FINANCING CHINA’S PENSION REFORM

Jun Ma
Deutsche Bank
&
Fan Zhai
Ministry of Finance of China

To be presented at the Conference on
Financial Sector Reform in China
September 11-13, 2001
Financing China’s Pension Reform

By

Jun Ma, Deutsche Bank
Jun.ma@db.com

and

Fan Zhai, Ministry of Finance of China
Fzhai99@yahoo.com

1. A Brief History China’s Pension System

China had, until the late 1980s, maintained an urban- and enterprise-based PAYGO pension system covering mainly state owned enterprises and some large collective enterprises.¹ This SOE-backed system was extremely fragmented and provided relative generous benefits to pensioners. Although it adequately served China planning economy for four decades, the conflict between enterprises’ social functions and their role as market players has became more and more acute as economic reforms hardened their budget constraints and forced many of them into financial distress.

Under this system, a retiree of a typical SOE received pensions from his/her enterprise, which ran a pay-as-you-go pension scheme with the firm's own revenue. The risks of such a small-scale pension system were high, particularly when many SOEs began to operate at a loss over the past few years. Many SOEs could no longer afford to pay their retirees the promised full pension benefits. Moreover, the distribution of the pension burden across enterprises was extremely uneven: many old SOEs were heavily burdened by

¹ Pensions of civil servants are covered by the government budget and run on a PAYG system. In this paper, we focus on the reform of the enterprise-based pension system.
their large number of retirees (some SOEs had more retirees than current workers), while others (mainly new firms) had very few or no retirees.

China started to reform the SOE-based pension system in the late 1980s. In 1986, pooling was established on a limited basis across state enterprises at the municipal level, and an individual contribution scheme was implemented for contractual workers within the SOEs. Contributions began to be pooled but enterprises retained the responsibility for making pension payments. Since then, pooling was extended to workers in collectively owned enterprises in many cities. In 1991, the State Council’s Document No. 33 required individual contributions by all workers, in addition to enterprise contributions, and initiated the experiment of individual accounts. This document also called for an expansion of pooling and the establishment of a three-tier system: a basic pension plan by mandatory enterprise and individual contributions, a supplementary pension plan funded by enterprises that in sound financial conditions, and individual savings.

In 1995, the State Council issued Document No. 26 which proposed two plans for the basic pension plan. The circular permitted municipal and prefecture governments to select a reform plan and provincial governments were given the right to approve the choice by lower level governments. This led to a highly fragmented system in which provincial and local governments and line-ministries selected various combinations of the two plans. In 1997, the State Council’s Document No. 26 decided on a unified multi-tier pension system combining social pooling with individual accounts. The system separates a basic pension plan (pillar 1, social pooling) which aims to set a floor of benefits, from a supplementary pension plan (pillar 2, individual accounts) which is linked to accumulated contributions. Pillar 1 was to be financed entirely by enterprise contributions of 13 percent, and would provide 20 percent replacement based on the previous year’s provincial and local average wage. Pillar 2 would be financed by individual contributions of 8 percent plus 7 percent from enterprises, and it would entitle retirees to a monthly annuity equal to 1/120 of the account's notional accumulation plus an indexation factor. According to the document, contributions to [Pillar 1] were to be pooled initially at the provincial level and later at the national level. Unfortunately, the 1997 system largely failed as funds in most individual accounts were “borrowed” to finance the benefits
payments of the basic pension plan. As a result, the entire pension system remained effectively a PAYG system.

The most recent framework for China's pension reform was defined in State Council Document No. 42 of 2000. A pilot program is run in Liaoning Province based on the guidelines set in this document. According to this document, enterprises’ 20% contribution will go to the social pooling fund entirely and individual accounts will be financed by the 8% individual contributions. This document requires the segregation of the management of individual accounts from the administration of the social pooling funds.

In most part of China, however, the PAYG system as well as the notional individual accounts are still highly fragmented and are publicly managed at the municipal level. This hybrid system is in the process of transition. The current system has the following problems (many of these problems have been pointed out in Dofman 2000 and Wang et al 2001)

(i) **Most pension funds run deficits and require government subsidies.** Many local pension pools are financially bankrupt as compliance rates (at about 70-80%) are still low. Data from the Ministry of Labor and Social Security indicates that the deficit of pension fund has increased from more than RMB 10 billion in 1998 to near RMB 40 billion in 2000 (MOLSS, 2001). In 1999, the MOF transferred RMB 17 billion to 25 provinces to cover pension shortfalls in localities. In 2000 budgetary subsidies for pension funds exceeded RMB20 billion, and the 2001 budget has so far maintained the 2000 number. The central and local governments are in effect bailing out local pension pools, many of which are bankrupt.

(ii) **The current pension scheme is financially unsustainable.** From the long-term perspective, changing demographics [will provide more data] will constitute a more serious financial challenge to pension system. This trend, if unchecked, will become a threat to the fiscal sustainability of the central government. **In addition the pressures from demographic changes, the government owes a large debt to the individual accounts.** It was estimated by the [Ministry of Labor] that the total mount of funds borrowed by the PAYG system from individual accounts amounted...
to RMB 199bn in 2000. The government has not made a clear decision on how to finance the transition cost.

(iii) Fragmentation of the pension system. By [mid-1999,] only 5 (the provincial level municipalities Beijing, Chongqing, Shanghai and Tianjin, plus Hainan province) of the 27, had achieved full pooling. Contribution rates continue to vary both by province and by municipality within some provinces. Considerable fragmentation also remains between the mandatory systems in different ownership of enterprises. The fragmentation has led to inequality across regions and enterprises, and the lack of pocketability of the pensions.

(iv) Incomplete and uneven coverage. By the end of 2000, the basic pension system covered only 75.3 percent of workers in state-owned enterprises, 86.4 percent of workers in urban collective enterprises, 86.4 percent of workers in foreign funded enterprises, and 8.9 percent of workers in other urban enterprises (include individual and private enterprises). Some industrial sectors with relatively young work forces have resisted requirement of pension participation/unification.

(v) High burden on enterprises. According to the State Council’s Document No. 26 (1997), the contribution rate of enterprises is 20 percent to total wages. However, contribution rates of enterprises in eighteen provinces amounted to more than suggested 20 percent in the year of 1998 (Liu, 2000). If we take into account of the additional enterprises contribution for health care (6%), unemployment insurance (2%), work injury insurance (1%), maternity (0.8%) and housing provident fund (usually 5-10% ), the overall contribution by employers is around 40% of wages in most provinces. This serious financial burden weakens enterprises competitiveness and results in broad contribution evasion.

2. Policy Options for Pension Reform

To cope with these problems, especially to address the issue of financial unsustainability of the PAYG system, several reform options have been proposed. One suggestion was to modify the existing PAYG system by raising the retirement age, extending the coverage of PAYG system to include the non-state sector and township and
village enterprises, lowering benefits and strengthening contribution collection. However, more policy recommendations have focused on transition from the un-funded to a funded system, fully or partly, recognizing that the tenuous linkage between contributions and benefits in existing system has created disincentives for contribution and its lack of sustainability presents a serious threat to the government budget.

The financial sustainability of the existing pension system with limited changes is examined by Wang et al (2001). The authors (including an author of this article) used a computable general equilibrium model to simulate several scenarios of expanded coverage and increase in retirement ages with the framework of the current system. The key findings of this study are as follows:

- The baseline simulation results show that the pension deficit would increase from RMB 170 billion (in 1995 price) in 2020 to RMB 550 billion (in 1995 price) in 2050 if China maintains the current pension system.
- Expanding the coverage of the current PAYG system to all formal sectors in the urban area would improve the financial position of the pension system between 2005 and 2035, because the labor force in urban non-state sector is relatively young. But in the long run (2035-2050), an expansion of coverage would worsen its financial situation due to the expected demographic change (population at age 65 or above will rise to 19.1% in 2035 from 7.8% in 2001). The pension deficit in 2050 would increase as high as to RMB 766 billion (1995 price) in this scenario.
- These modeling exercises also suggest that only a radical increase in the retirement age (unify the retirement age between men and women and increased to age 65) could keep the current pension system in surplus, but an increase in the retirement age of women provides little help. Furthermore, an increase in the retirement age can only be introduced gradually as they have negative repercussions on the labor market. The conclusion is that the current system will not be financially sustainable even with limited reforms in coverage and retirement age.
The advantages of fully funded individual accounts have been well explained in theoretical and empirical literatures.² A fully funded, defined contribution system will improve intergenerational equity, facilitate economic efficiency and growth by removing labor market distortions and by providing better incentives, increased savings, and better allocation of resources (James, 1999). In addition, there is empirical evidence of the positive effects of a fully funded individual account on financial market development (Holzmann, 1998). Although the under-development of capital markets in developing countries might be an important argument in favor of the PAYG system, the lack of funded pension system can also be a major impediment to the development of the financial market. It appears that at least part of China’s pension system should support the development of the capital market.

The World Bank (1997) has recommended a multi-pillar system for China’s pension reform, which would consist of a small pay-as-you-go component insurance (Pillar 1) as a social insurance scheme, a large mandatory fully funded individual accounts component (Pillar 2) to obtain the advantages of funding, and a supplemental voluntary pension accounts component funded via commercial insurance (Pillar 3). Based on simulations using an actuarial model, they proposed that Pillar 1 to be financed by a payroll tax at 9 percent of wages with expanded coverage and provincial-level pooling, and that it provides a 24 percent replacement rate based on average provincial wages.

In terms of reform objectives, the State Council’s Document No. 26 of 1997 and Document No. 42 of 2000 are broadly consistent with the multi-pillar model proposed by World Bank. [We believe that a well-designed multi-pillar system should lead China’s pension system to financial sustainability.] However, none of the two documents have addressed the transition issue, i.e., how to move from the current PAYG system to a funded system, and how to finance the transition cost. In fact, the government will not only need to pay for the implicit pension debt owed to workers and retirees under the old system, but also to repay the “borrowed funds” from the individual accounts over the past years. The size of the implicit debt and transition cost will have an important influence on

² See, for example, Feldstein (1997) and Hemming (1998) for recent overviews of the rationale of shifting from PAYG system to fully funded system.
the choices of reform path. A huge implicit pension debt forced some countries, such as Latvia, Poland, and Sweden, to adopt a notional defined contribution system (Disney 1999). While in China, the government has not officially recognized the implicit pension debt, and has not made a decision on how to pay for it. As a result of this policy vacuum—and, indeed, lack of other legitimate financing sources—many local governments have moved funds in individual accounts to pay pensions to current retirees and most individual accounts are “empty” or “notional”. In our view, to ensure orderly payments to pensioners (and thus contain possible social unrest) and prevent a further expansion of pension liabilities to the government, the government should move quickly to a decision on how to separate the implicit debt from new pension system and how to finance the transition costs.

3. Fiscal Costs of Pension Reform

We define implicit pension debt (IPD) as the present value of total implicit pension obligations to current pensioners and current contributors if the current PAYGO system have to be terminated. It is measured by adding the present value of benefits that will have to be paid to current pensioners plus the present value of pension rights that current workers have already earned and would have to be paid if the system were terminated today. IPD is usually calculated under the hypothesis that the unfunded system is to be terminated immediately and that all pensioners and workers must be compensated for their future pensions and accrued rights.

Transition costs arise from the financing gap created when payments to pensioners and future retirees must continue even though part of the contributions have been diverted to funded individual accounts. Thus transition cost stems from the need to pay off, over some years, the debt of the old system. This financing gap stems from the IPD but it is not equal to the IPD, since some of the expenditures are for new obligations that accrue each day, and some of the current obligations are covered by ongoing contributions. If the new pension system follows a multi-pillar model and includes a small PAYG system, then the present value of transition costs is smaller that IPD,
because part of pension obligations would be paid off by contributions of existing and new workers.

The size of IPD depends on many economic and demographic factors such as the age structure of covered workers and pensioners, pension system coverage, level of pension benefits, retirement age, replacement rates, indexation mechanism, and discount rates. World Bank (1997) estimated China’s IPD at between 46 percent and 69 percent of GDP. A recent estimate puts the IPD at 94 percent of the 1998 GDP (Dorfman and Sin, 2000). Wang et al (2001) estimated China’s IPD is around 71 percent of GDP in 2000.

The size of IPD in China is moderate in relative to OECD countries and transition economies. In most OECD countries IPD ranges from 100 percent to 200 percent of GDP. The IPD estimated for Chile at the time of its reform (1981) was between 40 and 130 percent of GDP, depending on the discount rate used. In Hungary and Uruguay, which have high coverage, high system dependency ratios, and generous benefits, IPD was more than 200 percent of GDP. (Jame, 1999)

Based on different assumptions on transition mechanism, several studies have quantified the transition cost of China’s pension reform. Wang et al (2001) proposed a transition path which would phase out the current notional individual accounts since 2001, according to the principle of “old people, old system; new people, new system”. It assumes that the existing pension system would be terminated in 2001, and a new system consists of three schemes: a small PAYG scheme (pillar 1), a transitional pillar (pillar 2), and a fully funded individual accounts (pillar 3). Pillar 1 will be financed by a 13 percent wage contribution from current workers (who are currently participating in pension system) and new workers (who will join the new pension system in or after 2001), and will pay pensions to all retirees at a 20 percent replacement rate. Pillar 2 will be financed by government subsidies as well as a 11 percent wage contribution from current workers, and will pay the remaining pensions (at a additional 40 percent replacement rate) to existing retirees and future retirees who are current workers. The transitional accounts will be phased out as the pre-reform retirees and current workers die. Pillar 3 will be financed by self-determined contributions from new workers and will pay future pensions based on investment returns to their individual accounts. Simply put, the transition cost (or fiscal cost) of pension reform refers to the government subsidies that are required to
cover the liabilities of the second pillar. Their simulation results from a dynamic CGE model suggest that the transition cost is reasonable, ranging from 0.5 to 0.6 percent of GDP during 2001-2035 to 0.3 percent of GDP in 2050.

Dofman and Sin (2000) estimated the transition cost of China’s pension reform using the World Bank actuarial model, PROST. They projected that if there would be no reform of the current pension system, the pension deficits would increase to 0.36 percent, 0.75 percent and 0.89 percent of GDP in the year of 2030, 2050 and 2075, respectively. They also proposed a reform package, which include 1) the retirement age would gradually increase to age 65 for man by 2012 and for women by 2032, 2) the provision whereby retirees are entitled to a monthly pension equal to their individual account accumulation divided by 120 (10 year implicit annuity with no interest) would be modified to a new annuity whereby the monthly benefit is calculated based on the accumulation divided by the life expectancy at the age of retirement (revised every five years) as well as a projected provincial Consumer Price Index-linked indexation factor. In the proposed reform scenario, the present value of transition cost is RMB 456.2 billion, around 6.3 percent of 1998 GDP.

[In two weeks, we will provide a revised estimate of IPD and transition costs based on the Document No. 26 (the Liao Ning model). It will show that most of the transition costs are already born by the very high contribution rate for Pillar 1 (20%) in the Liao Ning Model, but some budgetary subsidies will still be needed.]

4. A Fiscal Sustainability Analysis Taking into Account Social Security and Banking Reforms

In discussing the budgetary implications of pension reform, it is incomplete if one isolates the IPD or transition costs of pension reform from other future expenditure

---

3 Some important assumptions in their projection include: i) there is no change for coverage of pension system; ii) the contribution rates to social pooling pension fund (pillar 1) and individual accounts are 21 percent and 8 percent respectively; iii) the return rate of reserves in individual accounts is 3 percent.
needs and reform costs. In this section, we develop a medium term fiscal framework taking into accounts costs associated with banking, pension, and unemployment insurance reforms.

China’s reported government debt-to-GDP ratio is very low, at about 18% of GDP at end-1999, compared with estimated public sector debt–to–GDP ratio of about 100% in Indonesia, 46% in Malaysia, 81% in the Philippines and 61% in Thailand. Interest payments on the budget consumed about 7% of total government revenue, or 13% of central government revenue in 1999. These are quite comfortable ratios by international standards. Many observers, including ourselves, have noted that these calculations ignore the potentially significant hidden or contingent liabilities facing the government, most notably, the fiscal costs associated with banking sector restructuring as well as pension and unemployment insurance reforms.

Our estimates show that the net present value of the fiscal costs of banking and social security reforms over the next fifty years could amount to about 65% of GDP (in present value terms, 2000 prices). These include a fiscal cost (interest and principal payments on bank restructuring bonds net of asset recovery) of about 23% of GDP for banking reform to be paid over the next eleven years, a fiscal cost of about 41% of GDP for pension reform to be paid over the next fifty years, and a fiscal cost of about 1% of GDP for subsidizing the unemployment insurance system over the next eleven years. The key assumptions used for the banking reform cost calculation include: (1) 80% of the RMB 1.4tn non-performing loans (NPLs) currently with Asset Management Companies (AMCs) are to be written off; (2) the government needs to provide an additional RMB 1.4tn to fully recapitalize the banks over the next four years; and (3) new NPLs will decline gradually and, starting from 2005, can be fully absorbed by the AMCs’ asset recovery value and bank earnings.

The key assumptions for the pension reform cost calculation include: (1) the existing pension system would be terminated in 2001; (2) the new system consists of three schemes: a small pay-as-you-go scheme (pillar 1), a transitional pillar (pillar 2), and a fully-funded scheme (pillar 3). Pillar 1 will be financed by a 13% wage contribution from current workers (who are currently participating in the pension
system) and new workers (who will join the new pension system in or after 2001), and will pay pensions to all retirees at a 20% replacement rate. Pillar 2 will be financed by government subsidies as well as a 11% wage contribution from current workers, and will pay the remaining pensions (at an additional 60% replacement rate) to existing retirees and future retirees who are current workers. Pillar 3 will be financed by self-determined contributions from new workers and will pay future pensions based on investment returns to their individual accounts. Simply put, the fiscal cost (or transition cost) of the pension reform refers to the government subsidies that are required to cover the liabilities of the second pillar.

As for the fiscal cost of unemployment insurance reform, we assume that (1) the new unemployment insurance system will cover all registered unemployed and Xiagang workers (those who currently receive benefits from SOE re-employment centers); (2) the consolidated unemployment insurance system will continue to receive 3% of employee wages as contributions, and the benefit rates will be set at about 40% of average going wages; and (3) the actual urban unemployment rate (including Xiagang workers) stood at 7.2% in 2000, and will gradually increase to 8.2% by 2005 as a result of WTO-led competition, SOE restructuring, and increased rural migration to urban areas. The urban unemployment rate will decline gradually from 8.2% in 2006 to 6.8% in 2013 as the restructuring of most SOEs is completed. The fiscal cost refers to the need for budgetary subsidies to cover the annual deficits of the unemployment insurance system over the next eleven years. According to our projection, the unemployment insurance system will begin to show surplus from 2012.

Assuming there is no change in tax policies – that is, the revenue-to-GDP ratio remains constant – we would expect the government debt-to-GDP ratio will continuously grow to about 62% in 2015, and the interest-to-revenue ratio will grow to 25%. In our view, this is an unlikely scenario. The government has recognized the potential fiscal risks posed by these liabilities, and has formulated a plan to reform the tax system and strengthen revenue collection. In the next few years, we expect to see an expansion of the coverage of the consumption tax and the VAT, unification of corporate income taxes for domestic and foreign funded enterprises (which implies a
reduction in tax concessions), and probably a slight increase in the marginal personal income tax rate for high-income taxpayers. In addition, we assume that AMCs’ asset recovery can contribute to government revenue annually from 2001-2004. The revenue-to-GDP ratio is therefore likely to increase by two percentage points over the next four years. Under this adjustment scenario, China’s debt-to-GDP ratio will be comfortably controlled at around 35% in 2015, slightly lower than the estimated level for 2001.

In sum, although the fiscal costs of reforms are dauntingly high in present value terms, they are spread over a long period of time. Throughout the projection period (2000-2015), the annual interest payments on bank restructuring bonds are projected to be below 1.5% of GDP, the annual budgetary subsidies needed to run the transitional pillar of the new pension system are below 0.6% of GDP, and the annual budgetary cost of subsidizing the unemployment insurance system is below 0.1% of GDP. If the government adopts adequate revenue measures in the near future, these fiscal costs should be manageable.

[Note: the following simulations will be updated in the next two weeks]

### Government Debt Dynamics: Adjustment Scenario

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Revenue</td>
<td>14.2</td>
<td>15.7</td>
<td>16.2</td>
<td>16.7</td>
<td>17.2</td>
<td>17.7</td>
<td>18.2</td>
<td>18.2</td>
<td>18.2</td>
</tr>
<tr>
<td>Total Expenditure</td>
<td>17.0</td>
<td>18.7</td>
<td>19.2</td>
<td>19.4</td>
<td>19.9</td>
<td>20.2</td>
<td>20.1</td>
<td>19.7</td>
<td>19.1</td>
</tr>
<tr>
<td>Interest payments</td>
<td>1.0</td>
<td>1.1</td>
<td>1.8</td>
<td>2.4</td>
<td>3.2</td>
<td>3.4</td>
<td>3.3</td>
<td>3.0</td>
<td>2.3</td>
</tr>
<tr>
<td>Non-interest expenditure</td>
<td>16.1</td>
<td>17.7</td>
<td>17.4</td>
<td>17.1</td>
<td>16.8</td>
<td>16.8</td>
<td>16.8</td>
<td>16.8</td>
<td>16.8</td>
</tr>
<tr>
<td>Overall Fiscal Balance</td>
<td>-2.8</td>
<td>-3.0</td>
<td>-2.9</td>
<td>-2.7</td>
<td>-2.5</td>
<td>-1.9</td>
<td>-1.5</td>
<td>-0.9</td>
<td></td>
</tr>
<tr>
<td>Primary Fiscal Balance</td>
<td>-1.9</td>
<td>-2.0</td>
<td>-1.1</td>
<td>-0.4</td>
<td>0.4</td>
<td>1.0</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Net borrowing</td>
<td>2.8</td>
<td>3.0</td>
<td>2.9</td>
<td>2.7</td>
<td>2.5</td>
<td>1.9</td>
<td>1.5</td>
<td>0.9</td>
<td></td>
</tr>
</tbody>
</table>

**Memo items:**
- Government debt/GDP (%): 20.7 37.9 42.9 45.6 47.1 47.2 45.2 39.9 35.2
- New issue of bank restr. bonds/GDP (%): 15.7 5.1 3.7 2.5 1.5 0.0 0.0 0.0 0.0
- Interest on bank restr. bonds/GDP (%): 0.1 0.5 0.8 1.2 1.4 1.3 1.2 0.2 0.0
- Pension reform cost/GDP (%): 0.4 0.4 0.5 0.5 0.5 0.6 0.6
- Real GDP growth (%): 7.1 8.0 7.7 7.5 7.0 7.0 7.0 6.0 5.0

**Source:** Authors’ projection.

### Base Scenario: No Change in Tax Policies
5. Alternative Financing Methods for Pension Reform

Obviously, extra funding resources must be found to finance the transition cost of China’s pension reform. Based on international experience, there are four sets of financing options for China: (i) issue national, provincial or local debt; (ii) raise new taxes, or use general tax revenue; (iii) sell state assets; and (iv) issue special lotteries.

- **Debt Financing.** Given China’s current low government debt/GDP ratio, debt issuance is a useful means of financing current or future liabilities. Issuing government bonds to cover part or all of the cost of current retiree obligations would simply make the implicit debt explicit. Such debt could also assist in the development of fixed-income securities markets. However, as the transition costs are
spread over the long period of time (50-70 years) and the annual fiscal costs associated with the pension reform is quite low (at 0.5-0.6% of GDP), from the debt management perspective, the government may not want to pursue targeted debt issuance for pension reform, but finance the transition with general budgetary revenue (which may require debt issuance for the budget). This is in contrast with the bank restructuring exercise in which huge sums of non-performing assets are replaced by government bonds in just one transaction and can be easily dealt with one issue of bank restructuring bonds without involving much debt management efforts.

- **General Government Revenue.** The government is considering a social security tax covering not only old age pensions but also other social security benefits. The Liao Ning model appears to be designed along this line. It may become a nationwide tax that will replace the current contributions to social pooling pension (pillar 1). In principle, a centrally collected social security tax can potentially improve compliance and compared with the current social security contribution schemes. But if the social security tax is to finance the basic pension as well as the transition costs, its tax rate will have to be raised from the current contribution rate. However, the current combined employer/employee contribution rates are already very high. The use of a payroll-based social security tax to finance transitional cost will result in an even greater burden to employees and employers, and exacerbate labor market distortions and incentives for evasion.

We think the government should seriously consider the option of financing the transition cost by raising the rate of the value-added tax (VAT), rather than the payroll tax. [We are trying to add a simulation on the distortions created by a VAT vs. payroll tax. We expect the result to show that an increase in the VAT rate is less distortionary and is harder to evade.]

- **Sale of state assets.** The State Council formally announced in June 2001 that the government would sell portion of SOE shares during IPOs to finance the social security reform. Specifically, starting from June 13, when new shares are offered
during any SOE’s IPO (no matter domestic and overseas), the state will sell a portion of its SOE shares that are equivalent to 10% of the IPO proceeds. In addition, future sales of state shares through private placement will also involve a remittance of portion of proceeds to the government. These privatization proceeds will be transferred to the newly established National Social Security Fund, which is designed to subsidize local pension funds that are expected to run deficits during the planned pension reform (Jun Ma 2001a).

We expect that the annual privatization proceeds from the local stock markets to reach about RMB 100-300bn depending on market conditions. This is about 0.1-0.3% of GDP and but will not last forever. The government needs to work out further details as to how to devide the revenues from share sales through private placement among different parties (the central government, local government, pension funds, and parent companies).

- **Lotteries.** One important source of revenue for the National Social Security Fund is receipts from lotteries including sports lotteries and welfare lotteries. The annual amount of proceeds is about RMB [30-50]bn.

With all these alternative funding sources, the task facing the government is to conduct a systematic analysis of the various combinations and their impact on the economy and the government’s medium term fiscal position. The principles for selection should include minimizing distortions, easy administration, and sustainability. [To be explained further. ]

Another important issue to keep in mind is that financing plan for the pension reform should not be viewed as a stand alone issue. The government’s medium term fiscal planning should consider all expected reform costs—including those associated with banking and unemployment insurance reforms. To start the process, various ministries will have to work together but the coordination task could be daunting.
6. Intergovernmental relations and unification of the pension system across the country

An unresolved issue is whether China will eventually adopt a uniform pension policy in terms of contribution rates and benefits standards. The main difficulty is that different provinces have different demographic structures and unemployment rates and the required contribution rates to sustain a uniform benefit standard can differ widely across regions. For example, it may require a 20% contribution rate in Liao Ning province to run Pillar 1 with a 20% replacement but only 10% contribution rate in another province with better economic performance.

The Liao Ning model therefore may not apply to many other provinces. We will argue in this section that the central government should design a special pension equalization transfer program to allow all provinces adopt the same contribution rate as well support the same replacement. The central government transfer will basically fill in the financial gap in those provinces that contributions at the standard rate are inadequate to meet the standards pension obligations. This transfer scheme can be part of the function of the National Social Security Fund. Alternatively, should the National Social Security Fund be designed as to tackle the longer-term pension deficits, a special budgetary program should be established to perform this equalization function.

The introduction of a pension equalization system will enable pensions to become pocketable across regions, and is conducive to the development of the labor market. It will also eliminate the fiscal burdens that are unfairly placed on provinces that have a high proportion of old and unemployed population.

7. Fund Management Issues

Currently all pension assets—including those in the pooling system and the individual accounts—are managed by the government, namely the social security agencies
supervised by the bureaus of labor and social securities at the municipal level. The
investment guidelines are simple: they can only be invested in bank deposits and
government bonds. This system has several problems: (1) the management of both the
PAYG system and the individual accounts by the same agencies has permitted the
transfer of funds from the individual accounts to pay the PAYG pensions. (2) the public
management of pension funds does not guarantee the managers have incentive to seek
high returns and avoid excessive risks. (3) the investment guidelines are overly restrictive
and have prevented the pension funds from benefiting the high growth potential of the
stock markets.

Once the three-pillar system is put in place, the fund management scheme will
have to change accordingly. In the future, there will be four types of pension funds, and
each of them should adopt its appropriate fund management model:

The basic PAYG system (Pillar I). The investment principles for this pillar
should emphasize safety over profitability and liquidity. It can initially be managed by
the government's social security agencies following the strict investment rules (e.g., only
government bonds, bank deposits, and limited high grade corporate bonds). Fund
management can be entrusted to non-government asset management firms under strict
rules of selection.

The individual accounts (Pillar II). This pillar should be managed by a entirely
different government agency (from the one that manages the PAYG system) in order to
avoid illegal borrowing of funds from individual accounts. The investment of the funds
in these accounts should be run by professional fund managers selected through an open-
bidding process. The investment rules should be formulated by the government (e.g.,
jointly by the MOF and Ministry of Labor and Social Security) and should allow more
aggressive investment (e.g., 20% in stocks, 20% in investable bonds, and 60% in
government bonds and bank deposits
The National Social Security Fund. The objectives of this fund should be clarified. We think it should serve a long-term pension reserve fund to cover transition costs over the next 50-70 years, using privatization proceeds as non-renewable resources. Jun Ma (2001b) has argued that a legal framework should be established to ensure that this fund does not serve short-term fiscal objectives. Indeed, in the first five years, this fund should only receive transfers and be prohibited from spending.

Note that the fund has already started to enter the stock market by becoming a strategic investor in Sinopec in Aug 13. In the future its investment principles need to be formalized. The limit on investments in stocks should probably be set at 30%, but secondary market trading should be restricted. Professional management of its assets is necessary.

Supplementary enterprise pension schemes. These schemes should be operated on the market basis, and participation should be completely voluntary. The government should consider certain tax incentives to encourage the establishment of and participation in such schemes. Rules on fund management should be more liberal compared with the above three types of pension funds.
References


James, Estelle. 1999. “New Models for Old Age Security—and how can they be applied in China?” Paper presented at the WBI and MOLSS workshop, Beijing, June 1-5.


Ma, Jun, 2001a, China’s Financial Liberalization Agenda, Deutsche Bank Publication.

