. Outlook and challenges

At present and for some time in the future, social insurance administration in China faces challenges from both its own urgent need for development and the national economic and social situation. The rapidly developing science and technology also have influence on this sector.

1. Challenge of achieving operation by the law

With the universal coverage of social insurance, different social groups begin to have different demands on social insurance service. The strengthening legal awareness of the general public has made Chinese citizens more active than ever before to participate in the supervision of social insurance administration. It is therefore vitally important for social insurance administration institutions to be operated by the law. The major challenge is to balance the demands of different social groups, provide efficient, safe and standard service, under a bettered legislation framework, against the background of a strengthened legal awareness of the whole society. The current legal framework concerning social insurance administration, however, lags far behind the demands of the general republic as well as the national target of achieving modernization of governance and the rule of law. The current laws and regulations in this sector are not fully reflecting the wish of social insurance institutions and social insurance participants, and are now well-targeted. Problems also exist in law enforcement. These problems are against the principle of the rule of law raised at the 4th Plenary of the 18th Session of the CPC, and are detrimental to long term sustainable development of social insurance.

2. Challenge of further strengthening capacity to meet the increasing demands

Demands for social insurance service are increasingly diversified and expanded, such as the expansion of the earnings and expenses of funds, increasing workloads and their complexity, the rise in cross-regional migrant workers, transferring of social insurance accounts to other regions, contributions collection problems caused by frequent changes in work status, etc. Yet the current supply of social insurance service still cannot meet these new demands.

3. Challenge of achieving balanced development among regions and equal service

For a long time China has been under an urban-rural dual structure. Input from public finance has been focused upon urban development. As a result, in urban areas, public facility and infrastructures are comparatively advanced, with convenient transportation, easy internet access, well-developed commercial banks and postal banks as well as logistic service, which have laid a solid foundation for social insurance work. However, in rural areas, in particular some poor and remote regions, underdeveloped transportation, unstable electricity, no access to the Internet, lack of commercial bank or postal bank branches have made social insurance work very difficult. Moreover, social insurance in China was started in urban areas, so social insurance institutions were first established at counties and above levels. In rural areas, due to the late start, the underdeveloped infrastructure, the overstress of coverage expansion but overlook of administration and service, social insurance administration and service capacity is very weak, difficult to provide rural residents service that is equal to what their urban counterparts have. Our field surveys showed that in some remote regions of Yunnan and Guizhou Provinces, social insurance institutions have no fixed workplace and even no stable electricity for computers. In a remote village in Tongchuan region, Guizhou Province, residents have to go to the town which is 80 km away for their social insurance issues. The round-way trip on rugged mountainous road takes them 2.5 days.

1. Challenge of rapid urbanization

Urbanization rate in China will be close to 55% by 2015, and 60% by 2020, and 70% by 2030, with urban population exceeding 1 billion that year. However, the large number of rural migrant workers transferring regularly between rural and urban areas will still exist for quite some time, resulting in strong mobility of population. To be well adapted to mobility is a criteria for high quality social insurance service. Therefore, it is a great challenge for social insurance institutions, in particular those at grass-root levels, to do a good job in coordinating urban and rural social insurance schemes, policy consistency, cross-regional transfer of social insurance accounts. To take Old-Age Insurance Scheme as an example, since future benefit payments will be directly connected with the length and levels of contributions, it is vitally important to record the participant's status no matter where he/she lives and works. It is not an easy job for social insurance institutions to make sure that this person's social insurance rights are not violated by his/her change of work or place of living.

2. Challenges from China's profound social and economic changes

China now is at a critical stage of building a well-off society and achieving modernization. On the one hand, this country is stepping into the group of middle

income nations with its accelerated industrialization, urbanization, computerisation, agricultural modernization and narrowing urban-rural development gap. The strengthening comprehensive national power lays a solid foundation for social insurance work. On the other hand, however, China is at the initial stage of socialization, which means that the mismatch between the general public's demands for better life and underdeveloped productivity will exist for a long time. Such mismatch is also evident in the social insurance sector. At the same time, China's endeavour to achieve the rule of law, market economy and democracy will further accelerate the improvement of legal framework of social insurance. Social insurance administration will become an integral part of national governance. However, with dramatic changes in economic, social, urban and rural, and demographic structures, this period is a time when social conflicts might occur frequently. Thus social insurance administration service is under great challenge and pressure during this period.

China's economic slowdown makes universal coverage and increasing fund more difficult. Undergoing rapid industrialization and urbanization, China is still at a low level of industrialization and the middle- and lower-end of international industrial chain. Also, national economy is losing speed as a result of uncertainties, such as industrial restructuring, phasing out excessive and outdated production capacity, economic globalization and global financial crisis. All these makes it harder to manage social insurance and speed up expanding coverage and collecting contributions. During economic readjustment, businesses that heavily rely on the consumption of energy and water and produce much pollution will be shut down, the number of laid-off workers will increase. Besides, the number of people putting off paying contributions will go up, so the margin of increase in social insurance fund will be dragged down. It remains an arduous task to realize insurance for all, collect due payment and maintain the balance between expenditure and revenue. China's booming tertiary industry will see more people get insured. However, they are likely to buy insurance as an individual, so it will be more difficult and expensive in collecting contributions, and better management and services will be required

3. New technologies such as cloud computing and big data will overhaul social insurance management model

The era of big data⁶² makes the government the largest holder of information resources. Now authorities are tasked with innovating social management and service by leveraging the fast-developing big data technology. Big data will bring

⁶² First brought up in 1990 by Bill Inmon, then father of database, big data made its official debut in the 2011 EMC World Conference themed on "Cloud computing in big data era". Big data, in its traditional sense, means that the amount of data has become so large for current analytical tools to promptly capture, manage, process and organize into information for users to make a decision. In their book *Big Data: A Revolution That Will Transform How We Live, Work, and Think*, Viktor Mayer-Schönberger and Kenneth Cukier look into the features of big data, and then give an expressive definition. In their view, volume, velocity, variety and value are four major features. Volume means the quantity of data that is generated is very large. Variety means various types of data, including structured, semi-structured and non-structured data. Velocity means the speed of processing should be sufficiently fast. Value means that new knowledge emerging from the analysis and processing of data can generate greater wealth. Scientists put forward big data technology to refer to the technology that helps us to obtain valuable information in various data masses. Technologies fall into eight groups: data collection, data access, infrastructure, data processing, statistical analysis, data mining, model prediction. They can be categorized into three computing models: batch processing, stream processing, and interaction analysis.

tremendous changes to the management of social insurance, a public service provided by the government to the public with the richest content, widest coverage and largest influence. Some developed countries have already applied big data to social insurance management. Now, 1.3 billion people in China are covered by social insurance, becoming the largest and most diverse database in the world. Its strategic importance is hard to be replaced. The application of big data will interrupt vested interest, and open the valve of information sharing among government agencies and localities. Existing management model will be transformed, a huge challenge for traditional management service.

Chapter III Basic Principles and Goals Governing China's Social Insurance Administration System

I. Basic principles

The management system of social insurance has a direct bearing on the sound operation of social insurance system, the rule of law and the modernization of the country's governance system. It is related to the vital interest of every citizen, and will exert a huge influence on economic and social development. Therefore, following principles must be upheld.

First, law-based management. The rights and interest of all stakeholders should be safeguarded. As social insurance relates to the rights and interests of all parties, so every detail in the process makes a difference, leading to conflicts and disputes, which must be properly addressed in accordance with the law. The introduction, improvement and implementation of related laws and regulations are an integral part of the management and service system of social insurance

Second, government taking charge, social participation and public supervision. China's situation dictates that the management of social insurance will not be handed over to the market in a short time. Instead, government will be responsible for matters that affect people's livelihood by shouldering the major responsibility. This does not mean that government should do all the job, rather, it should introduce market mechanism in a planned and well-organized manner. Favourable environment should be forged for public participation, so that people can fully exercise the right of expression, supervision and participation in social insurance.

Third, providing efficient and accessible public services for employers as well as employees. The priority of the management system and intermediary service system is to offer accessible, safe and efficient services to employers and employees. The gauge on the service capacity and level is whether convenience is provided for the public, whether information is safe and whether service is satisfying.

Fourth, efficiency. The cost and performance must be taken into account in reforming the management system of social insurance institutions and improving the intermediary service system. Blindly starting up projects and overstaff are prohibited. Intermediary services need not to be full-ranged. These makes the principle of efficiency all the more necessary. A performance evaluation, incentive and punishment mechanism should be set up in a scientific and rescannable way to govern the intermediary service of social insurance.

Fifth, a practical and forward-looking management system with integrated design, unified plan, and gradual implementation in accordance with the overall reform of social insurance as well as economic and social development. Social insurance policies in China differ between rural and urban areas and among regions. Due to different levels of development, localities vary in infrastructure, quality of the public, social and cultural traditions. Although a basic framework of social insurance is in place, specifics of implementation and policies still need to be worked out and improved. All these differences and the instrumentality of reform should be fully considered. The government should design, plan and carry out the building of management system and intermediary service system of social insurance. That means no uniform model or mechanism is imposed on the management system of social security, let alone simply apply the model of urban areas to rural areas, that of developed areas to deprived areas, and that serving the employees to that serving

the self-employed and farmers. Besides, different positions, staff with different professions, and different management (such as organization) models are need.

II. Targets

The overall target is to put in place a unified and standardized management system and intermediary service system of social security through reform, to deliver efficient and convenient service.

Specific goals include: first, scientific design of management system and a unified intermediary service system; second, sound rules and regulations, intermediary services in strict accordance with the law and standardized practice; third, improved service system to deliver convenient, efficient and secure service to the public; fourth, safe and convenient information system and service network -- providing online service based on social security cards and big data for most activities; fifth, popularizing professional management service, exploring diversified service provision and corporate governance structure of social security; sixth, establishing a performance evaluation system, a scientific and complete mechanism to manage fund; seventh, cultivate an intermediary service team with quality, skill and morality that are fully committed to people and can do both whole-time and part-time job.

Chapter IV Overall Vision for the Improvement of the Social Insurance Administration System

1. The overall line of thinking

The overall line of thinking for management system is to gradually put in place a management and service system with “a complete system, two features, three bureaus, and four platforms”.

“A complete system” means to gradually put social security departments in charge of intermediary services, and elevate the “Social Security Bureau” to be directly under the people’s government on the basis of the overall management system. Efforts will be made to integrate scattered social insurance programs among social security departments, social welfare and social relief programs among civil affair departments, social insurance programs among organization departments, departments of public health and family planning, labour union and Disabled Persons Federation. All these scattered programs will be consolidated into the coordinated and unified management of the Social Security Bureau.

“Two features” means to build a unified public platform for management services on the national level. We will follow unified standards of management system, interconnected information platform, storing basic data in the same database, one-card public service and standardized service provision. It should be clearly identified that the management service of social security works for the public.

“Three bureaus” means to integrate internal departments and organizations within the Social Security Bureau. Three interconnected while independent bureaus, namely, “Bureau of Managing Contribution Payment”, “Bureau for Paying Remuneration” and “Bureau for Inspection and Supervision”, will be built in line with the core businesses and management service of social insurance.

“Four platforms” means to establish and improve an information-sharing platform, a management and service platform for floating population and people who live and go to hospitals not in their hometown, a real-time monitoring platform and an education and training platform for the management staff.

2. Overall vision for the reform of service system

First, it is required to redesign the process of intermediary service with the focus shifting from providing convenience for management to providing easier access to the insured employers and employees. Second, we should speed up setting the bar for social security, so that by the end of the 13th Five-Year Plan (2016-2020), standardized management will be extended to every position, every link and every important operation. Third, we should promote ICT application to online service, so that by the end of the 13th Five-Year Plan, over 90% employers and individuals can access to services through Internet terminals, text messages, Weibo (a counterpart of twitter), self-help machine, and phone calls. Universal service will be provided regardless of localities, time and space within the whole country. Such services include: information registration and alteration, payment base declaring, contribution payment, treatment receiving and consulting. Fourth, full play should be given to commercial banks in providing social security services. For example, we should fully leverage the advantages of People’s Bank of China, such as a secure information network, an efficient network covering both urban and rural areas. We

can create a special account at commercial banks for all monetary transactions, including contribution payment and giving out compensation, so as to forge a service network where contributions are paid through banking outlets or online portals (including cell phone), and compensation is distributed by banks. Fifth, neighbourhood committees should be in charge of social security in urban communities, and village committees in rural organic unit, where “self-management, self-service and self-supervision” will be carried out. Measures such as policy guiding, legal guarantee, improving information network and rational layout of commercial bank outlets will be taken to solve the problems in social security service at community level.

5. Create favourable conditions for a new system of management service

First, we should speed up improving relevant laws and regulations, and elevate tested codes, standards, and measures to become law, so as to provide sound legal guarantee. Second, we should increase financial support to social security management. On the basis of China’s conditions and international experience, it can be considered to adopt a standard for management fees, usually 2% of the annual fund collection. Fund can come from the fiscal budget or the contribution. Third, following the internal laws governing the social insurance management, we should explore different programs to encourage qualified public organization to participate, and gradually give the market the decisive role in allocating resources.

Chapter V Suggestions and Measures for Improving Social Insurance Administration System in China

Improving the administration system of social insurance is an integral part of integrating the safety net in rural and urban areas and a basic requirement for realizing fair and sustainable social security. I wish to put forward following suggestions to accelerate improving the management and intermediary service system of social security and achieve abovementioned vision.

1. Integrate resources and realize unified management of social security

The management system relates to the interests of government agencies, the stability of social security teams, as well as the vital interest of the public. Practical measures should be taken to gradually integrate the services, and the rush for success should be guarded against.

First, we should finish the integration of the old-age insurance and medical insurance for rural and urban residents as soon as possible. The State Council has made it clear to combine the old-age insurance for urban residents and New Rural Old-Age Insurance into one basic pension scheme that will be managed in a unified way. Public health and family planning agencies should transfer the New Rural Old-Age Insurance to human resource and social security agencies, and build an integrated medical insurance program for unified management, according to the State Council's plan of institution reform and function transformation.

Second, we should integrate the management system of collecting contributions, transfer the payment at local taxation authorities to commercial bank outlets under the management of social security authorities. According to the fund-collecting procedure in China, social security department will be responsible for registration, reporting payment and checking the base. When the evaluation is done, banks will collect the fund, deposit it into separate accounts (consolidating fund account and individual transaction fund account), and then transfer to a special account for social insurance fund.

Currently, commercial bank network for collecting contributions have covered rural and urban areas. It is unnecessary that tax authorities add the fund management and extend the management chain. Besides, tax authorities only collect contribution paid by regular employers. It is social security agencies that collect the contribution of most medium-, small and micro-sized businesses, individually-owned businesses and flexible workers. Tax authorities only collect old-age insurance and medical insurance contributions. As the number of flexible workers, individual insures increases and the Social Security Law demands the combination of five insurances into one, the practice that tax authorities collect contribution can no longer satisfy the development of social security. Regulations should be introduced as soon as possible to transfer the collection duty from tax authorities to social security institutions for unified management, and designate commercial banks to collect the fund.

Third, we should integrate all intermediary service providers set up by all levels of human resource and social security departments into Social Security Bureau for coordinated management of basic old-age insurance, unemployment insurance, medical insurance, work-related injury insurance and maternity insurance. Intermediary service institutions above prefecture level manage and supervise social

security affairs. We should gradually abolish the service of specific affairs, which should be undertaken by the public service platform and public institutions (commercial institutions) of the counties, cities, regions and village communities. Now that human resource and social security departments at prefecture and city level no longer design social security policies, they should be integrated into the Social Security Bureau.

Fourth, we should integrate social security programs including old-age entitlement, award and subsidy of family planning and the old-age care for village cadres, change multiple management and eliminate redundant investment. Specific measures includes transferring the old-age entitlement under civil administration to human resource and social security departments, and incorporating it into the old-age care of the rural and urban residents; incorporating the old-age subsidy for veteran village cadres and party members under the civil administration to the old-age care of the rural and urban residents; transferring the subsidy for family planning to human resource and social security departments, the old-age care to the unified management of intermediary service institutions. Meanwhile, we should sort out subsidies for targeted groups, and these subsidies include social special care, the old-age subsidy for people on the confiscated land, pension for the disabled or for the family of the deceased, subsidy to the family of workers deceased because of non-worked-related reasons, subsidy to the spouse of the retired, so that these programs will be managed in a unified way.

Fourth, we should create conditions to integrate all social security affairs of other departments (such social insurance, social relief and social welfare) into same-level Social Security Bureau, and elevate these bureaus to be directly under the government. The Central Social Security Bureau is directly under the State Council, so it is a ministerial-level agency. Provincial and county-level Social Security Bureau is directly under the provincial and county government. Our goal is to complete the reform at all levels by the year 2030.

2. Classified management of staff at intermediary service institutions

According to China's conditions, all institutions should be of administrative nature in the short term (around 10 years). Classified management of staff will be practiced. Positions within each intermediary service institutions will fall into three groups: administrative, professional and operational. Administrative staff will be incorporated into the management of civil servants, professional staff should be incorporated into the management of technical staff of public institutions, and operational staff should be incorporated into the management of social workers and managed with qualification authentication. In principle, labour contract management will be combined with socialized administration. Management staff accounts for 10%, professional staff account for 30%. Other operational positions can be assigned by other institutions or qualified agencies with bidding competition, regular evaluation and professional management.

Basic principle for determining the operational position should be to consider the factors influencing the staff at intermediary service institutions, and these factors should mainly be the workload that cannot be simply determined by the ratio of staff to consumers. Factors to be considered are as follows. First, the level of economic development of one region. A region with high economic growth, larger population, more advanced transportation and communication has better-quality population, so such regions have more service-receivers. Second, distinguishing downtown area, suburbs and rural areas. This has to do with the public service

resources. Population and public service facilities and resources are concentrated in downtown areas, so other things being equal, there should be more service-receivers. In comparison, public service resources are less in suburbs and rural areas. These factors must be taken into account when determining the per capita amount of service. Third, the per capita amount of service should be calculated based on the handling of old-age insurance and medical insurance (including work-related insurance and maternity insurance). As two importance insurances, they are very different in daily operation and compensation payment, though they are similar in insurance purchase and contribution payment. If they are treated in the same way during institution size determination, their differences will be concealed, leading to uneven distribution of workload and resource waste.

3. Take the opportunity of insurance for all and consolidate the foundation of management service

“Registration of insurance for all” is important for the long-term and sustainable development of social insurance system, achieving the fairness in social security and consolidating the foundation of social insurance management. Registration of insurance for all will improve the database of the insured employees by building a database and registering legal persons; establish a database for insured urban and rural residents through the registration at community service centre; establish a database for the insured students through school’s record; realize the comparison and exchange of information with public security’s database of household registration. Registration of insurance for all consolidates the basis for social security management, and we should take this opportunity to strengthen basic work. First, guided by the demand of the insured for management service, we should promote unified, ICT-based, and

standardized service, accelerate issuing standards, launch online service and issue social security card to make sure all insured has a card and promote its use. Second, we should strengthen the service team by classified management, improved position arrangement, strict discipline and promote work ethics focus on civilized services, so as to deliver careful, dedicated and considerate services. Third, we should optimize the intermediary service model. Models should be transformed from being opened to a specific group to the urban and rural resident, from tax collector system to an integrated tank system, from lobby service to a combination of lobby service and online service, from service network stations concentrating in urban areas to roads, communities, and rural labour platform, from unified management by the intermediary service institutions to the purchase of public services through multiple channels. In this way, we can improve the accessibility of intermediary services.

4. Explore the corporate governance structure of social insurance

According to public management theory in the west, the increasing demand for public service requires the government to reform its philosophy, functions and organizational institution, break the existing bureaucracy, and instead build a management system guided by the public need and a service philosophy. New public management theory believes the relationship between the government and citizens is a subject-object relationship with a customer orientation. The social contract theory believes public service institutions belong to the government agencies, and their administrative nature and lack of independence is the source of poor service capacity. The commanding and controlling practice in some places

should give way to communicative, consultative and administering model. Public service institutions with capacity to integrate and quickly respond should be built.

At the initial stage of social insurance, it is necessary for intermediary service institutions to rely on administrative measures. However, with universal coverage, the conflicts between demand and supply of such institutions becomes sharper. It is especially true that when China is building a service-oriented and law-based government, administrative measures alone cannot satisfy the public demand for social insurance, and governance mechanism and service manner of public service must be introduced. In terms of the institution, the service model relying solely on government agencies should be changed into a market mechanism for privately operated services and a governance mechanism with public participation. In terms of the organizational system, we should build a flat system. To put in place a corporate governance system, we should follow the internal laws governing the social insurance management, and explore different programs to encourage qualified public organization to participate, and gradually give the market the decisive role in allocating resources. Then we should identify what services can be provided by intermediary service institutions themselves, what can be outsource, what can be provided through the market. In this way, we can make better use of social resources, improve efficiency and capacity, and prevent disorderly expansion of intermediary service institutions. Some features of social insurance decide that some operational positions can be outsourced. Partial outsourcing, social governance and public participation can offer the insured more choices. This is similar to commercial banks and insurance companies where people can choose a service station as they wish. Only through following the new theory on public governance and public participation can we address the lack of fund and staff as well as improve service quality and level.

The key to the corporate governance structure lies in speeding up the reform of public institutions and social organizations, as they are the major provider of public services. Currently, all intermediary institutions are under the government, they are the supervisors and the service providers. According to corporate structure, gradual reform should be carried out. Following issues should be studied. First, the independent legal person status of intermediary service institutions should be identified through legislation. The goal is that they can independently assume civil legal liabilities. We should accelerate building an independent property system of legal persons, so that they can truly become independent legal persons of institution and major public service providers. Second, we should abolish the administrative nature of the intermediary service institutions when conditions allow, so as to transform them into legal persons in real sense. Third, we should speed up the legislation process and determine the legal process for the quality granting and alteration. Finally, we should accelerate policy and institutional design for letting the public decide the allocation of public security resource, so as to create a level-playing field for public institutions, social organizations and commercial institutions.

5. Centre on the ICT application and address understaff with technology

Understaff of intermediary service institutions should be solved by hiring more staff or relying on computers and information technology to improve the efficiency and lower labour costs. The latter is obviously more practical. That's why we should focus on spreading application to deliver more efficient and convenient services. If more than 90% serviced can be delivered through the Internet, text messages, WeChat, Weibo and self-help machines, much human cost can be saved, and

understaff can be addressed through high technology. Therefore, we must integrate all sorts of applications based on social security cards and e-cards, and speed up online social security. Currently, we should build standards for card application and online social security. An insurance registration system, a national service system of online inquiry of individual record, a system of hospital settlement and old-age fund management outside of one's hometown should be established. By this means, we can put in place a four-dimensional system, namely an information-sharing platform, a management and service platform for floating population and people who live and go to hospitals not in their hometown, a real-time monitoring platform and an education and training platform for the management staff. We can thereby supervise the intermediary service institution, so that they can more efficiently manage the fund and safeguard the rights and interests of the insured.

6. Speed up designing and implementing standardized social security management and realize precise management

First, we should accelerate designing and implementing the standards for social security management. Standardization is necessary for improving management capacity and the basis for realizing precise management. Three national standards including the General Principles for Social Insurance Services, and three industry standards including the Visual Identity System of Social Security have been issued. We should take these documents as an opportunity to speed up standardizing social security management. Second, we should gradually setting up a monitoring, predicting and warning system, apply scientific method to the management of social security. We value quality management and quantity control. We will replace ambiguous and vague requirements with specific quantified standards, models and calculations, and extend quantified management to every link of the management service. Quantified data is the basis for raising questions, making judgments and evaluation, so as to guide, adjust and control the behaviours of the insured. Then analysis into current and future expenditure, income and certain risks of the expenditure and income will be conducted before putting forward precautionary measures. Third, the top-level management of social insurance should be transformed into matrix and grid management. The information transfer of top-level management is one-way, while matrix and grid management can connect and coordinate dots. The latter can provide service to the insured on any dot within certain scope, and this can solve the fundamental problem of transferring and renewing social insurance relations. Fourth, on the basis of ICT application and the Internet, we should introduce big data, cloud computing and the Internet of Things to the intermediary service of social insurance. Management and services, such as intelligent identification, positioning and monitoring can be realized step-by-step, so that people and people (through PC and non-PC), people and things, things and things can interact with each other, and the Internet of Things will be applied to social insurance management. The intelligent information provided after the interaction can greatly improve the capacity and level of intermediary services.

7. Establish a security mechanism of fiscal fund management

First, the calculating method of fiscal budget to social security institutions is different from that to other government agencies, i.e. according to capitation. The method is dictated by the internal demand of the intermediary service. The Social Security Law makes it clear that the government is responsible for the management

fees of social insurance, and the central government helps poor regions through transfer payment. The fees can also come from the contributions through legislation. At present, the most pressing issue is to increase the fees. The fees should be 2% of the annual contributions according to international experience and estimates.

8. Four-dimensional management service platform

The era of cloud computing and big data is with us, we have to follow the trend and build a four-dimensional management service platform.

(i) An information-sharing platform

The platform can achieve three purposes. First, government agencies, such as the tax authority, industrial and commercial administration, police security, civil administration, public health department, designated medical institutions and drug stores, can maintain real-time exchange of information with the central database of social insurance. Second, information of the insured can be shared across regions promptly. Third, the data of intermediary service institutions can be shared in a timely manner.

(ii) A management and service platform for floating population and people who live and go to hospitals not in their hometown

The focus will be on medical care and old-age care outside of one's hometown. The platform consists of three functions. First, it allows the real-time viewing and exchange of information on the insured and policies, and the comparison of the parameter information of social security policies among different regions. Second, it automatically evaluates the reasonability of treatment. Third, it collects the information of medical treatment and old age care provided outside of the recipient's hometown, and can complete the qualification authentication.

(iii) A real-time monitoring platform

The platform collects information on the operation and financing of the employers, on the employment and income of the employees, on the livelihood of pension receivers, and on the medical service received by patients. Once unusual situations are discovered through off-site data collection and monitoring, on-site inspection can be in place as soon as possible. Meanwhile, a blacklist will be drawn up to include employers, employees and medical institutions that conceal information or that dodge, underpay, evade, and deceive payment. Those listed will be top targets for supervision.

(iv) An education and training platform for management staff

The key to improve the service capacity lies in a highly-skilled team, making a long-term training mechanism necessary. Real-time training can be realized through online distance education and an information-sharing platform, which is affordable, advanced and flexible. The platform consists of following parts. First, a central database. A database of service data will be built for distance viewing and searching. Second, distance courseware. Skilled teachers will be hired, and video courses will be made available to learners. Third, an automatic evaluation system. Participants can examine how well they have mastered the knowledge through online tests. Last, a certificate system. Those who can meet the requirements through learning and

examination will be granted a certificate, which can be regarded as a reference for employment and promotion in management service of social security.

9. Study on Social Insurance Administration Programs and Projects with the Involvement of Social Organizations and Commercial Institutions

First of all, we shall propose a project list of social insurance services that are open to social organizations and commercial institutions in order to provide regulation and policy references to these entities. Second of all, we have to include public services covered by social security into government procurement, design a detailed implementation plan for government procured service programs, and develop open and transparent procurement processes for social insurance services; in principle, any regular social insurance service must be procured based in principle on a mechanism of competition and by contracting with or entrusting another social organization. Third of all, we have to build a law-based service supervision system for social insurance administration to guarantee the social security rights of the people and to ensure equal and fair competitions among all kinds of service providers. Hence with the supervision system, we shall clearly define the scope, within which social security providers participate, and identify regulation processes and build an effective system composed of administrative, professional and market regulation over various operations including bid-invitation and tendering, inquiry, and entrusting.

We have witnessed some enlightening pilot projects on service procurement in some regions: rural social insurance services at grass-root level has been procured by county/town governments in Hubei Province. Since the reform of social entities at county/town level in 2005, a new administration mechanism called “sponsoring social entities” has been established. The mechanism is led by governments, financially guaranteed, market-oriented, and is based on fair competition, managed according to contracts and supervised by the public. Besides, some services including social security has been outsourced to nongovernmental organizations. In Chongqing, the government has been using a network of commercial insurance institutions covering both urban and rural areas for providing rural social security. After several years of attempt, they have succeeded in offering rural social security with commercial insurance institutions—a new path of multiple-layered administration system of rural social security. Since 2006, Jiangyin City in Jiangsu Province has been entrusting commercial insurance companies to managing new rural cooperative medical insurance services. All the above trials have laid a foundation for us to build a new legal-person administration structure for social insurance which is “led by the government, maintained by social organizations and supervised by the public”. Resting upon the experience of all regions and the institutional reform of social entities, we will gradually put this structure into practice.

10. Improving the Legal System supporting Social Insurance Administration

There is no complete law or regulation on social insurance administration in China at present. Despite special chapters and sections in the Social Insurance Law designating rules for such services, these rules are only in the paper, not operable. Based on Regulations on Collection and Payment of Social Insurance Premiums, Administration Methods for Recordings of Individual Rights

Covered by Social Insurance and the relevant administrative rules and regulations, we shall consider developing Regulations on Adminstrating Social Insurance Services and confirm the rules on each link and process of administering social insurance, how to provide social security services, and the rights and responsibilities of people who enjoy social security services.

Chapter VI Implementation Steps and Major Moves

I. A Strategy of Two Steps

The first step is consolidating and improving insurance systems from today till 2020. During this period, we have to move faster in building the social insurance administration system and the service system and to lay a solid foundation. There are three major tasks during this period:

1. Defining organizational structure

First, consolidating the institutions in social insurance sector, and gradually building a “social insurance administration bureau” based on social insurance processing agencies under the HR and social security departments at and above county level;

Second, integrating processing agencies dealing with endowment insurance for government organizations and social entities into social insurance administration bureaus at all levels (as their internal bodies) in compliance with the system reform of endowment insurance for government organizations and social entities. It is not recommended to set up independent processing agencies under the HR and social security departments at all levels;

Third, setting up pension administration divisions in the provincial and national social security administration/bureaus at central and provincial level in order to make nation-wide plans of basic pension;

Fourth, combining social insurance policy administration departments and social security administration departments under HR and social security departments at county and municipal level;

Fifth, pulling off a common measure for processing “five major insurances”; transferring administration over the new rural cooperative medical insurance from health and family planning departments to social security ones and transferring the collection of social insurance premiums from social security institutions and local tax authorities to commercial banks; incorporating independent processing departments of medical insurance and unemployment insurance inside social security institutions into social security administration bureaus;

Sixth, determining the internal organization framework for social security administration bureaus at all levels, consolidating existing administration organizations and regrouping all business departments except the Party, political, the League and logistic bodies into three divisions, namely administration division for the collection and payment of social security premiums, administration division for social security treatment, and supervision and inspection division for social security fund.

2. Improving the processing and service system

First, accelerating the issuance of social security card and trying to make sure that every resident has a card as of 2020, and opening all the functions of social security card in order to realize that “one card applicable to all scenarios, nationwide”;

Second, streamlining organizations and functionalities of labour insurance agencies in administrative villages of neighbourhoods and districts of towns and counties. In every district or administrative village of towns and counties, there should be at least one commercial banking outlet that collects social insurance premiums and administers social distribution businesses on behalf of corresponding bureaus and institutions;

Third, expediting building a nationwide processing information network and realizing the online processing for all social insurance services except review and approval. Multiple channels such as internet, short messages, WeChat, email, self-service machine, and counter, will be available for service administering and search.

3. Improving the “four-in-one” social insurance administration platform.

The second step is that based on the first step and around 10 years of efforts, we are going to pull off a common social insurance administration system and a comprehensively modern social insurance governance system.

(i) Building an integrated nationwide social security administration system, with HR, social security, health, civil services, organization department, the trade unions and other resources consolidated, and incorporating businesses related to social insurance, social welfare, and social relief into social security administration bureaus.

(ii) Our preliminary idea is to streamline the hierarchies and institutions of social security administration organizations and remove municipal social security processing bodies. Social security administration bureaus at provincial level will directly take charge of social security bureaus at county level and branch agencies of the latter will be responsible for administering social security businesses. In neighbourhoods and administrative villages, social security administration will be conducted in a grid-based manner.

(iii) Social insurance administration bodies under HR and social security departments at municipal and county level will be included in social security administration bureaus at the same level;

(iv) We shall fully apply cloud computing and big data to social security administration. With the prerequisite of information security and fund security, we are going to provide all social security processing services online. In the meantime, we can use the big data technology to conduct social security data surveillance, forecasting, and early warning, especially over the social insurance fund and to assist decision-making as well as provide a holistic search service.

(v) Building a preliminary legal-person system for governing social security. Firstly, we are going to develop a proper portfolio of entrusted social security services and incorporate it into the government procurement list; secondly, social security administration bureau, non-governmental organizations and commercial institutions equally participate in the business processing and administering social security under laws and regulations. Well-established processes and standards of entrusting, pricing, procurement, and inquiry for social security services will be integrated into laws. And thirdly, we would improve the evaluation system of the access, exit and assessment of social security service providers.

(vi) When the legal system of social security administration is in good shape, we shall put forward and implement Regulations on Social Security Administration Services, using laws to clearly define the administrative and financial rights, responsibilities, powers and obligations of governments at all levels concerning providing social security administration services; we also have to specify the rights, obligations and responsibilities of households, individuals, social organizations, and commercial institutions.

Processing by law must be ensured.

II. The Execution Roadmap

Reforming and improving the social security administration system is a long-term project. Starting with what we have and a long-term vision, we shall design for the big picture and implement by steps. We are going to strive to do our jobs from today till 2020 (namely the last year of the “12th 5-year-plan period” and the entire “13th 5-year-plan period”), resolve pronounced frictions and issues and pave roads for future reforms. The transformation road map for social insurance administration system of China from today to 2020 shows as follows:

Table 1 - Transformation of Chinese Social Insurance Administration System

| Time | Key Tasks | Purpose |
|----------------|--|--|
| 2014 ~ 2020 | 1 . Proposing and rolling out a mid-and-long-term (2015~2030) plan for social insurance administration system | Setting up national goals, principles, key tasks, execution procedures and measures of the social insurance administration system. Getting all organizations and entities aligned and standardizing institutions. |
| | 2. Consolidating social insurance processing agencies at all levels in to single “XYZ Social Security Administration Bureau” under which there are “XYZ Social Security Premium Collection and Payment Administration Division”, “XYZ Social Security Treatment Administration Division”, and “XYZ Social Security Inspection and Supervision Division”, and streamlining business according to corresponding institutions | Resolving problems such as decentralized organizations, random names of institutions and department settings. |
| | 3 . Regrouping the personnel in social security administration bureaus into three functions: administration, professional, and operational, and managing them accordingly. | Addressing the positioning of the nature of institutions. Administration staff is to be managed as civil servants, professionals managed according to requirements for professional and technical staff in non-profit category I of social entities, and operational staff as professional certification mechanism and social employment required. |
| | 4 . The processing of new rural cooperative medical insurance will only be carried out by social security administration bureaus. | The five different social insurances will be administered and processed by consolidated bodies. |
| | 5. Transferring the collection and payment business of social insurance premiums conducted by local tax authorities in some cities and provinces to social security administration bureaus, and entrusting commercial banking outlets to collect social insurance premiums and distributing allowances. | Resolving the issue of uncoordinated premium collection systems for social insurance. |
| | 6. Ministry of Human Resources and Social Security, | Addressing the inconvenience for urban and |

| | | |
|----------------|---|---|
| | Ministry of Finance and People's Bank of China are going to issue the execution method for rolling out and establishing commercial banking outlets in urban neighbourhoods and administrative villages. | rural residents, especially people living in remote areas, who have difficulties in getting insured, paying premiums and getting allowances |
| | 7. Distributing 1 billion social security cards, initiating all the functions of the card and completing the 2 nd stage of the "Golden Insurance Program". Improving and fully launching the "four platforms". | Administering 90% of the social security businesses via internet, self-service machine, short messages, WeChat and microblog. Pulling off basic "online social security" and "digital social security". Resolving the administration problem regarding the insured living in a different city or medical expenses incurred by the insured away from home. |
| | 8. Developing an outsourcing implementation plan for social security service. Formulating a list of social security services and including the list in the <i>Government Procurement Law</i> . Establishing a mechanism of access, exit, and assessment for social organizations and commercial institutions to process and administer social security businesses, and setting up rules and standards of the entrusting, pricing, inquiry, procurement and supervision of social security services. | Involving non-governmental sectors in providing social security services step by step. |
| | 9. Launching and executing <i>Interim Measures for Social Security Administration Services</i> . | Administering services by law. |
| | 10. Taking 20% of the total revenue and expense of the social security fund in the previous year as the benchmark, developing a financial investment mechanism for social security administration outlay. | Solving the problem of lacking social security administration outlay. |
| | 11. Designing 37 social insurance standards during the 12 th 5-year-plan period and promoting them broadly. | Addressing the key technology issue regarding the standardization of social security administration, and carrying out standardized social security administration. |
| | 12. Completing the social insurance registration of all the citizens. | Promoting all the citizens to participate in social insurance and improving social security administration and public services. |
| 2021 ~ 2030 | 1. Separating social security administration bureaus from HR and social security departments and making the former an immediate government affiliate. | Streamlining the social security administration system further. |
| | 2. Transferring businesses in social insurance, social relief, and social welfare managed by departments like civil administration, health and family planning, | Consolidating social security administration resources scattering in various governmental |

| | |
|---|---|
| organization, as well as disabled persons federation to social security bureaus. | departments. |
| 3 . Implementing a legal person governance plan for social security administration. | Fulfilling the de-administration of social security services and building a fair competition mechanism for all the social security services. |
| 4. Completing the third phase of “Golden Insurance Program”; making sure that “everyone has a social insurance card, all the services are accessible with one card, and one card is applicable throughout the country”. Social security information can be shared and exchanged among institution including public security, industry, commerce and administration, health and family planning, medical, tax, employment, and income distribution at real time. | Pulling off information-based social security administration. |
| 5. Promulgating <i>Administration Measures for Grassroots Social Security Public Service Platform</i> . | Social security affairs will be “administered, served, and supervised” by neighbourhood committees, village committees and local residents in both rural and urban areas. |
| 6. Promulgating <i>Service Regulations on Social Security Administration</i> . | Providing law-based and standardized social security administration services. |
| 7. Applying technologies such as big data, cloud computing and internet of things to social security administration. | Fulfilling exact administration. Having social security affairs widely monitored by employers and residents and fully leveraging social security information. |

Appendices

Appendix 1. Main contents and processes of social insurance businesses

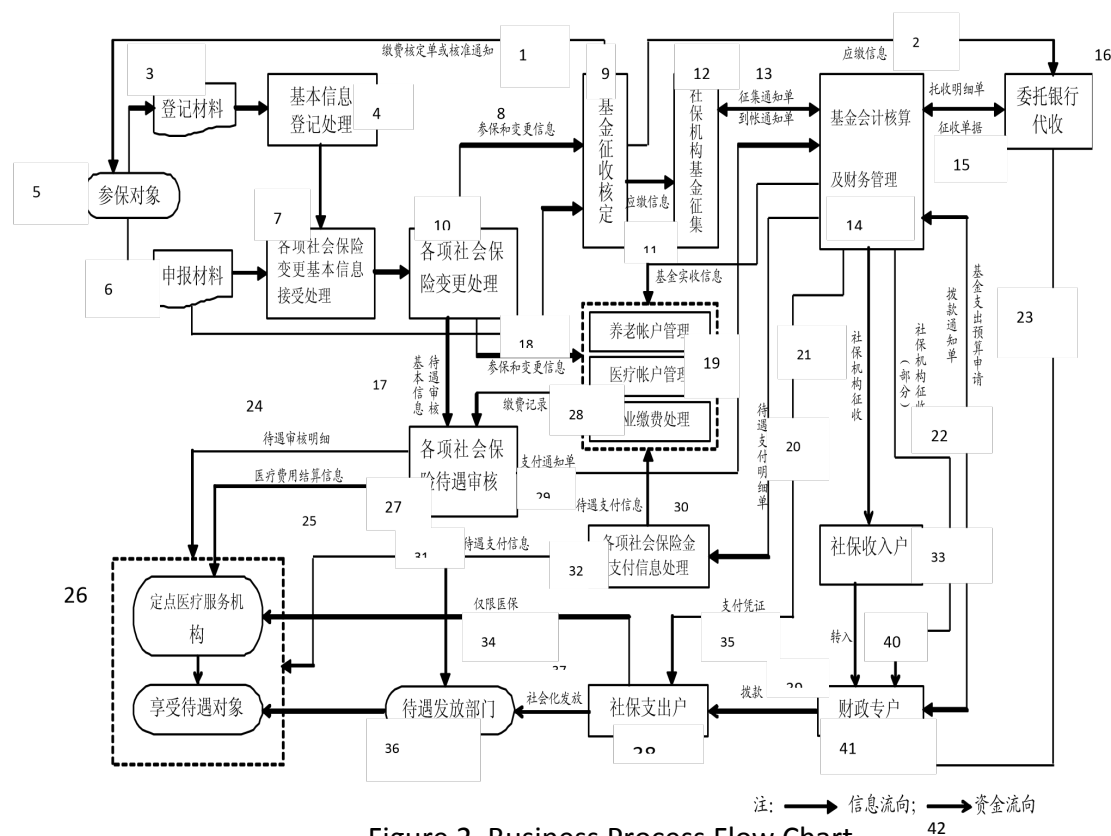
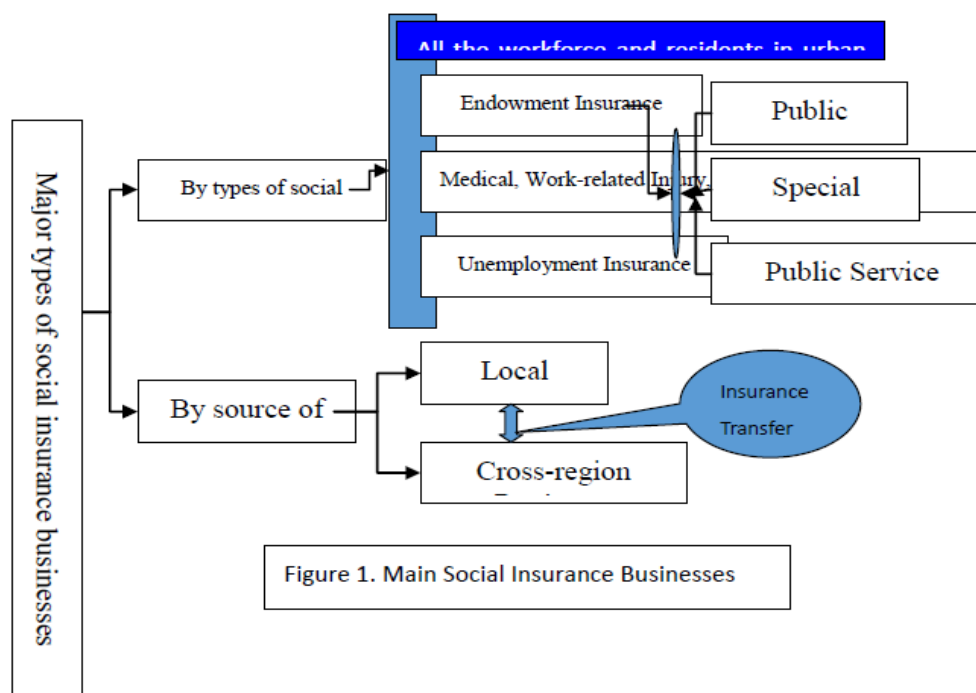


Figure 2. Business Process Flow Chart

1Payment note or ratification notice 2Payment information 3Registering profile
 4 Registering and processing basic information 5The insured 6Reporting profile
 7Modifications of social insurance information ready to be made
 8Participating in social insurance and modifying information
 9Fund collection rectification 10 processing modified social insurance information
 11 payment information 12social insurance institutions collecting funds
 13 collection notice; fund to the account notice 14 fund accounting and financial management
 15entrusted collection specification; collection note 16entrusting banks to collect fund
 17basic information; allowance verification
 18 Participating in social insurance and modifying information
 19 pension account management; medical account management; unemployment payment processing
 20Allowance payment specification 21collected by social security institutions
 22 (part) collected by social security institutions
 23fund allocation notice; fund expense budget application
 24 detailed allowance verification 25medical expense settlement information
 26 designated medical service provider; allowance receiver
 27 allowance from all social insurances verification
 28payment record 29payment notice 30 allowance payment information
 31 allowance payment information 32 payment information processing of all social insurance premiums 33 social insurance revenue account 34only for medical insurance
 35 payment proof 36allowance distributor 37social distribution 38 social insurance expense account 39fund appropriation 40 special financial account
 41 Note: information flow; fund flow

Appendix 2. Number of people participating in social insurances by year from 1997 to 2013

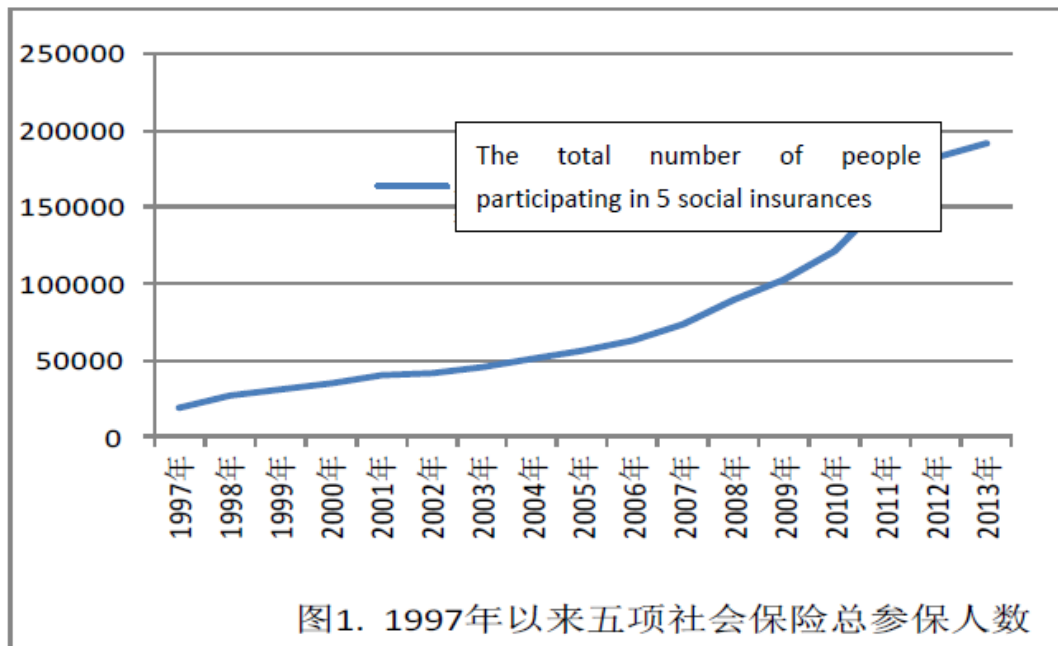
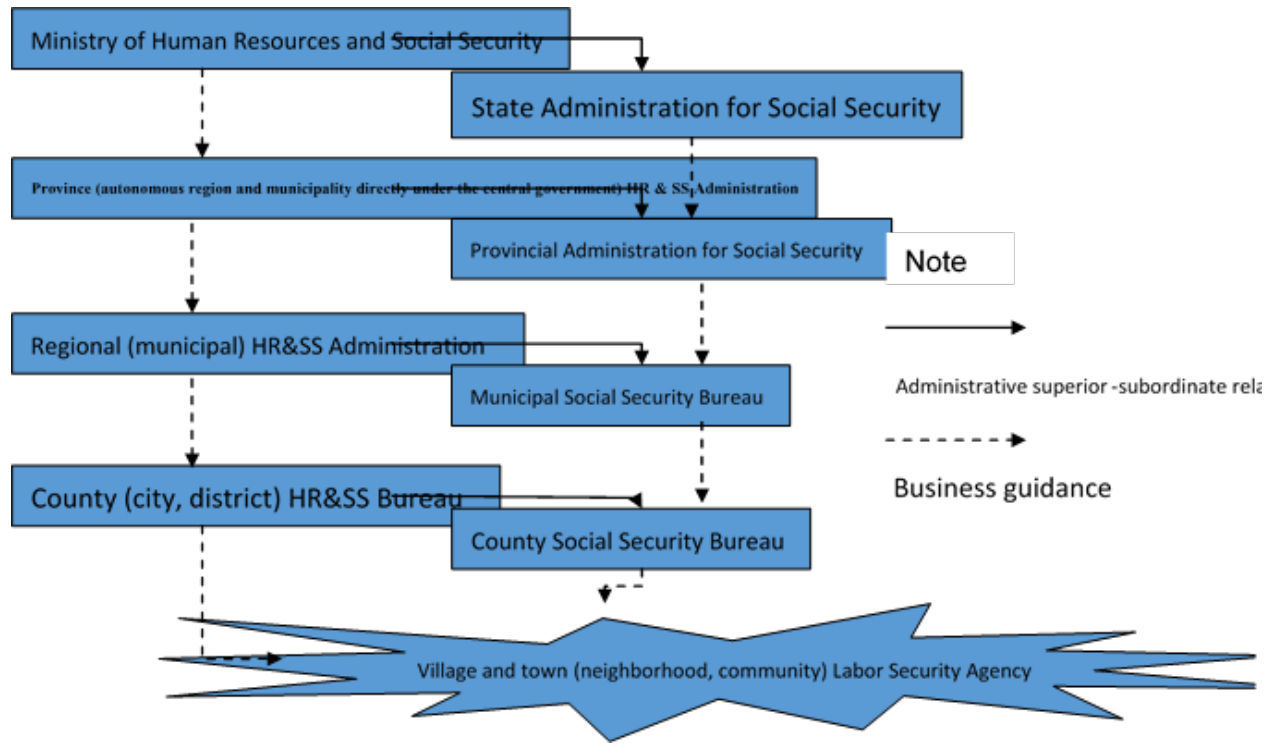
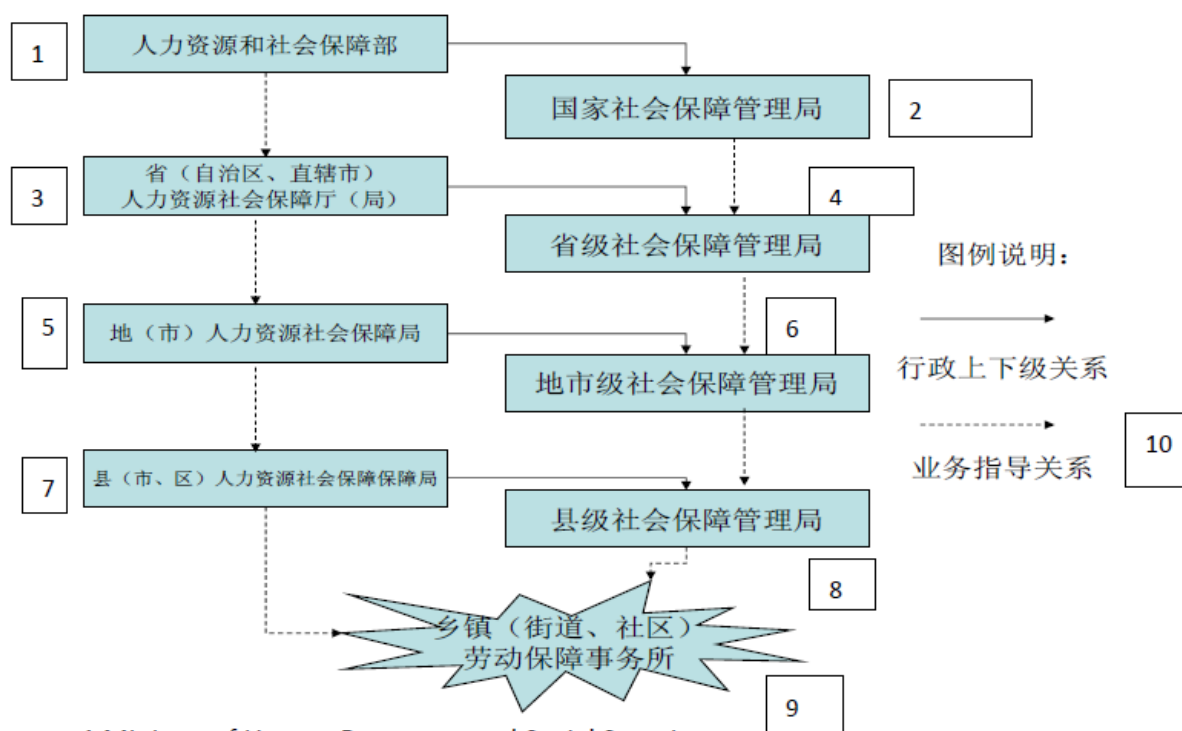


Figure 1. The total population participating in 5 social insurances since 1997

Appendix 3 Organizational structure of social security administration system (Phase I)



Appendix 4 Organizational structure of social security administration system (Phase II)



- 1 Ministry of Human resources and Social security
- 2 State Administration for Social Security
- 3 Provincial (autonomous region, municipality directly under the central government) Human Resources and Social Security (HR&SS) Administration
- 4 Provincial Administration for Social Security
- 5 Regional (municipal) HR &SS Administration
- 6 Municipal Social Security Bureau
- 7 County (city, district) HR&SS Bureau
- 8 County Social Security Bureau
- 9 Village and Town (neighbourhood, community) Labour Security Agency
- 10 Note: administrative superior-subordinate relation; business guidance

Appendix 5. Social insurance administration settings by region in 2013

| Region | Pension | Medical | Work-related Injury | Residential | Institutional | Settlement | Total |
|----------------|-------------|-------------|---------------------|-------------|---------------|------------|-------------|
| Beijing | 18 | 9 | | 3 | | | 30 |
| Tianjin | 24 | | | | | | 24 |
| Hebei | 204 | 141 | 28 | 93 | 28 | | 494 |
| Shanxi | 135 | 135 | 68 | 120 | 96 | | 554 |
| Inner Mongolia | 128 | 79 | | | | | 207 |
| Liaoning | 91 | 63 | | 25 | 42 | | 221 |
| Jilin | 60 | 53 | | | | | 113 |
| Heilongjiang | 80 | 97 | 6 | | 59 | | 242 |
| Shanghai | 18 | 19 | | 9 | | | 46 |
| Jiangsu | 149 | 50 | | 59 | 52 | | 310 |
| Zhejiang | 101 | 29 | | 11 | | | 141 |
| Anhui | 129 | 91 | 5 | 90 | 5 | 1 | 321 |
| Fujian | 89 | 84 | | 89 | 82 | | 344 |
| Jiangxi | 122 | 106 | | 116 | | | 344 |
| Shandong | 185 | 110 | 22 | 110 | 95 | | 522 |
| Henan | 184 | 167 | 71 | 132 | 107 | | 661 |
| Hubei | 112 | 80 | | 86 | 39 | 64 | 381 |
| Hunan | 147 | 152 | 112 | 128 | 112 | | 651 |
| Guangdong | 177 | 14 | | 4 | | | 195 |
| Guangxi | 108 | 54 | | 101 | 47 | | 310 |
| Hainan | 20 | | | | | | 20 |
| Chongqing | 41 | 38 | 7 | 1 | 3 | | 90 |
| Sichuan | 206 | 186 | | 74 | 54 | | 520 |
| Guizhou | 102 | 20 | | 20 | | | 142 |
| Yunnan | 148 | 152 | 1 | 109 | | 1 | 411 |
| Xizang | 28 | 7 | 1 | 3 | | | 39 |
| Shaanxi | 119 | 121 | 22 | 118 | 59 | | 439 |
| Gansu | 101 | 40 | | 9 | 3 | | 153 |
| Qinghai | 57 | 40 | | | | | 97 |
| Ningxia | 20 | 24 | | | | | 44 |
| Xinjiang | 102 | | | | | | 102 |
| Xinjiang Corps | 195 | | | | | | 195 |
| Total | 3400 | 2161 | 343 | 1510 | 883 | 66 | 8363 |

Appendix 6. Ratio of social insurance staff against man-time of insurance participation, 2000-2013

| Year | Staff (person) | Man-time of insurance participation (10 thousand) | Ratio (person) | Compared with previous year± (person) |
|------|-------------------|---|-------------------|---|
| 2000 | 74945 | 20663 | 1:2757 | |
| 2001 | 85056 | 24073 | 1:2830 | 73 |
| 2002 | 98071 | 25949 | 1:2646 | -184 |
| 2003 | 104494 | 27851 | 1:2665 | 19 |
| 2004 | 112675 | 32524 | 1:2887 | 221 |
| 2005 | 116445 | 37028 | 1:3180 | 293 |
| 2006 | 124736 | 51225 | 1:4107 | 927 |
| 2007 | 129085 | 62397 | 1:4834 | 727 |
| 2008 | 133043 | 76371 | 1:5740 | 907 |
| 2009 | 140656 | 89445 | 1:6359 | 619 |
| 2010 | 150376 | 97444 | 1:6480 | 121 |
| 2011 | 161824 | 139966 | 1:8649 | 2169 |
| 2012 | 172177 | 166876 | 1:9692 | 1043 |
| 2013 | 177430 | 175351 | 1:9883 | 191 |

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WHAT IS THE EU-CHINA SOCIAL PROTECTION REFORM PROJECT ?

As a successor to the EU-China Social security reform project (2006-2011), the European Commission and the Government of China have formulated the "EU-China Social Protection Reform Project", a new cooperation initiative aimed at promoting social equity and inclusiveness of economic development throughout Chinese society – as well as cooperation and dialogue between the EU and China in the same field.

The Commission has decided to implement the action through a contract to be concluded with a consortium of specialized public authorities and mandated bodies of the EU Member States in the area of social protection. The consortium is led by Italy, and consists of institutions from Belgium, the Czech Republic, France, Poland, Romania and Spain.

The purpose of the EU-China Social protection reform project is to contribute to the improvement and inclusiveness of China's social protection system through strengthening the institutional capability for developing policies, for implementing legal and regulatory frameworks and for supervising systems of social insurances, social assistance and financial management in the area of social security. In particular, the Project's purpose will be pursued through the following three components, in relation to which specific Chinese government entities playing the role of partner of the consortium have been identified.

- Component 1: Consolidation of institutional capacity for social protection policy development and reforms in collaboration with the National Development and Reform Commission (NDRC);
- Component 2: Enhancing of institutional capacity for financial management and supervision concerning social security funds in collaboration with the Ministry of Finance (MoF); and
- Component 3: Improving of legal framework and policy for social assistance in collaboration with the Ministry of Civil Affairs (MoCA).

The present volume was produced under the 2015 plan of activities of Component 1 of the project – contact@sprp-cn.eu .

EU – CHINA SOCIAL PROTECTION REFORM PROJECT CONSORTIUM MEMBERS



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Scuola Nazionale dell'Amministrazione





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