



Component 2 Workshop Report

Tuesday, July 12th, 2016

Beijing, Renmin University

The Sustainability of the Social Protection System in a Changing Working Environment



The EU-China Social Protection Reform Project Component 2 Workshop - The Sustainability of the Social Protection System in a Changing Working Environment - was held on 12th July 2016 at Renmin University to conclude the research activities of 2015. Some 30 participants, including representatives from MoF, Ministry of Human Resources and Social security, CASS, and other Chinese stakeholders, the EU Delegation to China and Mongolia, four EU short term experts and the project team took part in the discussions. Mr. Fu Jinling, Director General of the Social Security Department of MoF, and Mr. Michele Bruni, Team Leader and EU Resident Expert of Component 2, jointly chaired the Workshop. The agenda and list of participants are attached.



Mr. Fu Jinling on behalf of the Social Security Department of MoF, provides an opening speech, in which he summarizes the main achievements of Component 2 in the first year of the EU-China Social Protection Reform Project. Mr. Fu Jinling emphasizes the relevance of the two topics of the Workshop, namely: *social security coverage on atypical employment: methodologies and tools of management*, and *models and methodologies for the social and economic sustainability analysis in social protection system*, which are in line with the priorities of the CPC. Ms. Zhou Xiao and Prof. Wang Xiaojun have been engaged to conduct national analysis on the two research areas. The results of the two researches and the analysis of the main critical issues faced by China have been presented at the Panel Discussion. The purpose of the workshop is to discuss the

main output of the research carried out by EU and Chinese experts, debating the EU practices and their feasibility for the Chinese context.

Nearly at the end of 2013, the CPC Central Committee adopted the “Decision of the Central Committee of the Communist Party of China on Some Major Issues Concerning Comprehensively Deepening the Reform”. This decision underlines the need to institute a fairer and more sustainable social security system, by keeping the actuarial balance principle. Officials of MoF and MoHRSS are currently working on the actuarial evaluation for the sustainability of the social protection system. We can say that the Chinese social insurance system is facing a critical moment for its future sustainability; this is why China needs to learn from the international experience in the actuarial practice and social budgeting.

Following the opening speech, Mr. Bruni dedicates the welcome to all the participants from MoF and MoHRSS, from prominent research institutes including CASS, Peking University, RUC, Central University of Finance and Economics, as well as Ms. Yi Xiaolin, from the European Delegation, the Resident Experts, Ms. Breza and Mr. Gruat, the EU experts and the project team. As emphasized by Mr. Fu, Mr. Bruni underlines the relevance of the topics under discussion and the importance of the workshop in providing an occasion to discuss policies to be improved and implemented in the Chinese context.



In the first session, which focuses on social security coverage of atypical employment, three experts present the findings of their research.



Ms. **Marta Fana**, Science Po Paris, gives a presentation on the economic theory behind the flexibilization process; the Italian reform process; labor market dynamics and socio-economic outcomes, and finally provides an overview on the labor market flexibilization across European countries. Labor market flexibilization is largely based on mainstream theories identifying labor market ‘rigidities’ - namely, strong trade unions, generous social benefits, high minimum wages, powerful insiders, or firing restrictions - as the main causes behind persistent unemployment, inefficient factors allocation, mismatching between labor demand and supply and, in more general terms, weak

competitiveness performance. Empirical evidence seems to contradict and confute these theories underlying the null relationship between labor market protection and unemployment as well as the negative link between flexibilization and productivity. At the policy level, many countries followed a liberalization process. For example, Italy has chosen labor market liberalization as one of the key policies to foster employment, productivity and competitiveness. The reform process started in mid-Nineties followed two main approaches: liberalize fixed term contracts and create contractual arrangements without full subordination. Moreover, the

flexibilization process has not been accompanied by an integrated system of social protection, which could guarantee atypical worker an adequate welfare during no employment periods. Atypical contract also created a downgrade of workers' bargaining power followed by the rise of working poor. In structural terms, the use of atypical contracts as a cost competitiveness strategy reduced firms' incentives towards capital investments especially in high technological sectors. This major drawback due to labor market flexibilization contributed to the worsening of Italian industrial structure that has accelerated after the 2008 crisis.

Following, **Prof. Du Yang**, from the Institute of Population and Labour Economics of the Chinese Academy of Social Sciences (CASS), introduces the main labor market developments in recent years in China, including rural to urban migration, trend of informality, social protection system, and recent development in labor market institutions. Professor Du Yang illustrates a new methodology to measure labor market vulnerability in urban China, including both the indicators of social security and job security as two components in measuring vulnerability. By applying this new tool of measurement, the research of Prof. Du Yang provides a description of the vulnerability of jobs and observations on the vulnerability variations across various groups of workers. The new measurement allows variation within informal/formal group, which reflects more information than the traditional way of measuring employment quality. The empirical analysis of the research indicates significant gaps in employment quality between migrant and urban local workers, while the major difference comes from the disparities in social protection. Therefore, improving social protection through government effort ought to be one of the key strategies to achieve inclusive growth in China. According to Prof Du Yang, migrant workers should be the focused group because they are the less protected by current social protection system.



The last speaker of the first session, **Ms. Zhou Xiao**, Institute of International Labour and Social Security, MoHRSS, starting from the definition of flexible employment, provides an analysis of the policy development governing the sector, and finally presents the current open issues within the social security coverage extension of atypical employment. In China, informal employment refers to all kinds of employment which are different from traditional employment in some respects like work time, work place, work relation, remuneration, social insurance and welfare in China. Informal employee is defined as those who work as individual labors or work freelance with their age between 16 and 59, and leave their archives at Archive Depositing

Centers of all levels. According to the statistical data from the China Labor Statistical Yearbook, in 2014, the number of employees in China cities and towns is 382 million, China has 120 million flexible employees. It accounts for 31.4 percent of the national employment in cities and towns.

The social security policy for flexible employees started really late, induced only in 2000. While the policies on basic old-age insurance and basic medical insurance are relatively developed, the policies on unemployment/work injuries/maternity insurance are still under exploration and at a pilot phase. Furthermore, the policies on social insurance for flexible employment vary from region to region.

With the diversification of Chinese economy, the activeness of internet economy, especially the fast growth of E-commerce, there have been more and more people who start their own business or get employed through the Internet, and this has become an important pattern of the emerging industries in the "New Normal" of China. Online employment is of the characteristics of flexible ways and diverse types. Based on the big data investigation of Alibaba, Ms. Zhou analyzed the situation of social insurance of employees in

online shop. Regarding the social security coverage of this group, over 70% of the online shop employees do not participate in any social insurance plans. Like online shop owners, the focus of those employees are medical/old-age insurance.

To conclude, Ms. Zhou provides the following five remarks:

- The systematic coverage of basic pension and medical care have been realized, while the others are still in the phase of exploration
- Insurance rates for basic pension and medical care have increased drastically, but with the lower level of compensation.
- Informal employees are still the marginal and rarely concerned group of social security in the new economic form
- The subsidy policies for social security for informal employment have remarkable effects, but with the narrow coverage.
- The payment base and rates are still relative high for informal employment, and the transition and continuity between systems still lack flexibility.

The first session is followed by an animated discussion among the Chinese and EU experts.

The second session focuses on the topic *models and methodologies for the social and economic sustainability analysis in social protection system*. Professor **Li Zhen**, Institute for Social Security Study, Renmin University, as the moderator, provides an introduction of the three speakers.

Professor **Carlo Mazzaferro**, Bologna University, analyzes and discusses best practices in measuring and estimating the sustainability and the adequacy of a social security system. In the context of an ageing population an effective social security system should be: financially sustainable, adequate, modern/flexible, and neutral with respect to labour supply. A pragmatic approach is suggested in order to choose the kind of system that best fit with the economic, politic and demographic characteristics of the country.



A wide number of macroeconomic and microeconomic indicators are used to evaluate the sustainability, the adequacy and the neutrality of a social security system. Among them the most used are the ratio between pension expenditure and GRDP, the (net) pension liabilities, the internal rate of return, the Net Present Value Ratio, the replacement rate and the accrual of social security wealth. A single model cannot tackle all the above mentioned characteristics effectively and compute at the best all the above mentioned indicators.

Prof. Mazzaferro proposes a classification of models used by governments, international institutions and private research companies. According to this classification, he distinguishes models based on representative individuals, on microdata and on macrodata. Pros and cons of each of these models are discussed, looking at: i) indicators that can be estimated to measure sustainability, adequacy and neutrality of the system; ii) data requirement, with particular attention to the construction of the base year; iii) ability to take into account behavioral responses of individuals to policy changes.

Finally, Prof. Mazzaferro introduces a model called CAPP-DYN, developed by himself and Marcello Morciano within a collaboration between Bologna University, the Italian Ministry of Welfare and the

European Commission, which simulates the likely evolution (2010 – 2050) of a representative sample of the Italian population. The model is population based, it is closed, it takes into consideration a discrete time; uses probabilistic with finite and discrete Markovian processes and MCmethod; and uses individual or household simulation unit. Main financial and distributive features of the Italian social security system after the 2011 reform have been presented and discussed.

Following the discourse of actuarial modeling, **Angela Legini** (INPS) provides a brief description of the public expenditures forecasting in Italy; a description of the long-term actuarial valuation at INPS (National Institute for Social Security). More specifically, the actuarial valuation steps and some following aspects: analysis of the statistical information, actuarial assumptions, choice of methodology.



In Italy, the public bodies which engage in analyses and forecasting in the area of social protection through the use of the models and forecasting methodologies are: the State General Accounting Department (Ragioneria Generale dello Stato - RGS); and the National Institute for Social Security (INPS). The purposes to make the forecasting are different so they use different models. INPS manages many pension funds. For each of these funds, INPS estimates and evaluates the evolution of the financial balance. Pension schemes are long-term societal commitments, many of which have to be honored by future generations. It is, therefore, necessary to have information on the benefits promised before they are actually paid. In particular, the actuary is involved in making assumptions about future events in order to define: a) when benefit payments are to be made (demographic projections); b) the level of benefits to be paid (economic projections).

The exact nature of the required results and their level of disaggregation to be attained can affect the choice of the forecasting model, which can be:

- Average values for aggregations or for individuals (use of probabilities in a direct way)
- Stochastic simulation or "Montecarlo" method (use of probabilities in an indirect way).

Finally, Ms. Legini introduces the INPS model for private sector employees and self-employed. The INPS Actuarial Office has designed a stochastic model based on the method of random-simulation of individual Life Event (Method of years of management on an individual basis to draw – MAGIS).

The final discussant, Professor **Wang Xiaojun**, Associate Dean of School of Statistics, Renmin University of China, provides an outline of the basic situation of social insurance actuarial valuation and budgeting in China; the models and methods for social insurance budgeting; the models and methods for social insurance actuarial valuation; the problems on social budgeting and social insurance actuarial valuation; and finally provides some proposals for improvement.

In China, in February 1995, the forecasting report on urban workers' basic old-age insurance finished by a special study group, was the first actuarial valuation of social insurance. In 1997, the World Bank published a report named "pension reform in china", which included the implicit debts assessment.



In terms of institution of actuarial departments, in 2004, the System and Actuarial Section was established under the department of social security in the MoF. In 2004, also the Social Insurance Agency, the subordinate of MOHRSS established actuarial section. The goals of both government departments are to provide reliable financial data and gradually establish a standardized system of the actuarial report. There are only 3-4 staff in each actuarial office under

limited authorized personnel. The staff is not expert in actuarial valuation. There are no legal requirement for actuarial valuation and reporting system.

In terms of social budgeting of social protection, both MoF and MoHRSS have social insurance fund office. Social insurance fund office in MoHRSS is under Social Insurance Agency, the subordinate of MoHRSS. The main duty of the two offices is to draw up social insurance drafted budget for the following year and social insurance final account. Prof. Wang Xiaojun illustrates the process for social insurance budgeting. In 2010, the State Council issued Document No., 2 which decided to begin social insurance budgeting. Drafted budgeting of local social insurance should be made by local Social Insurance Agency and summarized and checked by local Human Resources and Social Security Bureau, and then further checked by local Department of Finance, then two governmental departments together report the drafted budgeting to local government and then report to superior Finance Department and Social Security Department. National social insurance budgeting is summarized by MoHRSS and checked by MoF, and then report by MoF and MoHRSS together to the State Council.

For the budgeting: there are transfers from local government to central government and vice versa, from one region to the other. Social insurance use simple budgeting approach, which is the projection based on extensions of time series.

Professor Wang lists the main problems of actuarial evaluation in China, mainly the fragmentation of the system; lack of in-depth data availability and comprehensive analysis; specialized institution and personnel. Indeed, in China there are two budgeting and actuarial divisions in two government departments in China. It may make confusion about the responsibility. There are only 3-4 staffs in each actuarial office and budgeting office under limited authorized personnel right now. Also the staff is not expert in budgeting and actuarial valuation. Moreover, it is very difficult to recruit and keep the professional and technical staff in the government because of the admittance restriction.

Prof. Wang suggests the following proposals: to enforce the regulations and laws, focusing on the actuarial reporting system and require the insurers to periodically carry out actuarial valuations, to clarify functions between MoF and MoHRSS on social security actuarial valuation and budgeting. In doing so it is important to learn from international experience but the Chinese situation is more important. According to Prof. Wang communication with MoF and MOHRSS, the leaders are considering establishing a more developed actuarial system. Hence, MoF should think how to engage some external actuarial institutes to do this job.

The presentations were followed by a question and answer session. In particular, the main topics of discussion were: the actuarial evaluation process in Italy; the methodology of the quantitative assessment of public finances and economic consequences of ageing populations in the EU Member States (AWG); the CAPP-DYN model.

To conclude, Mr. **Di Donghui**, Division Director of the Actuarial Department, Social Security Department of MoF, emphasizes the importance of the Workshop and the collaboration with the EU-China SPRP to carry out research in line with the main priorities and necessities of the social security department of the Ministry



of Finance. Mr Di points out that, regarding the topic of atypical employment, there are mainly two reasons of concern: one is the vulnerability of the group itself, in terms of social protection and employment stability, another issue is the funds balance. As a matter of fact, there are many incentives for this group of people to participate in social protection, and there is no financial sustainability. Furthermore, it has been found that some workers register as flexible employees, but actually they are not, this also represents a challenge for the sustainability of

the system. At the same time, as already discussed in the second session, the actuarial evaluation is a fundamental process to assess the sustainability of the social protection system. Hence, Mr. Di suggests continuing the important collaboration with the EU and Chinese experts in the forthcoming time, to exchange knowledge and make progress in the research.

Finally, Mr. Bruni proposed different kind of follow up activities as pilot sites, trainings, and other instruments to support the actuarial department of MoF and MoHRSS. These activities will be evaluated by MoF.

MoHRSS also expressed the interest in being involved in the project as its actuarial department would highly benefit from the EU experience and knowledge in the field. The day after the Workshop a working session meeting was organized with 6 staff members from MoHRSS actuarial department, directed by Ms. Geng Shuyan, and with the participation of Ms. Angela Legini (INPS) and Prof. Carlo Mazzaferro, in order to extend the discussion on the actuarial practice presented during the Workshop with other interested stakeholders that carry out the actuarial work at MoHRSS.



Summary prepared by Ms. Valentina Pignotti,

Component 2 Assistant

AGENDA

日程

9:00-9:30	<p>Welcome Speeches by MoF Social Security Department Representative and Michele Bruni, EU-China SPRP Team Leader-C2 Resident Expert</p> <p>欢迎致辞：中国财政部社会保障司领导、安多内罗·米凯乐·布鲁尼先生, 中欧社保改革项目专家组长、第2部分欧方常驻专家</p>
9:30-11:30	<p>Session 1 第1场</p> <p><i>Social security coverage on informal employment: methodologies and tools of analysis and management</i></p> <p>社会保障对非正规就业人群的覆盖：分析和管理的工具与方法</p> <p>Chair: Michele Bruni, EU-China SPRP Team Leader-C2 Resident Expert</p> <p>主持：米凯乐·布鲁尼先生, 中欧社保改革项目专家组长、第2部分欧方常驻专家</p>
9:30-10:00	<p><i>Keynote 1: Social Protection of atypical employment in the EU; the case of Italy</i></p> <p>主题发言 1: 欧盟非正规就业人群社会保障：意大利案例</p> <p>Speaker: Ms. Marta Fana, Sciences Po, Paris</p> <p>发言人：玛尔她·法娜女士——巴黎政治学院</p>
10:00-10:30	<p><i>Keynote 2: Vulnerability in the Chinese labour market and social protection</i></p> <p>主题发言 2: 中国劳动力市场和社保中的弱势群体</p> <p>Speaker: Professor Du Yang, Institute of Population and Labour Economics of the Chinese Academy of Social Sciences (CASS).</p> <p>发言人：都阳教授——人口和劳动力的社会中国科学院经济研究所</p>
10:30-11:00	<p><i>Keynote 3: Social protection of flexible employment in China</i></p> <p>主题发言 3: 中国灵活就业人群的社会保障</p> <p>Speaker: Ms. Zhou Xiao, Institute of International Labour and Social Security, MoHRSS</p> <p>发言人：周宵女士——中国人社部国际劳动与社会保障研究所</p>
11:00-11:30	Question and Discussion - 提问与讨论
11:30-13:00	Lunch Break - 午饭休息
13:30-16:00	<p>Session 2 第2场</p> <p><i>Models and methodologies for the social and economic sustainability analysis in social protection system</i></p> <p>社会保障体系社会与经济可持续性分析方法和精算模型</p> <p>Chair: Prof. Li Zhen, Institute for Social Security Study, Renmin University</p> <p>主持：李珍教授——中国人民大学公共管理学院社会保障研究所所长</p>

13:30-14:00	<p><i>Keynote 1: Micro and macro models to monitor and assess the sustainability of the welfare system</i></p> <p>主题发言 1: 福利体系可持续性监测的宏观、微观诸模型</p> <p><i>Speaker: Prof. Carlo Mazzaferro, Department of Economics, University of Bologna</i></p> <p>发言人: 卡尔洛·马查飞罗教授——博洛尼亚大学经济学系</p>
14:00-14:30	<p><i>Keynote 2: The INPS Model for the Social and Economic Sustainability Analysis</i></p> <p>主题发言 2: 意大利国家社会保障署 (INPS) 的社会经济可持续性分析模型和方法</p> <p><i>Speaker: Ms. Angela Legini, INPS Actuary- Staff of General Director</i></p> <p>发言人: 安哲拉·黎纪倪女士——意大利国家社保署总部精算官</p>
14:30-15:00	<p><i>Keynote 3: Models and methodologies to monitor and assess sustainability; current situation and proposals for the Chinese context</i></p> <p>主题发言 3: 可持续性监测模型与方法: 中国状况和建议</p> <p><i>Speaker: Prof. Wang Xiaojun, Vice Dean of Department of Statistics, Renmin University</i></p> <p>发言人: 王晓军教授——中国人民大学统计学院副院长</p>
15:00-15:45	<p>Questions and answers-问答环节</p>
15:45-16:00	<p>Conclusion by Michele Bruni, MoF and EUD</p> <p>欧盟驻华代表团、中国财政部社会保障司领导、米凯乐·布鲁尼先生, 中欧社保改革项目专家组长、第2部分欧方常驻专家</p>

中方与会人员

Chinese Participants

No.	Name	Title
1	符金陵 Mr. Fu Jinling	中华人民共和国财政部，社会保障司副司长 Director general of social security department, Ministry of Finance, China
2	邸东辉 Mr. Di Donghui	财政部，社会保障司制度精算处处长 Division director, Actuarial Department, Social Security Department, Ministry of Finance, China
3	徐刚 Mr. Xu Gang	财政部，社会保障司基金管理处处长 Division director, Funds Management Division, Social Security Department, Ministry of Finance, China
4	黄耀冬 Mr. Huang Yaodong	财政部，社会保障司养老保险处调研员 Division director level officer, Pension Division, Social Security Department, Ministry of Finance, China
5	桂雄 Mr. Gui Xiong	财政部，社会保障司综合处副处长 Division vice director, General Office, Social Security Department, Ministry of Finance, China
6	岳林 Mr. Yue Lin	财政部，社会保障司综合处主任科员 Principal staff member, General Office, Social Security Department, Ministry of Finance, China
7	王珏 Ms. Wang Jue	财政部，社会保障司城乡低保处主任科员 Principal staff member, Urban and Rural Dibao Division, Social Security Department, Ministry of Finance, China
8	张思聪 Ms. Zhang Sicong	财政部，社会保障司制度精算处主任科员 Principal staff member, Actuarial Division, Social Security Department, Ministry of Finance, China
9	耿树艳 Ms. Geng Shuyan	人力资源与社会保障部社会保险事业管理中心精算处处长 Actuarial Department, Social Insurance Administration Center, MoHRSS
10	李珍 教授 Prof. Li Zhen	中国人民大学公共管理学院社保研究所所长 Institute for Social Security Study, Renmin University
11	王晓军 Prof. Wang Xiaojun	中国人民大学统计学院副院长 Vice Dean of Department of Statistics, Renmin University
12	周宵 Ms. Zhou Xiao	人社部国际劳动和社会保障研究所 Institute of International Labour and Social Security, MoHRSS
13	都阳 Prof. Du Yang	中国社会科学院人口与劳动力研究所 Institute of Population and Labour Economics of the Chinese Academy of Social Sciences (CASS)
14	李晓林 Prof. Li Xiaolin	中央财经大学 教授 Central University of Finance and Economics
15	吴岚	北京大学 教授

	Prof. Wu Lan	Peking University
16	汪德华 Prof. Wang Dehua	中国社会科学院财经战略研究院，研究员 Associate Research Fellow, Department of Government Auditing, National Academy of Economic Strategy Chinese Academy of Social Sciences
17	杨再贵 Prof. Yang Zaigui	教授,中央财经大学 Professor, Central University of Finance and Economics

欧方与会人员

EU Participants

No.	Name	Title
18	Mr. Michele Bruni 米凯乐·布鲁尼	Team Leader and EU Resident Expert C2 中国欧盟社会保障改革项目，第二部分欧盟常驻专家/项目组组长
19	Mr. Carlo Mazzaferro 卡尔洛·马查飞罗	Department of Economics, University of Bologna 博洛尼亚大学经济学系
20	Ms. Marta Fana 马尔她·法娜	Sciences Po, Paris 巴黎政治学院
21	Ms. Angela Legini 安哲拉·黎纪倪	Actuary- Staff of General Director of the Italian National Institute of Social Protection (INPS) 意大利国家社会保障署总部精算师
22	Mr. Roberto Notaris 罗伯德·诺达礼思	Analyst of work processes in the field of pension benefits, the Italian National Institute of Social Protection (INPS) 意大利国家社会保障署养老金工作过程分析师
23	Mr. Jean Victor Gruat 圭亚	EU Resident Expert C1 中国欧盟社会保障改革项目，第一组欧盟常驻专家
24	Ms. Marzena Breza 马哲娜	EU Resident Expert C3 中国欧盟社会保障改革项目，第三组欧盟常驻专家
25	Ms. Yi Xiaolin 易小琳	Project Officer, EUD 欧盟驻华代表团，项目官员
26	Ms. Valentina Pignotti 毕若华	Assistant, Component 2 中国欧盟社会保障改革项目，项目组长助理