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Pension Reform in China: Progress and Prospects

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SUMMARY

1. China is currently in the process of developing the largest pension system in the world, and it is doing this at a time of unparalleled economic and demographic transition. The central government has followed a step-by-step approach to develop a system that can accommodate a rapidly aging society within a rapidly growing, but still largely underdeveloped economy. This paper analyses how far the process of creating a national old age insurance system had proceeded by the end of 2006. It provides a detailed description of this system and an assessment of to what degree it has so far achieved "its primary goal of social security for more people" (Chinese Government, September 2006).

2. Since the crucial re-design of the pension system in 1997 many significant reforms have followed and further specified the framework and the direction for a national unified system. In spite of this institutional progress, the scope of the system is still limited, as its coverage rate among urban employees remains below 50%. The rural population remains outside the national pension system, and it currently seems likely that the majority of the population will remain dependent on old age provision through family support for many years to come.

3. Yet, the current situation provides a "demographic window" until around 2015 to address these current short-comings. Extending coverage through improved compliance by employees and companies as well as the continuing financial commitment towards the National Social Security Fund are crucial to create the financial and institutional basis that can cushion the effects of a much older population, starting in about 20 years time.

RÉSUMÉ

4. La Chine est en train de mettre en place le plus grand système de retraite au monde, ceci à une époque de transition économique et démographique sans précédent. Le gouvernement central a suivi une approche graduelle pour créer un système qui puisse faire face à une société vieillissante dans une économie galopante et encore pour une bonne part sous-développée. Ce document montre jusqu'où le processus de création d'un système d'assurance national pour les personnes âgées a pu aller jusqu'à la fin de 2006. Il présente une description détaillée de ce système et évalue dans quelle mesure il a atteint au jour d'aujourd'hui « son objectif premier qui est la sécurité sociale pour plus de personnes » (Gouvernement chinois, septembre 2006).

5. Depuis la restructuration importante du système de retraite en 1997, plusieurs réformes substantielles ont suivi et ont encore plus déterminé le cadre et la direction pour un système national unifié. Malgré ce progrès institutionnel, la portée de ce système est encore limitée, son taux de couverture parmi les employés dans les secteurs urbains demeurant en dessous de 50 pour cent. La population rurale quant à elle reste en dehors du système de retraite national, et il semble probable pour l'instant que la majorité de la population restera dépendante pendant encore de nombreuses années à venir des pensions de vieillesse fournies par l'aide de la famille.

6. Pour autant, la situation actuelle est porteuse d'une « ouverture démographique » jusqu'à environ 2015 pour s'occuper de ces problèmes actuels. La base financière et institutionnelle pouvant amortir les effets d'une population encore plus âgée, d'ici à une vingtaine d'année, doit être créée. Pour ceci, il est crucial d'avoir une couverture élargie de par une meilleure acceptation des employés et des compagnies ainsi qu'un engagement financier soutenu au Fonds national de sécurité sociale.

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1. Introduction

7. China is currently in the process of building the largest pension system in the world, and it is doing this at a time of unparalleled economic and demographic transition. The 11th five-year plan (2006-2011) of the government has put the creation of a "harmonious society" as the ultimate goal of all its actions and a functioning old age insurance scheme seems essential to reach this goal.

8. In a characteristic mix of experimenting and learning-by-doing, China has followed a step-by-step approach to develop a system that can accommodate a rapidly aging society within a rapidly growing, but still largely underdeveloped economy. But in the transition from a planned towards a "socialist market" economy the complex interactions between numerous challenges such as the urban-rural divide, growing inequality and the ongoing reform of formerly State-owned enterprises make an incremental approach increasingly difficult. This paper therefore analyses how far the process of creating a national old age insurance system had proceeded by the end of 2006. It provides a detailed description of this system and an assessment of to what degree it has so far achieved "its primary goal of social security for more people" (Chinese government, Xinhua News Agency, Sept 15, 2006).

9. The paper is structured as follows. First, the social and economic environment relevant to the Chinese pension system is described. The second section describes the historical development of the old age insurance system since the 1950s. The third section provides an analysis of current pension arrangements. Trends in spending and recipient numbers are then examined to determine the scope of the current pension system. This is followed by a discussion of how the Chinese system compares to those in other countries and other regions of the world. The paper concludes with an assessment of the major challenges facing the Chinese system in coming years.

10. Several issues should be borne in mind while reading this paper. Although the Chinese pension system was redesigned in 1997, those already retired at that time were not affected by the reforms and transitional rules were applied to some of those already employed. This paper focuses on the post-1997 system and therefore does not discuss in detail the situation of existing retirees who still benefit from the more generous features of the old pension scheme. In addition, nor does the paper discuss the separate pension system for civil servants, military officers and employees of public institutions, which offers very generous benefits, covers about 40 million people, and is completely unfunded (Sin, 2005).

11. Additionally, it should be noted that while the central government is determined to install a national pension system, in practice the current system is administered mostly at provincial or county level, and consequently rules, contribution rates etc. can differ in different locations. For example, an employer in Shanghai has to pay 22% of the previous year's average wage of its workers into individual pension accounts, while in Shenzhen a company needs to pay only 9% of the current wage. These differences should not be surprising at this early stage of the new system and in a country the size of China. However, provinces continue to have a significant degree of autonomy and therefore the Chinese pension system could be thought of as a number of systems, which take different forms within centrally declared guidelines. Local modifications can be expected to continue and also to influence guidelines from the central government in the future.

2. The social and economic background

2.1. Rapid GDP growth combined with declining poverty but increasing inequality

12. China's GDP per capita stands at USD 1944 in 2006 (in current prices, IMF estimate), up from USD 1038 only five years ago.[1] Adjusted by purchasing power parities, it is estimated to be four times as high, surpassing USD 8000 in 2006 (see Figure 1). This is the result of an average year-on-year growth rate in GDP per capita of 9.4% since 1989 (in constant 2005 prices). However, the distribution of income has become significantly more unequal with the richest ten percent of society now enjoying 45% of its income and a Gini coefficient of 0.46 (2005, China Daily). China has experienced one of the most rapid increases in income inequality in the world since 1978, when the Gini coefficient was estimated to be around 0.33 (Maurice and Whiteford, 2004).

Table 1: General economic data on China

Year	GDP per capita (current USD)	GDP per capita (current PPP USD)	Tax revenue % of GDP	Government Expenditure % of GDP	Total official expenditure[1]	Labor market participation rate[2]
1989	398	1344	16.1	16.6	..	49.4
1990	339	1428	15.1	16.5	35.6	57.1
1991	351	1594	13.7	15.6	33.7	57.1
1992	412	1840	12.3	13.9	31.5	57.0
1993	517	2113	12.0	13.1	19.8	56.9
1994	467	2413	10.6	12.0	18.3	56.9
1995	601	2702	9.9	11.2	17.7	56.9
1996	699	2998	9.7	11.2	19.3	57.0
1997	771	3298	10.4	11.7	18.2	57.3
1998	817	3562	11.0	12.8	19.9	57.8
1999	861	3840	11.9	14.7	23.2	57.9
2000	946	4221	12.7	16.0	25.4	58.4
2001	1038	4649	14.0	17.2	26.6	58.3
2002	1132	5127	14.7	18.3	27.7	58.7
2003	1270	5720	14.7	18.2	27.4	58.9
2004	1486	6426	15.1	17.8	27.1	59.1
2005	1709	7198	15.7	18.5	..	59.6

Note: 1. "Official expenditure" includes on-budget spending plus extra-budgetary expenditure, social security funds expenditure and government bond expenditure. 2. Economically active population divided by total population.

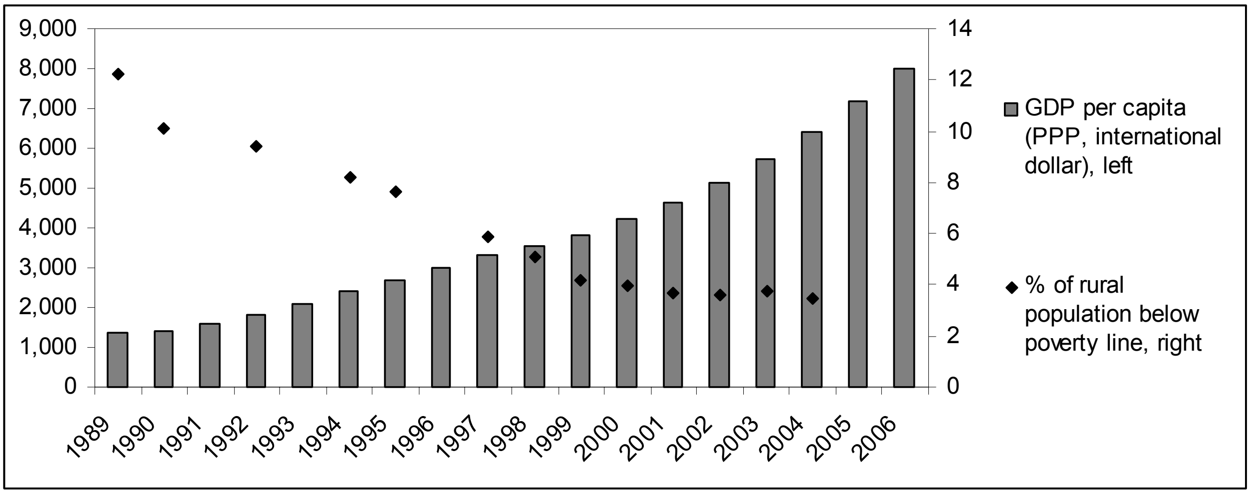
Source: China Statistical Yearbook 2006 (CSY 2006), tables 4-1, 5-2, 8-1 and 8-3; IMF, World Economic Outlook Database, 09/2006; OECD, 2006, table 1.1.

13. Despite these widening disparities, poverty has fallen significantly over time – from around 12 % of the total population in 1989 to 3 % in 2006 (National Bureau of Statistics of China, 13/05/2005). The share of total consumption expenditure spent on food (the Engel coefficient) has decreased since 1997 by ten percentage points in urban and rural areas to 36.7% and 45.5% respectively, and indicates rising living standards not only in urban areas. Furthermore, by 2004 the number of people living below the official Chinese poverty line has decreased to 26 million (although this line was below the common international standard of USD1 per day). However, in 2000 an alternative "lower income line" was introduced by the

1. The CNY was revalued in July 2005 to an USD: CNY exchange rate of 1:8.11. Since then, the Chinese currency's value is allowed to float by 0.3 % to a basket of currencies and has increased in value slowly, but consistently to reach an exchange rate of 1:7.82 on 04 Dec 2006.

Chinese National Bureau of Statistics set equal on a PPP basis to one US dollar a day. This measure raises the poverty line from 637 to 882 CNY in 2003, with the number of people below this higher income level being 85.2 million (National Bureau of Statistics, 2004), indicating that significant numbers of people have incomes between the two standards.

Figure 1: Increasing GDP/capita and decreasing poverty, 1989 to 2006



Source: China Statistical Yearbook (CSY) 2006 and Rural Survey Organization, National Bureau of Statistics of China

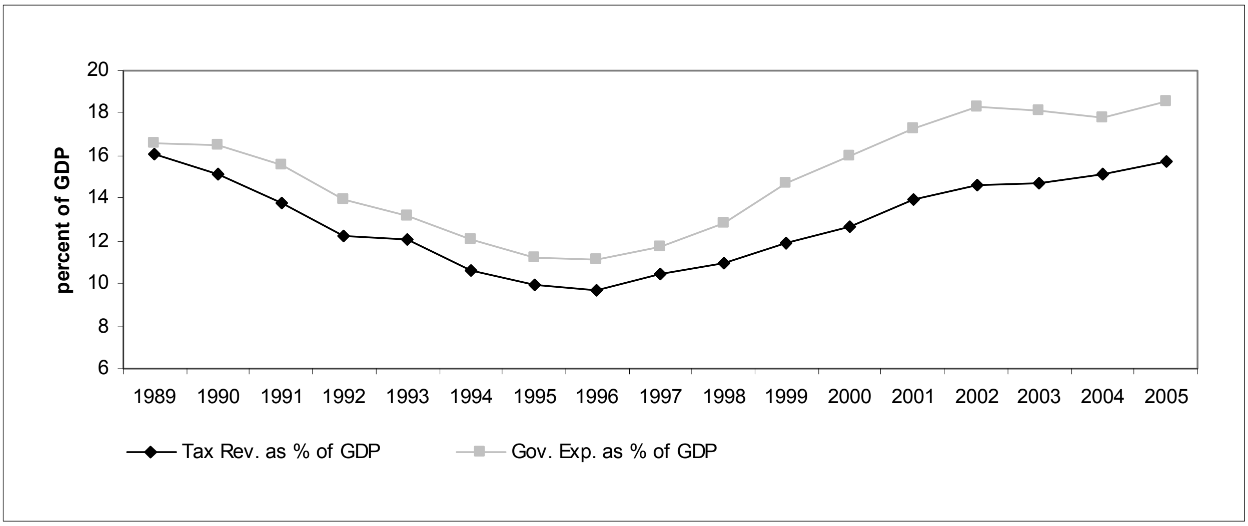
2.2. Employment rises despite declining state-owned enterprises

14. Labour market participation has risen from less than 50% in 1989 to approximately 60% in 2005. At the same time the rate of registered unemployment in urban areas increased slightly to 4.2%. In a time of rapid labour market transformation there are no reliable numbers on rural unemployment due to the fact that the unemployed outside of the cities cannot claim any benefits from the government. The pressure of migrating workers to urban areas is further increased by the large number of laid-off employees of former state-owned (SOE) or collectively-owned enterprises (COE). Between 2001 and 2005 the share of workers employed by these enterprises decreased in the cities from 37.3 to 26.4%, while the numbers working for township and village enterprises in the rural area increased by three percentage points to 29.3%.

2.3. Tax revenue and government expenditure are increasing again

15. Both taxation and public spending fell as a percentage of GDP between the late 1980s and the mid-1990s (Figure 2). Over the last few years the ratio of government expenditures and tax revenues to GDP has increased to a level of 18.5% and 15.7% respectively, similar to its level of 1989. Spending is shared between the central (approximately 25%) and provincial governments (75%; the 31 provinces include 335 prefectures and municipalities; 2,142 counties and several tens of thousands of townships and city districts), although provinces have limited tax-raising authority and financially rely upon the central government. It should be noted, however, that the standard measure of public expenditure in China does not include many forms of off-budget spending, including social security spending (OECD, 2006). Table 1 shows that including these items raised spending in 2004 from around 20% of GDP to 27%, or around the level of public spending in Korea (but significantly below most other OECD countries).

Figure 2: Public spending remains above growing tax revenue, 1989 to 2005

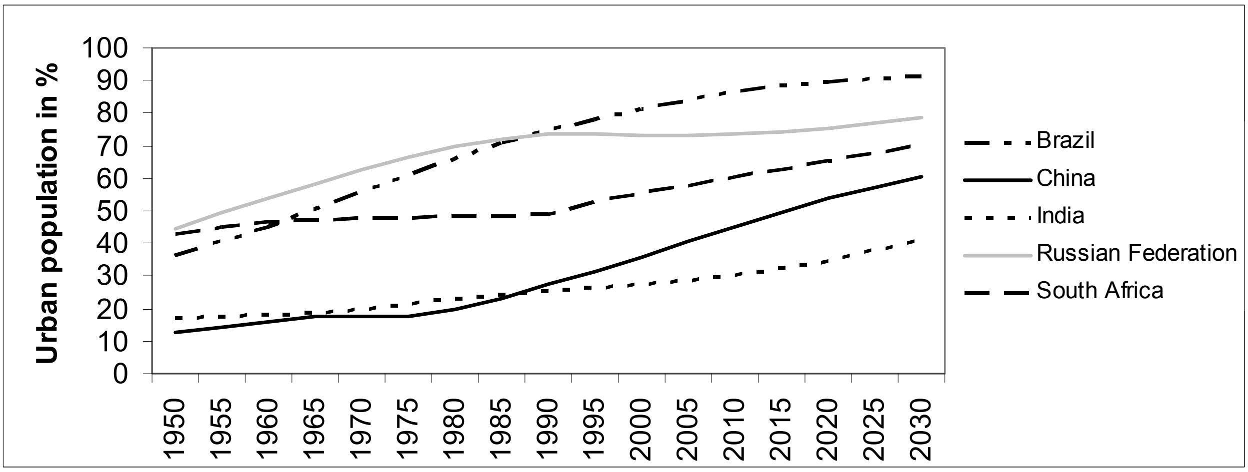


Source: CSY 2006.

2.4. More than half the Chinese population still live in rural areas

16. Another important demographic issue for China is its urban-rural divide. Due to the 50 year old household registration system (hukou), a majority of the Chinese population were not allowed to move freely between provinces and cities and this partly explains why in spite of large income differences more than 55% of the Chinese population is still living in comparatively poor rural areas. Hence, despite the steady increase in the urbanization rate over the last two decades, in an international perspective the current level of urbanization is comparatively low (Figure 3).

Figure 3: Increasing urbanization in the BRICS[2], 1950 to 2030



Source: UN Population Database.

2. BRICS stands for Brazil, Russia, India, China and South Africa

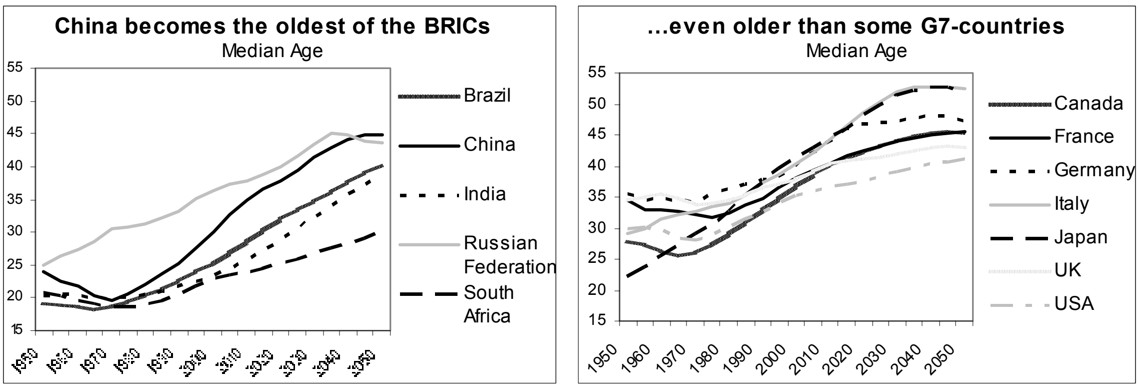
2.5. Urbanization of the young

17. The growing inequality between the rural and the urban communities as well as the demand for cheap labour in the large cities is likely to encourage the National Development and Reform Commission to implement an existing reform proposal to abolish major migration restrictions. The expected increase in the number of legal urban citizens would also increase the number of people who take part in the urban social security system, and therefore increase its coverage significantly over the coming years. However, as the vast majority of the migrants are young and productive the favourable effects regarding their own situation could be accompanied by increased hardship for the elderly left in the rural areas.

2.6. Rising median age

18. The demographic structure of the Chinese society is changing rapidly. With a broadly constant projected population size, increasing life expectancy, falling fertility and reduced infant mortality will lead to a rise in the median age from 32.6 in 2005 to 44.8 in 2050, a phenomenon reported in most regions of the world (Figure 4). Falling fertility rates have already slowed population growth and will bring it to a halt around the year 2029 at 1.44 billion people (UN population database). Today the average fertility is reported to be 1.3 (Chinese Census), but unofficially it is estimated to be 1.8 (UN estimates). The discrepancy can be explained by the permission given to minorities to have more children and the fear of parents to be punished under the one-child policy (since 1979) and therefore not reporting further children. However, recently family planning policy has switched from inflicting fines on families with more than one child to awarding those who have only one boy or two girls with an annual pension of at least 600 CNY from age 60 on. Nevertheless both numbers are well below the rate of 2.1 which would be needed for a stable future population size. Nevertheless, a shrinking of the population is not predicted before the middle of the 21st century, as rising longevity and lower infant mortality compensates for lower fertility rates. As a female/male born today can expect to live for 74.5/70.8 years respectively, this means an average "life-extension" of approximately 32 years compared to a Chinese who was born in 1950.

Figure 4: China is ageing rapidly



Source: UN Population Database.

19. From 1980 to 2050 all major OECD economies are projected to grow older; some will even double their median age; among the so-called "BRICS-countries" China is predicted to be the oldest country by 2050. In terms of the population aged 65 and above China still has a comparatively low share at 7.6% of the total population, equalling 100 million people, but within the next 45 years this will increase to 23.6%, about the same proportion as in the UK; in China this will mean 330 million senior citizens.

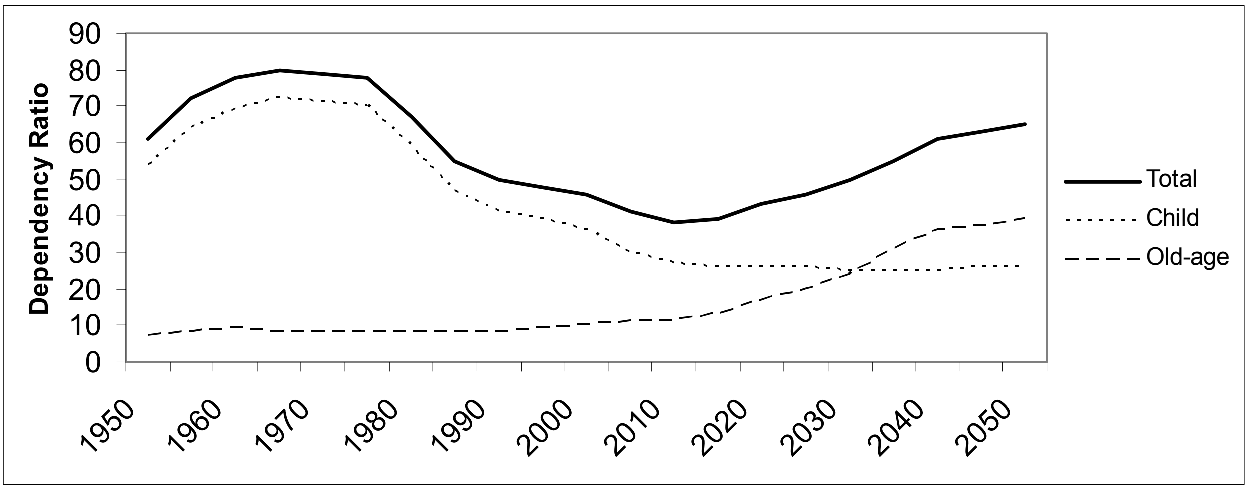
2.7. Aging of the elderly

20. Looking at people older than 80 years demonstrates the consequences of the "ageing of the elderly". While there are fewer than 100 million people over this age in the world today, the size of this group in China alone will surpass this number by 2050, meaning that Chinese society will then have to support one quarter of the world's oldest elderly. This is especially striking as this generation is now at their most productive working age, and if the country does not succeed in establishing individual old-age provision within the next years, these people will entirely depend on the old-age provision financed by coming generations – at a very high old-age dependency ratio.

2.8. "Overall dependency" will be at its lowest in 2013

21. Looking at the dependency ratio one can distinguish between two concepts of dependency: the share of older people (65+) in the total population, or the number of non-working-age people relative to the working-age population (15-64). Using the first definition of the dependency ratio gives a steadily growing number in China, as in most developed countries. But looking at the overall dependency ratio it becomes clear that the burden on the working-age population has actually declined over the last decades (Figure 5). The one-child policy has decreased the number of children, while people of the population boom since the 1950s are still in the workforce. The lowest dependency ratio will therefore be reached around 2013 at a ratio of 38.8%. That means 100 working-age people would need to take care of 39 non-working-age people.

Figure 5: Aging erodes China's temporary "demographic dividend"



Source: CSY 2006.

22. This temporarily favourable age structure of the demographic transition of the Chinese population causes a "demographic dividend" (Bloom *et al.*, 2002), which could explain one quarter of per capita GDP growth (see Cai and Wang, 2006). Nevertheless rising longevity will increase the dependency ratio after 2013 and therefore erode this positive demographic-related effect on the Chinese economy and eventually bring the ratio up to previous levels of 65% or more. A likely consequence will be an

intensification of the "4-2-1-1 problem" in which one working person has to provide for four grandparents, two parents, and one child, while at the same time needs to save for his or her own retirement.[3]

2.9. Demographic structure is changing enormously

23. A more detailed inspection of the demographic structure of China in 1950, 2005 and 2050 reveals a clear picture of the scope of demographic change within Chinese society and the number of older people it has to accommodate in the future.

24. According to UN population projections (Figure 6), the Chinese population of 560 million in 1950 had a demographically favourable form. Over the last 55 years this shape has transformed unfavourably and if one considers the medium variant of the UN projections for 2050 the situation worsens. The biggest age group will then be between 60 and 69 years instead of 0 to 10 years as in 1950.

2.10. Mismatch between number of men and women

25. It can also be seen from the charts of population structure above that the gap between the number of women and men within the younger generations of the Chinese society will persist. There are various explanations for these "missing girls" (which is not the focus of this paper), but the durable ratio of ten men for every nine women is likely to prove an obstacle in any attempts to increase the fertility rate in the future.

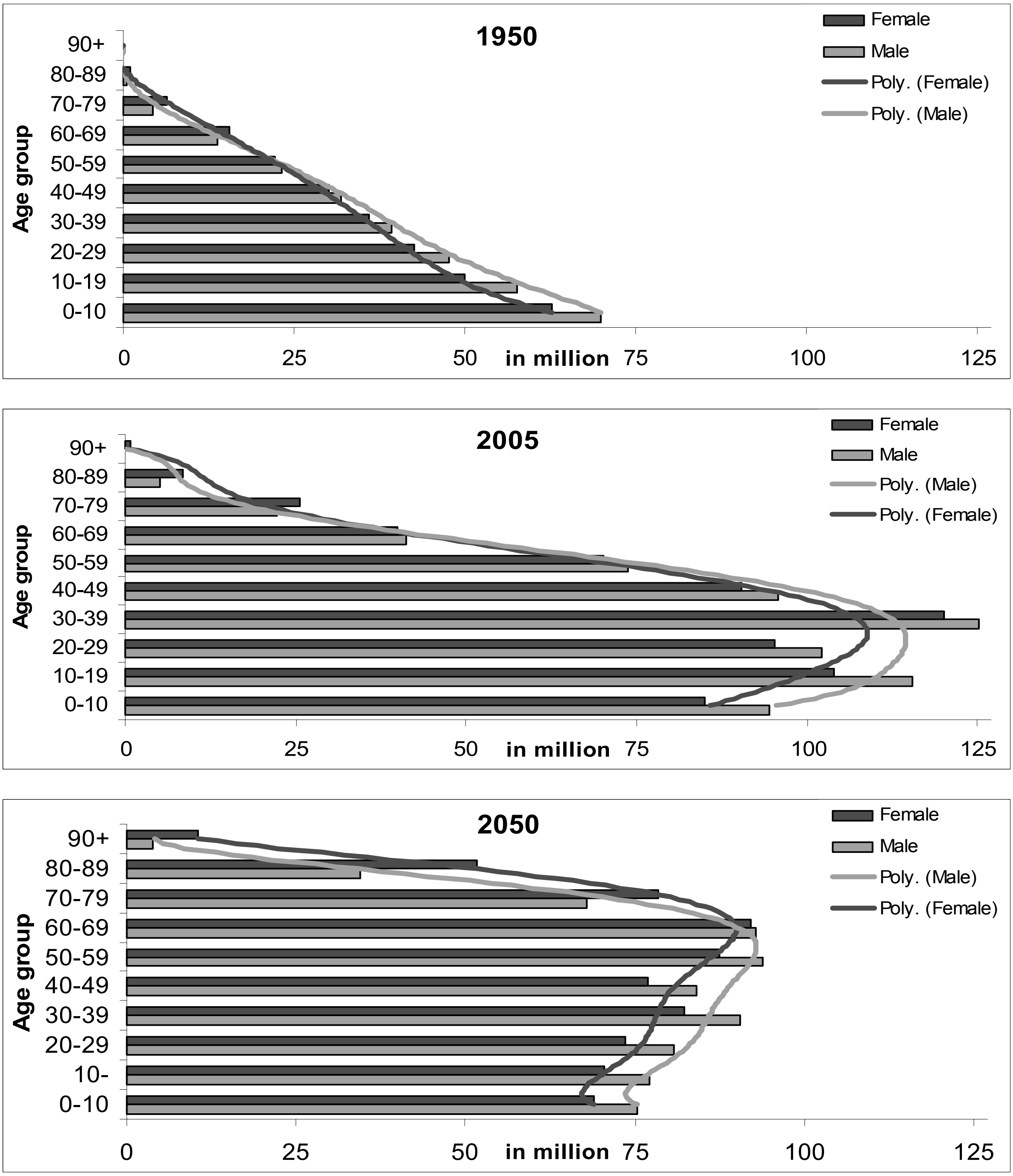
26. By and large the demographic challenges of a developed, modern society (increased longevity and falling fertility rates) will strike China at a comparatively early point in time, when economic development (e.g. in terms of GDP per capita) is not at a correspondingly high level. Nevertheless the current low overall level of dependency puts a relatively low burden on the existing working-age generation and could be considered as a favourable circumstance at a time when precautions need to be made for the foreseen higher old-age dependency ratio in the future.

3. How social protection has developed

27. In 1951 the Communist government introduced Regulations on Labour Insurance, providing the framework for the provision of various benefits based on the principle of lifetime employment and association with a state owned enterprise. The Regulations were patterned after the Soviet model. Although in theory they covered only employees of State-owned enterprises (SOEs) and collectively-owned enterprises (COEs), they were applicable to nearly all urban workers including government employees and those in related sectors such as schools, youth organisations, universities, health care etc. Significantly, they did not apply to the majority of the workforce in China, the rural peasants. Male workers became eligible for a pension at 60 years of age after 25 years continuous employment. For female workers the qualifying age was either 50 or 55 after 20 years employment (in the 1955-60 period, average life expectancy at birth was 43.1 years for men and 46.2 years for women.) The pension was typically 50 to 70% of the standard wage depending on the number of years in employment.

3. On the other hand, if China is successful in expanding employment in the formal sector and maintaining real wage growth, then it will be easier to deal with the consequences of population ageing.

Figure 6: Population structure in China, 1950 to 2050



Source: Calculated from UN Population Database.

28. The scheme was administered at the local level by trade union committees under the umbrella of the All China Federation of Trade Unions (ACFTU). The ACFTU became responsible for administration at the national level in 1954. The scheme was funded through employer contributions set at 3% of the total enterprise wage bill, out of which 30% was paid into a special ACFTU controlled fund responsible for the

payment of pensions. As the workforce was then relatively young, there were few demands on the fund and throughout the 1950s and early 1960s, a substantial surplus was built up.

3.1. Collapse of state pension system during the Cultural Revolution

29. This system practically ceased to exist during the Cultural Revolution when trade unions were abolished and the funds were used for other purposes. Individual enterprises became responsible for paying pensions and other benefits out of current revenues. This practice continued after the Cultural Revolution ended. The labour insurance pension scheme that had existed before was not re-established and individual SOEs continued to be solely responsible for pension provision and other benefits including health and housing.

30. During the Cultural Revolution many older workers had the grant of their retirement pension postponed and continued to work beyond retirement age. In 1978 the State Council amended the retirement component of the Labour Insurance Regulations providing these and other workers approaching retirement age with incentives to leave the labour force. This was to secure employment for younger workers who had been sent to rural areas during the Cultural Revolution and who were now returning to the cities. The 1978 amendments relaxed the eligibility criteria to permit pensions after 10 instead of 20 years of continuous employment. They also introduced higher pension rates, ranging from 60% of standard wages for workers with 10 to 15 years of employment, up to 75% for those who had worked for 20 years or more. They also extended the "substitute" ('ding ti') option to all state employees, under which a job in the state sector was promised to one child per retiree, so that the parent would get a full pension and the child would secure a full state salary and benefits (Davis 1988). In addition, the 1978 amendments formalised the practice of enterprises bearing full responsibility for all of the labour insurance benefits (including old age pensions) due to their employees (Fuery, Stanton and Walters, 1996).

3.2. First problems after 1978 of a changing pensioner/worker ratio is solved with the help of SOEs

31. The number of pensioners nearly doubled in the year after the 1978 regulations. Expenditure increased almost 19 times between 1978 and 1988. The increase in the number of pensioners after 1978 substantially changed the ratio of pensioners to workers. In 1978, there were 30.3 workers per pensioner; by 1988 the ratio had fallen to 6.4 to1 (Chai 1992). In recognition of these emerging problems, in 1986 the Government introduced regulations requiring all new SOE employees to make contributions of up to 3% of their basic wages, along with employer contributions of 15% of the enterprise's pre-tax wages bill. Contributions were paid into collective funds operated by newly established Social Insurance Agencies (SIA). These funds superseded the practice of leaving individual enterprises solely responsible for pension payments. By the end of 1991 all counties and cities had set up their own SIA to administer the funds and two thirds of workers in SOEs were covered. In 1992 the establishment of pension funds was extended to collectively owned enterprises (COEs). It was also not uncommon for some enterprises to require contributions from both new recruits and those employed before 1 October 1986 when the new scheme was introduced.

3.3. Individual contributions are added in 1986

32. Although the major portion of contributions still came from employers, the 1986 reforms introduced the concept of individual contributions into the pension system. Another important innovation was the establishment of agencies that managed pension funds independent of employing enterprises. As a result enterprises gradually ceased to be seen by their employees as the main provider of social security benefits. The reforms in the mid-eighties were aimed at reducing costs for enterprises and establishing a more effective funding base. They were initially introduced on an experimental basis with local variations. As with the establishment of special economic zones, the Chinese government chose to allow certain

provinces to test a number of new programmes. Two approaches gradually evolved. One was outlined in the 1991 State Council Resolution on the Reform of the Pension System for Enterprise Workers, promoting the integration of local programmes at the provincial level and eventually at the national level. Alternatively, some cities and provinces were developing new programmes that differed from the national norm, setting up fully funded pension programmes that often extended coverage to include private and joint-venture enterprises.

3.4. From 1991 all SOE workers are covered by a three tier system

33. The 1991 Resolution constituted a significant step in the further development of the system. It aimed to bring all workers in SOEs into a uniform pension scheme with three tiers. These were a basic pension for all retirees jointly financed by the state, enterprises and the workers; a supplementary scheme funded by the enterprise from its trading surplus; and an account funded by individual worker, on a voluntary basis, and payable at retirement as a lump sum. As on previous occasions, the 1991 Resolution has laid down guidelines rather than binding directives. The Resolution recommended that social insurance funds should be set up at the provincial level and once established, the distinction between the permanent and contract workers' fund should be abolished and they should be unified under a system of pooling. The old practice of requiring individual enterprises to pay the pensions of their retired workers was now to be replaced by collective funds where the responsibility was shared between the state, the enterprise and individual worker. Some provinces also began experimenting with a more individually-focused, two tiered approach funded by employee and employer contributions without the guaranteed government-backed basic pension. This approach was particularly popular with employees in private and joint-venture enterprises. They often had few retirees on their payrolls and thus saw pooling as a form of subsidising state-sector retirees. Furthermore because contributions represented a percentage of payroll, private firms that paid higher salaries had to shoulder a greater burden.

3.5. First attempts to broaden coverage during the 1990s

34. The Government attempted to broaden coverage by introducing pension schemes for the rural population, initially on an experimental basis. In January 1991, under the "Basic Plan for Old Age Social Insurance in the Countryside" the State Council decided to develop old-age social insurance in rural areas and designated the Ministry of Civil Affairs to be responsible for the project.

35. In the 1990s the success of various experimental approaches, together with the sustained growth of the economy, encouraged the authorities to continue their efforts to reform the pension system, but in a more unified way than before. The two crucial policy documents were the 1995 State Council Circular on Deepening the Reform of the Old Age Pension System for Enterprise Employees and the 1997 State Council Document No. 26[4] (see section 4 for a detailed analysis). In the first document, the State Council offered provinces a choice of two plans. Despite the fact that the provinces, in fact, adopted a wider range of variants the regulation established the principle that policy on pension design was a Government, and not an enterprise responsibility. Council Document 26 approved a plan to finally establish a unified nation-wide basic pension insurance system to replace all pilot programmes in each province by the end of the century.

3.6. State council documents lead the way to a national pension system

36. Document 26 was the first of a number of state council documents, which show the adaptive approach to the national pension system by the central government. Although the three pillar system of document 26 is still at the heart of reforms to the Chinese pension system, various elements have been

4. These State Council Documents provide specific guidelines that are central to government policy reforms.

changed over the last ten years with the help of new state council documents. Among the most important ones are Document 42 from 2000, Documents 20 and 23 from 2004 and 35, 36 and 38 from 2006, which are explained in more detail below.

3.7. Pilot programmes are implemented on an experimental basis in various provinces

37. Although the theoretical basis was laid down in document 26 ("Decision of the State Council on Establishment of Unified Basic Old Age Insurance System for Enterprise Staff and Workers") it took until December 2000 for Document 42 ("The Pilot Programme for Improving Urban Social Security System") to put the system into practice on an experimental basis in Liaoning province. This province in the northeast of China has only 3.2% of the total Chinese population, but 7.2% of all SOE retirees in 2004 lived there, and consequently the burden of laid-off SOE employees was particularly large. Therefore the programme needed to be financed to a large extent from the central government. Nevertheless, the social security pilot has been extended to Jilin and Heilongjiang provinces in 2004 and 2005 (together these three provinces received nearly one quarter of the central state social security subsidies in 2004) and by 2006 another eight provinces were included[5], extending the coverage to a total of 11 out of 31 provinces or 39 % of the Chinese population (China Statistical Yearbook, 2006). The aim of these pilot programmes is to develop a long-term effective system to achieve three objectives. Namely, 1) funding individual accounts of the basic pension system, 2) adjusting the benefit formula and 3) expanding pension coverage and collection (Zheng, 2006). Although contribution rates, replacement rates etc. differ between these eleven provinces, a successful outcome of the experiments in the sense that individual accounts and social pooling are managed in segregated accounts "would be a great boost to the confidence and determination of the central government to implement document 42 nationwide" (Pai, 2006). According to Zheng, this management setting has been achieved to a great extent and individual accounts are fully funded in Jilin and Heilongjiang. But by the end of 2005 this funding was only reached due to massive financial support from the central and local government, whose payments together accounted for more than 70 and 80% respectively of the funds in the individual accounts.

38. In 2006, Documents 35 and 36 introduced a proxy for life expectancy at retirement age into the benefit formula that had assumed an average retirement to last for 120 months. Furthermore in the same year Document 38 (Decision on Improving the Basic Social Insurance System for Enterprise workers) has changed the setting of Document 26 in the respect that it rewards retirees with a higher pension for every additional year that they have contributed (see Section 4 for details).

3.8. Corruption reduces public trust in pension funds

39. However, recent corruption scandals involving the misuse of retirement funds by officials have reduced public trust in the ability of funds accumulated in individual accounts to serve as an effective investment for their retirement. In particular, the Shanghai pension fund scandal has had far-reaching consequences within the administration of the Chinese pension system. In August 2006 investigators discovered that the Shanghai Social Security Fund had invested a large share (approximately one third) of its USD 1.25 billion fund in highly speculative real estate projects. This is clearly not in line with the investment guidelines of the State Council and it has been assumed that officials have personally benefited from these transfers. As a consequence, more than one hundred central government investigators were sent to Shanghai and the city's Communist Party chief, Chen Liangyu, as well as the head of China's National Bureau of Statistics, Qiu Xiaohua, have been jailed for corruption. Chen is the first member of the Communist Party's 24-member Politburo to be sacked in more than ten years, and this is supposed to mark the central government's determination to fight corruption on all levels. According to China's official news agency Xinhua there have been approximately 100 000 cases of bribery and graft within the last five years

5. These provinces are Henan, Hubei, Hunan, Shandong, Shanghai, Shanxi, Tianjin and Xinjiang.

and more than 83 000 officials have been prosecuted. These circumstances partly explain the people's reluctance to contribute to a publicly managed pension fund.

3.9. Occupational pensions

40. Document 42 also introduced rules for a voluntary enterprise annuity (EA) and therefore clarifies the framework of the second pillar. In May 2004 Documents 20 and 23 were issued and further stipulated how the accumulated pension funds of the EA are supposed to be operated under an arrangement of services provided by trustees, custodians, investment managers and administrators, which need to be separate legal entities (Murton, 2005). Furthermore, the occupational pension schemes can pay the benefits either in the form of a lump sum or as regular payments. However in spite of these regulations the EA is voluntary and negotiated directly between employers, employees or unions. Government officials are only involved at the stage where the mechanism is put into practise and need to check whether the regulations are in line with State documents. More recently, Regulation 25 specified investment guidelines in order to ensure a degree of safety for the financial accounts and hence promote the development of occupational schemes.

3.10. A last resort fund is created to cushion the financial effects of population ageing

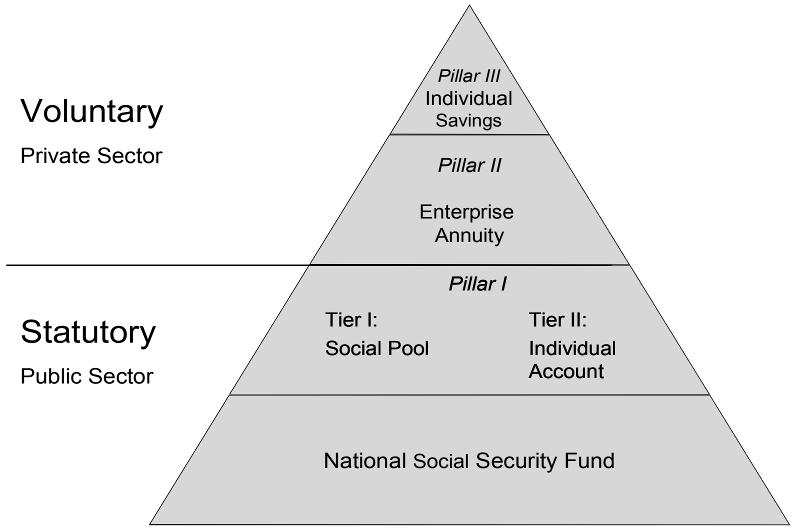
41. The National Social Security Fund (NSSF) was established by the Chinese government in 2000 as a fund of "last resort". The fund is managed by the National Council for Social Security Funds and its main purpose is to develop a national long-term strategic reserve fund in order to finance future social security expenses. The council consists of five government representatives from the Ministry of Finance (MOF), the Ministry of Labour and Social Security (MOLSS) and trade unions, five regional representatives and five representatives from the central government. Currently there is no official legislation on the conditions and timing under which the Council would decide to make payments. For now the MOLSS and the Ministry of Finance (MOF) cover most of the pension liabilities of provincial governments, but at the point when the impact of population aging will be most severe it is expected that the NSSF will take over this responsibility. According to Li Keping (Director-General of investment for the National Council for Social Security Funds) the fund is not ready to make any major expenditure at this time or the foreseeable future, and definitely not before 2010 (Asia Asset Management, 2005).

42. The funding for the NSSF comes mainly from Budget allocations (at the end of 2004: 75% of total funding), income from sales of state-owned shares, normally ten percent of the proceeds, (17%) and national lottery profits (8%; Xinhua News, March 29 2005).The "less risky investments" (bank deposits, treasury bonds purchase, making up 82% of total investments in 2004) are operated internally by the NSSF, while the "more risky investments" (stock market investments, 18%) are carried out by ten investment organizations that were chosen by "strict selection" (Xiang Huaicheng, Head of NSSF, at a speech in 2005) and which need to follow a number of investment guidelines (see Pai 2006 for details). Since May 1 2006 the NSSF has also been authorized to invest in overseas assets (up to 20%), and so far two US banks have been officially announced as custodians and ten other institutions were chosen to be in charge of the NSSF's investments in foreign markets. There has also been an initiative to partly allocate shares of state-owned enterprises to the NSSF. In the light of successful recent initial public offerings (IPOs) this could improve the financial situation of the fund considerably.

4. Current social security arrangements

43. On the basis of State Council Document 26 the central government has outlined a nation-wide basic pension insurance system consisting of three pillars - in line with recommendations by the World Bank - plus an underlying investment fund (Figure 7 and Table 2).

Figure 7: Structure of the Chinese pension system



44. The mandatory first pillar is based on the NSSF. It consists of two tiers, namely the social pool and an individual account. The first tier works on a pay-as-you-go basis and is totally financed by employers. Contributions are 20% of the employee's wages, with a maximum base of three times the average provincial wages and at a minimum of 60% of this average (that is, workers earning less than 60% of the average wage are treated as if they do earn this level). The first tier ensures a fixed replacement rate at retirement of 35% of the city's average wage after 15 years of service. In order to qualify for these payments a worker in addition to having contributed for 15 years must reach the normal pension age of 60 for men and 55 for women (50 if engaged in physical work). However, Document 38 has altered the replacement rate in order to reward additional contributions. Following this document one gains an additional 0.6% for each additional year of service (Sin, 2005). The payments are adjusted according to an index combining local wage and price inflation.

45. The second tier of pillar I is managed as fully funded individual accounts that were originally financed with contributions of 8% from enterprises and 3% from individuals (Document 26). However, since January 2006 Liaoning, Jilin, Heilongjiang (the three "pilot" provinces) as well as eight other provinces have put Document 38 into practise, meaning that the second tier is funded solely by employee contributions of 8% of his or her wages. In practice 5% come from the state (3.75% from central government and 1.25% from local government) and 3% from individual's contributions. It is expected that all provinces will adopt the guidelines set by Document 38 in coming years (Pai, 2006), but it needs to be kept in mind that at this point of time the contribution rates can vary widely between and even within provinces. The target replacement rate from this tier is 24.2%, based on the assumption of 15 years of continuing contribution and a monthly payment formula of dividing the accumulated amount plus investments by 120. The total replacement rate from pillar I is therefore projected to be 59.2%.

46. Again the initial factor of 120 (which is based on an assumed average post-retirement lifetime of 120 months) has been changed during the various experiments in different provinces, and is likely to be further adjusted in the future in order to bring it in line with average local lifetime expectancies at retirement (Documents 35, 36 and 38). If the total payments exceed accumulated savings, the benefits continue to be paid out of a social pool. For example, in the case of Jilin and Heilongjiang the actuarial factor at a retirement age of 45 years is 216, while it is 170 at 55 and 101 at 65. This means that if a person

retires at the age of 45, his or her individual savings will cover him or her until 63 years of age, and from there on she is paid out of the social pool. For a 65-year old retiree the individual account will cover her until the age of 73.4 years, but of course at a higher rate of payment (more than double, assuming the same amount in the individual savings account). Furthermore, if an individual has contributed for less than 15 years he or she will receive the savings from the individual account as a lump sum.

Table 2: Contributions and benefits under the three pillar system

		Contributions	*Benefits*
Pillar I	*Tier I* *(PAYG)*	Employer 20% of employee's wages (max 300% min 60% of provincial wages).	35% of average monthly wages in province, where one was employed (if >15 years of service).
	Tier II *(Funded)*	Employee 8% of his or her wages.	Individual account divided by 120 (expected to equal 24.2% of average monthly wages in province).
Pillar II	*(Funded)*	Employers and employees make voluntary contributions.	Individual account.
Pillar III	*(Funded)*	Employees make voluntary contributions.	Individual account.
		TOTAL: 28% of employee's wages + voluntary contributions.	TOTAL: 59.2% of average monthly wages in province + voluntary employers/employee pensions.

47. Pillar II is a voluntary contribution-based old-age insurance that is financed either by the employing company or by a mix of company and employee payments. This supplementary pension concept was first mentioned in 1991 in Document 33, and the first voluntary corporate pension plans appeared in 1992. Only in 2000 did Document 42 put the various existing supplementary pension plans into the second pillar, which was then officially named the enterprise annuity. In May 2004 a trial measure specified a maximum of 1/12 of the total previous annual salary for enterprise contributions and 1/6 for enterprise-employee combined contributions. The design of allocating total contributions to the individual accounts as well as the payment method when the individual reaches the statutory retirement level is left to the company. However, to implement the employer's pension plan, four prerequisites need to be fulfilled. First of all the enterprise needs to meet certain criteria (participation in pillar I, being "financially sound", collective negotiation system established). Then it needs to file a plan with MOLSS, which then has 15 days to object to the concept. The company has to appoint a trustee that supervises the company's pension plan. This can be a management committee consisting of employees or people from a government-approved trustee corporation. Lastly, the trustee appoints an administrator, a fund manager and a custodian, all of whom need to be from different organizations and approved by the government. Furthermore the pension fund established by the company is legally limited in its investment policy. Short-term securities are required to be a minimum of 20% of the assets, while fixed income and long-term securities as well as equities are allowed to be a maximum of 50% and 20% respectively (Document 25). So far no foreign investments are permitted. In return the government grants tax benefits to these companies, although deductibility of the enterprise's contributions varies between provinces (in most provinces tax deductibility is limited to four percent). A recent survey among multi-national companies (MNC) has shown that about 23% of these MNCs participate in this programme, but this rate is assumed to be lower within local enterprises (Watson Wyatt Worldwide, 2006).

48. The third pillar consists of a voluntary complementary private savings account. This is meant for people who want to ensure a higher pension income for their post-retirement lives. However, the savings for pillar III are not supported by tax incentives and at this stage the role of this option is not significant.

5. Other retirement income systems

5.1. Private Savings

49. The Chinese economy as a whole is characterised by a high savings rate (according to the IMF gross national saving equal more than 40% of GDP), but this fact is not reflected in the private saving accounts of people who reach retirement age in coming years. Jackson and Howe (2004) found out that in 1995 about 53% of the urban population of 55 years and above held less than half of their annual earnings in financial assets. The wealth-to-income ratio also reveals that around 25% of the elderly have savings exceeding their annual income, but this is still hardly enough to finance a retirement period of about 20 years.

5.2. Family-related old age provision remains important, especially among the poor

50. Old age provision through the extended family network is a deep-rooted tradition in China and also institutionalised by the Family Support Law of 1981, which obliges younger generations to support their parents if their parents are not able to live by themselves. Yu-Wei Hu (2006) notes that the inter-generational contract will be sustainable in spite of opposing trends in other emerging economies. Taking Chinese Taipei as an indicator of how mainland Chinese culture might adapt to more affluent economic living conditions provides a similar picture: in 1995 more than 52.3% of Chinese Taipei's elderly depended on their children, compared to 14.8% that received state or enterprise pensions (Li, 1999).

51. A study by Cai, Giles and Meng (2005) about how well children insure their parents against low retirement income also supports Hu's (2006) conclusion. Although average intra-family transfers to the elderly amount only to 4.4% of average income within the old age population, this rate increases to more than 20% for very poor retirees (with income level below half the poverty line). Furthermore, it is argued by Hu (2006) that improving the public pension system is not expected to crowd out this family provision. However, so far no political measures have been taken to support this informal but necessary part of the retirement income system. One concern is that tax incentives for transfers among extended families would only reduce inequality within families but not across families. Furthermore, Cai *et al*. (2006) report that a large survey found that roughly 45% of the elderly live with an adult child and that 90% of Chinese respondents are willing to support their parents financially.

5.3. The rural pension system is still in its infancy

52. At this stage the government is still focused on establishing a functioning pension system in urban areas, whereas there is hardly any financial provision for old age by the state in rural areas. In recent years, only two out of 23 options outlined by the Development Research Centre of the State Council address the problems of the rural pension system.[6] However, MOLSS has made it a national priority to extend social insurance to rural migrants in urban jobs (see the discussion on portability below).

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6. According to Yu-Wei Hu (2006) this Centre plays a central role in initiating any economic reform in China.

53. Prior to reform, the "Five Guarantees"[7] by the collectives ensured the livelihood of poor elderly in rural areas. In 1992 the Ministry of Civil Affairs promulgated the "Basic Programme for Rural Social Security Insurance and County Level" to adopt a rural old age insurance system with the county as the basic operational level. Individual contributions were supplemented by collectively-sponsored contributions and government support to set up individual accounts. In 1998 responsibility was transferred to MOLSS, which considered the system to be not mature and replaced it in 1999 by a commercial insurance programme. As a result, coverage declined significantly from 75 million in 1997 to 54 million in 2004, albeit both being only a small fraction of total rural labour force (down from 15.4% in 1997 to 11% in 2004; Wang, 2006). According to the "China Urban and Rural Elderly Survey" in 2000 about 7% of rural people aged 60 and above received pension benefits or social old age insurance, whereas 85% relied on family support. Other estimates are only slightly higher - 9 to 11% (Hu, 2006).

5.4. The minimum living guarantee

54. In 1999 the central government promulgated the "Regulations on Guaranteeing Urban Resident's Minimum Standard of Living" to ensure a basic livelihood for all urban residents. If family income falls below a locally specified minimum income line, the local government will finance the gap out of its budget. In 2004 about 22 million urban recipients received CNY 15 billion (about USD 1.8 billion).[8] In recent years several rural areas have started to introduce a similar minimum living standard security system (chinagate.com, 10/2006) and by the end of 2003 approximately 12.6 million people in rural China benefited from the minimum living allowance and subsistence relief for destitute households (China Pension Net, cnpension.net, 24/02/2006).

6. Trends in the urban pension system

55. China has increased its spending on social insurance significantly over recent years, with spending reaching 3.3% of GDP in 2005, compared with less than 1% in 1989. Pension spending constitutes by far the largest share at 0.7% of GDP in 1989 and 2.2% in 2005. In absolute numbers the old age insurance costs in 2005 were 404 billion CNY, which equals approximately 50 billion USD. Since 1989 retirement insurance revenue has consistently been higher than expenditures, so that a cumulative stock has been build up which is now equivalent to the total annual expenditures of 2005 (see Figures 8 and 9).

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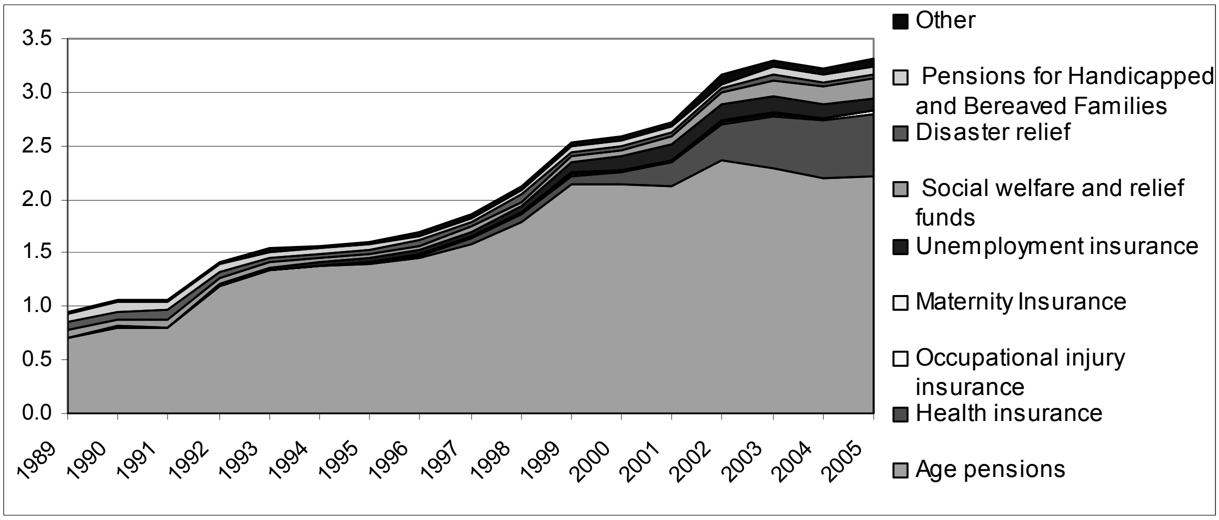
7. The "Five Guarantees" are food, clothing, medical care, housing and burial expenses.

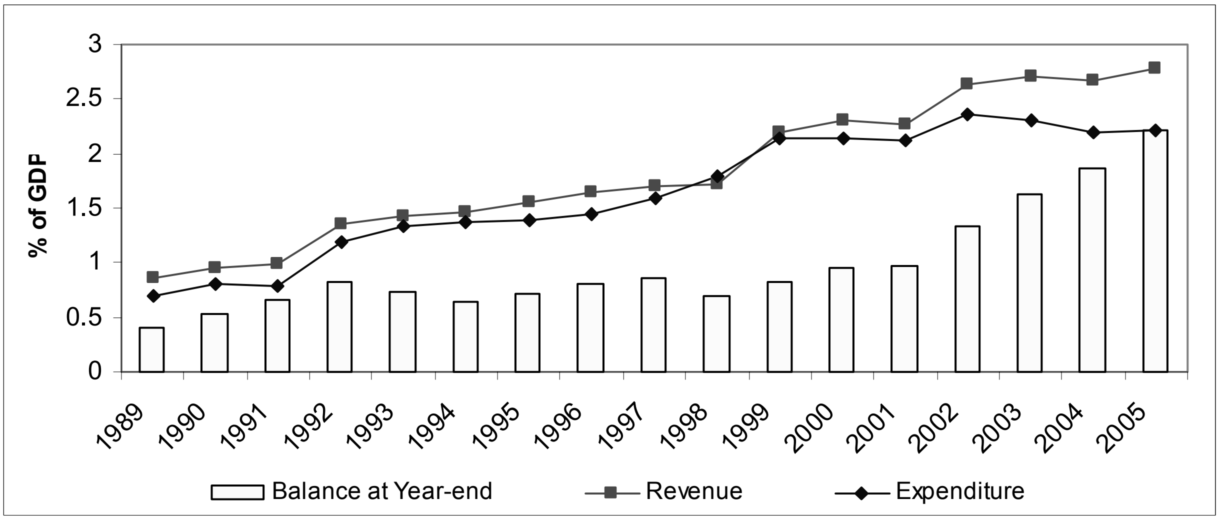
8. The scope of these subsistence allowances has been increased dramatically in recent years, with the number of recipients increasing from 1.2 million in 1997 to around 22 million in 2004; for details, see Huang Yanfen and Yang Yiyong, "The Urban and Rural Poor in China and their Income Earning Potential (OECD, 2004).

Figure 8: Spending on social insurance in China, 1989 to 2005, (% of GDP)



Source: CSY 2006.

Figure 9: Trends in retirement insurance revenue/expenditure and cumulative balance, 1989 to 2005



Source: CSY 2006.

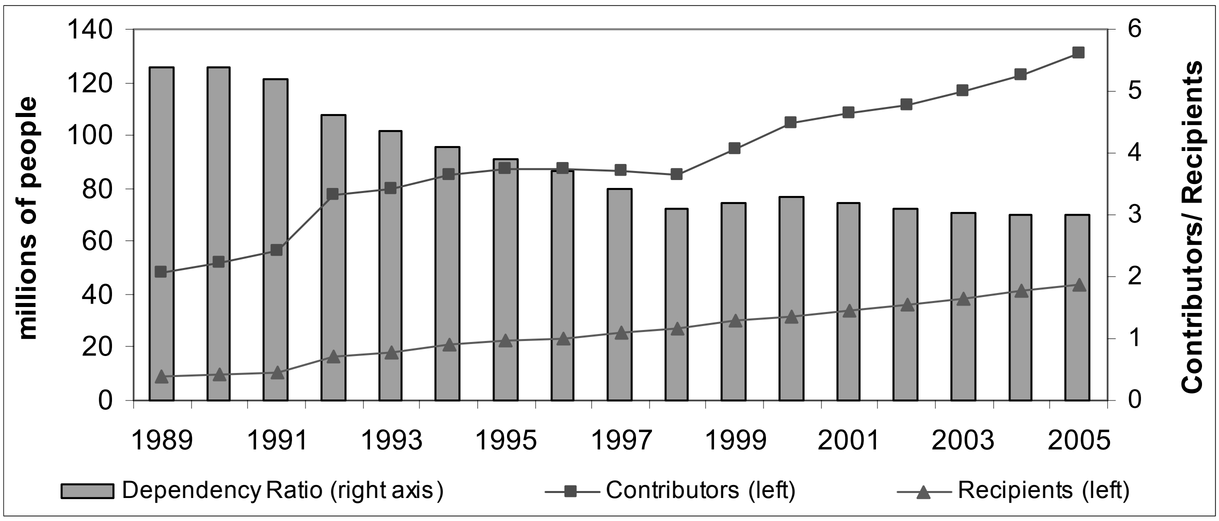
56. Over the same period the ratio of contributors to recipients has declined to a more unfavourable level of approximately three paying to one receiving payments, although this dependency ratio has been stable over the last eight years (see Table 3 and Figure 10). The number of contributors has grown rapidly to 131.2 million workers in 2005, up from 84.8 million in 1998, while the number of recipients has increased more slowly to 43.7 million, up from 27.3 million. Overall, a total of 174 million Chinese were participating in the public pension system in 2005 either as contributors or beneficiaries.

Table 3: Details of old age insurance programmes

	Old Age Insurance Dependency Ratio			*Old Age Insurance Expenses/Revenues*		
Year	Contributors (millions)	Recipients (millions)	Dependency Ratio	Revenue % of GDP	Expenses % of GDP	Balance % of GDP
1989	48.2	8.9	5.4	0.9	0.7	0.4
1990	52.0	9.7	5.4	1.0	0.8	0.5
1991	56.5	10.9	5.2	1.0	0.8	0.7
1992	77.8	16.8	4.6	1.4	1.2	0.8
1993	80.1	18.4	4.4	1.4	1.3	0.7
1994	84.9	20.8	4.1	1.5	1.4	0.6
1995	87.4	22.4	3.9	1.6	1.4	0.7
1996	87.6	23.6	3.7	1.7	1.5	0.8
1997	86.7	25.3	3.4	1.7	1.6	0.9
1998	84.8	27.3	3.1	1.7	1.8	0.7
1999	95.0	29.8	3.2	2.2	2.2	0.8
2000	104.5	31.7	3.3	2.3	2.1	1.0
2001	108.0	33.8	3.2	2.3	2.1	1.0
2002	111.3	36.1	3.1	2.6	2.4	1.3
2003	116.5	38.6	3.0	2.7	2.3	1.6
2004	122.5	41.0	3.0	2.7	2.2	1.9
2005	131.2	43.7	3.0	2.8	2.2	2.2

Data from: CSY 2006, tables 3-1, 23-36 and 23-38.

Figure 10: Trends in ratio of contributors to recipients in China, 1989 to 2005



Source: CSY 2006.

Table 4: Coverage of old age insurance as share of total and urban population, 1989 to 2005

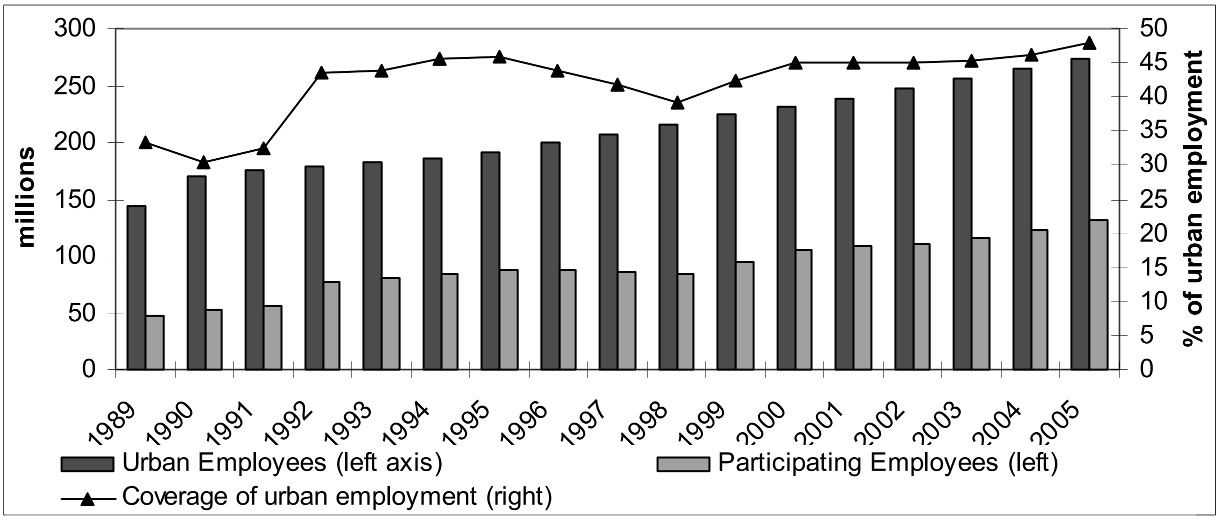
	Population			*Participants*			*Coverage**		
Year	Total (millions)	Urban (millions)	Urban employees (millions)	Contributors (millions)	Recipients (millions)	Total (millions)	% of total	% of urban population	% of urban employees
1989	1127.0	295.4	143.9	48.2	8.9	57.1	5.1	19.3	33.5
1990	1143.3	302.0	170.4	52.0	9.7	61.7	5.4	20.4	30.5
1991	1158.2	312.0	174.7	56.5	10.9	67.4	5.8	21.6	32.4
1992	1171.7	321.8	178.6	77.8	16.8	94.6	8.1	29.4	43.5
1993	1185.2	331.7	182.6	80.1	18.4	98.5	8.3	29.7	43.9
1994	1198.5	341.7	186.5	84.9	20.8	105.7	8.8	30.9	45.5
1995	1211.2	351.7	190.4	87.4	22.4	109.8	9.1	31.2	45.9
1996	1223.9	373.0	199.2	87.6	23.6	111.2	9.1	29.8	44.0
1997	1236.3	394.5	207.8	86.7	25.3	112.0	9.1	28.4	41.7
1998	1247.6	416.1	216.2	84.8	27.3	112.0	9.0	26.9	39.2
1999	1257.9	437.5	224.1	95.0	29.8	124.9	9.9	28.5	42.4
2000	1267.4	459.1	231.5	104.5	31.7	136.2	10.7	29.7	45.1
2001	1276.3	480.6	239.4	108.0	33.8	141.8	11.1	29.5	45.1
2002	1284.5	502.1	247.8	111.3	36.1	147.4	11.5	29.4	44.9
2003	1292.3	523.8	256.4	116.5	38.6	155.1	12.0	29.6	45.4
2004	1299.9	542.8	264.8	122.5	41.0	163.5	12.6	30.1	46.3
2005	1307.6	562.1	273.3	131.2	43.7	174.9	13.4	31.1	48.0

* Insurance contributors and recipients combined

Data from: CSY 2006, tables 4-1, 23-36.

57. The increasing number of both contributors and recipients has resulted in a higher coverage rate of 48% among urban employees in 2005, which is about 9 percentage points higher than in 1998 (see Table 4 above and Figure 11). However, due the very limited scope of the rural pension system the coverage rate among the total population is still low at 13.4%. Looking at coverage among the older population (60 years and over), the share of pension recipients has actually declined from 2000 to 2005 by 3.7 percentage points to 19.8%.

Figure 11: Coverage of retirement insurance in the urban population, 1989 to 2005



Source: CSY 2006.

58. The level of pension benefits has fallen since 2002, both as a percentage of GDP per capita and in relative terms to average SOE wages (see Table 5 and Figure 12). While pensioners in the 1990s could expect to receive on average 65 to 75% of the wage of an average SOE worker, this level has decreased to less than 50% in 2005. Also in proportion to a rapidly growing GDP per capita there is a notable declining trend in pension benefits from 90% in 1999 to 66% in 2005. Nevertheless average pensions have increased in absolute values (in constant 2005 CNY) from 2940 CNY in 1989, to 5186 CNY in 1997, to 9251 CNY in 2005; an average real year-on-year increase of 7.6% (compared to average GDP per capita growth of 9.4% over this period).

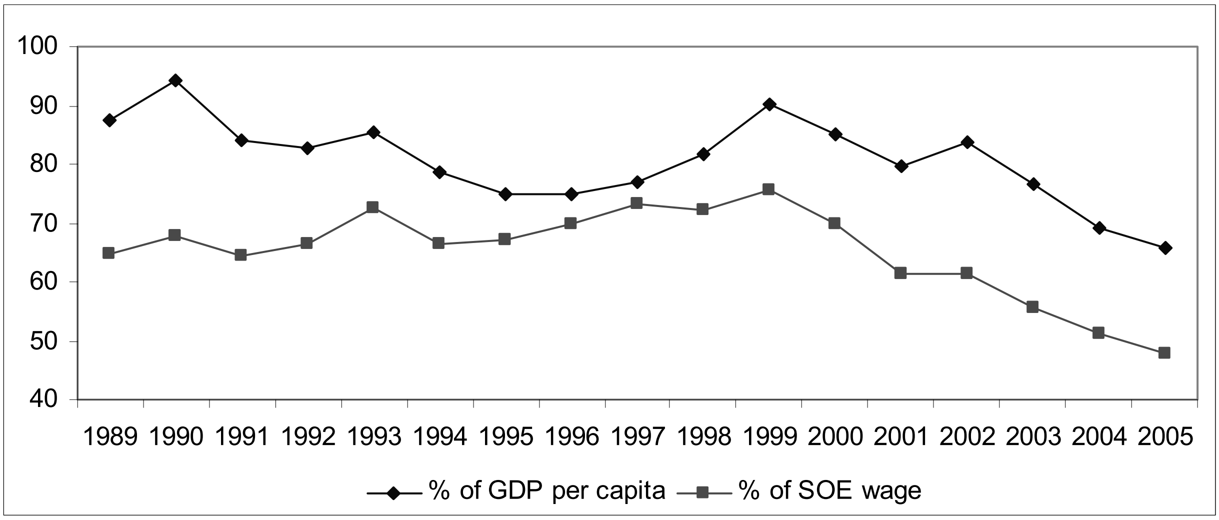
59. The trends discussed above refer to national averages, and it is important to note that there are very wide variations in these characteristics across regions (Tables 6 and 7). For example, the old age dependency ratio varies between a high of 16.24 persons above 65 years per one hundred working age persons (between 15 and 64) in Sichuan and a low of 8.64 in Qinghai. In relation to the ratio of contributors to recipients, in Shanghai there are 1.85 workers for each pensioner, while in Guangdong the ratio is 6.77 to 1. Furthermore, the different stage of implementation of the nation-wide pension insurance system in the various provinces as well as the special focus of the central government on pilot provinces (esp. Liaoning, Jilin and Heilongjiang) has led to an unequal spread of social security subsidies per capita among the 31 provinces (Figure 13).

Table 5: Trends in level of average pension benefits, 1989 to 2005

Year	*Average Pension Current CNY*	*GDP per capita Current CNY*	*SOE wage Current CNY*	*Average Pension % of GDP per capita*	*Average Pension % of SOE wage*
1989	1330	1519	2055	*87.6*	*64.7*
1990	1547	1644	2284	94.1	67.7
1991	1593	1893	2477	84.2	64.3
1992	1914	2311	2878	82.8	66.5
1993	2559	2998	3532	85.3	72.4
1994	3179	4044	4797	78.6	66.3
1995	3782	5046	5625	75.0	67.2
1996	4375	5846	6280	74.9	69.7
1997	4939	6420	6747	76.9	73.2
1998	5543	6796	7668	81.6	72.3
1999	6451	7159	8543	90.1	75.5
2000	6674	7858	9552	84.9	69.9
2001	6866	8622	11178	79.6	61.4
2002	7880	9398	12869	83.9	61.2
2003	8088	10542	14577	76.7	55.5
2004	8536	12336	16729	69.2	51.0
2005	9251	14040	19313	65.9	47.9

Source: CSY 2006, tables 3-1, 5-22, 23-36, 23-38 and CSY 2005, table 5-27.

Figure 12: Trends in level of average pensions in China, 1989 to 2005



Source: CSY 2006.

Table 6: Population and dependency ratios, by province, 2005

	Population distribution % of national population		*Dependency ratios* % of provincial population		
	Share of total population	Share of population 65+	Children (0-15)	65 and over	Total
China	*100.0*	*100.0*	*27.4*	*12.7*	*40.1*
Beijing	1.2	1.4	13.0	13.7	26.7
Tianjin	0.8	0.9	16.3	12.5	28.8
Hebei	5.2	4.8	23.8	11.0	34.9
Shanxi	2.6	2.2	30.0	10.9	40.9
In. Mongol.	1.8	1.6	22.7	10.6	33.3
Liaoning	3.2	3.5	18.7	12.9	31.6
Jilin	2.1	1.8	18.6	9.9	28.5
Heilongjiang	2.9	2.5	19.1	9.8	28.9
Shanghai	1.4	1.8	11.4	15.1	26.5
Jiangsu	5.7	7.0	21.1	14.8	35.9
Zhejiang	3.8	4.5	21.6	14.4	36.0
Anhui	4.7	5.3	34.6	15.1	49.7
Fujian	2.7	2.7	25.4	12.0	37.4
Jiangxi	3.3	3.1	37.8	12.7	50.5
Shandong	7.1	7.9	21.5	13.4	34.9
Henan	7.2	6.6	29.9	11.7	41.6
Hubei	4.4	4.5	26.3	12.8	39.0
Hunan	4.8	5.5	26.3	14.2	40.5
Guangdong	7.0	5.8	30.1	10.4	40.5
Guangxi	3.6	3.8	35.6	14.3	49.9
Hainan	0.6	0.6	35.0	12.6	47.6
Chongqing	2.1	2.6	30.2	16.0	46.3
Sichuan	6.3	7.7	32.5	16.2	48.7
Guizhou	2.9	2.6	44.7	12.9	57.6
Yunnan	3.4	2.9	35.3	11.0	46.3
Tibet	0.2	0.2	41.0	9.3	50.3
Shaanxi	2.8	2.8	27.2	12.0	39.3
Gansu	2.0	1.6	33.7	10.4	44.2
Qinghai	0.4	0.3	34.4	8.6	43.1
Ningxia	0.5	0.3	38.1	8.9	46.9
Xinjiang	1.5	1.1	33.6	9.3	42.9

Source: CSY 2006, tables 4-3, 4-10, 5-9, 8-15, 23-39.

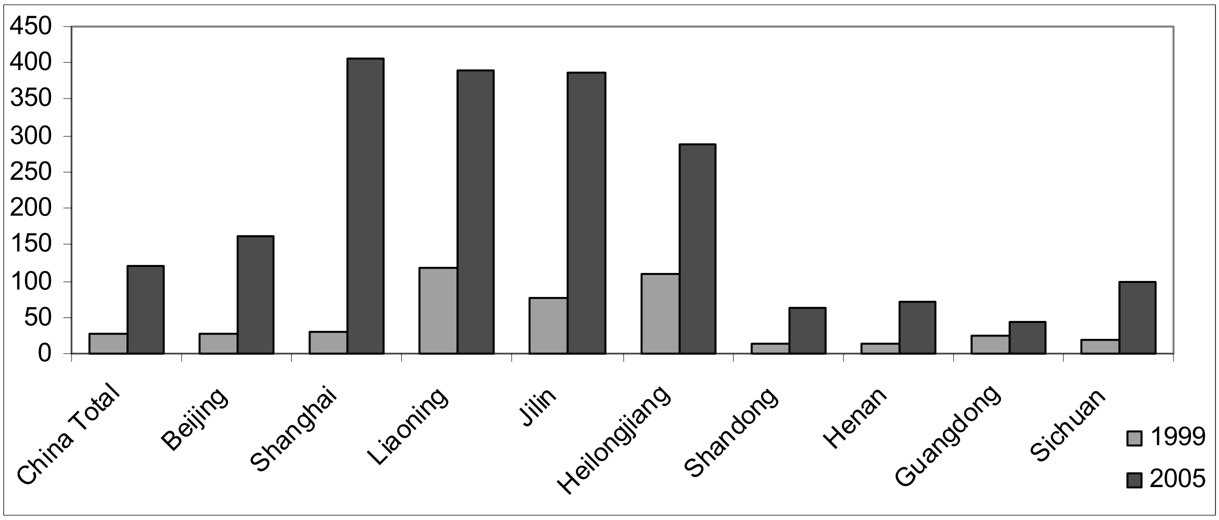
Table 7: Social security characteristics and subsidies, by province, 1999 and 2005

	Share of total population	*Share of SOE employees*	*Pension coverage rate**	*Ratio of employees to retirees*	*Social Security Subsidy per capita** constant 2005 CNY)*	
	2005	***2005***	***2005***	***2005***	***1999***	***2005***
China	*100.0*	100.0	13.4	3.0	27.5	120.9
Beijing	1.2	2.9	33.8	2.4	27.2	163.2
Tianjin	0.8	1.3	29.6	1.9	109.9	356.7
Hebei	5.2	5.5	10.3	2.8	18.5	105.8
Shanxi	2.6	4.0	11.4	2.9	37.2	167.2
In. Mongol.	1.8	2.6	14.2	2.9	41.4	136.1
Liaoning	3.2	4.7	28.3	2.3	117.7	391.0
Jilin	2.1	2.8	16.8	2.5	77.9	386.2
Heilongjiang	2.9	4.6	20.1	2.4	109.6	287.5
Shanghai	1.4	1.9	46.7	1.9	30.0	405.4
Jiangsu	5.7	4.4	18.0	3.4	9.1	85.2
Zhejiang	3.8	2.8	19.7	5.0	8.0	59.1
Anhui	4.7	3.2	7.7	2.8	18.2	79.2
Fujian	2.7	2.3	11.6	3.6	10.8	29.1
Jiangxi	3.3	3.1	9.0	2.7	19.4	91.2
Shandong	7.1	6.7	14.1	4.2	12.5	63.6
Henan	7.2	6.3	8.7	3.2	14.7	72.5
Hubei	4.4	4.8	14.1	2.9	26.4	124.6
Hunan	4.8	4.0	11.4	2.7	29.0	132.8
Guangdong	7.0	5.9	19.5	6.8	24.1	42.8
Guangxi	3.6	3.0	6.2	2.9	10.7	66.4
Hainan	0.6	0.9	14.6	2.3	25.7	141.5
Chongqing	2.1	1.9	10.4	1.9	36.3	154.1
Sichuan	6.3	4.9	9.7	2.4	19.0	98.0
Guizhou	2.9	2.3	4.9	2.6	15.6	68.0
Yunnan	3.4	2.7	5.8	2.2	18.8	65.2
Tibet	0.2	0.3	2.8	1.5	29.7	174.6
Shaanxi	2.8	3.9	10.1	2.5	25.3	205.8
Gansu	2.0	2.5	7.6	2.6	21.9	183.2
Qinghai	0.4	0.5	11.1	2.5	100.4	251.1
Ningxia	0.5	0.6	11.3	3.2	36.4	118.1
Xinjiang	1.5	2.9	15.0	2.4	26.8	117.5

Notes: * (Contributors + Recipients) / total provincial population; Liaoning, Jilin and Heilongjiang served as the ground for the earliest pension pilot schemes and are therefore of particular interest. ** Social security subsidy from central government to provincial government; largely used to fund individual pension accounts.

Source: CSY 2006, tables 4-3, 4-10 and 8-15 and CSY 2000, tables 4-3 and 8-20.

Figure 13: Social security subsidies per capita, selected provinces, 1999 and 2004, in constant 2005 CNY



Source: CSY 2006.

60. These differences in financial support per capita from the central government are partly explained by the uneven distribution of SOEs between the provinces, so that some provinces have to bear a much larger financial burden for former SOE employees. For example, Liaoning has 3.2% of the national population, but 4.7% of total SOE employees, while Sichuan has the same number of SOE employees, but more than 6.2% of the population.

7. The Chinese system in comparative perspective

61. How does the Chinese system compare with other regions of the world and with other economies in Asia? Table 8 provides a range of comparisons of features of the Chinese pension system with those applying in other major regions of the world.[9] On the basis of these comparisons, a number of conclusions can be reached. In the mid-1990s, China still had a relatively low ratio of pensioners to the total population, being below the average for the Asia-Pacific region, and well below the average for other world regions apart from Sub-Saharan Africa. This was despite the fact that the older population share was above the average for its own and a number of other regions. This was because pension receipt among the older population in China was relatively low. This in turn reflects the fact that pension receipt is limited to the urban population.

62. Despite the fact that Chinese pensioners are a relatively low proportion of the total population, pension spending as a percentage of GDP was nearly two to three times the average for the Asia-Pacific region, and approaches the average level in North Africa and the Middle East and Latin America and the Caribbean. An index of standardised spending – the average pension as a percentage of GDP per capita - suggests that spending in China was nearly the highest of all world regions, apart from Sub-Saharan Africa. However, many individual countries will also be higher than their regional average, as is shown in subsequent discussion of the Asian region. Pension replacement rates in China (average monthly benefits as a per cent of average monthly wages) also appeared to be amongst the highest in the world, although some countries of North Africa and the Middle East were higher. Given the high level of replacement rates

9. These comparisons should be treated with some caution. Most regional averages are calculated as the simple average for separate national populations and are not weighted for population size. The number of cases used in calculating each average may differ depending on the data available in the original source.

and the fact that covered workers are among the higher income groups in China, it is not surprising that average pensions are comparatively high.

63. Coverage of social security among the labour force and the working age population is relatively low, however, although the difference between the two measures of coverage is less than in many other regions. However, this implies that a relatively low percentage of the labour force is required to contribute towards the costs of relatively expensive pension benefits. As a consequence, it is not surprising that the level of employer pension taxes and of all social insurance taxes are high. The level of employer pension taxes, for example, is close to the average for OECD countries and to those of the countries of Eastern Europe and the Former Soviet Union (FSU). This is despite the fact that the share of the population aged 60 and over is only around half the average for OECD countries.

64. In summary, the Chinese pension system appears to be marked by relative generosity to a narrow share of older population and the total population. The relatively low number of contributors as a percentage of the labour force has meant that the contributions required to finance these benefits are relatively high, compared to other world regions.

65. Table 9 sets out details of the coverage of retirement pensions in a range of significant Asian economies, including some at much higher levels of national income. The higher income economies – Korea, Malaysia and Singapore – all have much higher levels of coverage among the labour force and those of working age. The other lower income countries generally have pension systems restricted to those in firms or businesses with a minimum number of employees. Generally speaking, it is quite common to have separate schemes for those in the government sector, the military or those working on railways, for example. It is also worth noting that China appears to have higher levels of coverage of persons of working age than does India, Indonesia, Bangladesh, Pakistan or the Philippines. It is also notable that even though the Philippines do not have a size cut-off for firms to provide retirement pensions, the level of coverage is lower than in China. In addition the labour force in the Philippines is less than half the population of labour force age, while in China they are nearly the same size.

66. Table 10 shows retirement ages and contribution periods. It is apparent that the retirement ages for men and women are not notably lower in China than in other significant Asian economies. Hong Kong has the highest retirement age, but this is a general-revenue financed social assistance scheme. Similarly, the contribution periods are broadly similar across these countries, with the exceptions of the Republic of Korea and Vietnam.

67. Whiteford (2003) compared the level of social insurance taxes across Asian region, finding that China had the highest level of social security contributions among the lower income Asian countries. Generally speaking, only Singapore among the high-income group has a substantially higher level of social security contributions, although in the case of Singapore this is to a provident fund, rather than to a PAYGO social insurance system. As a result, social insurance taxes are a higher proportion of total labour costs in China than in any other of these economies, apart from Singapore. There is also a relatively high level of reliance on employer rather than employee contributions in China. Whiteford (2003) also found that overall levels of spending were not particularly high in the middle of the 1990s (but may have been higher by the end of the 1990s). Chinese spending per capita appears to have been higher than in the Philippines or Vietnam, as well as in Korea and Singapore. In contrast, spending per capita appears to have been significantly greater in India and Pakistan.

Table 8: Comparison of pensions in China and selected world regions

A. Participating active workers, contribution rates and income replacement ratios (%)					
Region	**Participants/ labour force**	**Pension contributions/ wages**	**All social insurance contributions/ wages**	**Average income replacement ratio**	**Average pension as per cent of GDP per capita**
China					
1995	31*	20**	ca 25	69**	78**
1999	29*	25**	ca 30	77**	99**
2005	31*	28**	>30	ca 59**	66 **
OECD	90	19	34	38	54
Range	79-98	6-35	14-57	25-49	23-98
Asia and the Pacific	26	14	17	n.a.	n.a.
Range	3-73	3-40	4-46	na	na
Central and Eastern Europe and Former Soviet Union	66	22	31	44	39
Range	32-97	20-45	24-61	24-69	13-92
North Africa and Middle East	41	13	23	55	71
Range	30-82	3-27	13-48	36-78	22-144
Sub-Saharan Africa	6	10	17	na	135
Range	1-18	3-24	6-33	na	40-207
Latin America and Caribbean	33	12	21	39	50
Range	11-82	3-29	8-46	13-64	26-64

B. Dependency ratios and spending

Region	Pensioners per 100 active participants	Population 60+ /20-59	Pensioners/ population 60+	Pensioners/ Total population	Pension spending as per cent of GDP
China					
1995	26**	17	24*	2*	1.4%
1999	31**	20	27*	3*	2.2*
2005	33 **	19	30 *	3	2.2*
OECD	47	34	102	20	10
Range	27-74	27-42	54-135	8-29	5-15
Asia and the Pacific	20	15	39	3	1
Range	5-56	12-18	1-117	0-6	0-3
Eastern Europe and former Soviet Union	63	28	136	20	7
Range	47-95	15-39	88-178	11-28	2-14
North Africa and Middle East	30	15	58	4	3
Range	19-50	9-29	5-94	0-10	0-6
Sub-Saharan Africa	7	12	15	1	1
Range	0-37	10-16	0-121	0-10	0-3
Latin America and Caribbean	25	17	46	4	3
Range	4-70	12-35	5-152	1-26	0-13

* The regular urban pension system and that for civil servants. ** The regular urban pension system. N.B. employee contribution rates increased every year 1997-2001.

Source: Figures for China are calculated by the OECD. Calculations for other regions based on World Bank data in Palacios and Pallarès-Miralles (2000).

Table 9: Coverage of social security programmes for older people, selected Asian economies

Country	*Persons Covered*
China	Employees in state-run enterprises. Collective, private, and foreign-invested (Chinese nationals only) and the self-employed may provide similar or separate programmes. Employees of government and party organisations and cultural, educational and scientific institutions are covered under government-funded, employer-administered system.
India	Provident fund, pension and deposit insurance schemes for employees of establishments with 20 or more employees in 177 categories of industry. Excludes those earning more than 5,000 rupees a month. Contracting out for those covered by equivalent private plans. Special system for miners, railway and public employees. Gratuity scheme for employees of factories, mines and firms with 10 or more employees.
Indonesia	Establishments with 10 or more employees or payroll of Rp 1 million or more a month. Coverage being gradually extended to smaller establishments and casual and seasonal workers. Special systems for public employees and military.
Bangladesh	Public employees only
Pakistan	Employees in firms with 10 or more workers. Special system for public employees, armed forces, police, statutory bodies, local authorities, banks and railway employees. Excludes family labour and the self-employed.
Philippines	Compulsory for all private employees under 60, house helpers earning at least 1,000 pesos a month, and all self-employed with 1,000 pesos or more monthly income. Special system for government employees and military.
Sri Lanka	Provident fund for employed persons, excluding family labour and those in approved private funds. Special pension for public and local government employees.
Thailand	Employees of firms with 10 or more workers. Voluntary coverage for self-employed. Separate programmes for civil servants and private school teachers.
Vietnam	Compulsory for state employees, employees of non-state enterprises with more than workers, foreign-invested enterprises, processing zone, industrial zone, foreign and international organisations. Special programmes for civil servants and employees in armed forces.
Chinese Taipei	Employees of firms in industry and commerce, mines and plantations with 5 or more workers; wage earning public employees, public utility employees; fishermen and some self-employed in service occupations. Special systems for farmers, salaried public employees, and staff of private schools. Voluntary programme for employees in firms with less than 5 workers and the self-employed.
Hong Kong	Dual universal and social assistance for residents.
Korea	All residents 18-59 (since April 1999). Separate systems for public employees, private school teachers, the self-employed and military personnel.
Malaysia	Mandatory coverage of provident fund for private sector employees, non-pensionable public employees and foreign workers. Voluntary for domestic workers, self-employed and pensionable public employees. Exclusions of armed forces and those belonging to equivalent private sector plans.
Singapore	Provident fund for employed persons earning more than S$50 a month, plus some self-employed. Special pension system for public employees. Excludes those in approved equivalent private funds.

Source: Social Security Administration, Social Security Programs throughout the World, 2005; Palacios and Pallarès-Miralles (2000).

Table 10: Retirement provisions in social security programmes for older people, selected Asian economies

Country	Retirement Ages		Contribution Period Years		Early Retirement/Other	Notes
	Males	Females	Males	Females		
China	60	55/50	15	15	55/45 if arduous; 50/45 if disabled	
India (1)	55	55	-	-	Lump sum if involuntary removal from covered employment	Provident Fund
India (2)	58	58	10	10		Pension scheme
Indonesia	55	55	66 months	66 months	Incapacity	Provident Fund
Pakistan	60	55	15	15	Reduced pension at 55/50. 55 for miners.	
Philippines	60	60	120 months	120 months	Retirement required at 65	-
Sri Lanka	55	50	-	-	Early retirement due to government closing company	Provident Fund
Thailand	55	55	180 months	180 months	-	-
Vietnam	60	55	20	20	55/50 with 15 years hazardous work; other concessions	
Chinese Taipei	60	55	1 year coverage		Any age with 25 years, 55 for men with 15 years, 55 miners	-
Hong Kong	65	65	5 years residence		Universal from 70	Social Assistance
Korea	60	60	20	20	Retirement test below 65	Full pension
	60	60	10 to 19	10 to 19	Retirement test below 65	Reduced pension
	55	55	10+	10+	Not earning	Early pension
Malaysia	55	55	-	-	-	Provident Fund
Singapore	55	55	-	-		Provident Fund

Source: Social Security Administration, Social Security Programs throughout the World, 2005.

68. To sum up these comparisons with other Asian economies, it can be noted that China is less unusual compared to other parts of Asia than it is compared to other large regions of the world. China has comparatively high levels of coverage among the workforce, but its contribution rates are higher than in most other economies. This appears to be because it is significantly more generous in relative terms than are the high-income Asian economies, but it covers a significantly higher proportion of the aged than do India or Pakistan, for example.

8. Issues and questions

69. This section provides a discussion of several issues that highlight some difficulties of existing pension arrangements concerning its effectiveness, sustainability and fairness.

8.1. Low coverage

70. The fundamental objective of a public pension system is to ensure old age security for people in retirement. As shown in Section Five, it is apparent that China has a long way to go to achieve this objective, as coverage is still low. Apart from leaving many older people without any social insurance, a low coverage rate has several negative effects on the functioning of the pension system. To mention just one line of argument: low coverage implies limited possibilities for risk pooling and consequently higher contribution rates, which in turn might hinder or even decrease the number of old age insurance participants further. So what are possible explanations for the narrow reach of the three-pillar-system? What are the barriers to the obligatory pension system (i.e. pillar I), whose legal framework has been in existence since 1997, to reaching more widely than 48% among the urban population?

71. There are several reasons why a large share of the Chinese working-age population fails to participate in the pension system. First, there seems to be an incentive problem. The willingness to contribute to the public insurance system is low (Chen, 2004). This can be partly explained by an unattractive return on the individual accounts. In recent years the average nominal return on pillar I B was 2.4% (actual return on long-term social security funds equals approximately 6% internationally; Wang, 2006) compared to an average rise in wages of 12.4% (OECD, 2005). As long as wages are growing faster than the money put into (notional) defined-contribution accounts, this investment might not be regarded as a good investment, particularly given the fact that average wages still ensure only a very low standard of living and consequently the opportunity costs of every Yuan spent on old age insurance can be expected to be high. Furthermore, on the employers' side the support for the system appears equally low, as it increases labour and administration costs (Wang, 2006). In addition, so far, the ability or the willingness of the government to force private companies into compliance seems restricted, as monitoring costs are substantial.

72. A second explanation for the low degree of willingness to contribute is limited public trust in the system. Lack of transparency as well as mismanagement and corruption connected to the handling of individual accounts has eroded workers' confidence in receiving old age security at a level that will allow them to live from it. For example, the fact that the individual accounts are mostly notional so far could raise further doubts among the working population that they are only financing current pensioners and not accruing savings for their own retirement.

73. Third, even if workers and their employers want to participate in the system, the administrative procedures for contributing to and benefiting from the public old age insurance might turn out to be too difficult to understand and therefore hinder participation. As the State Council stated recently (PRC State Council, December 2006), the National People's Congress has promulgated about 200 laws, regulations and policies on old age insurance over the last 20 years. At this frequency of change and in a country as fragmented administratively as China (see above on financing and administrative issues), local

administrations might have difficulties in implementing the guidelines in an effective and comprehensible manner, especially during a period of switching from simple PAYGO pensions to a complex three-pillar, partly funded system.

74. Another issue is China's legacy of institutional segregation between urban and rural workers (Reutersward, 2005). This has not only exacerbated the problem of informal employment (which is self-evidently not covered by social insurance), but in the past it also excluded registered migrant workers in urban areas from the urban pension system. Rather these migrant workers were supposed to contribute to the old age insurance in their home county/province (see below on portability), which they might have left more than a decade ago on the quest for work. It is questionable if migrants are willing to entrust part of their salary to the various administrative units between their changing working places and their home county to build up individual pension accounts. The necessary administrative coordination to achieve this is substantial. In recent years, a start has been made both to reforming the *hukou* system and in providing access to urban pensions for migrant workers. This appears to be more on a trial basis, with initiatives coming from some provinces and municipalities, and considerable further effort is required.

75. The reform and partial privatisation of many SOEs and COEs has caused many former workers to lose their job and changed the retirement entitlements of the remaining employees significantly. The formerly high pension benefits have been aligned to the same level of any other employee's pension entitlements as a consequence of unifying the public pension system in 1997. Although workers in the restructured SOEs are still more likely to participate in the pension system, the decrease in the share of the labour market (in 1992 their share in total urban employment was 81 percent, in 2005 it was 27 percent; China Statistical Yearbook, 2006) has had a negative effect on the national coverage rate.

8.2. Effectiveness in reducing poverty and inequality

76. Among the most important objectives of social protection are to reduce poverty and inequality. In OECD countries, on average, poverty rates "after" taxes and transfers are around 60% lower than poverty rates calculated "before" taxes and transfers, although the difference ranges between 33% in the United States and 81% in Denmark. Similarly, OECD welfare states "reduce" income inequality by around 34%, ranging from reductions of 20% in Japan to 46% in Sweden (OECD Income Distribution Study, 2000). Relatively, little has been written about the distributional impact of Chinese pensions. Transfers - of which the largest component is pensions – account for a growing proportion of urban household income, rising from 13% in 1985 to 23% in 2000. Whiteford (2003) also presents data from the National Bureau of Statistics showing that in 2000 pension income was broadly proportional to total income for 80% of urban Chinese households, but was a higher share of income for the richest 20% of urban households. In money terms, the poorest quintile of urban households in China received pensions that were about 26% of those received by the richest 20%. In contrast, on average in OECD countries the poorest 20% of households received transfers that were around twice as high as those received by the richest 20%. However, the figures for Mexico and Turkey were more similar to those for China, with the poorest quintile in these two countries receiving transfers worth 20% and 28% respectively of the richest quintile. Having said this, the figures for Mexico and Turkey refer to the total population, while those for China relate only to the urban population, who are considerably better-off on average than the rural majority. It seems likely therefore that the Chinese pension system does very little to reduce overall income inequality, and certainly less than in any OECD country.

77. Most analyses of poverty in China focus on the most pressing problems of rural poverty, but in recent years there have been an increasing number of studies of urban poverty, including Hussain (2003), GHK (2004) and Meng, Gregory and Wang (2006). While these recent studies provide a wealth of information on urban poverty, only limited attention has been given to the role of pensions in reducing poverty, and then only indirectly. For example, Meng *et al*. (2006) find that poverty rates tend to be lower

in households containing a male aged over 65 years, but higher in households containing a female over 65 years; in both cases, however, while the effects are statistically significant they are not very large. Overall, poverty in urban households tend to be more strongly associated with being a laid-off worker or with being unemployed than with being retired (GHK, 2004). Administrative data reinforce this conclusion – for example, in 2002 only around 4% of all persons receiving the Minimum Living Guarantee were retired personnel, while close to 10% were workers in service, 12% were laid-off workers; 21% were workers not in service, and 17% were unemployed (Huang Yanfen and Yang Yiyong, 2004, Table 4.5). Of course, this may reflect the fact that the pension system is effective in reducing poverty, or it may reflect the fact that pensioners tend to relatively privileged. Nevertheless, it does seem very likely that urban poverty would be higher if the pension system did not exist.

78. Overall, the main factor limiting the effectiveness of the pension system in relation to inequality and poverty is likely to be the low coverage of the system, and the fact that it is mainly restricted to the urban population. Extending coverage to the migrant worker population and eventually to the rural population could be expected to increase the redistributive effectiveness of the system, although obviously it is important that such an extension of coverage be affordable and sustainable.

8.3. High contribution rates and low retirement age

79. A total employer plus employee contribution rate of 28% of one's salary is high, even in international comparison. In particular, people working in the private sector with higher wages may feel that this rate is excessive, as their retirement benefits are calculated relative to the local average wages. However there are multiple issues in the current framework, which might hinder the Chinese government in lowering the contribution rate to a more incentive-compatible level.

80. Due to the generous replacement rates of more than 90% for SOE employees, expectations for pension benefits are high. The current targeted replacement rate at 59.2% (of local average wages) is at a comparable level to OECD countries and might therefore be considered relatively high for a country that has a much lower income level than all OECD countries. However a further decrease in retirement benefits could erode compliance incentives further.

81. While the formal retirement age is 60 for men and 55 for women, the effective retirement age (the average age of withdrawal from labour force) appears to be significantly lower. The China Daily from 29/11/2006 reports it to be as low as 51.2 years. This effective retirement age is very low, particularly when given the increased average life expectancy of more than 70 years. An average pension lifetime of 20 years at a replacement rate of 59.2% seems difficult to finance, even with a high contribution rate of 28 percent. It also seems likely that the urban population would have longer life expectancies than the average, given disparities in health and economic wellbeing between the urban and rural populations.

82. Therefore, it would seem desirable that the formal and more importantly the effective retirement age need to be increased in order to achieve a sustainable contribution-benefit ratio. This option, however, was recently ruled out by Liu Yongfu, Vice-Minister of MOLSS (People's Daily Online, 22/12/2006). Second, a related factor is that the benefits need to be adjusted to life expectancy (at this point the common annuity factor is 120, i.e. the sum in the individual account is divided by 120, meaning a retirement lifetime of 10 years). First attempts have been made in this direction with the implementation of Document 38. For example in Heilongjiang and Jilin the actuarial factor for a person retiring at 55 is 170 and at 60 is 139, clearly above 120 and therefore imply lower replacement rates (Pai, 2006).

83. The above mentioned low coverage also limits more efficient risk-pooling. As certain employee-groups (e.g. workers in former SOEs) are more likely to participate than others (e.g. employees in small, private enterprises) the impact of adverse selection may be of importance. As a consequence of this

adverse selection the national lifetime expectancy and other factors influencing the expenses of the pension system may prove not to be adequate for the actual participants of the system. Furthermore risk-pooling is mostly limited to county-level administration which hinders a broader and more efficient pooling on a provincial or national level that could align expenses and consequently align contribution rates of local pension funds.

8.4. Portability

84. Workers who change jobs between administrative units (county or provincial level) are in many cases still not entitled to take the savings in their individual accounts with them to the pension fund in the next province, and risk losing the right to claim pension benefits from local pension funds to which they have contributed in earlier jobs. What are the causes of and the effects (besides its above mentioned impact on coverage and contribution rate) of this restricted portability?

85. One reason for this problem is the inherent administrative difficulty of transferring individual accounts and pension claims across local borders (horizontal fragmentation), but also between different levels of administrative hierarchy (vertical fragmentation). Pooling at a local level is possibly the simplest approach to organise social insurance within a populous and geographically large country like China. However, large migration movements (a survey of the Ministry of Agriculture estimates the number of migrant workers to be 114.9 million in 2006) have left the administrative system incapable of caring for large parts of the population.

86. The direct result of this is the insufficient protection of migrant workers against poverty in old age. These migrants represent approximately 15% of the total labour force and come mostly from rural areas. The direct consequence of impoverished migrants at retirement age (and their families) is probably made even more severe by the indirect consequence: rural areas have suffered aggravated economic hardship due to the loss of their most productive workers to the coastal regions. Increasing the portability of pension entitlements for migrant workers could therefore improve also the situation of the older rural population, as old migrants could return to the countryside with a steady source of income.

87. As a result, another negative effect of non-portable pension claims is a more rigid labour market. Workers are less willing to move across administrative borders if they risk losing their old age insurance savings. A less mobile and flexible labour market, however, could be disadvantageous in the sense that it creates market distortions (wage differences might diverge further between provinces), and because it would make labour more expensive in some regions that could otherwise accommodate many more workers under conditions of greater mobility.

8.5. Administrative and financing issues

88. The Chinese Old Age Insurance system as described in Document 26 and all consecutive documents is a nation-wide pension system. The discussion above has shown however that so far the system covers only certain parts of the national population. One reason for this focus on specific groups of society lies within the diverging administrative and financial responsibility for the pension scheme.

89. At different stages of the planning of the national social security system, three central ministries were involved: the Ministry of Labour and Social Security (MOLSS), the Ministry of Civil Affairs (MOCA) and the Ministry of Finance (MOF). For example, in 1998 the authority for rural pension policy was transferred from MOCA to MOLSS, and a *de facto* marginalization of the rural pension system resulted, as the MOLSS was primarily concerned about labour insurance in the urban sector. At the same time the MOF and the China Insurance Regulatory Commission (CIRC) have remained opposed to a wide-reaching public pension system and blocked any institutional transition (Shi, 2006). This political conflict

between different bodies of the central government further complicates a consistent implementation of the national pension system at local levels.

90. Financial responsibilities are also unclear. In theory, local pension pooling is supposed to be self-sustaining, but in practise the central government subsidises individual accounts heavily as many accounts run a deficit due to the need to finance current retirees. Local authorities have no other option than to request the central government for financial help if they want to prevent the pension system from financial collapse, as there is no tax raising power at local levels sufficient to cross-finance a pension system deficit.

91. The rather incremental and experimental approach towards the implementation of the pension reforms over the last decade has become increasingly difficult. Capital, labour and consumer markets within China have become more flexible and consequently market distortions between provinces by differing pension regulations have increasingly severe consequences for local economic development. “Rent-seeking” and “gaming the system” could worsen the financial situation of the public pension system further.

92. The administrative costs of individual accounts tend to be high, especially during the first years of implementation (Williamson and Deitelbaum, 2005). Although detailed numbers are not available, it is likely that particularly for low-wage workers the administrative costs are likely to erode part of the return on investment and therefore make contributions to the individual accounts less attractive.

93. There are a range of estimates of the implicit pension debt (IPD), where IPD is understood as the government’s obligation to satisfy future pension claims in present value terms. This includes the sum of benefit entitlements of current retirees as well as of those who are still contributing (their entitlements are calculated with respect to years of service and contributions to date; Sin, 2005), with about one-quarter of this being liabilities for current retirees. Early estimates ranged between 46 and 69 per cent of GDP in 1994, and 94 percent of GDP in 1998 (Leckie, 2001). The most comprehensive assessment of this issue is provided by Sin (2005), who estimated a baseline IPD of 141 per cent of 2001 GDP, or around USD 1.6 trillion. Sin also estimated that liabilities for vested rights under the Basic Pension portion of the scheme amounted to around 111 per cent of GDP, with 30 per cent of GDP being liable for rights associated with the individual accounts. Although the NSSF might be a tool to partially address this IPD in the future, there is no official statement of the State Council regarding a strategy of how to resolve this problem. If the central government included the IPD in its public debt, the current low level of measured debt of around 23% of GDP (OECD, 2005) would increase substantially.

8.6. Encouraging non-state participation

94. To cushion the financial (and administrative) burden of the pension system for the government, other forms of old age insurance need to be further developed. Most importantly an expansion of the enterprise-related private pension systems as well as improved incentives for family-related old age provision could help improve the financial situation of retirees.

95. By the end of 2005, more than 24 000 companies in China had set up enterprise annuities (EA) covering 9.24 million employees (State Council, 2006). However, Beijing alone has more than 260 000 private enterprises and in total there were about 4.3 million registered enterprises in China in 2005 (CSY 2006). This shows that the enterprise annuity scheme is not sufficiently spread within the Chinese corporate community to noticeably complement the public old age insurance. An already large wage dispersion, moderate tax incentives and strict regulations on the implementation of EAs have kept enterprises from creating individual accounts for their employees. One option would be to increase the tax exemption (currently about four percent of payroll) to make the EA more attractive for companies and their workers.

96. In rural areas, family-related old age provision is still by far the most important means of ensuring the livelihood of the elderly and the obligation for younger generations to support their parents has been institutionalized by the Family Support Law in the 1980s. Horioko and Wan (2006) found that in 2005 family-support was the primary source of income for nearly half of those aged 60 and above. The government encourages people to sign a "family support agreement" that stipulates how an elderly family member is to be provided for. According to the State Council (2006), more than 13 million of these agreements have been signed and neighbourhood committees supervise the implementation of the old age provision. Where necessary the "Five Guarantees" or the "Minimum Living Allowance" steps in to support the family financially. However, the state could consider creating clear incentives that ensure that children who sign the "family support agreement" or who live and work in a different province, but still help their parents and grandparents financially, will not abandon this traditional old age insurance in the future, as well as strengthening the support for impoverished older people where possible.

97. Old age provision through private savings for retirement is also an option, although the very low average earnings in China enable only a small share of the population to accumulate enough to ensure sufficient wealth at retirement. Nevertheless, the household-saving rate has been consistently high and at a comparable level both in urban and in rural areas. Between 1995 and 2004 the household saving ratio in urban households increased from 21 to 30 percent, while in rural areas it increased from 16 to 26% (Horioka, Wan, 2006). In contrast, Takayama (2002) finds that small savers are predominant, and the percentage of households that have a wealth-to-income ratio of more than two at retirement (having two annual salaries in savings is assumed to provide sufficient retirement benefits) will remain small in the future. However, as the State Council has mentioned private savings explicitly as the third pillar of the national pension system it remains to be seen how quickly private life insurance etc. will spread over the coming years.

8.7. Low return on fund investments

98. A final point of concern when it comes to the sustainability of the public pension system is the low return on pension fund investments. Funds from the first pillar are currently invested in government bonds and bank deposits with average real-yields of 2-3% (Trinh, 2006) and the NSSF earned a return of 3.1% in 2004, up slightly from previous years (Xinhua, 29/03/2005). With an average year-on-year growth rate of GDP per capita of more than nine percent, it seems questionable whether the pension funds' low returns can a) attract many contributors and b) improve the funding situation to a degree that allows it to finance the retirement of a much larger number of pensioners in two to three decades from now. James (2001) calculated that with the current rule of employees contributing 8% of their wages to the individual account for 40 years and having a real wage growth rate of 3%, a real return on this account of 2% would yield a replacement rate of only 16% of final wages if it had to account for 20 years of retirement. In contrast, a real return of 5% is needed to approximately fulfil the targeted replacement rate of just below 40%.

99. Narrow investment restrictions limit possibilities to achieve a high return (which also implies high risk) investment strategy. However, recent guidelines for investments abroad have given more room to place funds in foreign markets and the nomination of foreign banks as custodians and managers of significant shares of Chinese pension funds have created new possibilities to achieve a higher return in the future.

100. Immature domestic financial markets are frequently cited as a major obstacle to higher returns (Trinh, 2006; Pai, 2006; Wang, 2006). Hu (2006) analysed the current situation of the stock market, bond market, institutional investors, banking sector and the money market and concludes that China fulfils "the basic conditions needed for a pension reform towards funded pillars", although the financial system is still underdeveloped when compared to more developed OECD countries. Notwithstanding this, Jackson and

Howe (2004) emphasise the mutual importance of a funded pension system and an evolving financial market at this stage of development. Growing pension funds will increase the size and the liquidity of the country's capital markets. Setting high standards in the management of these funds (the NCSSF may provide a role model in this case) will create better accountability, transparency and in the end higher long-term returns.

101. Above all, fraud is still a serious problem within the management of local pension funds, but apparently also on a larger scale as the Shanghai pension scandal has demonstrated. In this case the funds were used for financing politically prestigious projects rather than following a rational risk and return strategy. Consequently, fraud in any form needs to be continuously addressed not only to improve public trust in the system but also to prevent the rate of return from being diminished further.

9. Conclusion

102. The Chinese central government has repeatedly emphasised its willingness to implement a functioning public pension system in urban areas and the basic elements of such a system have been established. Since the crucial re-design of the pension system in 1997 many decisive reforms have followed and further specified the framework and the direction for a national unified system. Over more recent years the government has continued to pursue the three-pillar model with its familiar experimental and incremental approach and at the same time added new elements like the NSSF.

103. In spite of this institutional progress, the scope of the system is still limited as its coverage rate among urban employees remains below 50 percent. As discussed in the previous section, aspects like portability of pension entitlements as well as financing and administration issues need to be addressed in order to create a more sustainable and ultimately a truly national pension system. The rural population is continually left outside the "national" pension system, and so far it seems likely that this majority of the population will remain dependent on old age provision through family support for many years to come.

104. Statistics provide a clear picture of a rapidly ageing population and many have posed the question: "Will China grow rich, before it grows old?" As no other country has aged to this extent at such an early stage of economic development, it is questionable, however dynamic the current growth rates may be, if more than a small share of total population will reach an income level that would enable them to afford a high level of wellbeing during retirement. The large majority will most likely have to rely on the pension system or on other social security measures, especially in rural areas. The estimated implicit pension debt indicates that this means not only a social but also an immense financial burden for society.

105. Yet the current situation provides a "demographic window" until around 2015 to address these current short-comings. Extending coverage through increased compliance by employees and companies due to an improved incentive-scheme set by the government as well as the continuing financial commitment towards the NSSF are crucial to create the financial and institutional basis that can cushion the effects of a much older population, starting in about 20 years time. However, in the long run, more fundamental aspects like the further development of the domestic financial market and the creation of a more sophisticated social networks (public and private) also need to be addressed to accommodate a population of more than 300 million senior citizens (65 and older) by 2050.

106. Saying that, the linkage between issues discussed in previous sections shows that the situation in this huge country will become more and more complex, and this will make it increasingly necessary to address the challenge of building a national pension system from several angles. The struggle between (and within) central and local government units need to be resolved to allow a more coherent approach for future policy regulation and implementation.

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