

Draft Reform Proposals

- Volume 3 -



Social Protection Reform Project
中国-欧盟社会保护改革项目

COMPONENT ONE

Macro-activity 1.6

2017 programme of activities

PENSION SYSTEM (RELEVANCE AND SOCIAL EFFICIENCY)

Parametric reform

Redistributive effects (parametric reform)

Evaluation (Employment policies)

Evaluation (Social security policies)

Foreword

As part of the EU-China Social protection reform project 2017 Programme of activities, a Panel discussion meeting was held in Beijing on 30 August 2017 to debate the situation analysis produced by Chinese experts on three out of the four topics under review that year¹, also in the light of most relevant European best practices and in that of the provisions included in the relevant chapter of the XIIIth Five-Year plan.

According to the Project Grant application form macro-activity 1.6 the meeting focused on “the first draft of reform proposals related to the topics analyzed”. The present document presents these draft reform proposals as tabled at the meeting, organised according to the results pursued by the project.

The reports containing the integrity of related analysis report, summary of discussions and presentation of most relevant European best practices can be downloaded from the project website <http://euchinasprp.eu> in printable format.

This third volume of draft reform proposals submitted by the project to the Chinese Government focuses on the relevance and social efficiency of pension schemes, in view of the effect of envisaged parametric reform, including from redistributive angle, as well as the evaluation conducted of both Employment and Social security policies to date.

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EU-China Social protection reform project,
November 2017.

¹ For the fourth topic – Gender issues in Social protection – it is foreseen that the discussion will be held as part of the 2018 plan of activities.

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PROJECT RESULT 3

National policy evaluation technique in the area of social protection –

Employment policies

Topic 1.2.2 –National policy evaluation technique in the area of social protection – Employment promotion ²

Policy Evaluation and Some Remarks

A. Characteristics of the policies

1. China has made great achievements in industrialization, urbanization and marketization since the reform and opening-up. The national economy has grown rapidly and people's livelihood has also constantly improved. Employment, as the foundation of people's livelihood, is a key factor of the national development strategies. The policy goals at each phase have basically been fulfilled, especially since 1996 (Table 1). Since the 18th CPC National Congress (Nov. 2012), more than 12 million new urban jobs were created each year and in the last five years more than 65 million people became employed.³ The ongoing Thirteenth Five-year Plan put great emphasis on the national strategies of science, technology and innovation as well as industrial upgrading. This, in the long run, may positively respond to the new demographic structure, featured by the decline of total workforce and the ageing population. However, in the short term, it can also cause fluctuation on the labour market. Employment policies in the last two years, on one hand, have addressed some critical problems such as the underdevelopment of rural areas, the different attraction of different regions, and the difficulties of university graduates to find jobs; on the other hand, current policies have not taken adequate proactive measures regarding the mismatch between the incoming new industrial structure and the prevailing labour market.

² Excerpt from report by Chinese expert Mr. Yue Jinglun (aka Ngok Kinglun)

³ People's Daily, Annual increases of more than 12mn new urban jobs in the last 5 years, Jun. 19, 2017, <http://politics.people.com.cn/n1/2017/0619/c1001-29347580.html>

Table 1: Evaluation of the Employment Goals (1981-2015)

	Policy goal	Outcome	Evaluation
Sixth Five-year Plan	29mn new urban jobs	22.83mn	Un-fulfilled
Seventh Five-year Plan	29mn new urban jobs	42.33mn	Fulfilled
Eighth Five-year Plan	32mn new urban jobs	19.99mn	Un-fulfilled
	Registered urban unemployment below 3.5%	2.9%	Fulfilled
Ninth Five-year Plan	40mn new urban jobs	41.11mn	Fulfilled
	Re-allocating 40mn rural labour force		
	Registered urban unemployment about 4%	3.1%	Fulfilled
Tenth Five-year Plan	40mn new urban jobs	41.80mn	Fulfilled
	Re-allocating 40mn rural labour force	40mn	Fulfilled
	Registered urban unemployment about 5%	4.2%	Fulfilled
Eleventh Five-year Plan	45mn new urban jobs	57.71mn	Fulfilled
	Re-allocating 45mn rural labour force	45mn	Fulfilled
	Registered urban unemployment below 5%	4.1%	Fulfilled
Twelfth Five-year Plan	45mn new urban jobs	64.31mn	Fulfilled
	Registered urban unemployment below 5%	4.05%	Fulfilled
Thirteenth Five-year Plan	50mn new urban jobs	26.26mn (2015-2016)	Fulfilled (52.5% of five-year goal in two years)
	Registered urban unemployment below 5%	4.05% (2015); 4.02% (2016)	Fulfilled

Source: self-complied information based on the 'Five-year Plans' and government annual work reports released by Xinhua Press. See: Chinese Government Website, Government work reports by the State Council, <http://www.china.com.cn/chinese/ch-zgwunianguihua/index.htm>

2. These employment policies have a few distinctive characteristics. First, the policies have clear goals and always target at key groups and areas of the respective phase. The focused targets vary from time to time. In the 1980s, there was only one indicator – urban employment, and up to four indicators by the eleventh 'Five-year Plan' (2006-2010). Interestingly, the employment policies during the twelfth 'Five-year Plan' (2011-2015) returned to the two 'classic' indicators – new urban jobs and registered urban unemployment rates.

3. Such shifts are directly related to the economic reform and industrial restructuring at different times. In the early years, when the rural labour force was in excessively over-supply and there was shortage of labour in the urban areas, the employment policies were centered on enlarging the employment in cities by attracting the rural population gradually moving into the cities. However, since the twelfth 'Five-year Plan', the industrial upgrading has led to slowdown of employment growth in cities and even negative growth is foreseeable in the future. Thus, the re-location of rural labour force into cities is no longer encouraged. Rather, rural people may gain official support if they start businesses in the countryside. The policies even provide incentives to some urban citizens to develop the rural areas. At this stage, the new urban employment is mainly to promote "new-type of urbanization", which means the relocated rural population flows to small and medium-sized towns and cities, rather than a few over-burdened large cities. In addition, employment policies at different periods have clear focuses, such as the laid-off workers during the state-owned enterprise reform and the university graduates after expanding the university enrollment.

4. Second, the policy-making process and the content of the employment and labour market system have increasingly improved. The policy-making process is more democratic than in the past, during which the participants are not limited to government departments and related research organizations but involve multiple actors through different ways of participation, such as social bidding, online consultation, and discussion among stakeholders. In this sense, the process is more scientific, democratic, and human-based. Moreover, the policies contain more feasible content. The existing employment policies not only contain the basic principles and directions of employment, but also provide the details of support, training and service as well as some policies favorable for disadvantaged groups.⁴ In addition, after the Employment Promotion Law and Labour Contract Law were promulgated in 2007, the labour market system has become mature.

5. Third, the ways of fulfilling the employment goals have multiplied and achieved good outcomes. From the sixth to the tenth 'Five-year Plan' (1981-2005), the employment policies focused on solving the basic problems of getting a job and making a living. Since the eleventh 'Five-year Plan' (2006-2010), the policies have been strategically designed for industrial upgrading and human resource development. This does not only reflect the higher levels of the national economy, but also result from the long-term strategy of "developing the country through science and education".

6. The concrete measures of creating jobs have also changed. In the past, the governments mainly promoted the labour-intensive sectors to absorb relocated rural population and newly increased urban citizens. Since the eleventh 'Five-year Plan', the State began to tactically support high-tech and innovative enterprises and enhance the proportion of manufacturing-related service sectors. Moreover, individuals are given opportunities to create their own businesses – so called 'actively being employed'. In 2016, the innovation-driven development strategy has been widely implemented. New sectors and enterprises are rapidly emerging, while the transformation of the traditional industries is accelerating.

⁴ Tang, Ling (2007), The method and practice of employment policy evaluation: 1978-2007, unpublished NDRC report

B Problems

7. The employment policies have greatly expanded employment in the last three decades, but there are also a few problems.

8. Primarily, the gap between the urban and rural still exists, but the attention that the policies pay to rural employment is inadequate. Although both the working age population in the rural areas and the employment in the primary industry have dropped steadily, they still account for about half of the national population and labour force. The policies in the latest 'Five-year Plan' have attempted to encourage entrepreneurship in the countryside, but the attraction is limited. The majority of migrant workers are unlikely to return to their hometowns, not to mention stay there for long time. Unfortunately, the existing industrial policies and the process of industrial upgrading seldom benefit the rural employment either. In the near future, the huge gaps of productivity and income between the primary industry and the second and tertiary industries will result to further urbanization. As the rural employment opportunities are absent or unattractive, there will continue to be great pressure on urban employment.

9. Second, employment policies often lack long-term plans, particularly on two fundamental systems – vocational training and unemployment insurances. Most policies are trying to solve most urgent problems and provide strong support to deal with the short-term issues. Relatively speaking, policies that may only take effect in the long run are largely absent. The government does not invest sufficiently to those policies. Thus, many important issues are un-addressed or not well planned; for other issues, there may be some research and discussion but not yet concrete policies, such as workforce training, unified rural and urban labour market, flexible employment and protective mechanism of labour rights.

10. In the process of industrial upgrading, training and vocational education will become increasingly important. Technologies and capital will inevitably play key roles in economic development. In China, two questions are worthy considering: how could the quality of the workforce be improved in order to support the industrial and technological upgrading; and in which way can human labour improve or maintain its value. From 1990 to 2007, OECD countries had mainly relied on total factor productivity and capital deepening in their economic growth, which explained 80% of the causes for declining labour shares in these countries.⁵ In China, a country with low labour share in GDP and a majority of low-wage workers, this problem is even more urgent for decision-makers.

11. In the meanwhile, the supply-side reform will result to many layoffs or job-changes, which requires the policies to provide basic protection. It means besides active employment policies in vibrant labour markets, social security system, particularly unemployment insurances, should be further perfected – expanding the coverage, increasing the expenses and encouraging re-employment or entrepreneurship, etc.

12. Third, the employment policies in the new round of industrial restructuring are insufficient. Since the twelfth 'Five-year Plan' (2011-2015), the State has pushed for industrial upgrading based on STI and listed innovation-driven and intelligent manufacturing as key national strategies. Regarding employment, the policies mainly support service sector, micro- and small-sized enterprises, and self-employment.

⁵ International Labour Organization, Organisation for Economic Co-operation and Development, **The Labour Share in G20 Economies**, Report prepared for the G20 Employment Working Group, Antalya, Turkey, 26-27 February 2015, p17-18

13. In fact, the manufacturing industry still employed 28.8% of the total workforce in China by the end of 2016, and the manufacturing workers have always been the mainstay of the working class in terms of employment and incomes. In contrary, the tertiary industry, which currently provides more than half of the jobs in the society, is often featured by high turnover and low incomes. Nevertheless, the current employment policies have not responded to the related questions, for instance, how would the numbers and structure of the manufacturing jobs change? And, can the quality of service jobs be guaranteed? In order to solve the overcapacity problem, the State Council issued “1 + 8” policies, one of which offered four channels for redundant employees, such as internal allocation, job transfer, internal retirement, and public jobs. However, these measures were only designed for those in the SOEs.⁶ The majority of non-public enterprise employees, especially migrant workers as the main force of the manufacturing industry, have no similar policies.

14. Another employment promotion measure – the ‘double-creation’ of mass innovation and entrepreneurship – is good in activating the economy and society in principle, but at the same time, it requires necessary training and support accordingly. A potential risk is the huge economic bubble that too many people hastily engage in new business without enough preparation, which may lead to socio-economic costs in the following year. Noticeably, compared to “entrepreneurship”, the “employability” remains to be the core of employment policies in many other countries, e.g. 9 out of 10 employment policies in the EU are targeted on employability of workers.⁷

15. Fourth, the policies mainly pay attention to the numbers rather than the quality of employment. It is fair to say that as the Employment Promotion Law and Labour Contract Law were promulgated in 2007, the labour market system in China became mature and the government began to regulate the term of employment and protection of basic labour rights. The policy goals by far have usually been fulfilled, but the indicators are only quantitative. In a long time, the incomes of Chinese workers had increased much slower than GDP. Although in recent years, wages raised rapidly in South China, there is a trend of polarization among different industries and enterprises. Along with the process of industrial transformation and upgrading, this polarization trend is likely to develop. In particular, the support of flexible forms of employment and service jobs may result to a mixed picture. On one hand, the employment pressure may be alleviated as the numbers of jobs grow; on the other, a large number of manufacturing jobs at the middle level of the labour market may disappear, replaced by relatively insecure and lower-paid service jobs. Because the government is investing heavily in industrial upgrading, the employment policy-makers should also consider the accompanied problems of work quality and polarization in the labour market.

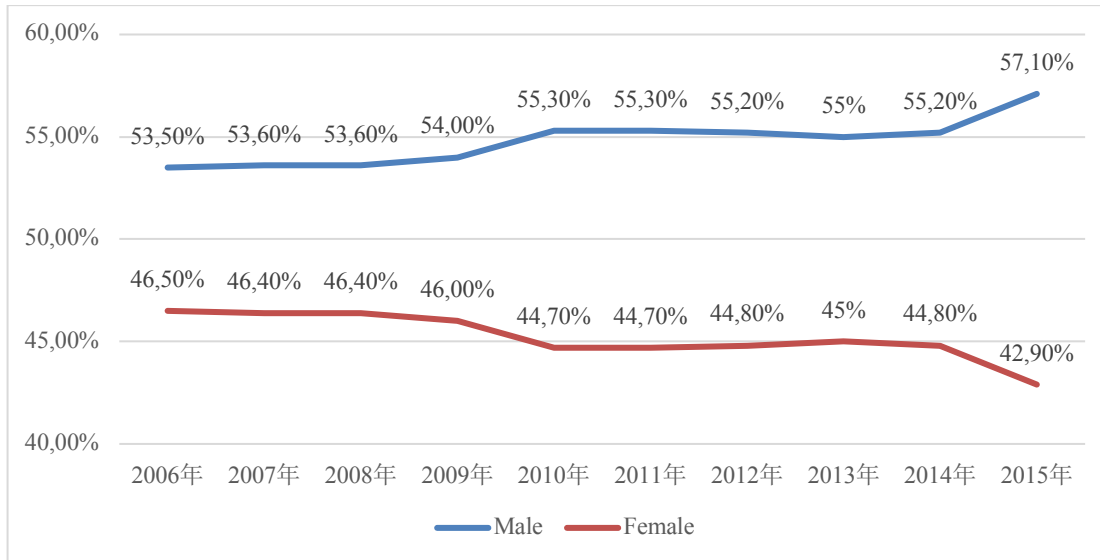
16. Last but not the least, existing policies rarely address the discrimination problems in the labour market and at workplaces. Up to now, employment policies pay more attention on direct index, such as the total employees and unemployment rates, but seldom touch detailed issues which may contain significant meanings, e.g. employment discrimination. Politically speaking, in a socialist country which highly values traditional moralities, the discrimination based on gender and age are unacceptable. In practice, women have always been a major pillar of the Chinese workforce. The employment of elderly could not only ease the financial burden of an ageing society, but also may provide valuable experience for industrial upgrading.

6 People’s Daily, Postponed retirement plan will be announced in the year, Mar. 1, 2016, http://paper.people.com.cn/rmrb/html/2016-03/01/nw.D110000renmrb_20160301_2-03.htm

7 Sabrina Regent, The open method of co-ordination: a supranational form of governance? International Labour Organization discussion paper, DP/137/2002

17. The proportion of women’s participation in the labour market has always been lower than men and it continued to decrease from 2006 to 2015 (Figure 6.1). In 2015, only 42.9% women were employed, which was at the lowest point in the last decade. As the ‘two children’ policy is put into practice, the participation rate is expected to further decline.

Figure 1 Gender composition of the workforce: 2006-2015



Source: China Statistics Press, 2007-2016 Yearbooks of China Demography and Employment, <http://navi.cnki.net/KNavi/YearbookDetail?pcode=CYFD&pykm=YZGRL&bh>

18. Moreover, women often have lower incomes than men at comparable positions. The China Labour Market Report of 2016 pointed out that the wages of Chinese women were generally lower than men. This report was based on the 1995, 2002, 2007 and 2013 data of Chinese Household Income Project (CHIP). In 1995, women earned 85.9% of the wages of men. This ratio became 84.5% in 2002, 73.9% in 2007, and 78.2% in 2013. In general, the gender gap has fluctuated in recent years, but women’s income remain substantially lower than men and the gap has relatively expanded.⁸

19. Although some local governments began to encourage women to work or to start businesses, e.g. Heilongjiang Province issued an Opinion on Promoting Fair Employment for Women, which clearly stated the prohibition of gender discrimination during recruitment.⁹ However, the practice has not changed much. Thus, policies should consider more on the gender equality and also encourage men to participate the childbirth and childcare process in implementing the ‘two children’ policy.

20. Another question is discrimination based on ages. The policies have yet provided clear guidance on the labour market for the elderly. Considering the demographic changes, the government does

⁸ People’s News, 2016 Report on China Labour Market is issued, <http://society.people.com.cn/n1/2016/1124/c1008-28894171.html>

⁹ China Government Net, Heilongjiang Province issues Opinion on Promoting Fair Employment for Women, http://www.gov.cn/xinwen/2016-09/20/content_5109837.htm

not only need to adjust retirement insurance system, but also to encourage people to work more. For instance, Japan has a system that if he/she agrees, enterprises are obliged to guarantee the employment; the government offers subsidies to enterprises which employ those up to 70 years old; enterprises shall abandon the age limits in recruitment process; and the government sets up elderly talent center which help them to find temporary and short-term job opportunities¹⁰.

21. Nevertheless, such policies are still lack in China. The 2013 Law of the People's Republic of China on Protection of the Rights and Interests of the Elderly did not stipulate on the right to work.¹¹ In practice, they face great barriers due to many limitations, e.g. weak physical strength. China has been actively discussing the policy of delayed retirement¹², which is a positive sign in the long run. At the same time, the final policy should be based on a thorough investigation of the changes of labour supply, employment and sustainability of the social security funds. In fact, as the economic and industrial transformation is ongoing, new industries and occupations are likely to lower demands on physical strength, but brain and working experience may become more valuable. In this context, it is a win-win solution both for the elderly and the industries, if those who are capable and also willing to would have the free will to choose whether to work or not.

C Policy suggestions

22. The CCP and the government highly value employment. The central governments often refer to employment as the “foundation of people’s livelihood”, the “permanent theme”, etc. In Apr. 2015, President Xi, Jinping emphasized that “the Party and the State would actively promote employment, improve work environment, and enhance work quality” on the May Day celebration conference.¹³ In the long run, the principle of “jobs first” will not change and the employment policies will “seek for progress while emphasizing stability”. Given the demographic structure and industrial strategy of China, the employment policies should continue to expand employment, at the same time, more attention should be paid to improve employment structure and enhance work quality.

23. At the top, **there should be proactive policy design and coordination among different departments at the national level**, particularly between economic, industrial and employment policy-makers. Labour and employment cannot be separated from economic and industrial development. It may become positive driving force for innovation and growth, but in case of mishandling, may also severely block economic and industrial development. When the macro-level economic policies are decided, particularly in restructuring like industrial transformation and upgrading, the impact of the industrial policies should not only be compensated afterwards. Rather, when the policies are planned and in the making process, employment should be considered as one of the evidences for decision. “Job first” means a virtuous interaction between economic development and employment growth and shifting the pure industrial upgrading towards a process of upgrading employment through economic and industrial upgrading. In order to do so, the Ministry of Human Resource and Social Security needs to closely cooperate with the Ministry of Industry and Information and the Ministry of Science and Technology, in order to proactively predict the labour

¹⁰ 163 News, Japan promotes elderly (60-70) to work, and what would China do?
<http://money.163.com/16/0627/13/BQIPGBAD00253B0H.html>

¹¹ Law of the People's Republic of China on Protection of the Rights and Interests of the Elderly,
<http://www.mca.gov.cn/article/gk/fg/shflhcscy/201507/20150700848507.shtml>

¹² People’s Daily, Further research on delayed retirement policy, Mar. 2, 2017, http://www.gov.cn/xinwen/2017-03/02/content_5172358.htm

¹³ Xinhua Net, Xi Jinping: The Party and State will carry out active employment policies, Apr. 29, 2015

market changes. The policies should be co-decided by different ministries, so that the social policies and industrial and technologic policies can be balanced.

24. In terms of concrete policy measures, three types of coordination should be taken into consideration.

25. First, **the employment policies shall emphasize the long-term development, but also stabilize short- to medium-term employment.** The new round of industrial restructuring can enhance the national competitiveness and develop new comparative advantages for Chinese industries, and it fits the long-term tendency of slower labour supply in the next years. However, the long-term goal cannot be achieved at the expenses of short-term sacrifice. As an essential livelihood issue, employment requires steady planning. In the manufacturing industry, rising labour productivity means the decline of total employment. If following the strength of the existing industrial policies, especially some local programs like the “robots replacing men”, large-scaled unemployment may occur in a short time. In the meanwhile, the employment expansion in the tertiary industry may seem to be a solution. However, it is still debated whether the tertiary industry is capable of fully absorbing the new labour force and redundant ones from other industries. Thus, the State should take active labour protection measures on top of social security policies in order to control the speed of transformation, especially to prevent large-scale unemployment in a short time.

26. The second is **the balance between industrial and social upgrading.** The essence of employment policies is to guarantee livelihood, so the human-based principle is a confirmation of the value of human and human labour. In the course of industrial upgrading, some economic and industrial policies are distinctively promoting automation and robots, and explicitly dismissing the potential of human labour. In fact, there are different approaches of industrial upgrading. Even in Western countries, man-less automated factory is only one of many choices, and it is actually a choice with extremely high costs and strictly confined by market conditions. In addition, man-less factories may not be the best fit for the development stage of China. At least, the domestic industries have not yet explored the great potential of relatively educated and disciplined rich labour force, through which the labour productivity can still be improved greatly. In this regard, social policies including employment polices can provide training through public funds and institutions, particularly to the 280 mn migrant workers, and realize the economic and industrial goals through a more economic, fast and steady way of improving human skills.

27. Third, **while stabilizing the numbers of jobs, the governments should also improve the quality of work on the basis of social security schemes.** If only looking at the total employment, the rapid economic growth of China has absorbed the labour force steadily. However, the changing employment structure may lead to the downward trend of work quality and aggravate the polarization of the labour market. The quality of work, mainly evaluated by wages, incomes and skills, is not only the goal of employment policies, but also the foundation of a healthy industrial economy and strong social cohesion. Moreover, this is the realistic path of “consumption-driven” economic development. However, in practice, the high labour costs and low skills of migrant workers are actually excuses for many manufacturing enterprises to reduce jobs. New jobs created elsewhere are often not high skilled either. When the unemployment rate is high, many low-skill or unskilled jobs would appear first. In the foreseeable future, it can be predicted that the Chinese economy will be highly mixed – there are not only high-tech companies and those involved in international trade, but most labour force will work in organizations with lower productivity and experience low wages and high employment insecurity. Thus, public policies still matter. The market or the enterprises alone cannot improve the quality of work or increase the consumption, and they may not be willing to do so. The public sector should coordinate employment policies and social security system with higher coverage

and better protection, particularly unemployment insurances schemes, and guide enterprises in the legal framework of labour laws; and, the tripartite negotiation mechanism at the industrial level and collective negotiation in enterprises should be further improved.

28. Last but not the least, there should be **more flexibility between the central plan and local policy implementation**¹⁴. Employment is no doubt the responsibility of the State, but the local governments can be entitled with more flexibility. Huge gaps exist among different regions and between urban and rural areas in China, although the policies have tried to address this problem in a long time. Moreover, the specific problems that different regions may face in the new round of industrial restructuring vary greatly. For instance, in some earlier developed regions in the South or East China, the structural unemployment may become an urgent question, while the newly-developed inland cities or those accepting relocated industrial parks can be challenged by low wages and working condition problems. This makes it hard for the national employment policies to set unified quantitative indicators for local employment promotion work. Therefore, it is recommended that the Ministries at the national levels cooperate to decide the directions by defining the core questions, setting goals and establishing relatively a consistent policy framework; and, the local governments may target at their own key problems according to the local context and rely on local public resources and expertise to determine and evaluate the specific

¹⁴ More details on employment and demographic diversity at the provincial level: SPRP, China Social protection in figures – Economic growth and demographic trends: a regional perspective, 2017.

PROJECT RESULT 3

National policy evaluation technique in the area of social protection –

Social security policies

Topic 1.2.2 –National policy evaluation technique in the area of social protection – Social security¹⁵

I. Overall evaluations of China's social security system

China's social security system has been undergoing a comprehensive and profound overhaul since the mid-1980s, transforming from being state and work unit (danwei) based towards an institutional setting independent from work units with their respective distinctive boundaries. This shift, phrased as from state-work units based protection to state-society based protection (Zheng 2008a). Social security, once provided exclusively to urban population, now brings benefits to the whole population. Moreover, China's social security system has contributed to creating stability for economic reform and society's transformation, as well as shaped a unified labor market allowing workers to move freely across the country. Bolstered by relevant institutional arrangements, it has eliminated obstacles that impede the free movement of labors and thus directly promoted China's economic growth through reformed financing methods. Overall, China's social security and economic development have achieved positive interaction and joint progress over the latest three decades, yet there remain problems that need to be addressed by deepening the reform on the basis of objective evaluation.

1. The institutional framework has taken its initial shape, yet it is still under further construction. As of today, the framework of China's social security system is in place while all the schemes are playing their due roles; yet some basic elements of the system, including its structure and positioning, multi-layer structure, administrative system, operating mechanism, as well as the legislation, remain to be constructed and consolidated. For example, the second and third layers of the pension are underdeveloped, thus a well-structured multi-layer income security system for the seniors fails to be formalized. The health insurance system is segmented and administrated by different government authorities. Also, the individual health accounts still exist and affect negatively the functioning of the entire health insurance system. Furthermore, several social security schemes have no laws or regulations to observe to, even existing laws such as the *Social Insurance Law* reflect only principles but prove difficult to maneuver in practice. Judging for the above, China's social security reform is still on its journey toward maturity.

2. Universal coverage has been essentially attained, yet the equity of the system needs to be promoted. More than 97% of China's population is covered by health insurance, basically achieving the intended goal of establishing universal health insurance coverage. The pension scheme benefits all elderly across the country and monthly pensions are accessible to all the elderly population. Social assistance also extends to all the eligible population. Elderly care services and services for persons with disability are also developing rapidly. China's social security system has become a fundamental way as well as an institutional guarantee for all people to share the fruits of national development; however, the benefit gaps among regions, between urban and rural areas, and among groups, remain wide.

3. The responsibility of the government is highlighted, but its boundary remains blurred. Also, the mechanism for the sharing of responsibilities between central and local governments need to be clarified. Over the past decade, the Chinese government has increased its spending in social security and related fields, including subsidies for pension and health insurance schemes for urban and rural residents, as well as inputs in fields such as education and health. This

¹⁵ Excerpt from report by Chinese expert Mr. Zheng Gongcheng

contributes greatly to the rapid development of China's social security system.

4. The benefit level of Chinese social security is on the rise, yet the mechanisms for coordinated development and standardized indexation of benefits are absent.

The monthly per capita pension provided by the basic pension scheme for employees increased from USD 69.13 in 2001 to USD 395.56 in 2016, and the monthly per capita pension provided by the basic pension scheme for non-salaried residents rose from USD 5.96 in 2009 to USD 17.66 in 2016 (Statistical Bulletin on Human Resource and Social Security Development 2016, Ministry of Human Resources and Social Security 2017).

5. China's social security system is shifting from long-term experimental reform to a new stage towards a mature and fully-formed system. Importance is attached to coordinated development and overarching design at the national level, while the top-down momentum in this process derives from state responsibility. The construction of a law-based China also entails a fully-formed social security system. Judging from the reality, China's current social security system has inherent defects. The regionally segmented pension schemes, and the continued existence of the separate health insurance schemes for employees and non-salaried residents, as well as the underdeveloped social welfare services for the elderly and children are standing in the way towards a mature and well-developed social security system.

II. Major Evaluation of China's old-age pension

The old-age pension scheme is the mainstay of China's social security system, thus the key to evaluating China's social security system is to evaluate its old-age pension. Four major indicators can be used for the evaluation of Chinese pension schemes: coverage rate, replacement rate, equity and sustainability. Among them, "coverage rate" reflects the extent to which the system brings benefits; "replacement rate" indicates the benefit level of pension payouts; "equity" evaluates differences among regions and groups, and "sustainability" indicates the capacity of the pension fund to sustain and potential of the system to develop.

INDICATOR 1: COVERAGE RATE.

China's pension system coverage has been constantly extending since 1998; especially in 2009, the government launched the government-partial-funded pension scheme for rural residents, which further extended to non-salaried urban population in the 16-59 age group in 2011 and achieved full basic pension coverage in 2012, which means all the elderly can receive monthly pensions in varying amounts. In 2016, the number of persons insured by old-age pension schemes was 887 million, among whom, 379 million were covered by the urban employees' pension scheme (including 101.3 million retirees), 508 million people were covered by the pension scheme for residents (including 152.7 million pensioners), and the total coverage rate stood at approximately 85% (263.73 million pensioners). In 2015, for active employees, the insurance coverage rate was 64.9% (262.19 million out of 404.1 million people). This suggests that the pension scheme for employees still has a larger space for coverage extension, mainly among migrant employees.

INDICATOR 2: REPLACEMENT RATE.

Judging from the time-series data, pensions for retired workers were constantly improved from 1995 to 2015, yet the average replacement rate calculated with reference to local average wage

was declining: 68.8% in 1995, 50.8% in 2005, and 45.5% in 2015. Today, the level is relevantly stable.

Nevertheless, the declining replacement rate does not reveal the real level of pension payouts, as the contribution base across the country is broadly below the average wage. See Table 6. When we use the wage that serves as the contribution base, instead of the average wage, to calculate the replacement rate, the replacement rate of the basic pension scheme for urban employees is 67%, remaining at a relatively high level.

The replacement rate, calculated on the share of average pension in per capita net income of rural residents, ranges from 10%-13%, being relatively low.

INDICATOR 3: EQUITY.

The regionally segmented pension schemes give rise to inequity and the large disparity among regions and groups.

(1) The pension replacement rate declined over the past years, but now it holds relatively stable. In 2015, the national average pension replacement rate stood at 45.5%, yet the gap across regions was large. For example, the pension replacement rate in Shanxi province was 63%, exceeding that of Chongqing province - which was 36% - by 27 percentage points.

(2) The dependency ratio (number of pensioners relative to contributors) of the pension scheme for employees has been on the rise. From 2000 to 2015, this ratio rose from 30.0% to 34.8% on average at the national level. In 2015, Heilongjiang province had the highest dependency ratio, which was 72.8%, whereas Guangdong province had the lowest one, which was 10.3%. The gap between the highest and the lowest reached 62.5 percentage points.

(3) The contribution rate of the pension insurance for employees has been declining. The average contribution rate is the proportion of per capita contribution to the average wage of employees in the same period. In most regions, this figure has been on a declining trend over time. From 2010 to 2015, the national average contribution rate dropped from 21.7% to 15.6%, with huge disparities across regions. In 2015, the contribution rate in Tibet was 29.7%, the highest in China, whereas Guangdong had the lowest, which was 8.3% -- the gap between the highest and the lowest was 21.4 percentage points.

INDICATOR 4: CONTRIBUTION RATE.

This indicator shows the burden of contributing on the working population. The per capita contribution of urban employees' pension scheme was increasing over time, while the average contribution rate was declining.

Since the per capita contribution base of insured employees is equivalent to only about 70% of the average wage of employees, the contribution rate calculated with the per capita contribution base is higher than calculated with the average wage of urban employees. The average contribution rate calculated with the per capita contribution base from 2010 to 2015, standing at about 22%-23%. In 2015, the average contribution rate calculated on the basis of the average wage of urban employees was 15.6%, whereas the average contribution rate calculated with the per capita contribution base was 22%, which was about 6 percentage points higher than the

former. In contrast, the per capita contribution base is equivalent to the average wage, as a result, the contribution rates calculated with the two are consistent.

INDICATOR 5: SUSTAINABILITY.

Whether a pension system is sustainable can largely be judged from three aspects: First, pension fund balance; second, construction of multi-layer pension scheme; third, space to adjust the relevant parameters.

(1) Balance of pension fund for urban employees. In 1995, the accumulated balance was CNY 43 billion, which could sustain pension payout for 0.51 years; in 2000, CNY 94.7 billion, 0.45 years; in 2005, CNY 404.1 billion, 1 year; in 2010, CNY 1.5365 trillion, 1.46 years; in 2015, CNY 3.5345 trillion, 1.37 years. This growing trend indicates that the fund balance was increasing, and sustainability was strengthened.

In addition, China has put in place the National Social Security Fund - the strategic reserve fund, which has amounted to 2 trillion CNY.

(2) The underdeveloped multi-layer pension system. In terms of coverage rate, in 2013, the average coverage rates of occupational pension and private voluntary pension in OECD countries were around 25%, respectively, while the figure in China was only 2.99% in 2015. Regarding the replacement rate, in 2011, the average replacement rates of public pension and private pension in OECD countries were 42.2% and 30.4%, respectively, while the replacement rate of enterprise annuity schemes in China was only 5%. It is obvious that the second and third layers of pension system still have huge potential to be scaled up in China.

(3) Parameters influencing the pension system. In terms of coverage rate, contribution base, contribution rate, length of contributions, replacement rate, retirement age, and fiscal responsibility, China still has plenty of room for changes. To be more specific: (i) more than 100 million migrant workers are not yet covered by the employees' pension system; (ii) contribution bases in different region only amount to 70% of the local average wage, leaving room for adjustment in the real contribution rate; (iii) The current minimum length of contribution of 15 years is overly short and thus must be extended; (iv) the replacement rate calculated with the real contribution wage according stands at 67%, being still high; (v) the average retirement age is now only 54 years old, and thus can be extended for considerable years; (vi) government subsidies accounts for about 16% of the total fund revenue.

The above shows that there is great room for adjustments in China's pension system. As long as the appropriate regulatory measures are taken, the sustainability of the pension system can surely be enhanced.

In conclusion, judging from the fund balance and influencing parameters, China's pension system should be able to achieve sustainability. Nevertheless, the absence of second and third-layer pensions would add to the pressure on the basic pension system.

PROJECT RESULT 4

National policy framework for a full coverage of old-age insurance system

Topic 1.3.6

Parametric reforms of pension system¹⁶

A. Comprehensive assessment of EU pension reform

1. On September 30, 2016, the European Union issued a report¹⁷ of Social Protection Committee, in which the reform of its members in the field of social policy reform has been evaluated. After summarizing the reform policies of its members, it finds that most of these reforms are about parameters, such as:

2. First, later retirement is the preferred policy for most countries. 26 out of the 28 member states (including the UK) have increased the retirement age. However, the specific ways to increase the retirement age are different: there are nine countries that link the retirement age to life expectancy; two member states narrowing the difference of the retirement age for men and women; four members correlate the pensionable age with life expectancy, and one nation takes the legal retirement age as the actual retirement age. In most countries, these approaches are not one-step, but gradual and take many years.

3. Second, early retirement is limited. The main measures include providing incentives to later retirement, modifying the calculation of pension benefits, etc. In the case of limiting early retirement, it also focuses on whether people could receive an invalidity pension, thus the reform also includes a disability guarantee. Some countries' policies have focused on increasing the minimum pension to strengthen social protection for the most vulnerable.

4. Third, contribution period and the contribution rate are adjusted. The Malta government, for example, has risen the contribution period of pension benefits from 40 to 41 years. In Bulgaria, the contribution period would also be increased to 40 years for men and 37 years for women.

¹⁶ Excerpt from the report by Ms. Zhou Hong

¹⁷ Council of European Union, Brussels, 30 September 2016 (OR.en) 12607/16, ADD2, Social Protection Performance Monitor (SPPM)-Report on key social challenges and main messages from SPC, from Social Protection Committee: *Detailed review of recent social policy reforms and initiatives (2015-2016)*.

Table: National Social Security Reform in EU Countries¹⁸

Area of policy reform	Policy options	EU members relevant to the reform
Options for Early retirement	More stringent requirements	Belgium, Finland, France
	Postponement	Luxembourg, Latvia
	Raising awareness	Finland, Croatia, Portugal, Slovenia
The retirement age	Increasing	Belgium, Bulgaria, Finland, Netherlands
	Being associated with life expectancy	Finland, Lithuania, Netherlands
Contribution period and rate	Increasing the contribution rate	Bulgaria
	Expanding the contribution period	Bulgaria, Malta
The calculation and index of pension benefits	New pension mechanism	Czech Republic, Lithuania, Latvia
	Regression of full index	Portugal
	Freezing index	Finland
	Universal pension	The UK
Minimum pension	Improving adequacy and coverage	Malta, Slovakia
Pension in association with disability	Improving access and working conditions for the disabled to enter the labor market	Luxembourg, Romania
	More stringent standards	Bulgaria
The capacity and safety of private pension funds	Improving the access	Czech Republic, Luxembourg
	Improving the financial management	Lithuania

5. Fourth, the calculation and indexation of pension benefits. Some countries have built a more flexible pension system, embracing the economy and population indices into the formula. Patterns of indexation in different countries are different, with the Finnish government freezing the pension index to limit the growth of public debt. The UK introduced a more extensive universal pension in 2016, to help reduce the gender gap in pension incomes. Some countries restrain people from receiving more pension by lengthening working life; some countries encourage additional pension savings in order to improve the retirement income; some countries correlate the pension system reform with incentives in the labor market, in order to improve the employment of the elderly; while others have made a more extensively positive strategy for the elderly.

¹⁸ The source: Social Protection Committee: *Detailed review of recent social policy reforms and initiatives (2015-2016)*.

6. Fifth, through various publicity education and training, public awareness towards the necessity of parametric reform is enhanced.

7. Sixth, minimum pension is guaranteed. In the whole process of reform, guaranteeing the minimum pension is a policy option that cannot be ignored. Many countries have initiated the minimum pension schemes to prevent vulnerable groups from falling into poverty due to public pension reform.

8. The EU Social Protection Committee stresses that the pension reform of EU countries was mainly focused on the long-term fiscal sustainability. However, pension reform should not be isolated from sustainable development and pension adequacy ratio. Economic and social and political risks relevant to the elderly low-income replacement need full attention. At the same time, such issues as poverty as a result of rapidly growing aging population and gender gap in the field of pension should also be addressed. It is an effective policy choice to adjust the pension system in accordance with the economic situation, and associate the retirement age with life expectancy. There are other tools available to increase the effective retirement age and promote longer working years. A policy combination that embodies the characteristics of the state pension system is the most appropriate.

B. Effect assessment on parametric pension reforms in European countries

9. As it can be seen from the reform practice of public pension in EU countries, parametric reform is an important means of pension reform. Some countries mainly adopt the method of parametric reform; whereas other countries use parametric and structural reforms alternately and complementarily. There are similarities and differences in reform of different countries, and their effects vary. With regard to the effects of parametric reform, currently the assessment is not widely available. There are several noteworthy points:

(I) Public pension deficits could be reduced, with the sustainability of pension being improved

10. By some estimates, after the implementation of parametric reform, most countries in have reduced the expenditure of public pension in ways that could be accepted by the people or in an imperceptible way. Thus the financial pressure of pension could be relieved. EU researches show that although there are various measures taken by member states, pension spending in all the 28 states have been under control. By 2060, public pension spending in all member states would not be higher than in that of 2013. Most member states are expected to cut pension expenditure.

11. While reducing spending, reforms also play a prominent role in generating the revenue: the contribution period could be prolonged by increasing the retirement age or other financial incentives to postpone retirement, which will directly lead to an increase of pension income; a higher contribution rate will also help generate revenue. The reforms, for example, would give France an additional contribution of 0.6% points of GDP. In the long run (in 2040), the fiscal situation of French pension will be improved by about 1.5% of GDP.

(II) "Adequacy" means a lot for the public pension systems

12. In addition to "sustainability", Europe has used such indicators as "adequacy" to judge the pension system. In addition to the pension replacement rate, "sufficiency" also takes into account the income distribution during retirees' lifetime, poverty risk and poverty rate, intergenerational differences and gender differences among retirees. Although pension system in France, for instance, has notoriously poor sustainability, it has always done well in "sufficiency". A study by the OECD indicates that in 2015, the poverty

risk of the elderly in France is at 7.9%, well below the average of 18% in the EU and also below the average (13.6%) of all French citizens. Of course, there is an "intergenerational gap" between retirees and working employees relative to the "adequacy" of French pension.

(III) It is unfavorable for the low-incomers and the early retirees in the labor market

13. After the parametric reform, people mainly make up for the reduction of pension due to postponing the retirement age and increasing the contribution period through prolonging their career. As a result, if you cannot hold out until the last of the career, the amount of pension basically is doomed to fall. Generally, parametric reforms have the greatest negative impact on low-incomers and early retirees. Take a lifetime as a whole, if a Frenchman leaves work at the age of 50, the average pension will be reduced by 6.6% due to the reform of 2010. But the impact is almost zero for high earners. Therefore, the reform has widened the income gap of retirees to some extent, increasing the poverty risk of some retirees.

(IV) The employment rate and unemployment rate of the elderly are increased, with the poverty risk of poverty the elderly being on the rise

14. Increasing retirement age and the contribution years for a full pension exert a certain degree of negative impact on the elder employees. On the one hand, increasing the retirement age by two years helps improve the employment rate of the elderly. On the other hand, it will be harder for the elderly to keep a career life until retirement, and it will be harder to find a job than the time prior to the reform. In France, for example, the result of the reform in 2010 is that the elderly who have already worked between the ages of 58 and 60 will continue to keep their jobs, while the unemployed at this age will continue to stay unemployed. Accordingly, the costs of unemployment insurance and old age assistance in the country have also been increased. Researches show that out of the 14 billion€ saved thanks to the reform in 2010, 15% has been used in a variety of additional aid.

(V) The social contribution burden of enterprises is increased

15. Although the parametric reform could bypass the politically sensitive area, usually the contribution base and rate would be enhanced, coupled with higher retirement age, these measures are not conducive to the improvement of employment environment, as they add more social contribution burden on enterprises, especially for the small and medium-sized ones.

(VII) The space for structural reform of the pension system is expanded

16. With the gradual implementation of parametric reform, public pension will shrink in the future. In addition, the parametric reform has an increasingly more stringent requirements on the contribution period of full pension qualification, which will inevitably cause "binary" division of old-age security: on the one hand, employees with stable jobs can access to relatively good security; on the other hand, contract, temporary and hourly workers or other kinds of informal workers could fail to be fully guaranteed, as a result of a lack of contribution years, an interrupt of contribution or an income too low. The elderly who have lost their jobs and are unable to return to work will also suffer. As public pension cannot provide sufficient security protection, more and more people will seek to a pension plan with a fund system, in order to supplement the decrease in the level of public security. Finally, the multi-layer multi-pillar pension security system has been formed.

(VIII) The dispute over the modes of reform is not yet over

17. Parametric reform will also give rise to various new problems. For instance, the introduction of scores is considered as equal treatment, but how to determine the score has become a new problem. Moreover, early retirees at the age of 63 are less likely to receive a lower pension, because there is no computational actuarial factor. Meanwhile, a more flexible labor market and a general employment environment with low wage could create economic insecurity for quite a large group. Therefore, the government must also provide some kind of subsidy for the lowest income group, meaning that a more solid and popular safety net should be woven under the welfare net. But has the reform returned to the original point? So the debate over the strengths and weaknesses of structural reform and parametric reform is far from over.

C. Some enlightenment to public pension reform in China

18. First, European countries have taken small steps to take parametric reform in order to tackle such problems as fiscal unsustainability and pension inadequacy of public pension as the population is aging. Along with the slowing development of Europe's economy in the 1990s, parametric pension reforms have become a policy option for a number of European countries. In the wake of the 2008 financial crisis, countries need to reduce their government debts, and control the over-rapid growth of pension expenditure, thus the parametric pension reform is more widely valued. Parametric reform, as the main policy option of reforming the pension system, or as the supporting policy of structural reform, has played a crucial role.

19. We believe that while drawing lessons from European experience, we should not only pay attention to the theories, policies and methods of structural reform, but also attach importance to the guiding ideology, strategy selection and concrete operation methods of parametric reform. Through introducing some calculation factors determined by a democratic process, parametric reform could help the pension system realize an automatic adjustment, reduce government intervention, and avoid the government's directly confrontation towards social conflicts, so as to make the reform into a kind of technical work.

20. Second, the parametric reform of pension can be focused on both the contribution and the expenditure.

(i). From the contribution stage, there are some entry points:

(1) Adjust the contribution base. What is the contribution base of pension? Is it the minimum income standard? Is it a full income including welfare? Or the average social wage? These are the key points of parametric reforms, which require political decision-making and uniform standards. A number of European countries are now extending their contribution scope to welfare earnings.

(2) Raise the contribution rate. As tax system in European countries are relatively perfect, the income tax has been on the high side, continuing to improve the contribution rate will bring enterprises and individuals extra burden. Therefore, enhancing the contribution rate is not a good policy option, and difficult to get through under the condition of European social democracy. However, it does mean that increasing the contribution rate is not a line of thinking. Because in addition to directly raising the contribution rate, the amount of contributions could also be increased by means parametric adjustments, such as extending contribution period.

(3) Increase the retirement age. As the population is aging, this option is inevitable, but it is not easy to implement. In the 1960s and 1970s, lowering the retirement age is adopted as a policy in Europe, making "enjoying healthy old age" a social right. In order to change this situation, reasonable logic and social recognition are required. The EU has recommended Finland's approach, which dynamically associates the

retirement age with life expectancy in indexation. With a longer life expectancy, working life would be prolonged correspondingly. In theory, with a shortened life expectancy, working years could also be reduced. Thus increasing of the retirement age could rest on a reasonable basis. Increasing the retirement age, of course, means longer contribution years and more accumulation of pension. Meanwhile it could avoid sensitive social opinion and solve long-term social strategic problems with technical solutions.

(4) In addition to increasing the retirement age, limiting early retirement or encouraging later retirement is also a popular option for reform. France and many other countries have opted for a policy of severely punishing early retirement. Some countries choose supportive policies, such as recognizing "double identities", which encourages people who have reached retirement age to continue working and at the same time receive labor payment and a proportion (20%) of pension. This would link the pension system to the labor market, which helps increase pension income while reducing pension costs.

(ii) From the expenditure stage, the main topics are focused on the calculation of pension benefits:

(1) Which parameters are linked to the pension? Are they linked with contribution, in order to reflect the principle of more pay for more work? Or are they linked to a wage index that allows retirees to share the growth of social wealth? Or are they tied to the price index to control the over-rapid growth of pension? In general, the left-wing parties in Europe argue that pension should be linked to the wage index; whereas the right-wing parties hold that pension should be linked to price index. Different policy options reflect different political ideas, or argue that social members share economic growth and prosperity, or strive to achieve fiscal sustainability. Therefore, political choices are required before policy choices.

(2) Should pension benefits calculate personal income for the last 5 years? Or the average personal income in the last 10 or 25 years? Countries have different policy choices according to their own national conditions, but the current trend is generally to calculate the income for the last five years to 10 years or beyond. Given that the average person's income increases with seniority, the longer the calculation period is, the lower the pension benefits will eventually be calculated.

(3) Introduce the sustainable computing factor or "score". For instance, while calculating the pension benefits, Germany has particularly calculated the "income score", years of working/contribution, pension current value, sustainability factor, category factor, actuarial factor, etc. It has included a lot of elements into calculation factors, to meticulously reflect a variety of policy choice through parameters.

21. Third, parametric reforms in European countries could influence each other and learn from each other, meanwhile they have their own characteristics and trade-offs. Moreover, most countries choose a number of parametric reforms, thus forming different policy combination. The EU argues that the different combination of parametric reforms adopted by member states is justified as long as the reforms are broadly directed towards a healthier and more sustainable pension system. Therefore, China could also consider multi-pronged reform when implementing reforms.

22. Fourth, according to preliminary estimates, the parametric reforms of pension in European countries have mostly reached the basic goal of controlling the increase of public pension. According to the 2016 German pension insurance report, the pension deficits would be controlled within 1.5%, while maintaining the contribution rate of pension unchanged as 18.7% from 2016 to 2020. However, reducing the pension expenditure is not the only goal of reform, nor its original purpose. The establishment of public pension system in Europe is to reduce the poverty of old age and realize the balanced development of society.

23. Therefore, while the EU countries are preventing waste and abuse of the pension system, they have never forgotten to take measures to avoid the old-age poverty. The policy choice of parametric reform is not merely to curb the growth of future expenditure, but also to suggest that the adequacy of the pension is as important as its fiscal balance. The measures of parametric reform in this regard are varied, including equality between men and women and the convergence of the nominal and real pension system. European countries are also paying close attention the social poverty rate while assessing pension reform. Preliminary tracking shows that the average poverty rate in European countries is generally declining after the reforms. Therefore, China should not ignore the effects of reform on society when drawing a lesson from Europe, as it can consider the introduction of social balance factor (or index), which could help enable the reforms to cut spending, and to balance the gap between the rich and the poor.

24. Fifth, some European countries, such as Sweden and Italy, begin to try out "personal notional account ". This is a sort of pension accounting reform, with the main purpose being to balance the intergenerational conflicts, and likely to solve the new problems caused by flexible employment. Since the discussion in this regard has just begun, this report would not introduce or comment on the system.

25. Finally, although the parametric pension reforms in Europe have been implemented for many years, as a conscious and systematic reform action, it is still in its infancy. Its ultimate effects and various roles need to be further observed. Thus, it is recommended to continue the study.

ANNEX – ENVISAGED PARAMETRIC REFORM, CHINESE PENSION SCHEME FOR EMPLOYEES

(List drawn by Project Component 1 technical team)

1. Contribution rate

Currently 28%: 20% employer + 8% employee

Adjusted rates by 1-8 percentage point downwards, effect on the level of pension replacement and the financial sustainability of the fund

2. Qualifying period

The current system provides a minimum qualifying period of 15 years of contributions

The estimated contribution period is 22-30 years, the impact on the level of pension treatment and the replacement rate

3. Retirement age

Calculate the impact of delayed retirement on pension treatment and redistribution

From 2022 onwards

Option 1: ordinary female workers every 3 years to extend by 1 year, female cadres, men every 4 years to extend by 1 year.

Option 2: ordinary female workers every 2 years to extend by 1 year, female cadres, men every 3 years to extend by 1 year.

4. Interest rate on Personal accounts

Calculate the impact of interest rates on personal account on the accumulation of pension benefits

Option 1: Average annual wage growth of urban non-private units in the previous year * 80%

Option 2: Average annual wage growth of urban non-private units in the previous year * 60%

5. Computation of benefits

Benefit formula

Full basic pension: payment of 30 (or 35) years, to reach the retirement age, can receive full pension 40-50%

Every one year not full career, treatment deduction 1 or 2 percentage points.

6. Benefit adjustment

Estimated impact of pension adjustment index on the change and redistribution of pensions

Option 1: Benefit Adjustment Index = Average wage growth rate of urban non-private sector workers in the previous year * 60%

Option 2: Benefit adjustment index = last year GDP growth rate * 50% + last year, urban non-private sector workers in the average wage growth rate * 30%

Option 3: Benefit Adjustment Index = Average wage growth rate of urban non-private sector workers in the previous year * 100%

PROJECT RESULT 5

Reform efforts in response to Urbanization trends

Topic 1.4.2

Relationship between socio-economic development and the redistribution function of social security – Parametric reform¹⁹

1. Since the beginning of the new century, China has been in the era of rapid population aging. The trend of population aging is becoming a more serious problem now. The Sixth National Census data show that in 2010 China's population over the age of 60 accounted for 13.23% of the total population, while the aged 65 accounted for 8.92%. Over the past 20 years, China's aging process has exceeded. As shown in Figure 1, the proportion of the 65-year-old population in the country reached from 6.5% to 10.5% during the period 1996 to 2015, rising by 4 percentage points and the elderly dependency rose from 9.5% to 14.3%, rising nearly by 5 percentage points. The aging acceleration has brought great pressure to the economic and social development. With China entering an aging society, the total number of new laborers is declining, and the labor force advantage is weakened, and the population dividend is disappearing. On the other hand, the aging process means that the income of the residents is shifting more to the pension income from labor income, and at the same time it means that the pension system is facing unprecedented pressure and may cause intergenerational inequality in income distribution. The empirical results of micro data analysis have found that aging is an important factor leading to income inequality (Zhong, 2011; Qu Zhaopeng and Zhao Zhong, 2008; Liu Jindong et al., 2014). In this context, it is important to investigate the impacts of the pension system and its reform on the income distribution in China.
2. China's pension system has run for nearly two decades, and its coverage continues to expand. So far, the system has covered both the urban and rural population. The latest data show that in 2016, the national basic pension insurance received revenue of 379.99 billion yuan, increased by 18% over 2015, while the pension expenditure was 3,400.4 billion yuan, increased by 21.8%. At the end of 2016, the number of people participating in basic pension insurance was 887.77 million, an increase of 29.43 million over 2015 (see Figure 2). Among them, the number of urban workers is 379.3 million people, the number of migrant workers 59.4 million, and urban and rural residents 508.47 million.
3. However, the current pension system has differentiated institutional arrangements for formal urban workers, unemployed persons, and other urban workers, as well as rural laborers, which may result in redistribution of income among different types of insured people. In addition, even for the same group, such as urban employees, due to difference in insured income, insured time and survival life, there would be income redistribution effect. So, what is the effect on the income distribution of the current pension system in China? Whether does it really play a role in narrowing the income gap between the rich and the poor? These questions are worthy of further study.

Redistribution effect of pension parameter reform: simulation analysis

The reform of the pension system in China needs to pay attention to the following main parameters:

4. First, **the coverage of the insurance**, that is, the coverage rate. Coverage is the starting point of analyzing the redistribution effect of pension system, and determines the size of its redistribution effect. There is no doubt that the greater the coverage, the larger the size of the pension fund

¹⁹ Excerpt from the report by Mr. Li Shi (Redistributive effects of Parametric reform)

collected, the more conducive to narrowing the income gap. In addition, low coverage means that a group of the population is excluded from the system, resulting in an opportunity inequality. To ensure that the opportunity is fair, it is possible to achieve a fair distribution. At present, we can see from the data that about 28% of the samples of workers aged 20 to 59 with wage income in 2013 did not participate in any urban pension insurance. In addition, we also observed that about 42% of the individuals participated in the urban worker's pension insurance in 2013, but did not report their contribution, 30% of the individuals participated in other pension insurances, but did not explicitly report their insurance premiums. Below, based on the coverage of pension insurance, the first simulation of this paper is given as follows.

Simulation 1: Urban pension to achieve full coverage.

5. In other words, we assume that urban worker's pension scheme, urban resident pension scheme, commercial pension insurance covering all urban people. The simulation method is as follows: First, 28% of the population who did not participate in the system in 2013 are assumed to be covered. This group of the population mainly employed in private enterprises or self-employed, can participate in either urban worker's pension scheme or urban resident pension scheme. We assume that they pay 8% of their wage income to the scheme in 2013 or pay 128 yuan per person (according to the 2013 Human Resources Social Security Regulation, the average payment to pension insurance from urban and rural residents in 2013 is 128 yuan per person). Secondly, if the individuals reported their participation in the system in 2013 but did not report their contribution, 8% of their wage income would be deducted. Third, for those participated in other pension insurances but did not report their contribution, we assume their contribution is 128 yuan per person. Under these assumptions, we calculate the inequality of disposable income of the samples shown in Figure 8.
6. If full coverage would be achieved, the inequality of disposable income would decline, but the decline is not so significant. The results show that the Gini coefficient of disposable income changes from 0.40540 to 0.40536 if those not participated in the system are assumed to make contribution to the urban worker's pension system. If those are assumed to make contribution to the urban resident's pension system, the Gini coefficient of disposable income would decline from 0.40536 to 0.40480. The decline is not significant .
7. In China, majority of urban workers are covered by the urban worker's pension insurance, and their income is relatively high. The low-income groups, such as temporary workers and self-employed, contribute to the pension in the form of taxation, but do not participate in the system because of "too high" contribution fees. According to China Statistical Yearbooks and Labor Statistical Yearbook, it can be calculated, with the improvement of the system for urban workers in China, the number of employees in urban enterprises increased year by year. In 2012, all most all the urban formal employees are covered by the system, but only 10% of the flexible job takers were covered. The low coverage rate of the flexible job takers leads to the difference of the coverage of the system for different types of employment, which affects the time of entering the system and further affects the income gap among retirees. This will weaken the distributive effect of the system. In other words, the fragmentation of the urban pension system undoubtedly leads to low effect on income distribution.

8. Second, **the income base for contribution**. From the 2005 Pension Reform Agenda it is not difficult to see that the pension contribution is based on the wage level of workers, that is, the higher wage is, the higher contribution. It should be taken into account that high-income earners pay more to the system, but in general, the average life expectancy of high-income earners is higher than the low-income earners, which will weaken the progressive effect of pension contribution. In general, the income base for contribution has the upper limit and the lower limit. If the upper limit is higher, that is, the higher the income of workers, and the lower the lower limit is, the pension system can produce a strong progressive effect on the income gap. In accordance with the provisions of the 2005 Agenda, China's current system stipulates employers to pay for the urban worker's pension insurance 20% of the total wage, and individual workers to pay 8% of the total wage. This is the national contribution rate, but the provinces can make adjustments according to their own circumstances. It also provides that 3 times of the local average wage as the payment ceiling and 60% as the lower payment limit. This means that high-income groups with wage levels more than three times of the average wage are only required to pay on the three-fold wage base.

Simulation 2: Contribution fully in accordance with the income base

9. We assume such a scenario in which workers participate in urban worker's pension insurance make contribution to the system in accordance with the stipulation. The simulation method is as follows: First, the simulation is based on sampled individuals of 20 to 59 years old who have wage income and participate in the urban worker's pension insurance. If the wage of a worker in the province is less than 60% of the average wage, he/her contribution would be based on 60% of the average wage. Second, the wages of workers is higher than the local average wage of 60% but less than 3 times of the average wage, they would pay 8% of their personal wage income to insurance. Third, those with wages higher than three times of the average wage, their contribution is on the basis of three times of the average wage. Of course, we assume that this group of workers has 100% participation rate. It should be noted that the average wage here is the provincial average wage of the sampled workers aged 20 to 59 in the data. The Gini coefficient of disposable income changes from 0.4054 to 0.3973, falling by less than 1 percentage point when the urban workers make contribution following the stipulated income base.
10. It is important to note that about 33% of the workers aged 20-59 participating in the urban worker's pension insurance with wage income less than 60% of the provincial average wage, while only 4% of them with wage income higher than three times of the average income. In this case, the actual contribution rate for the low-income workers is higher than 8%. In the face of the high rate of contributions, many workers with economic difficult will give up their participation, causing them to be excluded from the pension insurance. In other words, the existing system is to impose a lower (actual) contribution rate on high-income earners and a higher (actual) rates for low-income earners, resulting in reverse redistribution of the system.
11. Third, **the pension contribution rate**. Contribution rate is the core of the pension system, having a direct impact on the pension level. According to the provisions of the 2005 Agenda, China's urban worker's pension insurance stipulates the personal contribution rate is 8% of participant wage. The statistics show that the main reason for workers not participating the system is that contribution is too high, so we try to adjust the contribution rate. Similarly, here we use the data to do two simulations. First, we simulate the first option which reduces the contribution rate from 8% to 6%. Second, the results above show that due to the current income base there is regressive effect.

Therefore, we simulate the second option in which different income groups take different contribution rates. Specifically, groups with income below 60% of the average income take the contribution rate of 6% of the average wage. And for those with income more than 3 times of the average wage, the contribution rate of 10% of the average income is applied. And for those with income between 60% and 300% of the average wage, the contribution rate of 8% is applied.

Simulation 3: the contribution rate reduced to 6%.

Simulation 4: different contribution rates for various income groups.

12. As for the inequality of the disposable income of all sampled workers before and after adjustments of contribution rate, it can be seen that the Gini coefficient of disposable income decreased from 0.4054 to 0.3993 after reducing the contribution rate, but the decrease was not significant. However, the Gini coefficient of disposable income decreased from 0.4054 to 0.3368, by about 7 percentage points, if a lower contribution rate is applied to the low-income group and a higher rate to the high income group. It is a significantly progressive effect on income distribution. It can be seen that the actual contribution rate of low-income workers is higher than that of high-income ones because of the setting of upper and lower limits and because of the average life expectancy of high-income workers is longer than that of low-income ones. Therefore, the adoption of progressive contribution rate or more contribution by high-income workers can effectively improve the redistributive effect of the system.
13. Fourth, **reduce differential of pension distribution**. The results above show that the distribution of pensions among urban retirees is less fair, and the pension levels of retirees in different sectors vary widely, and the pensions are tilted to a few rich retirees. Next, we simulate the impact of the pension adjustment on the redistribution of the pension system. Here, we only simulate changes in the pension income of individuals over 50 years old who have received pension income, and the income of other individuals remains the same. We simulate two scenarios: one is to maintain the pension income of low-income pensioners and reduce the pension income of high-income pensioners. In this case, we assume that the pension income has a minimum and maximum level, respectively, no less than 5% and no more than 95% of the average pension level. The second is the reunification of pension standards of retirees from different types of enterprises. So we conduct the following simulations.

Simulation 5: Reduce pension income inequality - setting upper and lower limits.

Simulation 6: Adjustment of pension income: uniform standards.

14. Before and after the adjustments. It can be seen that the Gini coefficient of disposable income decreases from 0.4054 to 0.4012 when the upper and lower limits are set, the decrease is not significant. But if we further reduce the upper limit by 10%, the Gini coefficient drops to 0.3978. Further, if we only increase the lower limit by percentage (such as 5% or 10% or 15%), there is little impact on the overall income gap. This result shows that the vertical imbalance in the distribution of pensions, especially the pension more distributed to a small number of rich people, increases pension inequality among pensioners and income inequality among all people as well.
15. Suppose the pension income is adjusted uniformly. The Gini coefficient of the income distribution decreases from 0.4054 to 0.3822, 6% lower (see Table 6), when the pension income of all types of retirees is uniformly paid. This further shows that the vertical imbalance of the pension, affecting its income redistribution effect. Of course, it should be noted that in this case, is not conducive to

mobilize the enthusiasm of the incumbent payment, may induce more people to choose early retirement, resulting in fiscal unbalanced of pension insurance and new social problems.

16. Fifth, **the pension adjustment mechanism**. It should be noted that both inflation and real wage growth will affect pension income. First, if the pension income is fixed, the slight inflation will make it decreased in real value. In order to avoid the redistribution effect of inflation, the pension income will be considered to be attached with inflation in all countries. However, this adjustment mechanism relies on accurate inflation data. Another consideration for adjustment is the growth rate of real wage. Adjusting pension based on post-tax real wage growth can ensure that retirees share the fruits of economic development with their incumbents, while adjusting pension with inflation ensures that retirees maintain their basic standard of living. But this adjustment mechanism will bring huge financial pressure, may also deepen the intergenerational imbalance, and deteriorate fiscal balance of the pension system.
17. At present, China's pension adjustment mechanism is to make the fixed amount of adjustment. Since the reform of the pension system in 2005, the State Council has raised the basic pension income for urban retirees by 10% each year in 11 consecutive years, but it is not fully studied about the fairness and sustainability of this adjustment mechanism. The results above show that the distribution of pension income is not equity, which in turn lead to an increase in pension inequality, and income gap as well. Hence, in this case, we simulate differential pension adjustment mechanism for different groups. Specifically, assume that the growth rate for pension income of elderly groups with pension income more than 95%(or 90%) of the average pension level is only 5% (instead of 10%) in 2013, that is, adjust their pension income to around 95% of their current income in the year of 2013; Secondly, besides assuming that the growth rate for pension income of elderly groups with pension income more than 95% of the average pension level is only 5% in 2013, we also simulate that the growth rate for the poor group (with pension income less than 5% of the average pension level) is 15% in 2013. So we conduct the following simulations.

Simulation 7: Adjustment of the annual growth rate of pension income: controlling upper growth.

Simulation 8: Adjustment of the annual growth rate of pension income: different pension adjustment mechanism for differential groups.

18. The following figure shows the inequality of all disposable income before and after the adjustments. It can be seen that the Gini coefficient of disposable income decreases from 0.4054 to 0.4048 (0.4046) when controlling the upper growth, while the decrease is not significant. Then if we further apply different pension adjustment mechanism for the rich and poor, the Gini coefficient drops to 0.4047, implying that there is little impact on the overall income gap. This result further indicates that the vertical imbalance in the distribution of pensions increases pension inequality at first. Then even though we adjust the pension growth mechanism, there is little impact on its redistribution effect.

Simulation analysis of urban pension system parameters reform in China

Parameter reform 1: Change in the contribution rate

19. As mentioned above, the contribution rate is the core of the pension system. The results above also show that the existing pension system caused low-income workers to pay actually the higher rate than the high-income ones, generating a regressive redistribution. Homeopathy, we propose the first parameter reform, that is, the contribution rate reduced by 2 or 3 or 4 percentage points. When the

contribution rate decreases, the disposable income of workers increased. On the other hand, the pension income of retirees will decline. Because pension of retirees are made up of basic pension and personal account pension, the lower contribution rate would reduce the pensions from personal account. Therefore, we assume that for the urban workers the contribution rate is reduced by 2 or 3 or 4 percentage points, while pension income of retirees is decreased by 1 or 1.5 or 2 percentage points. In order to observe the redistribution effect of the parameter reform, we make simulation below.

Simulation of Urban Pension System Reform 1: Downgrade Contribution Rate.

20. When the contribution rate is reduced by 2 percentage points to 6%, the Gini coefficient decreases from 0.4054 to 0.3993; when the contribution rate is reduced to 5%, the Gini coefficient decreases to 0.4003; when the contribution rate drops 4 points to 4%, the Gini coefficient decreases to 0.4014. In other words, in the short term, the decline in contribution rate can make a positive redistribution effect. However, it should also be noted that as the contribution rate continues to decline, the Gini coefficient of income distribution does not decrease. It is not difficult to understand that with the decline in personal pension contributions, although the current disposable income has increased, but then the individual accounts of the pension will be reduced accordingly, and then pension income of retirees also declined. Therefore, the decline in the contribution rate in short-term can play a positive redistribution effect, but in the long run it may widen the income gap between generations.

Parameter reform 2: Postponing retirement age

21. As we all know, in recent years, China's aging trend is grim. According to the forecast, by 2025 the number of elderly people over 60 years old in China will be 291 million, and the elderly population aged 65 and over was 195 million. By 2040, elderly people over age 60 were 398 million (Du Peng et al., 2015). In other words, in the next 10-20 years, China's aging problem will be more challenge. With the process of aging society, the pressure on the pension system is increasing. In order to minimize the gap in pension accounts, domestic and international scholars and government officials have proposed solutions to postpone the retirement age. We further predict the impact of extended retirement age on the income redistribution effect in urban areas. Since it is not possible to accurately predict changes in the demographic structure and employment structure in 2020, we use the simplest method, that is, to assume that the elderly in the 2013 data will receive a pension after reaching a certain age and pay contribution to the pension system before then. In accordance with the current retirement policy, the legal retirement age for both men and women is 60 and 55 years respectively. We then assume that the retirement age is extended by one year, two years, three years and five years respectively to predict the income redistribution effect of the system. The forecasting method is as follows: First, the individual income equation is estimated from the data and then the predicted value of the individual's annual income is obtained. Secondly, according to the individual's income function, it is predicted that the individual who has retired after retirement age (but does not reach the extended retirement age) (60 to 61, 60 to 62, 60 to 63, 60 to 64 for males) and 55 years old (55 to 56, 55 to 57, 58 for females); again, to keep other people's income unchanged. The effect of extending the retirement age on income redistribution is estimated.

Simulation of Parameter Reform 2: Extension of retirement age.

22. It can be seen that with the extension of retirement age, the redistribution effect of pension is declining. If retirement age is extended by one year, the Gini coefficient of income inequality rises to

0.4068. And when the retirement age is extended by five years, the Gini of income distribution rises to 0.4187, by about 3 percentage points. In other words, with the extension of the retirement age, the system becomes more disequalising. Of course, it is undeniable that extending the retirement age can narrow the intergenerational pension gap. It is out of the scope of this paper, so it is not discussed here.

Redistributive effects of the pension system in Rural China

23. Generally, the effect of redistribution of the pension system in rural China just makes the Gini coefficient of income gap of rural residents narrowed by 2.1%, which is much smaller than that in urban areas. Similar to the situation of urban residents, the burden of rural residents not only did not reduce the income gap, but to expand the income gap. The redistribution of pension insurance makes the Gini coefficient of rural residents' income gap increased by 0.13%. Due to the development of the rural pension system is seriously lagging behind, the share of pension benefits in income is still very low, thus the income redistribution effect of farmers received pension income brings is very limited, but the peasant household market income gap narrowed by 2.21%, and the rural elderly subsidy has a more obvious effect on narrowing the income gap, which made the market income gap between the rural residents of the Gini coefficient decreased by 1.12%.
24. In general, it is quite clear that the pension system has a role in narrowing the income gap for migrant workers, but its role is very limited. However, the pension insurance helps to narrow the income gap, making it fell by 0.09%. Pension income has a positive role in income redistribution and makes the Gini coefficient of the income gap narrowed by about 1.98%. Also, similar to the situation of urban residents, retired pension has the most important redistributive effect.

Conclusion

25. The role of the pension system in the redistribution of income is worthy of attention and needs to be studied in depth. Since the reform and opening up, under the influence of multiple factors such as family planning policy and economic development, the trend of population aging in China is becoming more and more serious. The acceleration of aging process has brought great pressure on economic and social development, and it also means that the pension system is facing unprecedented pressure, which may cause inequality in within generations and intergenerational income distribution.
26. The Chinese pension system after nearly two decades of reform and development, its coverage continues to expand. So far, the system has basically covered the urban and rural population. However, the current system has different institutional arrangements for urban formal employees, urban residents and rural laborers, and lack of cohesion and coordination between different systems and lack of significant redistributive effect.
27. Using the nationally representative data of household income, we found that the current pension system has played a certain role of income redistribution. However, due to the difference in urban and rural system, the system has effects on income redistribution mainly in urban areas, and almost no impact in rural areas. In addition, we also found that in urban areas, pension distribution is not equal, retirees from different work units receive significantly different pension, and the pension is more distributed to a small number of high-income retirees.
28. It is also found that the actual contribution rate of low-income workers is higher than that of high-income ones because of the upper and lower limits of the income base and the same contribution rate for all workers in different income deciles. The high income group benefits more from the

pension system than the low-income group. The system has negative impact on income distribution. In addition, the difference in pension income provided by variant pension systems leads to the vertical imbalance in its distribution, which will also increase the income gap and is not conducive to the development of social fairness and the establishment of a harmonious society.

29. To future reform the pension system, it should pay attention to the following solutions: First, it needs to further improve the coverage to achieve the goal of protecting all the old people. Second, it is necessary to use progressive contribution rates, i.e., higher rates for high-income participants it effectively improve the redistribution effect of the system. Thirdly, it is to unify the urban and rural system to change the fragmented pension system. The formation of a unified national institutional arrangements in the system helps to reduce pension inequality among the different groups of pensioners. Fourth, the reform of pension system for civil servants should be accelerated. It should be merged with the urban worker's pension system.

