WP/07/109

IMF Working Paper

Pension Reform in China: The Need for a New Approach

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INTERNATIONAL MONETARY FUND

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IMF Working Paper

Asia and Pacific Department

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May 2007

Abstract

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The rapid aging of China's population over the next few decades makes it important for a new pension system with broad and adequate coverage to be put in place quickly. Pension reforms, first initiated in 1997, have become bogged down in difficulties over dealing with the "legacy costs" associated with the relatively more generous benefits provided under the old system. This paper argues that a way forward is to separate the legacy problem from the problem of setting up a new pension system, and it suggests concrete proposals for setting up such a new system which would cover both urban and rural workers.

JEL Classification Numbers: H55

Keywords: Public pensions; China

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[1] The authors would like to thank Tarhan Feyzioğlu, Xiaoqing Yu, and Liwen Zou for helpful discussions. The authors are solely responsible for the contents of the paper.

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I. INTRODUCTION

China has made remarkable economic achievements in the years since its policy of "reform and opening up" was initiated in 1978. The country has become the world's fourth largest economy and one of its leading trading nations, it has created over 350 million new jobs, and it is estimated to have lifted over 400 million people out of poverty. But the country is not prepared to rest on its accomplishments. In order to sustain its rapid economic growth and development, China's leaders recognize that growth has to be balanced away from heavy reliance on investment and exports toward consumption. Financial sector reform and development, along with improvements in social services, are key structural changes that need to be implemented as part of the medium-term strategy to accomplish this objective. Pensions are a particularly important part of the social services provided by the government where reform can play a major role in rebalancing China's economy. Moreover, the need to establish a sound pension system in China is especially pressing because of the forthcoming acceleration in the aging of the population. The number of workers for every elderly person is projected to fall from 3 at present to 2 by 2015 and to only 1 by the mid-2030s (World Bank (2006a)).

China's age dependency ratio has been rising since the mid-1980s, as the working age population (15–60 years) has increased slowly relative to the elderly population (over 60 years).[2] Going forward, the trend is set to accelerate sharply. The working age population as a proportion of the total population is projected to peak as early as 2010 (Figure 1). In subsequent decades, while the share of the working age population falls steadily, the share of the elderly will double before 2030.[3] The median age is expected to rise from 32½ years in 2005 to 48 years in 2050, which would be higher than that in countries such as India and the United States, although lower than in countries such as Japan and Korea (Figure 2). Moreover, many of the countries that have already experienced a "graying" of the population that is more marked than China's have done so at higher levels of income (Figure 3). In Korea, for example, the median age of 32½ years was reached in 2000, but its per capita income at the time (U.S.$16,200), purchasing power parity basis) was nearly two-and-a-half times the level of China's 2005 per capita income ($6,700).

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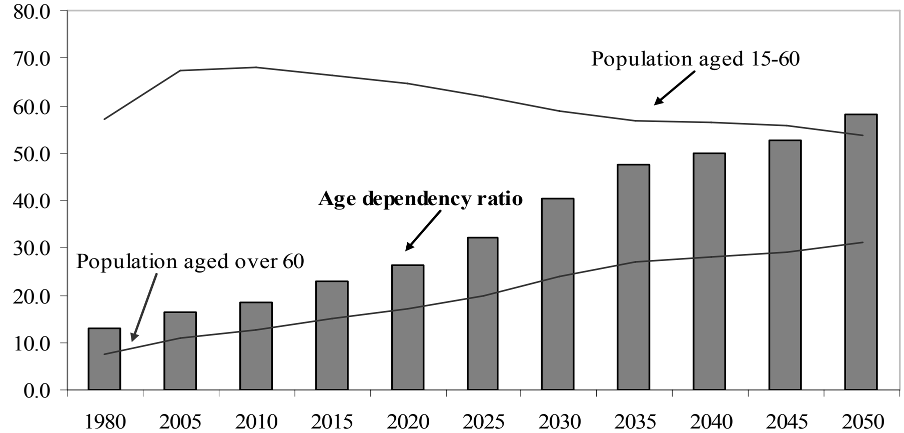
[2] This in large part reflects the one-child policy instituted in the early 1970s that restricts most urban families to having one child.

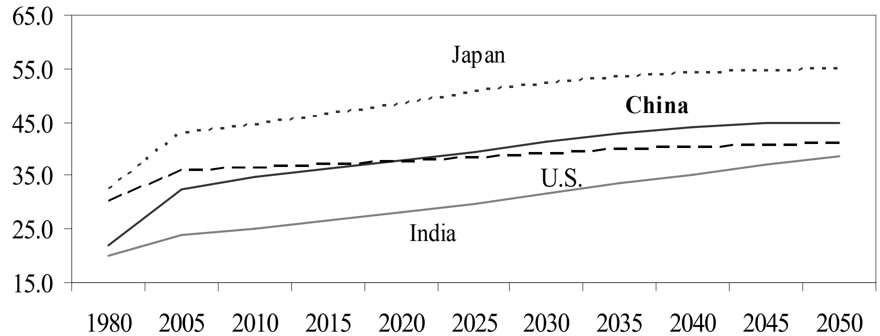
[3] Figure 1 is based on the projections made by the United Nations (2007). Depending on the definition of "working-age" population and "elderly", however, one can get different estimates of the age dependency ratio. A starker picture emerges than is provided by the UN-based estimates if one considers, for example, that on average workers start work at a later age than 15 and the true retirement age is below 60 years for many people (see World Bank (2006a), Trinh (2006)). The main point is that the demographic outlook clearly indicates a significant aging of the population in the coming decades.

Figure 1. China: Demographics, 1980-2050
(In percent)



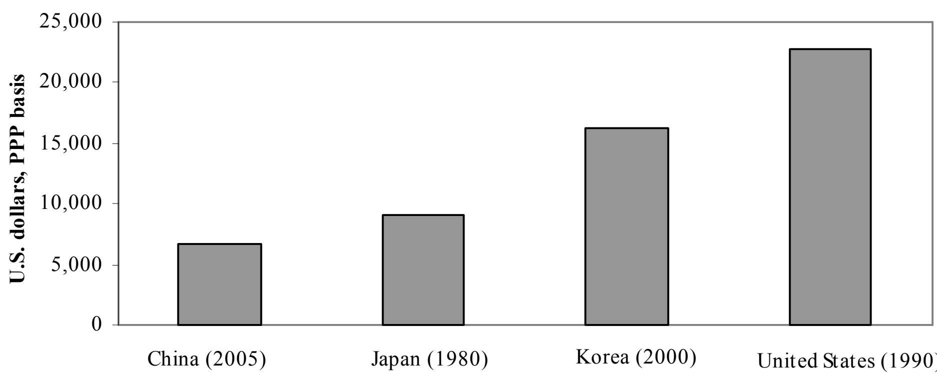
Source: Based on United Nations (2007).

Figure 2. Median Age (in years), 1980-2050



Source: United Nations (2007), World Population Prospects.

Figure 3. Per-Capita Income when Median age Around 33 years



Sources: United Nations (2007), World Population Prospects; and World Economic Outlook database.

Efforts to reform China's public pension system have been ongoing for the last two decades, with the most recent phase of reform being underway since 1997. It aims to put in place a new pension system for the entire urban population.[4] To accomplish this, reform has taken a conventional approach that tries to deal with problems inherited from the previous pension system (so-called "legacy costs") as part of the implementation of a revised pension system. The approach has had limited success, however, and it is time to try a new approach. In this paper, it is argued that the priorities should essentially be reversed. Instead of getting bogged down in dealing with the problems inherited from the old system, the authorities should move quickly to put in place a new national pension system that covers all workers, both urban and rural, and then deal with the legacy costs of the current system.

II. Pension reform experience

A. Initial steps

The pension system that was set up after the founding of the socialist economy in 1949 was a part of the so-called "iron rice bowl", whereby citizens were guaranteed employment in state-owned enterprises (SOEs) or other state institutions with all of the attendant social benefits, including "basic pensions" (as well as health care, education, and other services). The (defined) benefits were provided directly by enterprises, and the system was financed by enterprise contributions topped up by fiscal allocations (there were no employee contributions). The initiation of SOE reforms in the late 1980s, however, saw a hardening of SOE budget constraints, a reduction in the ability of SOEs to provide promised benefits, and a progressive reduction in the social obligations of SOEs.[5]

In 1991, the authorities encouraged the establishment of a multi-pillar pension system that comprised a social pension and individual accounts as its main components and that included employee contributions. Pilot projects in selected provinces sought to achieve a greater balance between employee and employer pension contributions and to pool contributions at progressively higher levels of government in order to finance benefits more effectively.[6] In 1995, the authorities spelled out key operational details of such a system, including benefits and eligibility requirements, on the basis of which pilot projects were conducted in Shanghai and Guangzhou.

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[4] While the reforms have focused on the pension system for enterprise workers, there are also 2 other elements of the government-sponsored pension system: special occupational schemes for employees of the civil service/state organizations and a voluntary pension system for rural workers.

[5] The authorities have continued to emphasize the reduction of social obligations as a key aspect of SOE reforms, including most recently in the work plan of the National Development and Reform Commission (2007).

[6] Chen (2004) and Trinh (2006) assess the evolution of China's pension system over time.

B. The 1997 reform

Based on the experience gained in the pilot projects, the authorities in 1997 announced a revised pension policy that aimed to cover China's entire urban labor force. Instead of pensions being provided by enterprises, they would be provided by a countrywide social insurance system that would also be responsible for providing health, unemployment, disability, and maternity benefits. The reform, which is still in transition, was given an impetus in 2000 through the introduction of pilot projects in a few provinces and municipalities.[7] It started at the local government level with a view toward expanding the system's coverage and scaling up reformed pension plans from the local to the provincial government levels and eventually to the national level.

The basic structure of the revised system is a mandatory two-pillar pension comprising a defined benefit "social pension" plus defined contribution "individual accounts." The social pension is financed by enterprise (i.e., employer) contributions of 17 percent of wages and provides benefits equal to 20 percent of average local wages, provided that the enrollee has contributed for at least 15 years.[8] It was intended to be a pay-as-you-go (PAYG) system. The individual accounts are financed by enterprise and employee contributions of 3 percent and 8 percent of wages, respectively, and provide a monthly annuity equal to $1/120^{th}$ of the accumulated contributions plus interest. They were intended to be fully funded. The individual accounts are designed on the assumption that if an individual were to contribute for 35 years, the monthly annuity would be equivalent to 38.5 percent of wages.[9]

C. Experience under the 1997 reform

The 1997 reform has fallen far short of its objectives and of achieving a meaningful level of coverage for the population as a whole. The objective of full urban coverage is still some distance away: a decade after the new system was initiated, it still only covers less than half of urban workers (Table 1).[10] Universal coverage for rural workers is even further away, with

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[7] The pilots have included the 3 north-eastern provinces of Liaoning (considered the flagship project) and, more recently, Heilongjiang, and Jilin; the 3 municipalities of Chongqing, Shanghai, and Tianjin; and, since January 2006, the 6 additional provinces of Shanxi, Shandong, Henan, Hubei, Hunan, and Xinjiang.

[8] The retirement age is 60 years for men and 50–60 years for women, with the higher age applying to women who are professional and salaried.

[9] An individual whose wage is equal to the average local wage could thus expect a replacement rate of 58.5 percent, comprising 20 percent from the social pension and 38.5 percent from the individual account. Because the first pillar pays benefits based on average local wages, it represents some redistribution from higher-than-average earners to lower-than-average earners.

[10] Official data on coverage are not available separately for the revised and the old system, and available data do not allow an exact estimation of coverage under the revised system. However, a rough calculation would suggest that fewer than one-half of urban workers are covered. As of 2005, pension contributors in enterprises, which in principle fall under the revised system, amounted to 117 million people, compared with total urban employment of 273 million (National Bureau of Statistics (2006a and 2006b)). The implied coverage ratio is 43 percent of urban employment, or only 15 percent of total national employment. Because this omits non-enterprise contributors, it under-estimates actual coverage. Even if it is assumed that all non-enterprise contributors fall under the new pension plan (which is unlikely) the coverage ratio would still be only

(continued…)

Table 1. Contributors to the Pension System		
	Employees	of which: enterprise workers
	In millions	
1990	52	52
1997	87	87
1998	85	85
1999	95	89
2000	104	95
2001	108	97
2002	111	99
2003	116	103
2004	123	109
2005	131	117
	In percent of urban employment	
1990	31	31
1997	42	42
1998	39	39
1999	42	40
2000	45	41
2001	45	41
2002	45	40
2003	45	40
2004	46	41
2005	48	43

Sources: China Statistical Yearbook (2006) and China Labour Statistical Yearbook (2006).

the rural pension system covering only an estimated 12 percent of rural workers.[11] For the nation as a whole, less than a quarter of workers have any form of pension coverage whether under the old or the revised system. While the 3 municipalities have been relatively successful in developing pension systems for urban workers, experience in the pilot provinces has been mixed (discussed below).

The reform has been bogged down by the preoccupation with resolving the "legacy costs" associated with the transition from the old system that prevailed before 1997 and by some aspects of the revised system. The legacy costs generally refer to the difference in pension entitlements for transition generations between the revised and the old systems. Workers who retired or who enrolled in the old pension system before 1997 are entitled to significantly more generous benefits than the benefits under the revised system (75–80 percent of wages compared with 58.5 percent for an average worker).[12] Because the old system was not funded, and the contribution rates in the revised system's social pension were designed with a view to a lower replacement rate than the old system, the transition costs represent an unfunded liability.

48 percent of urban employment. Even this would over-estimate urban coverage to the extent that the list of enterprises, which is assumed to be urban, in fact includes township and village enteprises. Moreover, in the official data, if an enterprise is registered as a participant then all of its workers are counted as contributing, although not all of them might in fact be contributors.

[11] The rural pension program is designed and operated separately from the urban pension system (see Chen (2004) for a discussion).

[12] Workers who retired before 1997 are entitled to the old, 75-80 percent replacement rate; workers who retire in 1997 or later but who enrolled before 1997 are entitled to the new benefits (social pension equivalent to 20 percent of local wages and accumulations in their individual accounts) plus a supplementary "transition pension" to compensate them for the years during which they did not contribute to the individual accounts. In practice, the effective replacement rate for the transition generation is estimated to be around 60 percent (Sin (2005)) or higher (Chen (2004)). Moreover, the ranks of the transition generation were swelled by the early retirement and layoffs associated with the acceleration of SOE reform after 1997, with SOE employment falling by one-third (35 million workers) during 1997–2005.

III. Remaining Problems in the Pension System

Official estimates of the size of this unfunded liability are not available, but IMF staff estimates suggest that, as of 2003, it amounted to 7 percent of GDP.[13] The actual cost of funding the unfunded liabilities could, however, be higher than this if different parameters are realized than were assumed in the plan—for example, if the replacement rate is increased or life expectancy after retirement turns out to be higher than assumed in the plan. Moreover, the above generally-used definition of legacy costs does not account for a substantial part of what is needed to achieve universal coverage. This would include, in addition to the transition costs associated with those who retired or enrolled before 1997, the pensions to be paid to current enrollees and the cost of covering those who currently are not covered at all.

The authorities have tried to manage the legacy costs associated with the transition generations in a number of ways. The pension plan was modified such that the gap between pension payouts and social pension contributions was filled with resources from the individual accounts, which as a result have become partially funded or even notional rather than fully funded.[14] Concerns over how to deal with the expansion in unfunded and underfunded accounts has distracted attention from the effort to achieve universal urban coverage. A National Social Security Fund was established in 2000 to serve as a reserve for social insurance programs, and it was required to cover the cash flow deficit in the social pension. The NSSF was entitled to receive 10 percent of the proceeds from equity sales of SOEs in initial public offerings. (This practice was suspended in 2002.) Lottery ticket sales serve as an additional source of revenue.

In addition to the significant distraction posed by the legacy costs, progress with the reform has also been impeded by some aspects of the pension system itself. Such aspects include the decentralized and fragmented nature of the system that prevents effective pooling, a low retirement age that implies a relatively long retirement period, and an implicit assumption in the individual accounts that understates life expectancy after retirement. The problems are exacerbated by the demographic profile, characterized by an increasingly rapid aging of the population with an associated increase in the dependency ratio.

Furthermore, the financial difficulties of the system have occurred notwithstanding the fact that wage growth has outstripped pension growth in recent years (Figure 4). During 2000–2005, average (nominal) wages grew by 15 percent annually in state-owned units and by 12½ percent annually in the manufacturing sector. In contrast, average (nominal) pensions grew by 8½ percent annually. The increase in average wages (and therefore contributions) relative to pension payouts might have been expected to boost the finances of the system. An implication of the strong relative growth in wages is that the effective replacement rate that is being provided by the system has been brought down sharply, from 75 percent of SOE wages in 2000 to 55 percent in 2005. Looking ahead, however, the strong growth in wages would

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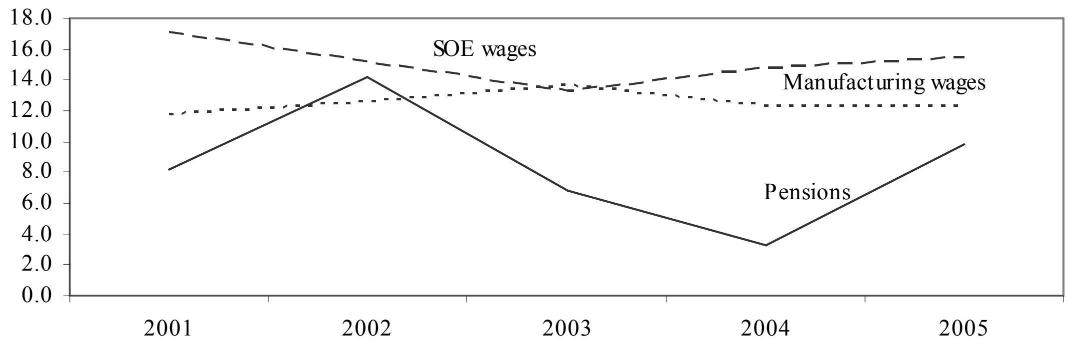
[13] IMF (2004), page 42.

[14] See OECD (2005) and Jackson and Howe (2004) for a discussion.

require strong growth in future pensions if the replacement rates built into the revised system are to be achieved.

While pension systems in many countries function at the level of the nation as a whole, allowing for a broad pooling of risks across sub-national regions, in China the pension system functions at a relatively decentralized administrative level (usually the county or municipal level, except for the pilot projects). Although the central government is responsible for setting the broad policy framework, local authorities have substantial discretion over the setting of specific parameters and over administration. Local authorities in areas with surpluses prefer to reduce the contribution rates or invest the surpluses, rather than to pool their schemes with other areas. As a result, geographical discrepancies have emerged in several key aspects of the system, including contribution rates and transition supplements. Surpluses in some areas have not been used to make up shortfalls in other areas, which in turn the central government has had to finance.

Figure 4. Average Pensions and Wages
(Annual change, in percent)



Sources: China Statistical Yearbook (2006) and China Labor Statistical Yearbook (2006).

Demographic trends have added to the pressures on the pension system and will do so to an increasing extent in the future. The proportion of urban retirees relative to urban workers has risen from under one-fifth in 1990 to over one-third in 2005. Looking ahead, the urban dependency ratio is projected to increase to around 50 percent before 2015 and to 100 percent in the mid-2030s (Sin (2005)). The retirement period in China is relatively long, particularly in the context of relatively early retirement and of a steady increase in life expectancy.[15] Early retirement serves both to shorten the contribution period and to lengthen the benefits period relative to what they would be otherwise. Moreover, the increase in life expectancy has shown up a potential problem in the individual accounts. In order for the

[15] Early retirement was part of the effort to reform SOEs. The standard retirement age of 60 years for men and 50–60 years for women is comparable to other developing countries but low in relation to industrial countries. Meanwhile, between 1990 and 2000 (the most recent census years), life expectancy at birth for men and women increased to 70 years and 73 years, respectively, from 67 years and 70 years (NBS (2006).

monthly annuity of 1/120th of accumulated savings to deliver the intended replacement rate of 28.5 percent, the implicit assumption is that individuals live for 11 years after retirement. (That is, at current interest and wage rates, retirees are assumed to receive benefits for 11 years.) But in fact life expectancy after retirement is estimated to be 20 years for men and 27 years for women (Sin (2005)).

The provincial pilot projects seek to address some of these problems, but their success has been mixed. The project in Liaoning province, which was initiated in 2001, sought to create fully funded individual accounts. The entire enterprise contribution (20 percent of wages) is used for paying social pension benefits, while the employee contribution (8 percent) is used to fund the individual accounts. The gap between contributions and benefits in the social pension is financed by central and local governments. The project was extended to Heilongjiang and Jilin provinces in 2004 with some modifications. The basic pension in these two provinces is based on individual (not local) salaries, and payouts from the individual accounts take into account life expectancy. In addition, in Heilongjiang, pension funds are intended to be pooled at the provincial level. It is difficult to assess the experience in Heilongjiang and Jilin provinces, because of the limited time that has passed under the experiments and because of a lack of data. The project in Liaoning has achieved some successes, including the establishment of funded individual accounts that are separate from the social pension and improvements in pension administration (World Bank (2006b)). But significant weaknesses remain, as the system covers only a relatively low number of workers, has high contribution rates that are not uniform across municipalities, pools pensions effectively only at the municipal level, and is financially unsustainable.[16]

IV. A New Approach

It is clear that the current approach to pension reform is not working. It is time to adopt a new approach.[17] In particular, the new approach should separate the legacy problems of the current system from the need to establish a new national pension system for the whole labor force. The legacy problems can be set aside for the time being. These problems eventually will have to be solved by a negotiated agreement between the local governments and the central government on changes in key parameters in the current system (such as the retirement age and replacement rates) and on sharing the costs of meeting obligations to those covered by the system (Table 2). Also important in time is the issue of how to meet the needs of those not covered by the pension system, but this too will require a fiscal policy solution and agreement between local governments and the central government on burden sharing.

It is essential to act quickly to set up a new national pension system. The significant aging of the population that will take place over the coming decades might not look like a pressing

[16] In the absence of government transfers, pension premiums would have to rise sharply over time in order for pension obligations to be met. One estimate suggests that the premium would have to nearly double from its current level (and the level in comparable countries) to 48 percent of wages (World Bank (2006b), p. 4).

[17] See Dunaway (2007).

problem, but to think so would be a costly mistake. It is a problem that can be solved relatively easily, if the necessary steps are put in place now; but it will become increasingly difficult and expensive to deal with later. To solve this problem, and to also deal with the equally large problem of providing pensions to the rural population, a new national pension system is needed.

Table 2. Pensions, wages, and effective replacement
(Pensions and wages in yuan per year; replacement rates in percent)

	Average Pension	Average SOE Wage Rate	Implied Replacement Rate	Average Manufac-turing Wage Rate	Implied Replacement Rate
2000	7,137	9,552	75	8,750	82
2001	7,717	11,178	69	9,774	79
2002	8,807	12,869	68	11,001	80
2003	9,407	14,577	65	12,496	75
2004	9,715	16,729	58	14,033	69
2005	10,668	19,313	55	15,757	68

Sources: China Statistical Yearbook (2006), Tables 5-18 and 5-21; and China Labour Statistical Yearbook (2006), Table 11-9.

The basic structure of the new system could follow what has already been established by the State Council: a two-pillar system comprising, first, a defined-benefit social pension, which guarantees a minimum level of retirement income, and, second, a mandatory defined-contribution individual account. The structure and key parameters in the new system could be set drawing on the extensive technical advice the government has received and the experience gained from the Liaoning Province pilot project.

The social pension could also be fully or largely funded; the PAYG option is unrealistic in view of the demographic outlook. At least partial funding would be advisable to smooth the future tax burden since the new system will start paying benefits at a time when the proportion of the working age population will be declining and it will cover the entire labor force. A minimum benefit paid by the social pension would entail some redistribution of benefits from urban to rural workers, but the size of this transfer over time will depend on the extent to which labor migrates from the rural areas to the cities and the extent to which industry moves to the countryside. The individual accounts should be fully funded, since the system will be new and independent of any legacy costs of the previous pension system. There is no reason to consider a "notional defined contribution" system as some have suggested, because under a new system all receipts should be used to finance future pensions and not legacy costs.

An important question is what age groups should be included in the new plan. To the extent that older workers are included, their contributions may not be sufficient to pay the costs of benefits under the social pension, and they may not contribute enough to the individual accounts to generate a sufficient retirement income stream. Some contribution from the budget would be needed to at least meet the social pension costs of this group, and then there would be a question as to whether the government should do more or whether retirees would be expected to rely more on their own savings to endure that they have an adequate level of retirement income. This question is beyond the scope of this paper, but it will need to be handled in the specific design of a new pension plan.

A single new national pension administration should be established to receive all pension revenue, manage the funds, and deliver pensions. This new national pension administration should be set up independently of existing government ministries, and it would be useful to establish it under the State Council.[18] It would need to be subject to sound governance standards, including full and transparent accounting and annual audits. Simplified reports might also be made annually to all individual account holders to build their confidence in the system and expectations of the benefits that they will eventually receive. A payroll tax can be used to finance both the social pension and the individual accounts. Collection of payroll taxes to fund the individual accounts should be managed on behalf of the pension administration on a national basis by the State Administration of Taxation.

Key parameters in the system (such as retirement age, replacement ratio, contribution rates, and benefits indexation) should all be set to reflect anticipated retirement needs and social objectives of the pension system and to ensure that the system remains financially viable over time. In addition to annual reports on the system's finances, there should be periodic comprehensive reviews, perhaps on a 5-year basis, to examine in more depth the long-term financial viability of the system and to make adjustments in the system's parameters and changes in its implementation and management as needed.

The assets that the new system will build up will have to be managed professionally, in accordance with international best practice. Assets for the social pension should be kept strictly separate from those for the individual accounts. Since China's financial markets are not yet well developed, the assets in both separate accounts would have to be managed centrally by the government. Managed in this way, the individual accounts would essentially have the features of a provident fund, but this could change over time. As the financial markets in China develop, workers could be given more control over investment decisions for their individual accounts. The social pension too might evolve over time, and, depending on developments and retirement needs, consideration might be given, for instance, to making it means tested. In addition, at least initially, the funds in these two accounts would have to be invested offshore. This would also help to provide rates of return that deliver a reasonable replacement ratio, which would be difficult to attain if investment is limited to domestic markets. Again, as China's financial market develops, these funds could start to be invested domestically, and, in time, appropriately diversified portfolios could be established for both accounts.

[18] The current National Social Security Fund, with its stock of assests (and potential additions from new IPOs and secondary placement offers of equity by SOEs), could be left to manage sorting out the legacy costs associated with the old and revised pension systems.

V. Concluding Remarks

The substantial need at present is to jump start pension reform in China and get it moving again. Future problems with an aging population are large. The best time to begin dealing with that future is now, and to do so will aid in the rebalancing of China's economy if rapid growth and development is to be sustained. To get pension reform moving forward again, a major innovation being suggested here is simply that the only viable way ahead is to temporarily sidestep the legacy problems of the current pension system and get on with putting in place a nationwide system covering all workers as soon as possible. It would appear feasible to proceed relatively quickly in this manner because there is a relatively broad consensus on the basic structure of a new pension system, and this basic structure could remain unchanged over time. That would not prevent some adjustment of the key details in the system over time to reflect the development of China's economy and changes in political and social views on the best means of meeting the financial needs of the elderly.

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