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Demographic ageing and employment in China

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## Preface

The primary goal of the ILO is to contribute, with member States, to achieve full and productive employment and decent work for all, including women and young people, a goal embedded in the ILO Declaration 2008 on Social Justice for a Fair Globalization, and ${ }^{l}$ which has now been widely adopted by the international community.

In order to support member States and the social partners to reach the goal, the ILO pursues a Decent Work Agenda which comprises four interrelated areas: Respect for fundamental worker's rights and international labour standards, employment promotion, social protection and social dialogue. Explanations of this integrated approach and related challenges are contained in a number of key documents: in those explaining and elaborating the concept of decent work ${ }^{2}$, in the Employment Policy Convention, 1964 (No. 122), and in the Global Employment Agenda.

The Global Employment Agenda was developed by the ILO through tripartite consensus of its Governing Body's Employment and Social Policy Committee. Since its adoption in 2003 it has been further articulated and made more operational and today it constitutes the basic framework through which the ILO pursues the objective of placing employment at the centre of economic and social policies. ${ }^{3}$

The Employment Sector is fully engaged in the implementation of the Global Employment Agenda, and is doing so through a large range of technical support and capacity building activities, advisory services and policy research. As part of its research and publications programme, the Employment Sector promotes knowledge-generation around key policy issues and topics conforming to the core elements of the Global Employment Agenda and the Decent Work Agenda. The Sector's publications consist of books, monographs, working papers, employment reports and policy briefs. ${ }^{4}$

The Employment Working Papers series is designed to disseminate the main findings of research initiatives undertaken by the various departments and programmes of the Sector. The working papers are intended to encourage exchange of ideas and to stimulate debate. The views expressed are the responsibility of the author(s) and do not necessarily represent those of the ILO.

José Manuel Salazar-Xirinachs<br>Executive Director<br>Employment Sector

[^0]Since its inception the ILO has directed particular attention to the implications of demographic change in the world of work. The first instruments on the matter, adopted in the 1930s set out to provide invalidity, old-age and survivors' insurance. In 1980 the ILO adopted the most comprehensive instrument on the subject: the Older Workers Recommendation, 1980 (No. 162). The Recommendation aims to protect the right of older workers to equality of treatment and focuses on the measures that should be implemented to protect their needs.

This study by D.U. Yang and W. Meiyan brings to light the current and emerging issues concerning the implications of demographic change on the labour market in China. While population ageing is a major achievement of our times it presents major challenges for the world of work that need to be addressed. China's population is ageing very rapidly. Sharp declines in fertility combined with increased life expectancy are changing the population structure in a major way. The low level of benefits and their limited coverage push large numbers of older people (particularly older women) to continue working in the informal economy. The combination of old-age, poverty and exclusion is therefore of great concern.

The China study discusses the main economic and labour market issues and implications related to population ageing in China and presents an overview of current policy responses. Section 1 of the study describes the main current and future demographic trends. Section 2 analyzes overall labour market trends in China and labour market outcomes of the older population. The section also explores the key determinants for termination of employment of older workers and illustrates key issues related with extending working lives of older workers as well as employers' attitudes towards them. Section 3 focuses on the poverty incidence in the old age in urban and rural areas and presents recent government interventions targeting poor elderly people. Section 4 presents the main challenges of the current pension system in both urban and rural China. The final section puts forward some policy suggestions towards ensuring a secure and decent old age for the Chinese population.

This study has been jointly commissioned by the Employment Policy Department of the ILO Employment Sector and the Regional Economic and Social Analysis Unit of the ILO Regional Office for Asia and the Pacific. It has been conducted under the technical supervision and overall coordination of Mariangels Fortuny from the ILO Employment Policy Department and Rika Fujioka from ILO ROAP is part of a series of studies about the demographic change that the employment sector has undertaken in different countries and regions. Comments and contributions were provided by Roddy McKinnon from the International Social Security Association and Gyorgy Sziraczki from ILO ROAP. The study has contributed to a major report on employment and social protection in the new demographic context that has been prepared by the Employment and Social Protection Sectors.

Azita Berar Awad<br>Director<br>Employment Policy Department

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## 1. Introduction

China has undergone rapid demographic change over the past three decades. Largely due to a significant decline in the fertility rate, this transition has meant that China may already be described as an ageing society. In 2007 people aged 65 and above accounted for 8.1 per cent of the country's total population. ${ }^{5}$ China, a grey country but not rich, faces the many challenges involved in supporting a growing number of elderly. ${ }^{6}$

Another transition complicates these challenges. China is in the process of transforming its economy into a market system. Labour market dislocation resulting from this transition, as well as the fact that in the planned economy there was not a wellestablished pension system, has led to old age poverty. For old people in rural areas, the experience has been even worse than in urban ones. Despite efforts by the Chinese government to establish a rural pension system, support for the elderly in rural China has come primarily from family members. However, household size has been declining.

Furthermore, older people are facing substantive labour market disadvantages. In an economy dominated by labour intensive industry, older workers are not seen as competitive as their younger counterparts. Furthermore, for historical reasons, such as the Cultural Revolution, older workers have lower levels of education.

This report explores the main economic and labour market issues and implications of population ageing in China and presents an overview of current policy responses. It is organized as follows:

Section 1 describes the main demographic transition resulting from population ageing in China. Section 2 analyses overall labour market trends and labour market outcomes for older people. It also explores retirement patterns, re-employment of older workers and employers' attitudes towards them. Section 3 describes the overall state of poverty in China and of poverty among the older population in both urban and rural China and also looks at government interventions aimed at reducing poverty. Section 4 analyses the pension system in both rural and urban areas and the final section concludes the report with some policy suggestions.

## 2. Main demographic transition and population ageing

Thanks to fast economic growth and strict family planning policy, China's fertility rate has been declining in the past three decades. It is widely accepted that the total fertility rate (TFR) ${ }^{7}$ in China is below 1.8. However, some demographers believe that the TFR is even below 1.5. ${ }^{8}$ In addition, China experienced a significant decline in the death rate during the 1960s and 1970s. Furthermore, average life expectancy at birth has substantially

[^1]increased - from 66 years to 73 years in the last three decades. The result of the abovementioned trends has been rapid ageing of the population.

### 2.1 The demographic transition

During the past three decades China has undergone a rapid demographic transition. Strict family planning policies implemented since the 1970s, dubbed the "later, longer, and fewer" (wanxishao) campaign, encouraged later marriage, a longer interval between births and fewer children. In urban areas married couples were allowed to have one child, the famous "one child policy". In many provinces, rural couples were allowed to have their second child after a certain interval if the first child is a girl.

As Figure 1 shows, in the 1960s China had both high crude death rates and high birth rates, ${ }^{9}$ typical features of a country before a demographic transition. Since the end of the 1970s, China has achieved significant economic growth with crude death rates declining and remaining at a low level since the 1980s. At the same time, birth rates have been decreasing, which makes China a country with low fertility rates and low mortality rates. In 2008 the crude birth and death rates were $12.14 \%$ and $7.06 \%$ o respectively and the natural growth rate only $5.08 \%$.

Both the strict population control policy and economic development have played an active role in the decline of fertility, making it possible for China to experience within 30 years a demographic transition that took more than a hundred years in most industrialized countries.

Figure 1 Changing patterns of China's population (1949-2008)


Sources: National Bureau of Statistics, China Statistical Yearbooks (various years), China Statistics Press
${ }^{9}$ The crude death rate is the number of deaths in a given population during a given time period divided by the total population, multiplied by one thousand; the crude birth rate is the number of births in a given population during a given time period divided by the total population, multiplied by one thousand. Natural growth rate is the crude birth rate minus the crude death rate. It represents the portion of population growth (or decline) determined exclusively by births and deaths.

In 1971, the TFR stood at 5.4. Since then it plunged to 2 , below the replacement rate (usually 2.1 ). Currently it is approximately 1.8, nearly half the average level for lowincome countries (3.5) and very similar to the level of high-income countries (1.7). ${ }^{10}$ China's population growth rate has been consistently below $10 \%$ since 1998 , with a further decline from slightly above $6 \%$ in 2003 to $5.08 \%$ in $2008 .^{11}$

### 2.2 China's population structure and ageing

The United Nations definition of an ageing society is a country or region in which people aged 60 or more make up 10 per cent of the total population. China has crossed the threshold of an ageing society by the United Nations' criteria. China's percentage of population over 60 years of age reached 7 per cent in 2000 from 4.4 per cent in 1953, 3.6 per cent in 1964, 4.9 per cent in 1982, and 5.6 per cent in $1990{ }^{12}$ Thus, by the UN's criteria, China had virtually become an ageing society at the time of its fifth census in 2000. According to the $1 \%$ Population Sample Survey conducted in 2005, the proportion of those aged 65 or older had increased to 7.69 per cent. China's population age structure has shifted from a typical pyramid dominated by a young population to an olive shape featuring an increase in the elderly and dominance of the middle-aged (Figure 2).

Figure 2 Changing population pyramids, 1953-2005 (\%)
(Left male; right female)


Sources: Fan, Jingjing (ed.) (1995), China's Population Structure by Age and Sex, China Population Publishing House; National Bureau of Statistics (2007), Tabulation on the 2005 1\% Sample Survey of the People's Republic of China, China Statistics Press; National Bureau of Statistics (2002), Tabulation on the 2000 Census of the People's Republic of China, China Statistics Press.

[^2]The changing age structure will continue to shape future population dynamics. Various predictions of China's population suggest the trend will continue. While total population is likely to increase, reaching its peak in the next two decades, the age structure of the population - which is one of the main determinants of labour supply and ageing in the long run - is set to reach a turning point in the next decade. As Table 1 shows, there is a decreasing share of children in the population over the next decade and an increasing share of elderly, while the population of labour age rises until it peaks in 2016 at 1 billion and then decreases after 2016. Those aged 64 and above will account for more than 10 per cent of the total population after 2016.

Table 1 Age profile of total population in next decade

| Year | $\begin{aligned} & \hline 15-64 \\ & \text { (million) } \\ & \hline \end{aligned}$ | Changes (million) | $\begin{aligned} & 15-64 \\ & (\%) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0-14 \\ & (\%) \\ & \hline \end{aligned}$ | 64 and above (\%) | Dependent ratio (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2001 | 88,573.1 | - | 69.4 | 23.5 | 7.2 | 44.1 |
| 2002 | 90,045.6 | 1472.5 | 70.1 | 22.6 | 7.3 | 42.7 |
| 2003 | 91,363.5 | 1317.9 | 70.7 | 21.8 | 7.5 | 41.4 |
| 2004 | 92,811.4 | 1447.9 | 71.4 | 21.0 | 7.6 | 40.1 |
| 2005 | 94,275.1 | 1463.7 | 72.1 | 20.1 | 7.8 | 38.7 |
| 2006 | 95,036.9 | 761.8 | 72.3 | 19.7 | 7.9 | 38.3 |
| 2007 | 95,823.3 | 786.4 | 72.5 | 19.4 | 8.0 | 37.9 |
| 2008 | 96,613.9 | 790.6 | 72.7 | 19.1 | 8.1 | 37.6 |
| 2009 | 97,286.3 | 672.4 | 72.8 | 18.9 | 8.3 | 37.4 |
| 2010 | 97,835.9 | 549.6 | 72.8 | 18.7 | 8.4 | 37.4 |
| 2011 | 98,384.8 | 548.9 | 72.8 | 18.5 | 8.6 | 37.4 |
| 2012 | 98,923.6 | 538.8 | 72.8 | 18.4 | 8.9 | 37.4 |
| 2013 | 99,167.2 | 243.6 | 72.6 | 18.3 | 9.1 | 37.7 |
| 2014 | 99,245.5 | 78.3 | 72.3 | 18.2 | 9.4 | 38.3 |
| 2015 | 99,280.8 | 35.3 | 72.0 | 18.2 | 9.8 | 38.9 |
| 2016 | 99,398.5 | 117.7 | 71.8 | 18.1 | 10.1 | 39.3 |
| 2017 | 99,327.1 | -71.4 | 71.5 | 17.9 | 10.6 | 39.9 |

Sources: Hu, Ying (2007), "Predictions on major population indicators of rural and urban China", NBS unpublished memo
In addition to general demographic transition and ageing in China, it is interesting to look at trends by gender and by rural and urban areas since the patterns differ, as do support systems for the elderly.

Figure 3 shows that while the proportion of those over the age of 65 has been increasing for both sexes, it has been higher for females. In 1953, this proportion was 5.2 per cent for females and 3.7 per cent for males and in 2000, 7.7 per cent for females and 6.5 per cent for males.

Figure 3 Proportion of population aged $65+$ by gender (\%)


Source: Census data
There has also been a growing gap in the proportion of population aged 65 and above living in rural and urban areas (Figure 4). In 2001, 7.6 per cent of the population in rural areas were 65 and over, 1.14 percentage points higher than in urban areas. By 2008, the proportion in rural areas was 8.96 per cent and in urban areas 7.18 per cent, a gap of 1.78 percentage points. By 2020, this gap will have risen to 3.79 percentage points as the proportion of 65 and above reaches 14.17 per cent in rural areas and 10.37 per cent in urban areas.

Figure 4 Proportion of population aged 65+, by rural/urban classification (\%)


Source: NBS

## 3. China's labour market trends and employment of older workers

Alongside China's demographic transition, the restructuring of state-owned enterprises (SOEs) initiated in the late 1990s has changed the country's labour market substantially. In this section, we describe China's overall labour market situation, in particular how these changes have affected the elderly in both urban and rural areas.

We also look at differences in the termination of employment and in recruitment of old workers compared with younger ones and analyse the main issues regarding reemployment of older workers and employers' attitudes towards them.

### 3.1 China's overall labour market situation

The Chinese labour market has experienced rapid institutional change. Furthermore, it has faced a turning point in recent years known as the "Lewisian Turning Point". ${ }^{13}$ As a result of economic restructuring, the labour market participation rate in urban areas has been decreasing over the past decade, as Table 2 shows.

Table 2 Labour force participation and unemployment in the urban labour market

| Year | Economically active population (million) | Employed persons (million) | Labour force participation (\%) | Surveyed unemployment rate (\%) | Registered unemployment rate (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1990 | 176.15 | 170.41 | 78.0 | 3.3 | 2.5 |
| 1991 | 180.65 | 174.65 | 83.0 | 3.3 | 2.3 |
| 1992 | 184.91 | 178.61 | 72.6 | 3.4 | 2.3 |
| 1993 | 189.22 | 182.62 | 66.9 | 3.5 | 2.6 |
| 1994 | 193.33 | 186.53 | 72.3 | 3.5 | 2.8 |
| 1995 | 198.30 | 190.40 | 75.9 | 4.0 | 2.9 |
| 1996 | 207.37 | 199.22 | 72.9 | 3.9 | 3.0 |
| 1997 | 217.61 | 207.81 | 72.1 | 4.5 | 3.1 |
| 1998 | 230.66 | 216.16 | 71.2 | 6.3 | 3.1 |
| 1999 | 238.09 | 224.12 | 72.9 | 5.9 | 3.1 |
| 2000 | 250.58 | 231.51 | 66.1 | 7.6 | 3.1 |
| 2001 | 253.47 | 239.40 | 67.3 | 5.6 | 3.6 |
| 2002 | 264.00 | 247.80 | 66.5 | 6.1 | 4.0 |
| 2003 | 272.82 | 256.39 | 63.4 | 6.0 | 4.3 |
| 2004 | 280.99 | 264.76 | 64.0 | 5.8 | 4.2 |
| 2005 | 293.83 | 273.31 | 62.5 | 5.2 | 4.2 |
| 2006 | 301.54 | 283.10 | - | - | 4.1 |
| 2007 | 310.05 | 293.50 | - | - | 4.0 |

Sources: Calculations from NBS; China Statistical Yearbook (various years); China Statistical Press

[^3]First, during the planned economy era, China had a relatively high labour force participation rate in urban areas. At that time, one of the priorities of China's economic strategy was to develop heavy industry. To do this with few capital resources, it was necessary to lower input costs, including labour and food products. The government therefore monopolized the circulation of agricultural products through purchase and sale at low prices (tonggou tongxiao). The policy included collectivization of agricultural production, under which People's Communes were formed, further restricting the mobility of labour - through adoption of the household registration (hukou) system. Tonggou tongxiao, People's Communes and hukou thus constituted a "troika" in the institutional arrangement of agriculture in the planned economy period.

At the same time, a dual social structure that segmented rural and urban areas was developed. In urban areas, several employment interventions were put in place that led to relatively high labour force participation rates. As such, the recent decline in labour participation rates may be considered an adjustment to the market economy.

Second, a radical economic restructuring of SOEs took place from the middle of the 1990s. With the economic slowdown brought on by the Asian economic crisis that began in 1997, the so-called shattering of the "iron rice bowl" ${ }^{14}$ started. This brought not only layoffs and unemployment but some discouraged workers in urban areas chose to be economically inactive, resulting in a dramatic decrease in labour force participation rates since the middle of the 1990s - in particular for women, as they tend to be more disadvantaged in response to labour market shocks. According to the China Urban Labour Survey (CULS1) ${ }^{15}$ in 2001, from 1996 to 2001 women's participation rates decreased 10.6 per cent while those of their male counterparts decreased 6.9 per cent in the same period. ${ }^{16}$

Third, an improvement in the social protection system in urban areas lowered labour force participation rates. For instance, since 1993 China has set up the dibao (minimum living standard guarantee) system, a social assistance programme in urban areas subsidising low-income households. According to the Ministry of Civil Affairs, the per capita benefit level for urban dibao recipients was estimated to be $¥ 141$ per month in 2008. Since the dibao benefit was separated from employment status, it was inevitable that it would create an incentive to quit the labour market.

During the planned economy, the State guaranteed urban employment and government institutions did not assume that unemployment existed. However, with the reforms and restructuring of the economy, "registered unemployed" started reflecting demand for jobs.

According to the official definition, registered unemployed in urban areas refers to persons with non-agricultural household registration at certain age (16 years and above), who are capable of working, unemployed and willing to work, and have been registered at a local employment service agency to apply for a job. Under such a definition, working status and willingness are not the only conditions for qualifying as unemployed. "Hukou status" and registration are also indispensable factors.

[^4]It is possible to estimate the urban unemployment rate according to various data published by the NBS. Both surveyed unemployment rates and registered unemployment rates are shown in Table 2. As the table shows, the surveyed unemployment rate is always higher than the registered unemployment rate. The gap between the two rates has been more substantial since the middle of 1990s when the urban labour market suffered a significant dislocation. The gap also implies that the registered unemployment rate is not an adequate indicator of the labour market in urban China.

Along with the changes described above, the Chinese labour market has undergone substantial "informalization". Employment in the informal economy in China includes those types businesses or production units that are not recognized or protected under the legal and regulatory frameworks. In general, employment that is not registered with the "Labour Comprehensive Reporting System" (LCRS) and the Industrial and Business Administration can be considered informal. Furthermore, there are workers working informally in the formal economy, which are of course regarded as part of the formal economy but they do not have a contract or enjoy social security benefits.

Figure 5 presents a breakdown of total employment by enterprise ownership. Since the disaggregated data comes from the LCRS and the total employment is based on the labour market survey, a significant residual exists. The gap (discrepancy) between total employment and aggregated employment in the units (RSD in the figure) is regarded as the size of employment in the informal economy.

Figure 5 Changes in employment structure since economic reforms


Note: SOU - state-owned units, COL - collective-owned units, CU - cooperative units, JOU - joint ownership units, LLC - limited liability corporations, SHCL - share holding corporations limited., PE - private enterprises, HMT - units with funds from Hong Kong, Macao and Taiwan, FFU - foreign funded units, IND - self-employed individuals, RSD - residual.
Sources: NBS; China Statistical Yearbook (various years), China Statistics Press
Another important change in recent years in the labour market is associated with the so-called "Lewisian Turning Point". ${ }^{17}$ As a result of both the strict implementation of the one child policy and rapid socio-economic development, China has undergone a

[^5]demographic transition in about 20 years, a very short period compared with most developed countries. In absolute terms, China's working-age population will peak at approximately 1 billion in 2015 before embarking upon a gradual decline. This projection sends an important message: in the near future, the size and proportion of China's workingage population will change in ways which are different from those that we have long observed moving towards an increasingly serious labour shortage.

### 3.2 Labour market outcomes for the elderly

As already mentioned, the urban labour market in China has undergone significant changes over the past decade. Due to the downturn in the macro-economy and rapid structural change in industry, many SOEs lost their comparative advantage and competitiveness and have been unable to fully utilize their production capacity since the late 1990s. This has resulted in job losses for hundreds of thousands of urban workers. The restructuring of the urban economy resulted in labour market dislocations since the middle of the 1990s. The share of employment by SOEs declined from $59.1 \%$ in 1995 to $22.7 \%$ in 2006. ${ }^{18}$ No matter what type of termination of employment was used, including compulsory early retirement, it is clear that the dismissals were not voluntary.

The impact of these policies on older people was mixed. In general, older workers were more vulnerable than their young counterparts. Since their pensions were attached to their "work units", the loss of their jobs meant they had to rely on private support or intrahousehold resource reallocation, which meant that old people were more vulnerable to poverty.

However, the situation improved in the new century when the pension system was gradually socialized and was detached from those employers unable to afford to support retirees. As a result, compared with those who worked in enterprises that were unable to pay their employees on a regular basis, older people who retired had more stable incomes from the pension system.

The China Urban Labour Survey (CULS2) of $2005^{19}$ offers an insight into the employment status of those 60 or above (Figure 6). Since most of the retirees from enterprises were able to get relatively generous pensions, they tended to quit the labour market. In our sample, the total number of elderly was 1,182 and only 4 per cent said they were working. Among the inactive older people, 897 were in "normal retirement", ${ }^{20} 108$ were in early retirement (of whom 16 retired early involuntarily). The average monthly pension for the retirees was $¥ 758$, which is more than 60 per cent of the average monthly income of those in work. For male retirees, the average monthly pension was $¥ 892$ (63.3 per cent of current workers’ average monthly earnings) while female retirees received $¥ 665$ (63.3 per cent).

[^6]Figure 6 Distribution of employment status for the elderly, 2005 (\%)


Source: Calculated from CULS2.
Thanks to the generosity and stability of the pension system in urban China, labour participation rate for older people is very low. If we look at the findings of the labour survey according to age group, as Table 3 shows, the labour market participation rate for people below 50 years is more than 80 per cent. It declines dramatically for those aged more than 50 . Most of female employees retire before 55 , leading to a sharp decrease in the female participation rate between 51 and 60 years. For women, the participation rate is only 22 per cent, and for men 66 per cent in the same age group.

Table 3 Outcomes by age group on urban labour market, 2005

| Age group | Labour force participation <br> rate (\%) | Unemployment rate <br> $(\%)$ | Average monthly wages <br> (¥/month) |
| :--- | :--- | :--- | :--- |
| Total sample |  | 8.4 |  |
| $40-$ | 86.6 | 6.9 | 1,271 |
| $41-50$ | 80.0 | 2.3 | 1,167 |
| $51-60$ | 43.9 | - | 1,443 |
| $61+$ | 4.1 | 5.2 | 1,423 |
| All | 60.7 | 8.7 | 1,257 |
| Male | 7.2 | 1,422 |  |
| $40-$ | 89.3 | 4.0 | 1,346 |
| $41-50$ | 66.0 | 0.2 | 1,523 |
| $51-60$ | 6.4 | 5.7 | 1,532 |
| $61+$ | 69.9 | 8.1 | 1,416 |
| All |  | 6.7 | 1,118 |
| Female | 70.4 | 0.7 | 936 |
| $40-$ | 22.1 | 4.7 | 1,178 |
| $41-50$ | 1.9 | 1,043 |  |
| $51-60$ | 51.9 | 1,049 |  |
| $61+$ |  |  |  |
| All |  |  |  |

Source: Calculated from CULS2
Given the low labour force participation rates, it is not surprising that the unemployment rate among old workers is very low. As Table 3 shows, the unemployment rate declines as age increases. For people between 51 and 60 , the overall unemployment rate is 2.3 per cent. Considering that male workers in this age group have a much higher participation rate than female workers, it follows that they also have a higher unemployment rate, i.e. 4 per cent.

According to the table above, older workers do not seem particularly disadvantaged in terms of earnings, but there is a substantive gender pay gap across all the age groups. Apart from the effect that experience has on earnings, there is a small percentage of older workers beyond the official retirement age that remain in the labour market at relatively high pay levels.

The difference in labour market outcomes by sex is notable. Labour force participation rates of women are lower than for men. The most important reason for this is the different roles men and women play in the family and society at large. A large part of the economic contribution of women is through their care-giving and household chores. According to the second wave of the China's Women's Social Status Survey in 2000, women do most of the housework (Table 4). Overall 85 per cent of household chores are undertaken by women. Throughout their life cycle, women accumulate labour market disadvantages that pile up at older ages and are therefore more vulnerable than men to poverty and social exclusion.

Table 4 Time spent on housework by gender (hours: minutes per day)

|  | Men | Women |
| :--- | :--- | :--- |
| Urban | $1: 26$ | $3: 34$ |
| Rural | $1: 35$ | $4: 27$ |
| Total | $1: 33$ | $4: 14$ |

Source: "A report on Second Wave of China's Women's Social Status Survey", downloaded from website of Institute of Women's Studies, http://www.wsic.ac.cn/Browse/Index.aspx

### 3.3 Factors affecting termination of employment of the older population

To further explore the issue of the effects of age on labour market outcomes, we looked at the reasons the elderly quit the labour market; namely: (1) What factors led the elderly to leave their last jobs? and (2) Did the pattern of leaving their last jobs differ for men and women?

In accordance with the relevant provisions of China's current retirement policy male and female workers retire at different ages (women retire 5 years earlier than their male counterparts). This results in a different age distribution men and women workers leave their last jobs. As we can see in figures 7 and 8 , for female workers, the age of leaving their last job was around 50-55 (Figure 7). The age distribution, however, is more even than for their male counterparts (Figure 8).

Figure 7 Age last job was left: females (2005)


Source: Calculated from CULS2

By contrast, the majority of male workers leave their last job at around age 60, which is the official retirement age for men. The distribution is therefore concentrated around 60 while for female workers it is evenly distributed between 50 and 55 , which indicates that the ratio of women leaving their last job at the official retirement age is lower than for men. The different pattern of age distribution may indicate that female workers face specific labour market disadvantages throughout the life cycle since they were found to have left jobs at different ages while males did so in a more concentrated way around the official retirement age.

Figure 8 Age last job was left: males (2005)


Source: Calculated from CULS2
To explore this further, we used the CULS2 to undertake a multinomial logit analysis on determination of the employment termination for male and female workers respectively. The sample was truncated by keeping those aged between 40 and 70 .

As shown in Figure 6, the employment status of the elderly can be divided into working ("Working" category) and non-working (all other categories). Furthermore, there are several different reasons that explain why the elderly leave their last jobs, including retirement at the official retirement age, voluntarily early retirement, involuntarily early retirement and unemployment.

As we have already noted, the elderly who retire at the official retirement age can get stable and relatively generous incomes from the pension system. But those who do not participate in the pension system and who were involuntarily retired are likely to be in a different situation. More importantly, the reasons people leave their last jobs are not solely determined by policy. Individual as well as household circumstances can play an important role. Workers with lower levels of education present important labour market disadvantages, for instance.

In the regression model, some basic individual variables were included. Even though the sample was truncated, age is still a relevant in terms of influencing retirement decisions. In order to have a more detailed analysis To look more closely at the role of age in employment termination three age groups were created (dummies): 41 to 50,51 to 60 and 61 to 70.

The other individual variables include educational attainment, political status (party membership) and health. To observe the impact of contribution in the social security system, variables such as whether the person had access to a pension or medical care when leaving his or her job were included. This was so as to reflect the impact of social protection on the decision to terminate employment. Considering that previous experience of labour market "shocks" may have an impact on future employment decisions, a variable was included on whether the person had been previously laid off .

Household composition is another factor that affects the employment decision, in particular for female workers. This regression model, included variables such as the ratio of pre-school children to household size in order to capture the effect of time devoted to care; ratio of in-school children to household size; ratio of labour to household size; and household size.

Regional "dummies" were included in the regression model to capture the effect of labour demand variations among regions, retirement policy differences across cities and some other factors correlated with geographical areas. The degree of disadvantage of employment status varies across all groups. In general, the unemployed are the most disadvantaged in terms of income and, in turn, the level of social protection increases from involuntarily early retirement, voluntarily early retirement to normal retirement.

The regression results are presented in Table 5 and Table 6 for males and females respectively. The dependent variable is categorized as working (reference group), unemployed, involuntarily early retirement, voluntarily early retirement, and normal retirement.

Table 5 Male employment termination: a multinomial logit analysis

|  | Unemployed/out <br> of labour market | Involuntarily <br> early retirement | Voluntarily early <br> retirement | Normal retirement |
| :--- | :--- | :--- | :--- | :--- |
| Age: 51-60 | $0.18(0.84)$ | $1.48(2.6)$ | $2.03(4.86)$ | $4.01(5.46)$ |
| Age: 61- 70 | $0.10(0.16)$ | $3.19(4.67)$ | $3.84(7.56)$ | $7.62(10.00)$ |
| Years of schooling | $-0.14(-3.75)$ | $-0.12(-1.83)$ | $-0.12(-2.88)$ | $-0.11(-2.98)$ |
| Party membership | $-0.60(-2.22)$ | $-0.48(-1.06)$ | $-0.35(-1.21)$ | $0.03(0.14)$ |
| Health status | $-0.49(-7.76)$ | $-0.36(-2.58)$ | $-0.46(-4.96)$ | $-0.22(-2.61)$ |
| Pension and medical <br> care | $-0.51(-2.75)$ | $-0.18(-0.43)$ | $0.39(1.30)$ | $-0.18(-0.75)$ |
| Household size | $0.02(0.14)$ | $0.03(0.12)$ | $-0.09(-0.57)$ | $0.16(1.24)$ |
| Ratio of children below 6 <br> to household size | $1.94(1.11)$ | $1.67(0.50)$ | $5.63(2.59)$ | $1.22(0.72)$ |
| Ratio of children <br> between 7~16 to <br> household size | $1.52(2.21)$ | $-2.51(-0.66)$ | $-3.00(-1.09)$ | $-1.76(-0.96)$ |
| Ratio of labour to <br> household size | $0.50(0.82)$ | $3.73(1.81)$ | $2.95(2.34)$ | $1.82(1.72)$ |
| Experience of being laid- <br> off | $1.50(8.36)$ | $-1.23(-1.90)$ | $-1.26(-2.94)$ | $-1.95(-4.37)$ |
| Wuhan | $-0.09(-0.36)$ | $3.05(2.86)$ | $0.70(1.84)$ | $0.78(2.26)$ |
| Shenyang | $1.84(1.62)$ | $0.74(2.04)$ | $0.82(2.46)$ |  |
| Fuzhou | $1.71(1.56)$ | $-0.98(-2.12)$ | $-0.03(-0.08)$ |  |
| Xian | $2.42(2.17)$ | $0.32(0.7)$ | $0.55(1.49)$ |  |
| Cons | $-6.32(-2.48)$ | $-2.76(-1.85)$ | $-5.37(-3.78)$ |  |
| Pseudo-R2 | $-0.37(-1.3)$ |  |  |  |
| Number of obs. | $0.38(1.35)$ | $1.63(1.89)$ | 0.41 | 1,789 |
| Note: $z$ value in parenthesis <br> Source: Calculated from CULS2 |  |  |  |  |

Table 6 Female employment termination: a multinomial logit analysis

|  | Unemployed/out <br> of labour market | Involuntarily <br> early retired | Voluntarily early <br> retired | Normal retired |
| :--- | :--- | :--- | :--- | :--- |
| Age: 51-60 | $0.30(1.25)$ | $0.46(1.12)$ | $1.53(5.54)$ | $2.98(15.51)$ |
| Age: 61-70 | $2.69(5.11)$ | $1.94(2.66)$ | $3.34(6.01)$ | $5.55(11.35)$ |
| Years of schooling | $-0.22(-6.67)$ | $-0.14(-2.45)$ | $-0.04(-0.86)$ | $-0.10(-3.30)$ |
| Party membership | $-1.27(-3.51)$ | $-0.20(-0.45)$ | $-0.34(-1.07)$ | $-0.40(-1.82)$ |
| Health status | $-0.25(-3.77)$ | $-0.36(-3.18)$ | $-0.34(-3.70)$ | $-0.18(-2.74)$ |
| Pensions and medical <br> care | $-1.16(-6.29)$ | $0.33(0.97)$ | $0.67(2.65)$ | $0.46(2.75)$ |
| Household size | $0.38(3.83)$ | $0.29(1.59)$ | $0.24(1.85)$ | $0.38(4.02)$ |
| Ratio of children below 6 <br> to household size | $-1.32(-0.64)$ | $7.02(2.00)$ | $8.66(3.85)$ | $7.38(3.69)$ |
| Ratio of children between <br> 7~16 to household size | $-0.62(-0.82)$ | $-4.03(-1.85)$ | $-0.64(-.41)$ | $-3.13(-3.09)$ |
| Ratio of labour to <br> household size | $1.02(1.90)$ | $0.78(0.72)$ | $3.38(3.40)$ | $1.72(3.00)$ |
| Experience of being laid- <br> off | $1.44(7.95)$ | $-1.49(-2.40)$ | $-1.33(-2.73)$ | $0.05(0.24)$ |
| Wuhan | $0.11(0.43)$ | $1.34(2.38)$ | $0.76(2.20)$ | $0.11(0.46)$ |
| Shenyang | $0.30(1.12)$ | $0.26(0.38)$ | $0.48(1.32)$ | $0.57(2.47)$ |
| Fuzhou | $0.07(0.26)$ | $0.09(0.13)$ | $-0.14(-0.37)$ | $0.02(0.10)$ |
| Xian | $0.87(3.07)$ | $2.38(4.25)$ | $1.25(3.25)$ | $1.03(3.89)$ |
| Cons | $0.44(0.55)$ | $-1.60(-1.06)$ | $-4.51(-3.56)$ | $-2.90(-3.52)$ |
| Pseudo-R ${ }^{2}$ | 0.34 |  |  |  |
| Number of obs. | 1,800 |  |  |  |
| Note: $\mathbf{z}$ value in parenthesis <br> Source: Calculated from CULS2 |  |  |  |  |

It is not surprising that age is a significant determinant in all types of retirement. Human capital (measured by years of schooling) has an important impact on employment outcomes for male and female workers, when the age is controlled. That is why years of schooling scores negative for all categories of the dependent variable. The other human capital variable, health status, shows similar results. By contrast, the political variable (party membership) is only significant for the unemployed group.

The household composition variables have different impacts. The ratio of pre-school children to the household size captures the effect of childcare on employment. Elderly females in households with pre-school children have a more important tendency to retire compared to elderly males. This implies that making time for childcare is more important in the employment decision of females.

Household size is statistically insignificant for male workers, but it is significant for female workers suggesting that females' work choices are not as independent as those of males. In addition, male and female workers are more likely to retire early voluntarily in households where other family members are working. This is because the family has further income sources. Both, men and women that have been previously laid off are more likely to become unemployed instead of retiring.

## 3. Poverty in old age

Before the 1990s, poverty in China was looked upon as a phenomenon that affected only in rural areas. As a result poverty reduction programs have long been effectively pursued and well received in rural China. Urban Chinese, meanwhile, were well protected and far away from poverty. Despite poverty alleviation efforts in rural China, there is an important poverty gap between urban and rural areas.

Given that a large proportion of the urban elderly is covered by the pension system, poverty is not severe in comparison with both younger urban people and rural elderly. The situation for the latter is more serious as evidenced by higher poverty rates.

### 4.1 General situation of poverty in China

Before the radical reform of the SOEs in the late 1990s, the majority of China's poor were located in rural areas. It is estimated that, during those years, there were about 250 million rural people living below the poverty line. Since economic reforms initiated in the late 1970s, China has achieved the fastest economic growth and the largest poverty reduction in the world. While the per capita income of rural households increased from $¥ 134$ in 1978 to $¥ 981$ in 2007 in real terms, the total number of rural residents living below the official poverty line decreased from 250 million to 14.79 million, with a decline of poverty incidence from 30.7 per cent to 1.6 per cent in the same period (Figure 9). China has won widespread recognition from the international community for its achievements in poverty reduction. ${ }^{21}$

Figure 9 Number of poor and poverty incidence in rural China


Sources: NBS, China Statistical Abstract (various years), China Statistical Press

Since the late 1990s, however, poverty reduction has slowed down with decreasing marginal effects of poverty alleviation efforts. While some scholars assert that there is

[^7]widespread poverty in rural areas, ${ }^{22}$ there is a consensus that the rural poor in China have been marginalized both in a geographic and demographic sense. ${ }^{23}$

The poverty alleviation process in rural China can be divided into three phases. The first one dates back to the period 1978 to 1985 and the adoption of the household responsibility system. During this short period, the number of rural residents living below the absolute poverty line was halved. Poverty reduction during this phase stemmed from the effects of economic reform in rural China under which hundreds of thousands of farmers were released from the shackles of the People's Commune System and raised agricultural productivity through improved incentives.

The second phase of poverty reduction in rural China started in the mid-1980s. The government budgeted for special poverty alleviation funds (PAF) consisting of "fiscal alleviation funds", "food for work funds", and interest-subsidized loans to support economic growth in designated poor areas. Poverty was concentrated in remote mountainous and border regions sometimes populated by ethnic minorities, and the funds were aimed at these selected areas known as National Designated Counties. There were 592 such counties accounting for about a fifth of county-level jurisdictions across the country. As a result, from 1986 to 1993, poverty incidence in rural areas decreased from 14.8 per cent to 8.7 per cent. ${ }^{24}$

The regional concentration of the rural poor became more and more obvious after that period. Poverty was concentrated in central and western China, such as the south-west rocky areas, the north-west loess plateau, the Qinba mountainous areas and the QinghaiTibet Plateau. In addition to the weak infrastructure in these areas, social services were less developed and natural conditions had long been major factors causing poverty. In 1993 the Chinese government put forward the 8-7 Poverty Reduction Programme. With a goal of reducing the number of rural poor by 80 million over the course of the last seven years of the twentieth century, it was the largest-scale programme of poverty reduction since the mid-1980s. As Figure 9 shows, poverty reduction efforts in rural China seemed to slow down after the late 1990s. This indicates the so-called "marginalization of rural poverty" as the total number of rural poor declined. The third phase of poverty alleviation began in the late 1990s and was characterized by policies targeting marginalized poor. The new policies aim to reach the remaining rural poor directly and to lift them out of poverty through both improved targeting and financial utilization However, on-going poverty alleviation policies through regional development need to be revised. For example, a better option would be extending the social security system to reach the most vulnerable. ${ }^{25}$

Unlike rural poverty, urban poverty was not acknowledged until the 1990s. By the middle of the 1990s, urban areas had experienced serious economic restructuring that affected the urban labour market and led to a rise in unemployment. In response to these labour market shocks, safety nets were set up in urban areas, including temporary payment to those laid off from SOEs, social security programmes and the dibao (minimum living

[^8]allowance) programme. All these programmes were aimed only at urban people with local hukou, thus excluding migrants.

Unlike in the case of poverty in rural areas, urban China has no poverty line against which to measure the extent of the problem. The most common and feasible way is to estimate the number of poor based on the dibao line defined by local government. If the dibao line is taken as representing the poverty line, people whose per capita incomes are below the local dibao line might be defined as poor. The dibao programme was initiated in the 1990s and has become the most important social assistance programme in urban China.

As Figure 10 shows, there were 23.35 million urban people below the dibao line in 2008. In 2003, the Chinese government claimed that the dibao programme covered all the poor in urban areas, which is why we can see a stable trend of urban poor since then. The nominal benefit level per capita has risen over time, reaching $¥ 141$ in 2008.

Figure 10. Coverage and benefits of the urban dibao programme


Source: Ministry of Civil Affairs, WWW.moca.gov.cn.

### 4.2 Poverty incidence among the elderly

In a transition country like China, the incidence of poverty is not evenly distributed among different age groups because of poor labour market performance and the social protection system is not well established. Besides, the rural-urban income gap complicates the situation and is reflected in welfare disparities among the elderly between both areas

There is no recent national representative survey specifically focused on poverty among the elderly. However, a survey conducted in 2000 by the China Ageing Working Committee and the China Ageing Association collected data in both urban and rural areas in 20 provinces. In addition to measuring poverty among the elderly through traditional economic indicators, the survey also investigated "subjective" poverty through a self-
evaluation of respondents' economic situation and happiness. ${ }^{26}$ The poverty incidences were calculated based on this information (Table 7).

Table 7 Poverty incidence among the elderly in urban and rural areas, 2000 (\%)

| Province | Urban area |  | Rural area |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Economic situation | Unhappiness | Economic situation | Unhappiness |
| Beijing | 1.5 | 4.8 | 6.2 | 8.5 |
| Tianjin | 4.0 | 3.8 | 1.9 | 3.3 |
| Shanghai | 2.4 | 3.8 | 3.7 | 11.2 |
| Heilongjiang | 5.4 | 5.5 | 10.3 | 6.1 |
| Shaanxi | 2.6 | 4.7 | 11.1 | 12.6 |
| Jilin | 7.0 | 5.1 | 4.3 | 6.3 |
| Jiangsu | 5.1 | 6.7 | 10.4 | 11.3 |
| Zhejiang | 1.8 | 4.5 | 5.1 | 14.1 |
| Hubei | 3.4 | 4.0 | 8.3 | 9.1 |
| Sichuan | 4.2 | 3.4 | 9.6 | 7.4 |
| Yunnan | 6.5 | 10.3 | 13.8 | 12.3 |
| Guangdong | 8.1 | 8.5 | 7.7 | 10.7 |
| Fujian | 4.7 | 5.1 | 8.0 | 15.5 |
| Jiangxi | 4.6 | 9.5 | 9.3 | 15.3 |
| Anhui | 3.4 | 5.4 | 7.2 | 15.0 |
| Hebei | 2.4 | 5.1 | 6.5 | 10.4 |
| Shandong | 2.3 | 4.3 | 10.1 | 7.5 |
| Henan | 2.2 | 4.5 | 6.7 | 11.8 |
| Gansu | 10.9 | 12.1 | 9.3 | 8.7 |
| Xinjiang | 6.2 | 6.4 | 13.6 | 9.2 |
| Total | 4.5 | 5.9 | 8.2 | 10.2 |

Source: Wang, Dewen and Kaiti Zhang (2005), "The Chinese Elderly: How They Live and How Many of Them Are in Poverty?", Chinese Journal of Population Science (Zhongguo Renkou Kexue), No. 1

Based on the evaluation of their economic situation, the poverty incidence of the elderly is 4.5 per cent in urban areas and 8.2 per cent in rural areas, which is very similar to the results based on the evaluation of their happiness, though the latter is a little higher.

In urban China, the pension system is relatively mature, and could be qualified as quite generous. For this reason, urban residents who have participated in the pension system are likely to be out of poverty when they retire. Table 8 shows poverty rates by age group at individual level and illustrates the issue clearly. Using data gathered by China's Urban Employment and Social Protection Survey, ${ }^{27}$ the poverty status for different age groups is calculated. Two poverty lines are applied: the local dibao line and half of median of per capita household income.

[^9]Table 8 Poverty rates at individual level (\%)

|  | dibao line |  |  |  | Half of median of per capita household <br> income |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | With <br> pension | Without <br> pension | All | With <br> pension | Without <br> pension | All |
| All sample |  |  |  |  |  |  |
| $40-$ | - | - | 14.94 | - | - | 24.04 |
| $41-50$ | - | - | 18.91 | - | - | 28.05 |
| $51-60$ | 5.66 | 18.00 | 9.28 | 11.82 | 28.31 | 16.63 |
| $61+$ | 2.39 | 20.22 | 8.79 | 7.58 | 27.42 | 14.83 |
| All | - | - | 14.05 | - | - | 22.47 |
| Male |  |  |  |  |  |  |
| $40-$ | - | - | 14.16 | - | - | 23.11 |
| $41-50$ | - | - | 19.21 | - | - | 28.82 |
| $51-60$ | 7.22 | 23.93 | 10.80 | 13.61 | 36.51 | 18.48 |
| $61+$ | 2.11 | 16.17 | 5.55 | 6.96 | 22.46 | 10.89 |
| All | - | - | 13.48 | - | - | 21.87 |
| Female |  |  |  |  |  |  |
| $40-$ | - | - | 15.73 | - | - | 25.00 |
| $41-50$ | - | - | 18.67 | - | - | 27.36 |
| $51-60$ | 3.84 | 14.74 | 7.86 | 9.74 | 23.81 | 14.90 |
| $61+$ | 2.79 | 22.37 | 12.00 | 8.52 | 30.04 | 18.76 |
| All | - | - | 14.64 | - | - | 23.12 |

No matter what line is used, the incidence of poverty drops dramatically at 60 years, as can be seen in the first and fourth columns of the table. The pattern is similar if we break it down by gender. Poverty rates for elderly females above 60 are slightly higher than for males while poverty rates for females of all age groups are slightly lower at both lines.

Women have a longer average life expectancy than men, which also means they may live longer in poverty than men. According to population census data, the average life expectancy in China has been increasing steadily. In 1982, it was 67.77 years, in 1990 68.55 years and in 200071.4 years (Table 9).

Table 9 Life expectancy by gender (years)

| Year | Men | Women | Total |
| :--- | :--- | :--- | :--- |
| $\mathbf{1 9 8 2}$ | 66.28 | 69.27 | 67.77 |
| $\mathbf{1 9 9 0}$ | 66.84 | 70.47 | 68.55 |
| $\mathbf{2 0 0 0}$ | 69.63 | 73.33 | 71.40 |

Source: National Bureau of Statistics, China Statistical Yearbook (2007), China Statistics Press
Thus, average life expectancy increased, as did the life expectancies of both men and women. However, the life expectancy of women has been always much higher than that of men and the gap has been increasing. In 1982 that gap was 2.99 years, rising to 3.63 in 1990 and 3.7 in 2000 . This may mean that women live longer in poverty.

When we look at the effects of participation in the pension system on poverty reduction for the elderly, it is not surprising that those outside the system are much more prone to fall into poverty. When measured according to the dibao line, the poverty rate for those 60 and above is 2.4 per cent for those who participated in the pension programme and 20.2 for those who did not. Coverage by the pension programme is therefore key to the eradication of urban poverty. This issue is elaborated in the next section.

Table 8 also shows how older workers who haven't yet reached retirement age face also disadvantages -poverty rates for those between 41 to 50 are higher than for the younger age groups.

Poverty among the elderly in rural areas is a more serious problem than in urban ones due to the lack of a pension system. As it will be discussed in the next section, the elderly have to depend on family support in their old-age. Since there is no micro-survey data available for rural areas, it is difficult to estimate the extent of poverty among the rural elderly and its share in total rural poverty. According to the NSB (2007), ${ }^{28}$ the number of persons receiving "the Five Guarantees", or wubao, (see next section) was 5.03 million in 2006, which accounted for 23 per cent of the total poor in rural China. Furthermore, this measure of the number of persons receiving wubao reflects the lower limit of the elderly poor in rural China because it does not include some elderly who do not qualify for the programme. For example, it is reported that there were 15.9 million persons supported by the rural dibao programme and it is reasonable to assume that old people are a large share of this group.

In addition, the benefits from current rural social assistance programmes aimed at the elderly are limited, which means that even those identified as poor do not get enough support to escape poverty.

### 4.3 Government interventions

Since the foundation of the People's Republic of China in 1949, the government has issued a series of laws and policies on social security, welfare and services and the protection of the rights and interests of the elderly. The government has also implemented a number of policy guidelines on older people, including the "Development Outline of Seven Years on Work Concerning Ageing People in China (1994-2000)", "The Tenth Plan on Development of China's Undertakings for the Aged (2001-2005)" and "The Eleventh Plan for the Development of China's Undertakings for the Aged". All these plans have addressed the problem of poverty in the old age

Furthermore, the China National Working Commission on Ageing (CNWCA), an advisory and coordinating organization of the State Council, was established in 1999. The commission was mandated to supervise work on ageing nationwide. The main responsibilities of the CNWCA include: (1) undertaking research on the formulation of development strategies and policies on ageing; (2) Coordinating and facilitating the relevant departments to implement development plans on ageing, to protect the rights and interests of the elderly and to strengthen macro-level guidance and comprehensive management of work on ageing; (3) Promoting various kinds of activities for the physical and psychological well-being of the elderly; (4) Guiding, monitoring and supervising work on ageing in the provinces, autonomous regions and municipalities; (5) Organizing and coordinating important activities on ageing in China initiated and sponsored by the United Nations and other international organizations.

As it has already been mentioned, the dibao programme, established throughout urban China in 1999, is the principal means by which the government helps the elderly poor. Every urban resident whose per capita household income falls below a locally determined minimum living standard can enjoy this assistance whether or not the person gets a basic living subsidy, unemployment insurance or any other insurance. Local governments determine their minimum living standard by calculating the basic cost of living.. The assistance that a household receives is equal to household size times the gap between per capita household income and the minimum living standard.

[^10]Although China has made some progress on poverty reduction among the elderly living in rural areas, further efforts are needed. Current programmes in rural areas are devoted to overall regional development and do not properly target individuals. And of course the elderly are even less in a position to benefit from poverty alleviation funds projects due to their advancement in age, lower level of education and poorer health.

In addition the characteristics of the rural poor have changed. About a fifth are wubao, more than a third are people with disabilities and more than a quarter live in areas with extremely adverse natural resources. In short, they are not in a position to take full advantage of the projects that are aimed at regional poverty reduction.

Most of the rural elderly depend on support from family members and government assistance from is limited. There is, however, the wubao programme, which is financed by local governments. Wubao is aimed at the elderly, people with disabilities and children aged 16 and below who are unable to work, have no source of income and no one with that can support them. Recipients of wubao are provided with a locally defined rate of benefits in cash and in kind, which includes food and fuel; clothing, bedding articles and pocket money; housing, along with the basic necessities; medical care; and funeral costs. The standard of living of people who receive wubao cannot fall below the average living standard of the local people and is adjusted according to any improvement in the latter.

For rural people not eligible for wubao, there is periodic assistance in the form of rations. There is also temporary assistance for extremely poor households. Given the number of people who are extremely poor, the establishment of a minimum living standard guarantee (or dibao) programme is a pressing matter. Though the dibao programme has not been set up all over rural China, some rich rural areas have introduced such a system. In 1999 , some 2.66 million rural people received dibao. In 2007, the State Council issued a document which requires the setting up of dibao programmes throughout rural China. The number of rural dibao beneficiaries increased to 35.66 million in 2007 and 43.05 million in 2008. The rural dibao programme shall be developed rapidly in the future.

There is no properly developed social security system in rural areas. The present mechanism in rural areas is officially called social relief, and is financed by the central government. In spite of the gap in social protection between rural and urban areas, the funds spent on rural social protection has increased and the mechanisms through which the government does this have improved in recent years. While the total number of rural poor declined from 125 million in 1985 to 21.48 million in 2006 (Figure 9), the number of rural people covered by the social relief programme increased from 1.17 million in 1985 to 1.39 million in 2002. ${ }^{29}$ This suggests that with an additional effort made by the government, the remaining marginalized poor in rural areas could be well covered solely by the social protection programme.

## 4. Security for the elderly: challenges to the current pension system

Pension systems are one of the essential pillars of a social security system. Prior to the reform initiated at the end of the 1970s, urban residents enjoyed comprehensive welfare through their employers while rural residents were supposed to receive family support in old age. The economic transition brought about several challenges to this system.

[^11]Since SOE employees had no individual pensions, the Chinese government has had to take responsibility for setting up a new supporting system. As it has been said before, those already in the pension system, receive relatively generous monthly payments. However, two issues challenge the current system. One of them is that those who do not participate fall behind in terms of social support, and this is aggravated by the trend towards informalization. The other challenge is related with the sustainability of the "pay as you go" system and the possible dangers this could hold for the future of older people's welfare.

Second, establishing a rural pension system is more challenging. To a large extent, in rural China the elderly largely rely on family support or production from the land but this is not sufficient. Furthermore, despite the introduction of pilot schemes for a rural pension at the local level, a unified rural pension system is needed.

Finally, looking into the future, migration from rural to urban areas, while being currently dominated by young workers, will in due course also further challenge the pension system.

### 5.1 The urban pension system

Under the old planned economic system, a uniform social security provision was confined to urban workers, ensured and implemented by the Labour Insurance Regulations of the People's Republic of China issued in 1951. Workers with urban hukou employed in enterprises were insured for retirement, working injury, illnesses, maternity, and widowhood, and were entitled to housing, children's day care, education, etc.

As part of this social security system, the pension system had several features. First, enterprises carried out the function of old-age insurance. Second, the level of pension payment was determined according to the seniority and wage level of workers before retirement, and generally the rate was relatively generous. Finally, as in the case of general social security and the welfare system, pension provision excluded rural residents.

The restructuring of SOEs highlighted the problems of such a system: the reform of the social security system that followed was aimed mainly at heightening the scope and level of "social pooling". The state aimed at enhancing the "social pooling" level of pension provision up to provincial level and introducing a multi-pillar scheme of social security as suggested by the World Bank. ${ }^{30}$ This scheme intended to cover as many beneficiaries as possible at relatively low benefit levels and was referred to as "wide coverage, low level". As a result, by the end of 1996, an overwhelming proportion of SOE workers, 70-80 per cent of collective enterprise workers, and a third of non-public enterprise employees participated in this new pension programme, with 80 million participants throughout the country paying insurance premiums.

With the lessons learned from this pension reform, the State Council issued the Decision on Establishing a Uniform Basic Pension System for Enterprise Workers in 1997, adopting a combination of individual accounts and social pooling as the uniform pension system. The individual account is based on an 11 per cent wage contribution, of which 8 percentage points are paid by individuals and the rest by their employers. The provincial governments determine the contribution rate by enterprises to form the pooling funds, in general not more than 20 per cent of the total wage expenditure of the enterprise. Since

[^12]1998, the management of pension provision has been moved to provincial level and experimenting in social provision has begun in some regions.

Because there was no accumulation of pension funds at enterprise level, the newly established funds have to fill the gap between actual payment needed and money collected. Under this scheme, workers who began employment after the reform started can save for their own retirement, but those already retired, of course, have no accumulation. And workers who joined the enterprise before the reform leave a gap uncovered by their own savings. As it happened, the latter's individual account turned out to be empty. ${ }^{31}$ To fill that gap, therefore, is a major aim of further reform of the pension system.

The most serious problem the pension system faces lies in the shortage of funds, mainly a cash flow gap between the expenditure needed and revenue collected. Taking oldage insurance as an example, as the population ages, the ratio of retirees to incumbent workers increases continuously.

In addition, during the transition period and structural change in industry, many SOEs were unable to meet their old-age insurance premiums due to loss-making, a high proportion of layoffs and retirees and because their social security fund payments became unaffordable. At the same time, the newly emerged enterprises in profitable industries, with their employees relatively young, lacked the incentive to participate in social pooling insurance. Many tried to evade payment into the insurance programme, which led to a further shortage of social security funds. In 2003, the Shanghai Bureau of Labour and Social Security launched the zhenbao (town insurance) programme known as " 25 plus X ". This scheme is regarded as an important experiment in social security reform and has been lauded for extending social security to areas where previously only segments of the population had mandatory coverage. However, recent research suggests that while it does represent an extension of benefits for some, for many it represents a considerable dilution in benefits. ${ }^{32}$

The current pension system is actually a pay-as-you-go (PAYG) type in which the individual account is only nominal and in reality is used to fill the gap between accumulated and provided pension. According to international experience, the PAYG system is conditioned by three factors, without which it is difficult to sustain the system. The first is a relatively young demographic structure. That is, a large enough working-age population to support the existing retirees. The second is an effective taxation system that enables the state to collect all the contributions needed for the pension fund. The third is a soundly operated management and governance of the fund, which ensures that pension funds are correctly invested and provided.

It is apparent that the second and third conditions do not yet exist in China. As for the first condition, while the proportion of the working population is still large today, the supporting ratio is already increasing dramatically and rapidly and the current demographic structure in China tends to speed up this change. Therefore, it is inevitable that the scheme will face a huge fund deficit for supporting China's elderly. And as this deficit is accumulated, the current PAYG system cannot be carried through to the end. In reality, if

[^13]there were no government subsidy or funds from individual accounts, the annual social pooling fund revenue would not be enough to pay for the present pension.

Despite the sustainability challenges that the current urban pension system is facing, the elderly who have already participated in the system are relatively well paid and secure, as is evident from Table 8 . However, those elderly who are not supported by current programmes or who do not participate in the pension system, either are or will be experiencing the threat of poverty without alternatives. As we have already seen in Figure 5, shrinking employment opportunities in SOEs pushes more and more workers into the informal economy. According to the two rounds of surveys by the CULS, a significant trend towards informalization has been found in the urban labour market. As we see from Table 10, the share of informal employment for local workers increased from 18.5 per cent in 2001 to 32.6 per cent in 2005 while migrant workers are employed predominantly in the informal economy (84 per cent in 2005). The increasing size of employment in the informal economy implies that those working in this sector will not be able to benefit from a pension system.

Table10 Increasing 'informalization' of the urban labour market (\%)

|  | Local workers | Migrant workers |
| :--- | :--- | :--- |
| $\mathbf{2 0 0 1}$ | 18.5 | 72.5 |
| Share of informal employment | 65 | 73 |
| of self-employment | 35 | 27 |
| of unregistered work |  |  |
| 2005 | 32.6 | 84.3 |
| Share of informal employment | 37 | 69 |
| of self-employment | 63 | 31 |
| of unregistered work |  |  |

Source: Calculated from CULS1 and CULS2
The situation for local workers and migrant workers differs in different ways. When leaving SOEs, urban workers usually had already taken part in the pension system. According to CULS2, 78 per cent of urban workers in five cities had participated in the pension system. However, only 18 per cent of migrant workers had done so. While migrant workers in cities have been increasing rapidly, only a very small proportion of them have participated in the pension system. This is a very important issue that should be considered by the government.

If we look at employment in the informal economy by age group and by gender, as shown in Figure 11, we see that female workers are disproportionately represented. The share of workers in the informal economy are similar for workers aged 40 and below and workers between 41 and 50 . The share for the age group between 51 and 60 decreases compared with that for the age group between 41 and 50 . The share for the age group between 61 and above is the highest particularly for women.

Figure 11 Informal employment by gender and age (\%)


Source: Calculated from CULS2
Due to the expanding informal employment, the proportion of workers who have participated in the pension scheme has not increased significantly with the expansion total employment. In 1990, the pension coverage rate was 42 per cent for the retired and 30.5 per cent for the employed. In 1997, when the State Council set forth the unified urban pension scheme the pension participation rates were 75.6 per cent for the retired and 41.7 per cent for the employed. By 2005, while the participation rate of the retired increased up to 85.8 per cent, it remained low for the employed ( 48.0 per cent). In 2007, the pension participation rate for the employed rose to 51.7 per cent (see Figure 12).

Figure 12 Pension scheme participants (\%)


Source: National Bureau of Statistics, China Statistical Yearbook (various years), China Statistics Press

Since 1997, the increase in urban employment has been mainly attributed to the expansion in the non-public sectors, and particularly the expansion of employment in the informal economy. While these newly emerged sectors play a vital role in absorbing local and migrant workers in urban areas, they lack incentives for participating in a social pension scheme, which reduces the coverage of social pension and raises serious concerns for future coverage.

### 5.2 The pension system in rural areas

The Seventh-Five-Year Plan (1986-1990) called for China to set up a basic social security system in rural areas and raise and accumulate funds through various channels. In 1991 No. 33 document of the State Council designated the Ministry of Civil Affairs as responsible for reform of the old-age pension system for rural areas (including employees of Township and Village Enterprises). In 1992 the Ministry of Civil Affairs formulated the Basic Plan for Rural Social Pension Insurance.

From 1991 to 1994 some counties started to establish a pension system. By the end of 1992, more than 700 had drawn up regulations for a rural social pension system and nearly 20 had established basic rural old-age pension systems covering all farmers. More than 35 million rural people had participated in this system. By 1994, 28 provinces, autonomous regions and municipalities had tried to develop a rural old-age pension system.

From 1995 to 1998 the rural pension system developed steadily. By June 1995, governments of 26 provinces, autonomous regions and municipalities had issued local regulations on a rural old-age pension system. More than 16 million rural people from Shandong Province had participated in a rural old-age pension system. In Yantai City, Shandong Province, 197 townships from 13 counties had established a rural old-age pension system and pension funds amounted to $¥ 400$ million. In Shanghai City, 850,000 people had participated in a rural old-age pension system, which is 65 per cent of the population who should have participated.

In 1995, the General Office of the State Council redistributed the Circular of the Ministry on Further Improving Work on Rural Pension Insurance which urges government at all levels to pay more attention to the issue so that they could make steady progress in this reform. According to Figure 13, before 1998 the number of contributors increased very rapidly. In 1994 it was 27.18 million and rose to 80.25 million in 1998. The average annual growth rate was 24.2 per cent. The proportion of contributors among rural labourers increased from 5.6 per cent in 1994 to 16.4 per cent in 1998.

Figure 13 Coverage of the rural pension system


Note: Proportion refers to the proportion of contributors among rural labourers.
Source: Data for 1994 to 1997 are from Ministry of Civil Affairs, "A Statistical Report on the Development of Civil Affairs" (various years); data for 1998 is from Ministry of Labour and Social Security, "A Statistical Report on the Development of Labour and Social Security in 1998"; data for 1999 to 2006 are from NBS and Ministry of Labour and Social Security, "China Labour Statistical Yearbook" (various years), China Statistics Press; data for 2007 is from Ministry of Labour and Social Security, "A Statistical Report on the Development of Labour and Social Security in 2007".

The administration of the rural pension system was transferred from the Ministry of Civil Affairs to the Ministry of Labour and Social Security in 1998. In 1999 it was evident, however, that rural areas had not been of constructing a universal pension system and decided to stop accepting more participants. Some areas started to gradually shift towards commercial pension insurance arrangements.

However, a report to the $16^{\text {th }}$ National Congress of the Communist Party of China in 2002 pointed out that "wherever conditions permit, we should try to establish systems of old-age pensions, medical insurance and subsistence allowances in rural areas". Both the document "Some Regulations by the Central Committee and the State Council on Promoting a Socialist New Countryside" and the 11th Five Year Plan urged that China should establish a rural old-age pension system compatible with rural economic development level.

Though some efforts have been made, contributors to the rural old-age pension system begun to decrease and the operation of pension funds became more and more difficult since 1999. By the end of that year there were 64.61 million contributors. By 2007 they had fallen to 51.71 million. The proportion of contributors among rural workers therefore decreased from 13.2 per cent in 1999 to 10.9 per cent in 2007.

In recent years, however, rural pension systems have been piloted in various regions. Unlike the urban pension system that has matured and is a nationally universal plan, the rural pension system is still at the "experimental" pilot stage and has large variations in terms of programme design, level of benefit, level of pooling and coverage rates. As Figure 13 shows, the proportion of contributors from the population aged above 15 varied significantly between provinces because of the disparity in fiscal capacity. In developed areas, for instance, Shanghai, Jiangsu, Zhengjiang, and Shandong, the coverage rate of the rural pension programme was more than 20 per cent of rural adults. However, in some less developed areas, the coverage rate was low. Through those experiments, several models have developed at local levels. As the central government starts encouraging such local experiments, the implications for the rural pension system nationwide are still unclear.

Figure 14 Coverage of rural pensions by province, 2006 (\%)


Source: NBS, China Statistical Yearbook (2007), China Statistics Press;NBS, China Population and Employment Statistical Yearbook (2007), China Statistics Press

The central government has been actively promoting the establishment of a new rural pension programme. On 1 September 2009, the State Council issued a document on piloting a new rural pension programme which indicated the formal start-up of the system. According to the document, the new rural pension system will be piloted in 10 per cent of
counties from 2009. The basic idea is that the funds' sources come from personal contributions, collective additional contributions, local and central government subsidies and social donations, all of which would go into the individual account. Payments will be in two parts: individual account accumulation and basic pension provided by government.

The coverage rate of the pension programme for migrant workers is very low. There is some controversy over what to do about a pension programme for migrant workers. While it does not seem a good idea to simply apply the current urban plan to migrant workers due to their mobility, exclusion of migrants from the urban pension system would maintain the social gap between them and urban residents.

From 2004 the Chinese government began to implement a support system for rural families which complies with family planning policy. Families that have only one or two girls and the couple has reached 60 years of age get around $¥ 600$ a year, financed by central and local governments. By the end of $2005,1.35$ million people were getting this support nationwide.

According to statistics from the National Population and Family Planning Commission, 2 million people qualified to get this support in 2006. If one person gets $¥ 600$ a year, it will take $¥ 1.2$ billion to implement the policy all over the country. It is our view that because China has been growing very rapidly in the past decades it has the ability to pay for this policy.

## 6. Conclusions and policy implications

In the past decades, China has been experiencing dramatic population changes. Due to population policies and fast economic growth, China has completed the demographic transition in a short period of time. As a result, China, a greying country but not rich, faces important challenges associated with supporting a growing number of elderly population.

According to the analysis, since a large proportion of the current urban elderly contribute the pension system and the substitute rate of pension payment is quite generous, the majority of older people with a pension tend to withdraw from the labour market. Those working in the informal economy, however, need to continue working due to the lack of pensions. The analysis of micro-level data has shown that in urban China the incidence of poverty among the elderly is much lower than for younger people which is particularly true for those older people with pensions.

The pension system in China, however, is facing challenges. First, the current system does not cover enough people. While the elderly who are supported by the system are likely to be free of poverty, those not in the system are less secure. Second, the system itself is not sustainable and constructing a sustainable pension system constitutes a challenge to the whole Chinese economy in the near future. Finally, existing disparities between rural and urban China in terms of pension coverage and level of benefit need to be improved so that the rural elderly can enjoy a decent old age.

Several recommendations stem from the analysis above: First, the current pension system needs to be improved particularly in terms of coverage. A transition from the PAYG system to a fully-funded pension system might be timely. Widening the coverage of pensions is another important challenge in order to secure the elderly. As we have seen in Section 3, elderly people with a pension have much lower poverty rates than those without. With the rapid increase of migrants from rural areas to urban ones, expanding coverage in urban areas is becoming an important issue. However, due to the disparities in the pension system between rural and urban areas in terms of coverage and benefit, the incidence of poverty among the rural elderly is much worse. In rural China, the remaining poor consist mainly of those with low education attainment and poor health and live in regions with
harsh conditions. There is a lack of adequately targeted programmes aimed at poor older people - most poverty reduction programmes are of a broad regional development nature. Thus, the on-going poverty alleviation policies build around regional development need to be revised. Furthermore, extending social security to the elderly rural poor is of utmost importance. In this respect, the rural dibao programme would be an important component of such rural social security system. ${ }^{33}$

Secondly, improving labour market performance is a critical condition for helping to improve the pension system. With the relatively low income level and rapid demographic ageing, financial sources for pensions are scarce. Solutions must be sought above all through measures to achieve higher levels of sustainable economic growth leading to additional numbers of people in productive and decent jobs.

China is currently debating increasing employment rates of the older population and extending the retirement age as possible policy options for contributing to the support of the current pension system particularly in urban areas. Some developed countries have already increased their retirement age and others are preparing to do so. However, the situation in China is different. In developed countries, increasing the retirement age is partly related with a labour shortage problem. However, China is still in the process of undergoing a transition from unlimited labour supply to finite surplus. Key challenges for China is that older people currently approaching their retirement age have relatively lower human capital and skills as a result of the Cultural Revolution ${ }^{34}$ and are therefore at relative disadvantage. Furthermore, as we have seen large numbers of older people in China continue working in the informal economy.

Third, China could tap various sources of financial resources for financing pension system reform. Public, private, as well as international resources can all become sources for pensions. Actually, a large number of difficulties encountered during reform to the pension system were related to the narrow ways of accessing financial resources. Figure 15 represents various ways to access financial resources for pensions. Transition from Model A to Model C would provide more opportunities for successful pension reform.

Figure 15 Multiple ways of accessing financial resources


Source: Kaul, Inge and Pedro Conceição (2006), The New Public Finance: Responding to Global Challenges, Oxford University Press
${ }^{33}$ Fang Cai and Yang Du (2004) "Conditions of Setting up Dibao in Rural Areas Ripen", Chinese Cadres Tribune, No.9.
${ }^{34}$ Fang Cai and Yang Du (2003), "Destructive Effects of Cultural Revolution on Physical and Human Capital", China Economic Quarterly, Vol.2, No.4.

Fourth, the government should carry out a variety of policy adjustments and a public education campaign to make society well informed and prepared for the issue of ageing and older people. Furthermore, the current one-child policy could be revised in a gradual manner in order to prevent the population from over-aging, maintaining a moderate productive age population structure and thus the overall social capacity for supporting older people.

Employment policies and legislation are of key importance for older workers. Since the end of the 1990s, with the mass lay-offs and rapid increase in the urban unemployment rate, the government has adopted a series of active employment policies, including setting up public employment services system; enhancing employment and re-employment training, providing re-employment support and assistance, as well as setting up some passive measures (the so-called three security lines). ${ }^{35}$ These have played an important role in promoting employment for all age groups and some focused specifically on the elderly. For example, the main target of re-employment support and assistance is males aged 50 and above and females aged 40 and above who are able to work and would like to work. Furthermore, the Employment Promotion Law adopted by the Standing Committee of the 10th National People's Congress on 30 August 2007 and put into effect from 1 January 2008 is a legal tool for implementing active employment policies. The law was formulated to promote employment, improve working conditions and combat discrimination. The Employment Promotion Law includes regulations on fair employment, employment service and supervision, occupational education and training, employment assistance, monitoring inspection and legal liability, etc.

The $16^{\text {th }}$ National Congress of the Communist Party of China in 2002 urged the country to establish a lifelong learning society and promote people's comprehensive development. Compared with younger people, the elderly usually have relatively lower human capital and skills. A lifelong learning policy might help the elderly improve their competitive capacity on the labour market and prolong their working lives.

[^14]
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[^0]:    ${ }^{1}$ See http://www.ilo.org/public/english/bureau/dgo/download/dg_announce_en.pdf
    ${ }^{2}$ See the successive Reports of the Director-General to the International Labour Conference: Decent work (1999); Reducing the decent work deficit: A global challenge (2001); Working out of poverty (2003).
    ${ }^{3}$ See http://www.ilo.org/gea. And in particular: Implementing the Global Employment Agenda: Employment strategies in support of decent work, "Vision" document, ILO, 2006.
    ${ }^{4}$ See http://www.ilo.org/employment.

[^1]:    ${ }^{5}$ World Bank (2008), World Development Indicators Database.
    ${ }^{6}$ In this report, definitions vary for "the elderly", such as 60 and above or 65 and above, depending on the issue being examined. We specify where necessary.
    ${ }^{7}$ TFR (Total Fertility Rate) is the average number of children that would be born to a woman over her lifetime if (1) she were to experience the exact current age-specific fertility rates through her lifetime, and (2) she were to survive from birth through the end of her reproductive life.
    ${ }^{8}$ Zhigang Guo (2008), "China has entered a new era of low fertility", China's First Financial Daily, June 30.

[^2]:    ${ }^{10}$ World Bank (2008), World Development Indicators Database.
    ${ }^{11}$ National Bureau of Statistics, China Statistical Yearbook (various years), China Statistics Press.
    ${ }^{12}$ National Bureau of Statistics (2007), Tabulation on the $20051 \%$ Sample Survey of the People's Republic of China, China Statistics Press.

[^3]:    ${ }^{13}$ Fang Cai (2007), the Coming Lewisian Turning Point and Its Policy Implications, Social Science Documentation Press. The Lewisian Turning Point is the transition from an era of unlimited labour supply to that of finite labour surplus.

[^4]:    ${ }^{14}$ Prior to the reforms, employees working in SOEs were well protected in terms of employment and comprehensive welfare and employers found it hard to fire workers. This has been compared to holding an iron rice bowl.
    ${ }^{15}$ This survey was conducted by the Institute of Population and Labour Economics, Chinese Academy of Social Sciences in 5 Chinese cities (Shenyang, Wuhan, Shanghai, Fuzhou and Xian) in 2001 and 2002.
    ${ }^{16}$ Giles John, Albert Park and Fang Cai (2006), "How Has Restructuring Affected China’s Urban Workers?", China Quarterly, 185, pp.61-95.

[^5]:    ${ }^{17}$ The Lewisian Turning Point means the transition from an era of unlimited labor supply to that of finite labor surplus.

[^6]:    ${ }^{18}$ Calculated from data in China Statistical Yearbook.
    ${ }^{19}$ This survey was conducted by the Institute of Population and Labour Economics, Chinese Academy of Social Sciences, in five Chinese cities (Shenyang, Wuhan, Shanghai, Fuzhou, and Xian) and seven other cities in 2005.
    ${ }^{20}$ Defined as "retired at official retirement age", i.e. 60 years for males, 50 for female workers and 55 for female cadres.

[^7]:    ${ }^{21}$ Overall poverty incidence in China decreased from 53 per cent in 1981 to 8 per cent in 2001. See Martin Ravallion and Shaohua Chen (2004), "China’s (Uneven) Progress Against Poverty", Policy Research Paper 3408, Development Research Group, Washington, D. C.

[^8]:    ${ }^{22}$ Azizur Rahman Khan (1998), "Povetry in China in the Period of Globalization: New Evidence on Trend and Pattern", Issues in Development Discussion Paper No.22, Development Policies Department, International Labour Office, Geneva; and Carl Riskin (1994), "Chinese Rural Poverty: Marginalized or Dispersed?" American Economic Review, Vol.84, No.2, pp.281-284.
    ${ }^{23}$ Fang Cai and Yang Du (2004), "Conditions of Setting up Dibao in Rural Areas Ripen", Chinese Cadres Tribune, No.9.
    ${ }^{24}$ Office of Leading Group of Poverty Alleviation in State Council (2004), Poverty Reduction: Efforts of Chinese Government, mimeo.
    ${ }^{25}$ Fang Cai and Yang Du (2004) "Conditions of Setting up Dibao in Rural Areas Ripen," Chinese Cadres Tribune, No. 9 .

[^9]:    ${ }^{26}$ People were asked to evaluate whether they were satisfied with their economic situation and whether they felt happy or not.
    ${ }^{27}$ This survey was conducted by the Institute of Population and Labour Economics, Chinese Academy of Social Sciences, in 14 cities in 2004. The sampled cities are Wuxi, Shenzhen, Zhuhai, Zigong, Daqing, Hegang, Liaoyuan, Fushun, Benxi, Jinzhou, Tongchuan, Baoji, Xiangfan, and Yichang.

[^10]:    ${ }^{28}$ NBS, China Statistics Yearbook (2007), China Statistical Press.

[^11]:    ${ }^{29}$ Ministry of Civil Affairs, China Civil Affairs' Statistical Yearbook (various years), China Statistics Press.

[^12]:    ${ }^{30}$ World Bank (1994), Averting the Old Age Crisis: Policies to Protect the Old and Promote Growth, New York: Oxford University Press.

[^13]:    ${ }^{31}$ In reality, the accounts of individual contribution and those of social pooling were not divided clearly and the two funds were mixed. The accumulation from the individual account was very commonly used to make up for insufficiency of the social pooling fund.
    32 "The 'X Component' in Shanghai's Social Security Reforms". International Social Security Review, Vol. 62, Issue 2, pp. 31-54, April/June 2009. Davies et. al.

[^14]:    ${ }^{35}$ Three security lines refers to the "system of basic living subsidy for laid-off workers from stateowned enterprises", an "unemployment insurance system" and the "minimum living standard guarantee programme".

