

Pension Reform and the Development of Pension Systems: An Evaluation of World Bank Assistance

Background Paper **China Country Study**

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Abbreviations

AAA	Analytical and Advisory Assistance
ADB	Asian Development Bank
CAS	Country Assistance Strategy
COE	Collective Owned Enterprise
EHSS	Enterprise, Housing and Social Security Reform
EU	European Union
FACS	Australian Family and Community Services
GEF	Global Environment Fund
GP	Golden Protection Project
HRD	Human Resource Development
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IEG	Independent Evaluation Group (formerly OED)
IFC	International Finance Corporation
ILO	International Labor Organization
IT	Information and Technology
LDC	Less Developed Countries
LIL	Learning and Innovation Loan
MIGA	Multilateral Investment Guarantee Agency
MOF	Ministry of Finance
MOLSS	Ministry of Labor and Social Security
NDC	Notional Defined Contribution
OED	Operations Evaluation Department (changed its name to IEG in December 2005)
PAYG	Pay-as-you-go
PRC	People's Republic of China
PROST	Pension Reform Simulation Toolkit
SOE	State-Owned Enterprise
TA	Technical Assistance
WBI	World Bank Institute

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Preface

This paper belongs to series of 19 country and regional case studies commissioned as background research for the World Bank's Independent Evaluation Group (IEG) report "Pension Reform and the Development of Pension Systems." The findings are based on consultant missions to the country or region, interviews with government, Bank, donor, and private sector representatives involved in the pension reform, and analysis of relevant Bank and external documents.

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Executive Summary

1. China is in the grip of one of the world's most dramatic demographic transitions. The United Nations (UN) estimates that by 2040, a quarter of the world's elderly (65+) will be living in China, with a projected aged dependency ratio of 37 percent, compared with 11 percent currently. Government authorities at both the national and provincial levels are naturally focusing on pension reform, and reform initiatives are being undertaken both sequentially through time and cross-sectionally, as provinces and cities establish policies of their own. The result is a somewhat disorderly retirement provision system, with coverage, contributions, and benefit levels varying across jurisdictions, and among different categories of workers.
2. The nearest approach to a unified system is embodied in State Council Circular No. 26, released in July 1997. It outlines a system where contribution rates and benefit rates are set, but where levels are set depends on average provincial wages. In this way, China's diversity can be dealt with within a system that has claims to national consistency.
3. The system comprises a pooled first pillar, where the pooling takes place at the county or provincial level; and a second pillar comprising (sometimes notional) individual accounts for workers. Book-keeping is in most cases undertaken at the city/county level, although provinces are increasingly taking over these processes, and Ministry of Labor and Social Security (MOLSS) envisages national centralization as their national Information Technology (IT) project becomes fully operational.
4. In practice, however, provinces and counties have developed their own variations on this design. These elaborations are sometimes introduced county by county, even firm by firm, rather than through a sweeping piece of legislation applying to all province-based entities. In Liaoning, Jilin and Helonjiang, full funding experiments are underway, in which a defined benefit plan has been replaced by what might be thought of as a cash-balance plan with a guaranteed annuity rate on the pension component. Funding for the individual accounts is being provided by the central government, but the impact of the funding is a wash once jurisdictions are aggregated.
5. The need for extensive and sophisticated IT support has been clearly recognized by the Chinese authorities, especially the MOLSS. The major current initiative, *Jin Bao*, or Golden Protection, aims to link all province level social security offices with the national MOLSS system, thus allowing national monitoring for the first time.
6. In spite of this sophistication with IT, however, MOLSS personnel, and those in their provincial affiliates, are not trained in finance, and are inclined to think in terms of a period by period budget balance (or imbalance), rather than in terms of present values of assets and liabilities.
7. The role of the World Bank in the evolution of this reform process is difficult to establish with certainty. There is little doubt that the Bank's personnel have worked hard and sensibly with Chinese officials on these pension reforms, and the officials

themselves, when interviewed, are happy to acknowledge Bank influence. But World Bank personnel based in China who were interviewed are themselves wary of claiming too much impact, pointing out that Chinese officials travel widely and take advice from many sources – the Chinese attitude of “constructive ambiguity.” It also needs to be recognized that China is too big to be influenced by loans with policy conditionality – there is no adjustment lending, at least in the context of pension reform.

8. We do, however, have the firm impression that the 1997 Agarwala Report (World Bank 1997) was critically important in shaping the Chinese thinking behind State Council Circular No. 26, a document which laid the foundation in detail for the reforms that followed that decade. The report itself followed the framework, insights and policies in the Bank’s influential study, *Averting the Old Age Crisis*. It offered specific solutions for transition mechanisms, levels of contribution and benefits, and other parameters, although these have not been strictly adhered to. But the basic ideas contained in the report can still be discerned nearly a decade later in the still-unfolding evolution of Chinese pension policy development.

9. It is a moot point whether the Bank was too strong in its push for a funded pillar. In the event, although much was taken from the Agarwala report, funded programs were not explicitly addressed until the Liaoning pilot study, promulgated through State Council Circular No. 42 in 2001 and currently underway. But it was initiated by the Chinese Premier, Zhu Rongji. While Bank influence can be identified, it may have been indirect rather than direct in this case.

10. In addition to the Agarwala report, the Bank’s activities in providing assistance for pension reform in China can be broken down into three groups, starting in the early to mid-90s. There were two main initiatives: the pension policy reform program (1998 – 2004), a Learning and Innovation Loan (LIL), which focused on the important IT component; and some analytical and advisory assistance (AAA) comprising projection analysis, along with policy training, mainly in using the Pension Reform Simulation Toolkit (PROST) model.

11. Other work includes a small part of a large project, the Enterprise, Housing, and Social Security Reform Project (EHSS), which has been on-going since 1995. This has as its primary focus separating state-owned enterprises (SOEs) from the enterprise-based social security administration function for which they had traditionally been responsible. As well, a part of the funds from this project has been allocated to fund some Bank involvement in the Liaoning pilot, principally for IT (some European Union (EU) money was also diverted for this purpose). This funding also helped finance PROST training in the Liaoning context. (The major economic advice for this has come from the Asian Development Bank (ADB)). In these specific contexts, the World Bank can be judged to have had a positive influence on reform through its impact on the development of State Council Circular No. 26; and through the PROST training programs, which have now reached every province in the country. Further, the technical IT assistance provided to MOLSS and the Liaoning study has been beneficial.

12. It is important to recognize that very little funding has been provided for World Bank pension reform work in China. Over the period under review, the decade beginning in 1995, less than US\$ 20 million has been spent on pension work, and much of this has been devoted to IT hardware. In 2003, the pension reform budget totaled less than US\$ 100,000. By contrast, in 2003 alone, total World Bank funding into China exceeded US\$ 1 billion. Under the circumstances, and given the low level of funding support, the World Bank has done a remarkable job.

13. There are two negative consequences of the reluctance by the Bank to finance more work on Chinese pension reform. First, in a country where regulatory power and influence resides just as much at the provincial – and even the county – level as at the national level, dissemination of the project outcomes has been insufficient. The benefits of pilot type initiatives are not fully realized. It may be possible, with additional funding, to overcome this through outreach programs. Second, in spite of the acknowledged size of the ageing problem, there is no World Bank funding available to carry out pre-emptive research. This is regrettable. The World Bank's role does not need to be quite so reactive.

14. Some examples may reinforce this point. It has been obvious for years now that urbanization will bring new challenges to the pension reform process, yet World Bank work has not focused on this issue (it is treated peripherally in Sin 2003). Equally, the interaction between the development of the financial sector and pension reform has not been comprehensively examined. A third example relates to rural coverage. The Chinese government is currently turning its attention to this last issue. With a relatively small pool of resources, Bank research could have been initiated on this issue some time ago. It is certainly a research topic that falls squarely within the country assistance strategies that have been developed over the last several years.

15. Briefly: On a Cost-Benefit basis, the contribution made by the World Bank on pension reform in China has been extraordinary. But on an absolute basis, more should be done, considering not only the national, but the global dimensions of this issue. Overall, we have assessed the Bank's and China's performance very positively. A summary of the formal evaluation is provided in Table 8.

1. Approaching the Evaluation

1.1 China is in the grip of one of the world's most dramatic demographic transitions. The UN estimates that by 2040, a quarter of the world's elderly (65+) will be living in China.¹ The nature of the demographic transition, and other economic restructuring, makes the reform of pensions more than usually urgent. Government authorities at both the national and provincial levels are naturally focusing on pension reform, and reform initiatives are being undertaken both sequentially through time and cross-sectionally, as provinces and cities establish reforms of their own. The result is a somewhat disorderly retirement provision system, with coverage, contributions, and benefit levels varying across jurisdictions, and between different categories of worker. This makes a clean parametric representation of the current "system" problematic.

1.2 Further, the relationship between the world's most populous and most rapidly growing nation and the World Bank is necessarily different than that established between the Bank and many of its smaller clients. China will listen to the Bank's views, and will accept its assistance, but on its own terms. A client-centered approach, whether desirable or not, is necessarily the *modus operandi* for the World Bank's operations in China. Regardless of this, our assessment is that the Bank's work has had a major impact on the approach to pension reform adopted by the Chinese.

1.3 Providing a template-style assessment of the Bank's role in pension reform in China therefore poses unique challenges. In approaching this task, we focused first on the extent to which the structural basis for reform was internally consistent, and the extent to which it is supported by the Chinese public authorities. We then assessed the ways in which implementation was moving forward. Finally, we asked which components of the reform were supported by, or influenced by, the Bank's activities, and whether this assistance was efficaciously delivered. In this exercise, we were conscious of the pension reform budget as well as outcomes, and asked whether the full potential of World Bank assistance was exploited. In carrying out this assessment, it became necessary to spell out the nature of the reforms more completely than we had anticipated, since only with a thorough grasp of the progress of reform could the Bank's impact be evaluated.

1.4 The time period on which we focus spans the last decade, from about 1995 to the present. It was from the mid-90s that World Bank activity in the pension reform area began to gain momentum in China. To provide continuity, we briefly describe earlier pension reform activity, but do not attempt any assessment.

1.5 Accordingly, the structure of this report is as follows. Chapter 2 introduces the economic and demographic context of pension reform in China. Chapter 3 describes the way in which pension reform has been conceived and undertaken. With this material as backdrop, we then describe Bank assistance to China's pension reform (Chapter 4), and assess the impact of Bank assistance in the reform process, at both the conceptual and

¹ United Nations (2004).

implementation levels (Chapter 6). Chapter 7 draws some lessons for the future engagement of the Bank in pension reform in China; Chapter 8 concludes.

2. Economic Development and Demographic Changes in China

2.1 For present purposes, China's economic growth and demographic development is best dated from the late-70s. In late 1978, the Chinese leadership began moving the economy from a central planning model to a more market-oriented system. Whereas the system operates within a political framework of strict Communist control, the economic influence of non-state organizations and individual citizens has been steadily increasing. The authorities switched to a system of household and village responsibility in agriculture in place of the old collectivization, increased the authority of local officials and plant managers in industry, permitted a wide variety of small-scale enterprises in services and light manufacturing, and opened the economy to increased foreign trade and investment. GDP has quadrupled since 1978. Current population is 1.3 billion people with a GDP of US\$1,100 per capita.

2.2 Table 1 reports China's GDP and real wage growth for various time spans from 1979-2003. Between 1978 and 1999 real GDP growth averaged 9.5 percent annually, slowing to a relatively modest 8.1 percent since 2000. The CPI has dropped from 4 percent in the 1990s to 0.4 percent over the period 2000-2003.

Table 1: Growth Rate of GDP and Wages in Urban China, 1979-1998

<i>Time Interval</i>	<i>Retail Price Index</i>	<i>Real GDP Growth Rate</i>	<i>Nominal Wage*</i>	<i>Real Wage[#]</i>
1978-1999	6.28 %	9.58 %	15.43 %	8.60 %
1985-1999	7.65 %	9.46 %	16.49 %	8.21 %
1990-1999	4.00 %	9.46 %	16.49 %	12.00 %
2000-2003	0.37 %	8.10 %	12.18 %	12.14 %

Source: Chinese Statistical Bureau, various years.

Note: *: Calculated using wages for workers in state-owned enterprises, urban collective enterprises and other urban enterprises (i.e., excluding the self-employed).

#: The CPI is used from 2000-2003 to indicate Retail Price Index.

2.3 Economic reform in the 1990s shifted to efficiency issues, and the disengagement of the State in productive enterprises. This had immediate implications for the workplace. The performance of SOEs and Collective-Owned Enterprises (COEs) came under detailed scrutiny, and their reform led to big changes in working conditions and labor market flexibility. Regional migration exploded. On official statistics, urbanization increased from 30.4 percent of the total population in 1998 to 40.5 percent in 2003 (Table 2), though this reported increase is partly due to a major correction following the national census, which was carried out in November 2000. In some provinces, this growth in urbanization has a longer history. Zhejiang Province, just south of Shanghai, reports an average growth of 4 percent in its urban population over the last decade.

2.4 These economic changes are underpinned by more fundamental demographic transition. It was gradually being recognized that the one-child policy would have long term impacts on a major source of resources for the elderly – their own children. China's population has been growing steadily due to increasing longevity (life expectancy at birth increased from the low 40s in the 1940s to 70 in the 1990s). In the last five years alone, the

proportion of the total population over the age of 65 has grown from 6.7 percent to 7.5 percent. Currently, fertility is estimated at 1.83 births per female, well above a “one-child policy”, though well below some other economies in a similar stage of development (India’s fertility rate, for example, stands at about 3).²

Table 2: Participation of Pension System (millions)

	1998	1999	2000	2001	2002	2003
Total Population	1248.1	1259.1	1275.2	1276.3	1284.5	1292.3
Ratio of Age 65 and above	6.70 %	6.90 %	6.96 %	7.10 %	7.30 %	7.50 %
Ratio of Urban Residents	30.40 %	30.90 %	36.09 % [#]	37.70 %	39.10 %	40.53 %
Total Labor Force	699.6	705.9	711.5	730.3	737.4	744.3
Urban Employment	206.8	210.1	212.7	239.4	247.8	256.4
Urban Pension Contributors	84.8	95.0	104.5	106.3	111.3	116.4
Urban Participation Rate	41 %	45 %	49 %	44 %	45 %	45 %

*Source: www.stats.gov.cn (National Bureau of Statistics of China’s official website)

[#]: The dramatic change came from the correction of the Fifth National Census.

2.5 Economic development, demographic transition, and workplace change have combined to force a paradigm shift in China’s social security environment. The pension sector is growing, though still confined to the urban areas. The number of contributors has grown by 27.2 percent from 1998 to 2003. Meanwhile, due to the SOE reform, accompanied by early retirement or other policy related changes in employment, the number of pensioners has grown by 29.2 percent in the same period. According to the MOLSS the system dependency ratio reached 33.1 percent in 2003 compared to 22.2 percent in 1993, though not all new contributors are included in this count. In the absence of reform, an unsustainably high contribution rate and accompanying financial crisis in the pension balance sheet are inevitable.

2.6 In the short and medium term, fund shortages due to the SOE reforms and economic growth are creating serious problems for both financing and reform implementation. Table 4 gives an indication of the scale of current outlays, and recent increases.

2.7 But the long run and more serious challenge stems from the looming demographic transition. UN projections forecast an increase in the age dependency ratio³ from 10 percent today to 35 percent by 2040. Figure 1 reveals the extent of population ageing projected to unfold over the next 50 years.

2.8 Over the next generation, China’s pensioner cohort will reach 30 percent of the whole population and the aged dependency rate is projected to soar to 37 percent, compared with the current ratio of 11 percent. A possible pension policy response to this is a steady coverage expansion, thus postponing by a further generation the time with which the consequences of unfunded liabilities must be dealt.

² Estimates and projections in this paragraph are drawn from the National Bureau of Statistics and United Nations (2004).

³ Defined as over 65s / [15 – 64s], (United Nations 2004).

Table 3: Dependency Ratio and Balance of Chinese Urban Public Pension System

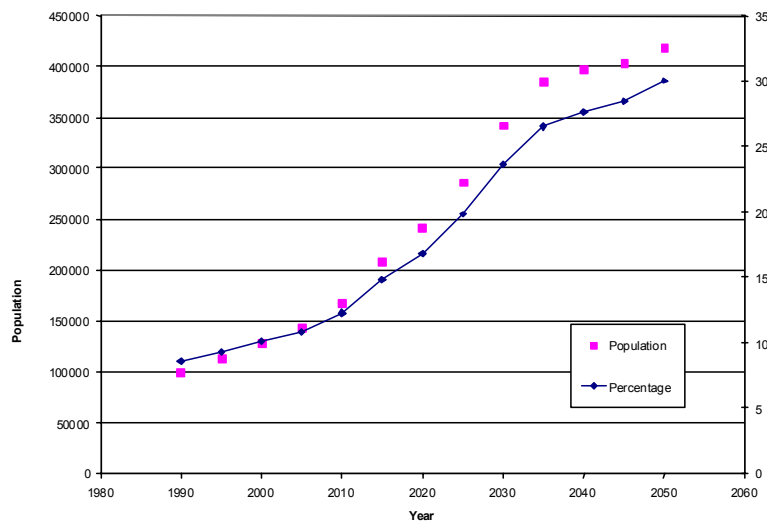
	<i>System workers (million persons)</i>	<i>System retirees (million persons)</i>	<i>System dependency ratio (percent)</i>
1993	73.36	16.28	22.19
1994	84.94	20.79	24.48
1995	87.38	22.41	25.65
1996	87.58	23.58	26.92
1997	86.71	25.33	29.21
1998	84.76	27.27	32.17
1999	95.02	29.84	31.40
2000	104.48	31.70	30.34
2001	106.30	33.46	31.48
2002	111.28	36.03	32.38
2003	116.38	38.52	33.20

Sources: Ministry of Labor and Social Security (MOLSS) and National Bureau of Statistics of China (SSB), Statistical Reports, various years. The reports can be found at <http://www.molss.gov.cn/tongji/gb/>.

Table 4: China GDP and Pension Expense 1997-2003

<i>Year</i>	<i>GDP (RMB billion)</i>	<i>GDP per Capita (RMB)</i>	<i>Pension Outlays (RMB billion)</i>	<i>Pension Outlays /GDP (percent)</i>
1997	7446.23	6054	125	1.67 percent
1998	7834.5	6307	114	1.46 percent
1999	8206.8	6547	192	2.34 percent
2000	8940.4	7084	212	2.37 percent
2001	9593.3	7543	205	2.14 percent
2002	10239.8	7971	284	2.78 percent
2003	11669.4	9030	312	2.68 percent

Source: National Bureau of Statistics of China and Ministry of Labor and Social Security.

Figure 1: Projection of Demographic Transition in China

Source: United Nations (2004).

3. Evolution of Pension Policy Reform in China

3.1 The three most important sets of reforms for the current state of pension policy development in China are the proposed unification of the pension system as delineated in State Council Circular No. 26; the Liaoning Pilot study, promulgated under Circular No. 42; and the Enterprise Annuity agreement, detailed in MOLSS Document No. 20, issued on May 1, 2004. We describe these in some detail, since their form bears directly on World Bank influence. But we begin with a brief discussion of earlier reform initiatives, to place these later developments in context.

Policy Before 1990

3.2 Before 1986, the pension system in China only covered workers in SOEs and COEs in urban sectors. The pension fund was administered, usually on a pay-as-you-go (PAYG) basis, within the enterprise. Most employees worked for the same unit throughout their working lives, and the unit would take care of them when they retired (the so-called Cradle-to-Grave model). These were essentially enterprise-funded defined benefit plans, and offered replacement of about 70 – 80 percent of final wage. Employee contributions were low or non-existent. On the whole, the PAYG system operated well. But it was demonstrably inadequate to cope with the growth of formal sector workers which followed the introduction of the “Open Policy” in the early 1980s. Nevertheless, little was done in the 1980s to change the social security policy.

Reforms: 1990 – 1997

3.3 By contrast, the 1990s saw a series of reforms which transformed China’s pension landscape. The sequence of events is confusing: one way of keeping track is to link them to the State Council Circulars and MOLSS documents which promulgated them. Annex B provides a catalogue of these announcements.

3.4 The first reform initiative was announced in 1991, in State Council Circular No. 33. This introduced the idea that pension contributions should be shared by the government, the enterprise and the individuals. The individual contribution rate was set at no more than 3 percent to start with and it was anticipated to gradually increase as the system began to mature.

3.5 Circular No. 6, issued in 1995, focused on the management of individual and enterprise contributions. It was here that the idea of two accounts – a social pooling account and a separate individual account – was introduced. This was triggered by the labor market reforms, which were leading to increased labor mobility across the covered labor force. The old PAYG system within SOEs did not provide portable features for its employees and when SOEs were downsized or transformed into other entities, the workers might lose their contribution history and, therefore, their accumulated benefit. Individual accounts were introduced to make pensions portable.

3.6 Two attachments in Circular No. 6 specified some numerical parameters to give substance to the pension reform design. The first was the introduction of a notional individual account based on 16 percent of individual contributions (the payment to be shared by individuals and enterprises). It aimed to deliver a 50 percent replacement rate at retirement when combined with the basic pension from the social pool, and was to be drawn as an annuity at 1/120 of the total value of personal account per month.

3.7 The second focused on the social pooling function. The basic pension replacement rate by individuals was to be increased by between 1 percent and 1.4 percent for each year of contribution beyond the minimum vesting period and the personal account accumulation could be drawn as a lump sum or annuity at individual's option. Both vesting periods were reduced to 10 years instead of the original 15 years. The contribution rate was not specified. Because Circular No. 6 was ambiguous, hundreds of pension plans were created by local government and the whole pension system became unmanageable.

A Milestone in Pension Reform – Circular No. 26⁴

3.8 Circular No. 26, released in July 1997, ordered a unification of the pension system. Its main features were:

Coverage. Coverage under the old-age insurance program is applicable to all kinds of enterprises and their employees as well as individual workers in urban areas. Although current contributors are primarily from SOE's, a number of municipalities/provinces have successfully extended coverage to include workers in foreign enterprises, private firms, individual businesses and casual workers employed by urban enterprises.

Contribution rates. Total contributions by enterprises are not supposed to exceed 20 percent of the contributory wage bill. Total contributions to individual accounts were set at 11 percent of wages, with individual employee contributions of at least 5 percent of wages in 1998, to increase by 1 percent every two years thereafter, until the contribution rate reached 8 percent. Correspondingly, the enterprise's contribution rate would decrease to 3 percent. The remaining 17 percent from the enterprise was to go to the social pool.

Contribution range. Employee contributions are subject to a minimum of 60 percent and a maximum of 300 percent of the local average economy wage. Those who earn less than 60 percent of the average economy wage will have to contribute on the basis of an earnings level equal to 60 percent of the local average economy wage.

Retirement benefits. Retirement benefits are determined based on each worker's status as of December 31, 1996. Workers who were already retired and were receiving pension payments in 1996 are referred to as *old men*. They will continue to receive their pension entitlements in accordance with the old defined benefit

⁴ This and the following subsection draw heavily on Sin (2003).

formula. Workers who started contributing after 1996 are referred to as *new men*. Their pension benefits will consist of two parts: (i) a monthly Basic Pension equal to 20 percent of the last year's local average economy wage; and (ii) a monthly pension payable from the Individual Account derived by dividing the accumulated account balance at retirement by 120⁵. Workers who were not yet retired in 1996 but were already contributing to the old age insurance system in 1996 are referred to as *middle men*. Their pension benefits will be determined on the same basis as the *new men*, and additionally, they will be entitled to a transition pension to reflect their earlier contribution to the old system, and to compensate for their anticipated lower contribution period. Since most workers are currently "middle men" we provide in Annex C the specification used to calculate these additional benefits.

3.9 However, in many provinces/municipalities, it is quite common to provide these *middle men* (those who retired after 1996) with pension benefits that are the higher of the two – a pension determined using the calculation described above or a pension based on the old defined benefit formula. This practice has clear – and negative – implications for funding.

Pensionable wage. The reference wage used in determining the Basic Pension is defined as the local economy's average wage including the wages of the *xia gang* (laid off) workers.⁶

Normal Retirement age. Age 60 for men and age 50 for women (age 55 for women who are in managerial positions).

Termination benefits. Workers with less than 15 years of contributory service will not be entitled to receive any Basic Pension. Accumulations under the Individual Accounts will be refunded as a single lump sum.

Indexation of benefits. Although Circular No. 26 did not indicate a specific level of post-retirement indexation, other State Council Documents made reference to indexation based on some percentage of increase in nominal wage. Historically, the level of indexation had been somewhere between 40 percent and 60 percent of the increase in regional average wage during the prior year.

3.10 Circular No. 26 was implemented nationwide immediately. But because of the deficit of pension funds in most provinces and cities, the individual account accumulation was expropriated by the pooling account to pay the current retirees. The individual accounts were quickly dissipated, and became effectively notional.

⁵ Contributions to the Individual Accounts are credited with interest annually based on the nominal interest rates on one-year term deposits declared by financial institutions. In some locations, special bonus rates may be declared from time to time. The 1/120 factor was calculated on the basis of life expectancy, at an 8 percent rate of return. It is now generally accepted that this is more generous than an actuarially fair factor.

⁶ This is compensation paid to laid-off workers by the SOE. They are still considered employed in the official statistics. The compensation is about 70-80 percent of the average SOE wage. The duration of *xia gang* payments varies - it can in some cases last until retirement.

Circular No. 42—Liaoning Pilot for fully funded individual account

3.11 On December 25th, 2000, The State Council issued Circular No. 42, entitled *A Notice on Pilot Program for Consummation of Social Security System in Urban Areas*. It tackled the empty individual account problem by launching a pilot project in Liaoning province, a “rustbelt” province where the funding crisis was most severe from downsizing traditional heavy industry enterprises. The major features are as follows:

- Contributions to the Individual Account were to be borne solely by employees and the rate is set to be 8 percent of personal wage.
- Contributions by the enterprise were to be maintained at around 20 percent (there would not be any changes for those enterprises currently contributing in excess of 20 percent). In addition, no contributions from enterprises were to be allocated to the individual accounts.
- All social pooling or basic pension account funds were to be managed separately from those of the Individual Accounts, and no subsidies for social pooling were to be drawn from the individual accounts.
- Those with contributory service of 15 years or more would be entitled to a replacement rate of 20 percent of the local average economy wage. Additional years of contributory service will be credited at the rate of 0.6 percent per year. There is no ceiling on the maximum replacement rate.
- Individual accounts will be disbursed monthly based on the accumulated balance divided by a factor of 120.
- For those with less than 15 years of contributory service, no basic pension will be disbursed, and there will be lump sum refunds on the accumulated balance for these workers.
- Upon exhaustion of the accumulated balance, any further pension entitlements under the Individual Accounts will be the obligation of the social pooling funds.
- Indexation for the basic pension will be proposed jointly by the MOLSS and the MOF based on the local level of cost of living and nominal wage growth of employed workers, to be approved by the State Council⁷.

3.12 The Liaoning pilot project enabled full funding of individual accounts – the main source of funding is the central government. It operates separately from social pooling and thus far there has been no cross-subsidy. However, investment options are limited - the capital market is far from mature - and the return of the account is still low due to the low interest rate set in the current domestic market... The Liaoning Pilot cannot be

⁷ Sin (2003), page 5.

declared successful, and no decision has yet been taken on universal implementation, but the government extended the pilot projects to two more provinces in 2003: Jilin and Helongjiang.

The Enterprise Annuity Initiative

3.13 On May 1, 2004, the Enterprise Annuity Regulation was issued by MOLSS (Document No. 20. Its key features are summarized below:

- *Coverage*: Enterprises with a good operational record.
- *Contribution Rate*: 6 percent employer and up to 6 percent employee.
- *Investment Limitation*: Investment restricted to 20 percent in equities, with the remainder in government bonds and bank term deposits.⁸

Implementation: Jin Bao

3.14 Implementation of the unified pension arrangements clearly requires an integrated IT network. Apart from any other considerations, broad pooling cannot be successfully implemented without such a network, essentially because jurisdictions (usually counties) with low pooling requirements are reluctant to pool with jurisdictions with high requirements.

3.15 The Chinese are developing such an IT network under their *Jin Bao*, or Golden Protection, project. The total investment in *Jin Bao* is estimated at RMB5 billion (US\$ 605 million). When complete, it will connect all the databases from each city and county. Monitoring the pooling levels for social security activities (including pension, medical, maternity, disability and unemployment insurance, which are included in the *Jin Bao* design) will then become possible. It is structured with three levels of database: local pooling (district and county), provincial, and central. *Jin Bao* is built to provide the central government necessary data to upgrade the pooling level, to allow policy fine-tuning, and to project future liabilities as well as finalizing the function of social pooling for redistribution in a fair and efficient way. So far *Jin Bao* has connected 13 provinces and cities; by the end of 2004, the national network is scheduled for completion (MOLSS website).

3.16 In summary, the last decade has seen a systematic strategy of reform from the national government, with incomplete provincial and county implementation. Sub-national jurisdictions have sometimes moved beyond the national plan – for example, several provinces have developed policies to capture rural workers in urban areas in the contribution net. Pilot programs have been implemented, but the lessons are not yet entirely clear, either to the Chinese government or to outside commentators. Further, implementation is proceeding, and the infrastructure for a nationally coordinated retirement income structure is being developed. While it is still premature to develop a

⁸ MOLSS Document No 23.

template summary of the national system, Annex A provides a summary of the Chinese economy, its retirement provision arrangements, and its demographics.

4. The World Bank's Relationship with China in Pension Reform Advice

4.1 World Bank advice to China on pension reform began in the early 1990s, and gathered momentum in the mid-90s. It has therefore been on-going based on the two major State Council Circulars No. 26 and 42. Nevertheless, the overall impression is that of a delicate relationship, in which neither party is inclined to insist too heavily on its own agenda.

4.2 China is in a somewhat different position from many of the Bank's other clients. Its size gives it options in terms of support and technical assistance that are not available to most less development countries (LDCs). There is no adjustment lending, and for these reasons there is an expectation that Bank influence on Chinese policy thinking might be limited. World Bank involvement was characterized by one staffer as that of offering "friendly advice".

4.3 On the Chinese side, the government and bureaucracy are internally fragmented. The MOLSS has carriage of policy but little power; the MOF, on the other hand, has power but little specialized social security expertise. A notable divide occurs with regard to attitudes towards future debt projections. Comparison of assets and liabilities in pension policy gains a far more sympathetic ear from MOF personnel than from MOLSS staff. To further complicate the national decision-making structure, there are also interdepartmental agencies, for example the State Planning Commission and the Ministry for Civil Affairs, which become involved in pension reform from time to time.

4.4 China is a country with 31 provinces and four municipal cities. As Table 5 illustrates, economic development varies greatly across these jurisdictions and great disparities exist across the whole nation in nearly all the important and relevant socioeconomic dimensions – demography, income, and growth. Per capita income differs by a factor of 4 between Tibet and Beijing; the ratio of pensioners to the general population varies from less than 1 in 1000 in Tibet to nearly 10 percent in Beijing.

4.5 Bank personnel are very aware that at a formal level, they interact with central government personnel only. In the projects to be considered below, therefore, an important point to bear in mind is that where provinces were targeted, this offered the opportunity to interact directly with those who were most closely involved with implementation of reforms, and also provided the chance to perform "reality test" a range of reform initiatives. Because of the lack of a centralized social security data facility within the national administration, real data that can be used for nationally oriented research purposes is difficult or impossible to obtain.

4.6 China has approached many international institutions and organizations for assistance during the reform process. The World Bank is a major advisor, but assistance has also been sought – and received – from other organizations, both public and private. Some of these hope for a foothold in China's newly emerging financial sector.

Table 5: Provincial Differences in Economic Aggregates and Pension Parameters (2001)

	<i>Beijing</i>	<i>Liaoning</i>	<i>Zhejiang</i>	<i>Henan</i>	<i>Tibet</i>	<i>Qinghai</i>
Population (million)	13.83	41.94	46.13	95.55	2.63	5.23
GDP (RMB million)	284565	503308	674815	564011	13873	30095
*GDP per capita (RMB)	20575	12000	14628	5902	5274	5754
Urban average family expenditure(RMB)	8922	4654	7952	4110	5994	4698
Number of pensioners	1242848	2888830	1250981	1418732	25638	148582
Pension outlays (RMB million)	11054.5	17925.5	10980.9	8800.8	336.3	1250.0
*Average pension (RMB)	8894	6205	8777	6203	13118	8412

Source: National Bureau of Statistics of China www.stats.gov.cn

Note: *Calculated by author.

4.7 China has used both the ADB and the ILO for pension advice. The ADB undertook consultancy work for the Liaoning project in 2001. Labeled “Technical Assistance to the People’s Republic of China for Policy and Institutional Support for the Social Security Reform Pilot Program,” the total budget was US\$1.35 million, with US\$1 million provided as a grant from ADB; the residual was funded by the Chinese government. The team comprised administration and regulation specialists, management information system specialists, an actuarial analysis specialist, a fund management and governance specialist, an investment and risk management specialist, and back office support staff.

4.8 The World Bank has had a client-centered orientation attitude towards China’s pension reform ever since it became involved. This is consistent with the Bank’s mission statement. Before 2000, soft loans were available for some projects but after that it was made clear that no more such loans would be available and cooperation was expected to rely more on the AAA support. Further, the Bank’s overall portfolio was becoming heavily weighted with China projects, and this acted as a further brake on funding.

4.9 In the time since, Bank influence can be discerned in the approach to implementing IT networks to cope with Social Security monitoring and record-keeping requirements. This is of course consistent with implementing a “unified system”: which is not possible in practice without a unified IT network.

4.10 During the 1990s, the Bank and the Chinese government developed a series of country assistance strategies. One of the earlier strategy papers specified Bank assistance with two major challenges: achieving macroeconomic stability while maintaining rapid (and more efficient) growth; and sustaining this growth by shifting resources toward priority areas, including poverty reduction, human resource development (HRD), infrastructure and environmental protection. Social security reform appeared under the major task of implementing macroeconomic and structural reforms, and topics including separating social security from SOEs, more general reform issues, and rural social security were all mentioned. The World Bank’s involvement in China’s pension reform was realized in part through a 1995 conference and a parallel study on pension reform.

Technical support was promised and policy issues were to be studied. A later strategy paper noted progress, but maintained the same priorities.

4.11 The 2003 CAS envisages the Bank's role shifting towards more challenging issues – “exemplified by deep-rooted structural problems related to globalization, governance, poverty and sustainable development.”⁹ It had, as one of its goals, the strengthening of social security in addressing the needs of the poor and disadvantaged.¹⁰ This suggests a continuing role for AAA with a pension focus.

⁹ World Bank (2003), page ii.

¹⁰ World Bank (2003), page 23.

5. World Bank Assistance in China's Pension Reform

5.1 The Bank's activities in providing assistance for pension reform in China can be broken down into four initiatives (or groups of initiatives), starting in the early to mid-90s. In 1995, a World Bank Mission visited China to study pension policy. The resulting report from the Mission ended up being so influential that we have accorded it separate status in our catalogue of Bank initiatives. There were two subsequent major projects: the pension policy reform program (1998–2004), a LIL, which focused importantly on IT; and some AAA work comprising projection analysis, and policy training, mainly in using the PROST model.

5.2 Other contributions include a small part of a large project, Enterprise Housing and Social Security (EHSS), which has been on-going since 1994. This involved work on SOEs and Social Security; in particular, the separation of social security administration from the SOEs. Recently, with some surplus funds from the project have been allocated to fund some Bank involvement in the Liaoning pilot, principally for IT (some EU funding was also diverted for this purpose). This funding also helped finance PROST training in the Liaoning context (the major economic advice for this has come from the ADB).

The 1995 World Bank Mission and the Agarwala Report

5.3 The weight of World Bank influence in the pension reform arena was first felt in the 1995 report of a mission headed by Ramgopal Agarwala. The mission visited China in August 1995, and the outcome was a comprehensive report on China's social security system. The report analyzed the systems then operating in China. It called for a unified national system, and proposed a three-tiered structure comprising a social pooling dimension, a mandatory individual account and a voluntary contribution account.

5.4 This report came at a critical stage in Chinese thinking on pension reform. The major proposals are summarized here:

5.5 *Pillar I* was to cover basic benefits, based on nine percent of the wage paid by enterprises; in return, the person would get 0.6 percent each year for the final replacement rate. For a person contributing 40 years, this generates a 24 percent basic pension replacement rate.

5.6 *Pillar II* was to require a contribution of eight percent of the worker's individual wage. Assuming the investment rate of return equals the wage growth, a contribution period of 40 years generates a replacement of about 35 percent on retirement. This pillar was seen as fully funded, and required a functioning capital market and a financial system that pays a positive real rate of return to long term savings.

5.7 *Pillar III* comprised supplementary pensions, either offered by employers or established by individuals - the fund was to be managed by private providers or insurance companies. It should fully funded and portable.

5.8 The report also emphasized that, at the time of writing, there existed a “window of opportunity” for reform. Its intellectual debt to *Averting the Old Age Crisis* (World Bank 1994b) is clear.

Pension Reform Project: 1998-2004

5.9 In 1998, World Bank provided a US\$ 5 million soft loan for a pension policy reform project in China over the period 1998-2003. The project was combined with an additional loan (US\$1.3 million) from the Chinese government. The project objective was to assist China’s pension reform through:

- (i) the formulation of a sustainable funding strategy and
- (ii) the improvement of pension systems in a pilot province and a pilot city.

5.10 In order to obtain experience and develop a template for the establishment of a national unified pension system, the project would:

- (a) develop an actuarial model and use the model to assess the financial viability of the Qingdao municipal pension system and the Heilongjiang provincial pension system according to existing parameters;
- (b) utilize the model to assess pension reform options in the pilots;
- (c) review regulations and other issues connected with funded schemes in the two pilots;
- (d) review pension administrative procedures including funds transfers, data collection, processing and management in order to develop a procedural template; and
- (e) provide inputs to national policymakers on key parameters of policy and implementation.

5.11 When the project was implemented in the provinces and the cities, it was linked to the *Jin Bao*, of which the World Bank project was only a small part. In order to complete the project, Qingdao invested another RMB40 million (US\$4.84 million) to complete the hardware purchase and software development and the extension of IT infrastructure to each district social security office. China therefore regarded this loan as a positive push to its pilot *Jin Bao* project.

5.12 The World Bank assistance in this project made an important contribution in integrating the new features of Circular No. 26 in an IT framework. The feasibility study of the project helped the government to go through Circular No. 26 in terms of IT infrastructure. Its core concepts were well implemented and the timetable for setting up China’s overall social security IT system was put forward by this first step.

5.13 The detailed requirements for the project included the development of an actuarial model. But no officials in MOLSS office could provide us with any actuarial model they had been trained for or which had been used in the project. A lack of adequate data may have been part of the problem, as noted in internal documents.

5.14 Outcomes from projection analysis in the targeted jurisdictions are available, however, and indicate that progress was being made towards meeting the government's objectives of unification, including some improvement in pooling, and pension system administration.

Pension System Reform (AAA): 1999-2004

5.15 The Pension System Reform project was launched by the World Bank Institute (WBI) in 1999 and comprised three parts – projection analysis, policy notes in response to specific requests, and training. These included the research linkage between SOE reform and pensions; and projection analysis using PROST. The training program was mainly directed at the Ministry of Finance, and included sending a delegation for an international study tour.

Enterprise, Housing and Social Security Reform (EHSS): 1994 – 2004

5.16 The EHSS project was concerned with the implementation issues involved in the separation of various social support mechanisms from SOE employment contracts – housing, health, and social security. The move towards the separation of social security from the SOE had begun as far back as 1986, when the State Council ordered separate labor contracts for all SOE and COE employees, and separately accounted pension entitlements. Circular No. 6, issued in 1991, established the idea of shared responsibility across employer, employee and government. Circular No. 33, issued in 1995, was a necessary part of the transformation of the SOEs – labor market mobility had made the old SOE arrangements impractical.

5.17 This project had its origins in the Industry unit of the China Department of the Bank.¹¹ Its focus was on relieving SOEs of social responsibility for employees, both during working life and in retirement – about finding ways to relieve SOE's of the administrative burden of running housing and social security programs. Social security was broadly defined as encompassing unemployment, health, disability, and pensions.

5.18 The social security component of the project at appraisal amounted to about US\$17 million, out of a total of US \$350 million, the bulk of which was allocated to housing. Of the social security component, about US\$6 million went to hardware, the rest to TA. TA included outsourced expertise (FACS Australia), and study tours, among other activities. About \$2 million was devoted to pension reform consultancy work.

5.19 Four cities were targeted (Beijing, Chengdu, Ningbo, and Yantai). Infrastructure was set up, and personnel trained, to take the administrative burden of social security from the SOEs. Semi-autonomous agencies were established for this purpose; these are linked with MOLSS. The EHSS project was focused on SOE transformation issues,

¹¹ Details in these paragraphs are based on World Bank (1994a).

rather than social security or pension reform, but practical issues of pension reform, especially including distribution issues, were certainly part of the project.

5.20 Additionally, about US\$ 4 million of surplus funds were devoted to IT developments associated with the Liaoning pilot project, authorized under Circular No. 42. The loan helped with hardware and software purchase, according to an official from Liaoning's Bureau of Finance. (The total IT investment for the Liaoning pilot project exceeds RMB200 million (US\$24.2 million).

6. Assessment of the Impact of Bank Assistance

6.1 The World Bank has played an important role in China's pension reform in general. From the intellectual approach by Agarwala's report to the current Liaoning pilot project, the strategy proposed by World Bank and the actual policies issued by the Chinese government form a coherent and well argued policy and implementation strategy. Circulars No. 26 and 42 and the most recent Enterprise Annuity Document No. 20 all indicate that China is moving towards the three-pillar system proposed by the Bank. Specifically, the World Bank had a positive influence on reform through its impact on the development of Circular No. 26.

6.2 Its influence is also apparent through the PROST training programs, which have now reached every province in the country. Further, the technical IT assistance provided to MOLSS and the Liaoning study has been beneficial. In Figure 2, we try to depict the interaction between Bank projects, Chinese policy declarations, and implementation, to bring out the cohesion of the overarching strategy.

The Agarwala Report

6.3 The Agarwala report had a big influence. Many Chinese officials who read the report were attracted by the intellectual approach and the systematic framework. It was studied and discussed at the most senior levels of policy. It was not long after the report, in 1997, that the State Council issued Circular No. 26, which was a milestone in the reform of China's social security system. The consistency of the pension reform program over the last decade would appear to stem from this report.

6.4 Circular No. 26 regulations followed the Agarwala report quite closely. The two pillars were defined for the first time and funding was emphasized – it was requested that the individual accounts should be funded. The call for unification was heeded. Circular No. 26 did not incorporate Agarwala's actuarial approach to benefit design, however: the benefit factor was defined as 1/120 per month of the total individual's account accumulation and the basic benefit was set at 20 percent of the average local wage after a 15 year vesting period. (It is worth noting the reversal on vesting from the Circular No. 6 announcement, that the vesting period be reduced from 15 to 10 years.)

6.5 Table 6 compares the recommendations on contribution and benefit parameters of the Agarwala Report with those specified in Circulars No. 26 and 42. These bear an obvious relationship to one another. The higher social pooling contribution rate under the Chinese specifications stems from the earlier vesting for a minimum pension. In addition, the 1/120 annuity factor is higher than actuarial balance would indicate.

Figure 2: Relationship between Chinese Policy Proclamations, Implementation Projects, and World Bank Projects

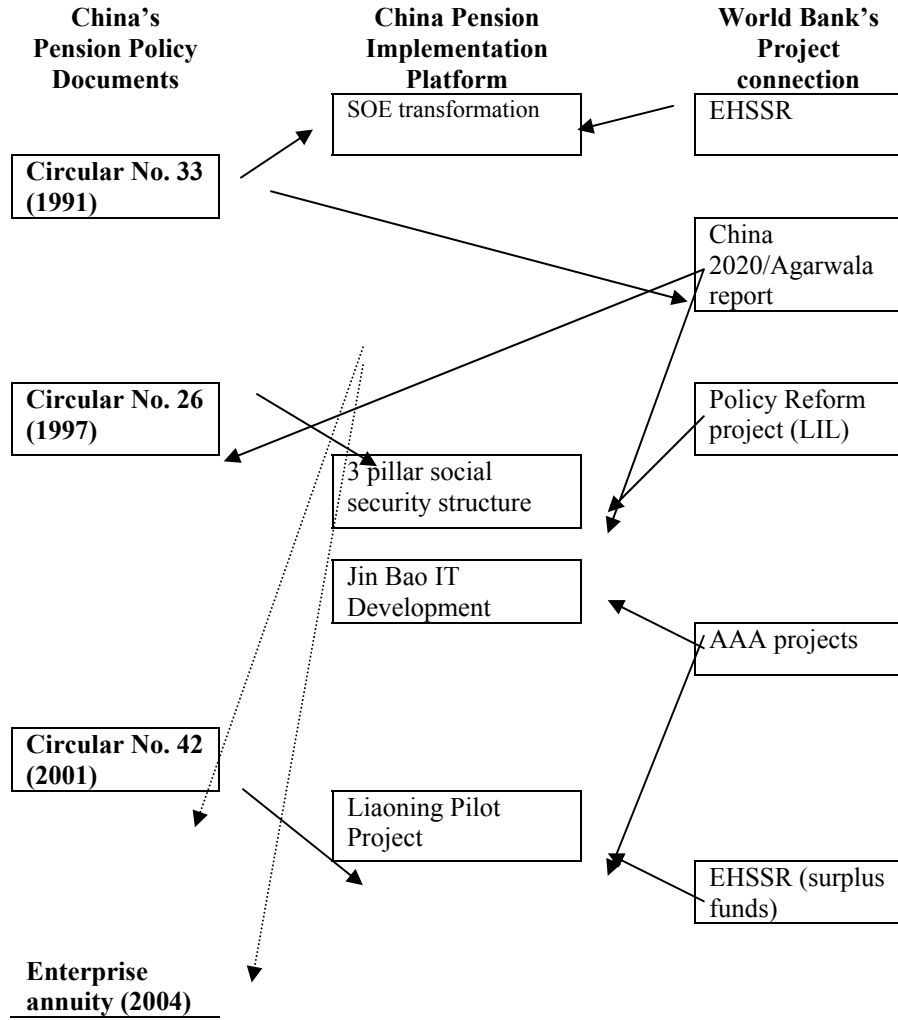


Table 6: Comparison of Contribution and Benefit Rates, as percentage of wage, for Social Pooling and Individual Accounts: Agarwala Report and Circulars No. 26 and 42

	<i>Agarwala</i>	<i>Circular No. 26</i>	<i>Circular No. 42</i>
Social Pooling	Contribution 9 percent Benefit 0.6 percent per year (40years => 24 percent)	Contribution 17 percent (a) Benefit 20 percent + additional benefit above 15 years service 15 years vesting	Contribution 20 percent Benefit 20 percent + 0.6 percent per additional year after vesting 15 years vesting
Individual Account	Contribution 8 percent Estimated Benefit 35 percent	Contribution 8 percent (e'ee) + 3 percent (e'er) 1/120 monthly annuity	Contribution 8 percent (e'ee only) 1/120 monthly annuity

The Pension Reform Project 1998-2004

6.6 This project had multiple components – policy development, IT development, and training. It is therefore convenient to begin with the budget plan, which is reproduced in Table 7.¹²

Table 7: Budget Plan for World Bank Pension Reform Project, 1998 – 2004

<i>Component</i>	<i>Category</i>	<i>Cost incl. contingencies (US\$M)</i>	<i>percent of Total</i>	<i>Bank Financing (US\$M)</i>	<i>percent of Bank-financing</i>
Policy development	Institutional development	0.7	11.1	0.7	14
Information system	Institutional development	4.2	66.7	3.5	70
Training	Institutional development	0.9	14.3	0.8	16
Project Administration	Project management	0.5	7.9	0.0	0
Total		6.3	100	5.0	100

Source: World Bank (1999), page 3.

6.7 It is hard to tell how closely this proposed budget allocation was followed. But substantial research and policy development had already been undertaken in the feasibility study, and this no doubt accounts for some of the policy development funding. A significant effort has been made to implement Circular No. 26 through IT system

¹² World Bank (1999), page 2.

development. The influence of the World Bank can easily be discerned from the intellectual approach adopted.

6.8 IT assistance under the LIL Pension reform project was well accepted by the Chinese. One official commented that this work formed the prototype for IT implementation. The Chinese also commented on how the Bank's insistence on procurement protocols had reduced the cost of equipment purchase; this seems to be a major lesson drawn by MOLSS in the implementation phase of *Jin Bao*.

6.9 One reservation expressed by the Chinese about the IT assistance to Helongjiang and Qingdao was that IT personnel changed too frequently to develop an evolving relationship with this role. This limited the effectiveness of the project from the Chinese point of view. Apparently, budgetary considerations dictated the use of a series of IT consultants, rather than a permanent staff member.

Analytical and Advisory Assistance

6.10 The various elements of the assistance offered under the AAA umbrella have in common a systematic approach to guide Chinese officials through a rigorous methodology of pension analysis. World Bank staff has worked tirelessly to make their work more influential and acceptable. The seminars and training workshops were positively received by the Chinese, especially from the provincial level where the participants had more time to appreciate the ideas behind the model. The communication among MOF and MOLSS as well as the State Council Development and Reform with the World Bank through this project was good.

6.11 The most influential activity is probably the PROST workshop. It was held in seven different cities for seven classes of students coming from more than 70 cities, in which all 31 jurisdictions were represented. All the students were selected by the local bureau of Finance and Ministry of Finance (MOF). Not only were they taught how to use PROST, but they were also asked to use real data from their cities to make projections of pension liabilities, benefits, contributions, deficits for PAYG, NDC and fully funded models. From their projections, a final report using data from 7 provinces was assembled to simulate the national report was presented to MOF and MOLSS at a final Forum.

6.12 It seems clear that the PROST methodology, whether applied in a funded or notional environment, pushed the Chinese government to think beyond current practice and prepare for future reforms. The modeling approach in pension policy design and implementation was a good introduction to actuarial methodology for China and the knowledge was transferred into different levels all across China. The way of thinking about policy reform by generating rigorous projections seems to have changed the approach to these questions taken by MOLSS and MOF personnel.

The EHSS Project

6.13 The EHSS project met its objective, consistent with previously established country assistance strategies, to help the Chinese government with its macroeconomic

situation, especially the reform of SOEs. This was a large project lasting for almost nine years. The total budget was about US\$350 million, but the major allocation went towards housing – only about US\$13 million was allocated to social security, and half of this went towards IT hardware purchase.

6.14 Relieving the SOEs of their social burdens, including provision of housing, medical care, education and pensions for their staff and families, was a major step forward in allowing the transformation of the SOEs. At the same time, upgrading and broadening the pension pooling from the individual SOEs to the city or provincial level was a big push for SOE reforms.

6.15 The EHSS project had an awkward and cumbersome administrative superstructure. On the Chinese side, national, provincial, and local jurisdictions were involved; and as well, Finance, Labor and Social Security, and Construction. It was therefore difficult to gain a comprehensive picture of the contribution of the project. Nevertheless, we can observe that at present, SOEs no longer bear the administrative burden of social security support to employees and former employees.

6.16 The EHSS also had a direct impact on pension reform through the use of surplus funds to help finance the Liaoning pilot project for some hardware and software IT purchase. As the Liaoning Pilot determines largely whether China will adopt a fully funded system on the individuals' account or not, it is important for the World Bank to play a role in it. It also has a direct impact on Liaoning and further reforms on China's pension system.

Summary of Assessment

6.17 We have previously pointed out that China routinely approaches many organizations and institutions for assistance, and is unlikely to be beholden to any one organization. It is then surprising to observe, in design, and to a considerable extent, in implementation, the extent to which the Bank's views on pension reform have been adhered as policy unfolds. In particular, the report resulting from the Bank's August 1995 mission (the Agarwala Report) had a major impact on Chinese thinking – the Bank's call for a unified system and the three pillar paradigm clearly resonated with Chinese policymakers. Our impression is that the Bank has been as influential as it has because of the intellectual rigor of its approach.

6.18 One of the objectives of *Jin Bao* is to enlarge IT capability in all the five areas of social protection – pensions, medical, maternity, unemployment, and disability – so that the IT infrastructure can be shared and the central government can play a better role in social welfare activities by having the data nationwide at any time any place. This is a giant step forward. The World Bank had initiated the first move by granting the loan to policy design and IT pilot construction project in Heilongjiang and Qingdao, and the involvement in Liaoning further helped at an operational level.

6.19 The cohesion depicted in Figure 2 should not be taken to infer that the programs are, in practice, working exactly the way in which the policy documents envisaged. Of a

number of significant departures from announced intention, perhaps the most important is the lack of funded programs. The Chinese are, on the whole, reluctant to embrace the idea of notional accounts in their pension reform, but in practice, it is being achieved. The Liaoning Pilot provides the only significant counterexample of where the funding for these accounts comes directly from the central government. Though most accounts in China are still empty, the government seems serious about achieving funded programs. Whether attitudes in China will soften towards notional accounts, or whether financial rigor will in due course prevail, remains to be seen.

6.20 As the discussion in this chapter implies, we believe that on the criterion of internal consistency, the planned reform, and the Bank's role in it, scores well. On implementation, we are similarly impressed – the essential components of infrastructure needed to implement the planned reform have been identified, and assistance has been focused on facilitating this implementation.

6.21 Compared with smaller nations, progress has been slow – but, as we emphasized in chapter 3, China is a large and highly diverse country, in which administrative power is devolved to the provincial and county levels. While there is still a great distance to go before a unified system with high coverage is achieved, huge progress has been made since the days when social security in China meant an SOE based DB pension scheme. And given the limited budget assigned to pension reform, the assistance could hardly be judged as anything other than efficacious.

6.22 Nevertheless, we believe some opportunities for furthering pension reform exist for two reasons. The more important is the lack of even modest funding; and similarly, some issues which could have been, and in some cases, were anticipated, were not developed in TA terms, limiting the value of the Bank's dialogue with the Chinese authorities. More attention should be paid to these issues – we expand on this in the chapter 7.

IEG Assessment: Outcomes

6.23 Following the IEG framework, the Bank assistance to China on pension reforms is assessed in terms of outcomes (relevance and efficacy), institutional development impact and sustainability and in terms of Bank and borrower performance. Table 8 summarizes our assessments.

6.24 In this context, **relevance** refers to the extent to which the objectives of the overall assistance and the individual projects were consistent with the country's initial conditions, needs and development priorities. The objectives of the overall assistance and the individual projects were consistent with the initial conditions, needs and development priorities of China. They were well thought out, and sequenced to facilitate well-informed Chinese proposals for pension reform. The overall rating for relevance is high in that most of the objectives were highly relevant.

6.25 Similarly, **efficacy** is defined as the extent to which the objectives of the Bank assistance were achieved. The major exception noted above – shortcomings in

dissemination – reduced the ranking here, but nevertheless, performance relative to budget was outstanding.

6.26 Institutional development impact refers to the extent to which Bank assistance facilitated the buildup of institutional capacity in the pension area. Here again, the outcome was excellent – as Figure 2 reveals, the EHSS project allowed the development of a pension system which was independent of SOE administration, while the LIL allowed piloting of a unified system to be implemented. AAA and TA supported these initiatives. While direct support for *Jin Bao* was modest, it seems that the LIL experience was critical in kick-starting the IT implementation of pension reform.

Table 8: Assessment of World Bank Assistance

<i>Criteria</i>	<i>Rating</i>
Outcomes	Highly satisfactory
Relevance	High
Efficacy	Substantial
Institutional Development Impact	Substantial
Sustainability	Likely
<i>Attribution of Results:</i>	
Bank performance	Satisfactory
Quality at entry	Satisfactory
Quality at supervision	Highly satisfactory
Borrower performance	Highly satisfactory
Preparation	Highly satisfactory
Implementation	High
Compliance	Highly satisfactory

6.27 Sustainability refers to the extent to which the positive outcomes of World Bank assistance are likely to be sustained over time. It seems clear that pension reform in China is here to stay, and that the State Council Circulars embodying this intent have long term applicability. We have argued above that Bank advice and support was important in the evolution of these policy promulgations. In this sense sustainability has been achieved. Less clear is the extent to which the longer term goals of the reform will be met. Whether the framework set up and implemented with Bank assistance will develop and spread throughout China to become a universal system is not yet clear. However, there is continuing debate and interest among policymakers, with continuing international involvement (not necessarily through the Bank). The *Jin Bao* project must be seen as evidence of a serious intent to achieve this objective.

IEG Assessment: Attribution of Results

6.28 The overall impact of the China pension reform projects are the result of a subtle collaboration between the Bank and the Chinese authorities. The template calls for an attribution for these rankings between Bank performance and the performance by the Chinese. In the context of China, the ranking is inevitably somewhat arbitrary, for reasons outlined in chapter 1.

6.29 Bank performance is to be assessed across **Quality at Entry** and **Supervision** dimensions, reflecting in broad terms, consistency of design and implementation. It is

suggested that one way in which our criticism of inadequate funding for pension reform might be reflected in the scoring template is to ask whether funds were adequate for the purposes at hand on entry, and whether those purposes were consistent with Bank strategy. We have scored quality of entry in this way, although it does not fully capture our concern. We believe, not that the projects were badly handled or misconceived *per se*, but that their benefit could have been significantly enhanced if more resources and a better developed collaboration plan were established at the outset. The question of resources also reaches outside the CAS framework. China is host to 25 percent of the world's aged, and if the pension system were to collapse, it would be a global, rather than just a national, problem.

6.30 The supervision dimension we rank as highly satisfactory. There were no supervision shortcomings that we were able to identify. In saying this, reviewers should note that we have been unable to discuss the EHSS project with the Chinese.

6.31 **Borrower performance** is assessed on preparation, implementation, and compliance. On preparation and implementation, the Chinese authorities (usually MOLSS and MOF) were extremely co-operative. In the early 1990s, MOLSS set up a World Bank Operations Office in Beijing to facilitate communication over projects. In almost all dimensions, we had the sense that the Chinese were eager to exploit the resources, both financial and intellectual, that the Bank was able to provide.

6.32 The major exception was that MOLSS officials felt the PROST model, which was used in a number of applications, was too long run for their purposes. Implicit in this attitude was a resistance to the recognition of long term liabilities of the social security system. So their use of this TA was, perhaps, less than satisfactory. This remark does not apply to the individuals who were familiar with the model, so much as those (usually more senior) who had second hand acquaintance with it.

6.33 Overall, we ranked the **Bank's performance** as **satisfactory**, reduced from a higher rating because of concerns about adequacy of funding, and the **Chinese government's** performance as **highly satisfactory**.

6.34 The Chinese Government accepts assistance from many sources. The major contributors to the projects considered here are the ADB funding of US\$ 1,000,000 for the Liaoning pilot, and the EU funding of 700,000 euros towards Liaoning IT procurement.

7. Lessons and Recommendations

7.1 Since 2001, there have been no new World Bank pension reform projects in China. There will be no more soft loans in the future as the relationship between China and the World Bank continues to evolve. Further, it is to be anticipated that the Bank's future role in pension reform will be of "friendly advisor".

7.2 Yet the actual transition to a funded second pillar has just started and the regulation for enterprise annuity (the third pillar) has only just been issued. Fund management and capital market development, and the regulatory structure being built to facilitate them, are pivotal issues whose resolution remains uncertain. These are the crucial elements for a successful funded pillar as promoted by the Bank in its earlier interaction with the Chinese authorities. China's current high real wage growth, and comparatively low official interest rate, makes the development of a financially sensible funded pillar a serious challenge.

7.3 Equally important for pension reform is the pattern of regional labor migration to urban areas. We pointed out in chapter 2 that urbanization of the labor force has been on-going for some time. Various provinces are exploiting this phenomenon to expand social security coverage to young newly urbanized workers, thereby finding a means to finance current social security liabilities. Yet almost no work has been done on the implications of this strategy, including the future liabilities such a course of action entails.

7.4 In what follows, we first draw some lessons from past experience which might be useful in guiding future work, and then make some specific suggestions for project topics which appear to us timely.

7.5 ***Dissemination of existing work.*** The dissemination of experience from pilot studies could be improved. For example, the LIL project, which involved setting up social security processes in Qingdao and Heilongjiang, had as part of its specification the development of an actuarial model. We have been unable to establish that this was developed as part of this project. But such a model would have been a useful vehicle for disseminating the experience gained from this project to other provinces.

7.6 Indeed, it seems the most influential project so far is the workshop for PROST training, which reached at least one individual in each province. Efficacy could be improved by involving individuals working at the local level, where the actual operation and implementation are carried out. The feedback from these levels would also be more realistic.

7.7 While the formal Bank relationship must remain with the national Government, in pension reform work in China, it appears essential to reach down as far as possible. The apparent success of the PROST training, where serious efforts were made by Bank personnel to involve all the provinces, suggests that this strategy is worth pursuing further. Bank personnel in China are sensitive to this, but may lack the resources to do more.

7.8 With more generous funding, it may have been possible to combine the LIL and AAA together in one project, so that the PROST model, or some appropriate alternative, could be established as an administrative instrument, rather than just a model for exploring policy options. In that way, the dissemination would be automatic along with the IT project.

7.9 **Other lessons.** Several other points emerged during our investigations. First, various important policy-relevant issues emphasized in World Bank research never seemed to receive independent recognition from Chinese officials. Examples would include the retirement age and gender impacts. A particularly thorny question on which the Bank has tried to build awareness – with mixed success – is the actuarial balance of the implicit pension debt.

7.10 Related to this is the question of whether the Bank was too doctrinaire in its promotion of a funded second pillar. Although the Agarwala report did mention that the proposed pension reform would not be feasible unless “coverage is extended to include the non state sector, and the real rate of return on pension funds is, over the long term, at least equal to the rate of increase in real wages”¹³, it did not suggest PAYG or Notional Individual Accounts as alternative approaches. Regulation of the financial sector was emphasized, but the question of the maturity of the finance sector was simply ignored. High wage growth and low investment return has been an outstanding issue for about a decade now, and still no substantial research has been done on pension design options other than the funded individual contributions.

7.11 Nevertheless, the rigor of the approach did appeal to the Chinese authorities, and from this came a very well sequenced policy reform design. In the final analysis, funding was not seriously attempted until the Liaoning pilot 5 years later. Whether the clarity of the approach was worth the risk of exposing Chinese policymakers to the downside through too rigid of an adherence to policy recommendation is not clear.

7.12 Second, it seems that the majority of funds from most projects end up in hardware purchase – on which the Chinese are very keen. (A point made to us several times was that the Chinese had learned a lot about the advantages of systematic procurement policies with respect to hardware through the Bank’s insistence on such protocols being followed in these projects.) Yet our impression is that the Bank has more influence with training and policy development than with hardware.

7.13 Third, we formed the impression that larger projects in this area were less effective than smaller projects focused on specific issues. These may score better on efficacy and in the long run, on final utility to the Chinese government. Again, the effectiveness of the AAA project, operating on a limited budget, was impressive.

7.14 Finally, *Jin Bao* provides an unusual opportunity to access reliable data, which is an on-going problem in China.. For example, in some local provinces, the average wage

¹³ Page 55.

from the statistics bureau is much higher than the number from the social security bureau, which creates a big gap between the contribution base and the benefit base. A unified statistical database will create the possibility of investigating these kinds of issues. The Bank should try to gain such access for its future work.

7.15 *A possible agenda.* Our suggestion is that funds should be allocated to allow the Bank a more proactive role in developing an information and knowledge database which will better equip it for its future advisory role. The above discussion immediately suggests several issues, which are listed here as indicative rather than prescriptive of a future agenda:

7.16 *Linkage between the funded pillar and financial sector development.* If the funded pillar is to become reality, a necessary condition is a robust financial market. Financial markets in China are still in an early stage of development, and are in fact targeted in the 2003 CAS. It would be beneficial to examine the linkages between financial sector development and the building of a funded pillar, especially in light of the extension of the Liaoning pilot to other jurisdictions.

7.17 *Enterprise annuity.* This policy has only just been announced. Again, it requires sophistication in financial and insurance markets.

7.18 *Coverage.* China's urban population has grown more than 10 percent in the past seven years. In addition, so-called rural workers employed in urban sectors are also increasing dramatically. The labor migration from rural to urban areas will have considerable impact on the operation of the new social security system. However, this question has not received detailed attention, and little is known or understood of the implications of this interaction. Detailed investigation should be carried out on coverage increase as it relates to labor migration. This may be more significant than population aging *per se* for the Chinese.

7.19 *Urbanization and new farmer citizens.* Urbanization also means more land is being taken into urban territory, displacing some farmers. Chinese regulations call for compensation in these circumstances, including membership of the social security system and pension entitlements. However, this is not well specified – some local governments are using funds other than pension contributions to meet this liability. This has not been investigated, yet it is thought that as many as 20 percent of new social security recipients may fall into this category. The total implicit pension debt, as calculated on the basis of contributing employees, may therefore be considerably underestimated. How far the urbanization will go and how long it will last is unknown, but its role in the pension system is very important in China. Although the Bank has conducted some research on labor migration issues from rural to urban areas, this has not had a pension focus. The linkage between the two is obvious.

7.20 *Notional Individual Accounts.* Chinese officials are well aware of empty individual accounts and several options are available to solve this problem. One possible solution countenanced by the Ministry of Finance but not so far by MOLSS is to revert to a notional system. The implications of this policy change should be investigated by the

Bank – de facto, this is likely to be the nature of most Chinese individual accounts for some time to come. Such an investigation would serve two functions: to analyze and compare both individual account options (fully funded and notional); and to highlight the hazards of a funded system in China at a time when the financial market has not really matured.

7.21 *The 2003 CAS.* This CAS has outlined a new strategy with the following themes:

- a) Improving the business environment and accelerating transition to a market economy;
- b) Addressing the needs of the poorer and disadvantaged people in lagging regions; and
- c) Facilitating an environmentally sustainable development process.¹⁴

7.22 “Strengthening Social Protection” is incorporated in theme II. For the IBRD/IFC/MIGA/GEF projects, outcomes from on-going labor market development and SOE reform projects as well as ongoing pension reform projects are anticipated. Under the AAA work, TA for social security reform and social aspects of corporate restructuring, a study on urban labor adjustment, and continued reforms on the financial sustainability of the pension system are to be implemented.¹⁵

7.23 We have listed above several areas with which the Bank, with its vast experience of pension reform in other countries, and expertise on the Chinese reform, would be able to investigate and assist. They are all broadly consistent with the 2003 CAS objective of “strengthening social protection”, and some would fit neatly into the more specific CAS projects mentioned above.

7.24 Clearly, resourcing these potential projects is an issue when competing use of funds is intense. But to put the funding issue in perspective, it should be borne in mind that 25 percent of the world’s elderly live in China, which makes population ageing in China more than just a Chinese problem. In 2003, less than US\$100,000 was allocated to pension reform projects in China, out of an overall Bank allocation of more than US\$1 billion – a ratio of less than 0.01 percent. Increasing this ratio to 0.05 percent - that is, providing US\$400,000 to fund investigations into issues such as the above – may be vital in providing informed advice to the Chinese about developing their new pension structure in sustainable ways.

¹⁴ World Bank (2003), page 23.

¹⁵ World Bank (2003), pages 14-21 and Annex B10.

8. Concluding Remarks

8.1 Given the very small budget allocated to pension reform activity, the World Bank has done a remarkable job with its advice on and support of China's pension reform. Support has been intellectually consistent and efficacious in delivery, and it is our firm impression that the Chinese government fully appreciates these aspects of Bank activities.

8.2 The speed of China's development and the large scale of its demographic transition suggest that the World Bank should remain engaged in pension reform. This program will affect more than 20 percent of the global population, and 25 percent of the world's aged, including some of the poorest.

8.3 The 2003 CAS includes "Strengthening Social Protection" in its menu of objectives. It therefore appears that there is scope for continued cooperation in pension reform in China, and in our view, it is essential that priority be given in future budget allocations to allow Bank personnel to provide a level of informed advice commensurate with the importance of the issue.

Annex A: Statistical Summary China's Pension Reform

Coverage and Maturity of Pension System:

Population: 1.3 billion
 Population 60+: 129 million
 Population 15-59: 830 million

Labor force: 744 million
 Urban labor force: 256 million

Active contributors: 117 million
 Beneficiaries: 39 million

Key indicators:

Old age dependency ratio (60+/15-60): 15.5 percent
 System dependency Ratio: 33.2 percent
 Coverage of contributors: 15.7 percent
 Coverage of old age population (60+): 30 percent

Basic parameters:

Contribution rates: First pillar – 17-20 percent; Second pillar – 8-11 percent
 Employer: 20 percent
 Employee: 8 percent

Retirement age: 60 for men, 50 for women (55 for women in managerial positions)

Vesting period: 15 years

Target replacement rates: 80 percent (actual); 60 percent (target)

Finances of PAYG:

Contribution revenues: 2.6 percent of GDP

Pension expenditures: 2.7 percent of GDP

**Annex B: Relevant State Council Circulars and MOLSS Documents,
1991 – 2004**

<i>Year</i>	<i>Document</i>	<i>Content</i>
1991	Circular No. 33	State Council decision on reform of Enterprise Employees' pension system
1995	Circular No. 6	State Council notice on further reform of Enterprise Employees' pension system
1997	Circular No. 26	State Council decision on Unified Basic Pension System for Enterprise Employees
2000	Circular No. 42	State Council Notice on Pilot project for consummation of social security system
2004	MOLSS Document 20	Temporary regulation on enterprise annuity
2004	MOLSS Document 23	Temporary regulation of Fund Management on Enterprise Annuity

Annex C: Circular No. 26: Formal Calculation of “Middle Man” Recognition Benefits*

The “middle men” beneficiaries receive benefits from individual accounts on the same basis as “new men”, but in addition receive a pension component based on past (pre-1996) contributions, based on the formula:

$$(P * A * Q * M) + K, \text{ where}$$

P = the accrual factor (typically ranging from 1 percent to 1.4 percent)

A = average economy wage for the year prior to retirement

Q = an index of average contributory wage and is calculated as:

$(X_1/A_1 + X_2/A_2 + X_3/A_3 + \dots + X_n/A_n) / n$; where $X_1, X_2, X_3, \dots, X_n$ represent the individual’s contributory wage levels for the years 1996, 1997, 1998 through to the year before retirement; and $A_1, A_2, A_3, \dots, A_n$ represent the average economy wage for the same years; and n is the length of contributory service, i.e., the years between the time individual accounts were first established (assumed to be 1996) through to the year before retirement.

M = length of service before the establishment of the individual accounts

K = fixed amount of supplement (this amount varies by province/municipality and could range from RMB0 to RMB120 per month).

* Source: Sin (2003).

Annex D: World Bank Pension Reform Projects, 1995 – 2004

<i>Project name</i>	<i>Funding basis</i>	<i>Pension Project Funds</i>	<i>Time period</i>
Enterprise, Housing, and Social Security Reform Project	IBRD/IDA	US\$13 million	1994 – 2004
Pension Reform Project	LIL	US\$5 million	1998 – 2004
Pension System Reform (AAA)	N.A. (WBI)	N.A.	1999 – 2004
Liaoning reform	EHSSR excess/EU	US\$5 million	2001 – 2004

Annex E: List of Officials Interviewed***MOLSS***

Dong Yingshen	Division Director, Pension Dept.
Huang Yong	Division Director, I.T. Center
Jin Hong	Director Comprehensive Division, Department of Planning and Finance (former Chief of the World Bank Operations Office)
Wang Zhifeng	Acting Chief, the World Bank Operations Office

MOF

Ms. Liu Fei	MOF Pension Department
Mr. Wang Zhuoyin	Liaoning MOF Official

World Bank

Ms. Keiko Sato
Ms. Yvonne Sin
Ms. Xiaoqing Yu

Annex F: Pension Workshop, April 9, 2004, Beijing: Agenda and Speakers

- | | |
|-----------------------|---|
| 1. Mr. You Mingchun | MOF Pension Division, Deputy Director |
| 2. Ms. Yvonne Sin, | World Bank |
| 3. Mr. Lu He Ping | MOF Pension Division, Director |
| 4. Ms. Xiaoqing Yu | World Bank |
| 5. Mr. Gao Shusheng | Research Fellow, China Insurance and Social Security Center, Beijing University |
| 6. Mr. Gong Shen | Development and Research Center, Social Development Department, State Council |
| 7. Mr. Jiao Kaiping | MOLSS, Pension Division, Director |
| 8. Mr. He Ping | MOLSS Labor Scientific Institution, Director |
| 9. Mr. Yu Gongbing | MOF, Pension Division, Comprehensive System Department, Manager |
| 10. Mr. Lin Zhongling | MOF, Pension Division, Fujian Province |
| 11. Mr. Lan Guangwei | MOF, Pension Division, Tianjin |
| 12. Ms. Wang Xuemei | Hong Kong Linnan Univeristy |
| 13. Mr. Wei Wu | Bureau of Finance, Wuhu, Anhui Province, Pension Department |

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