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Governance and Fund Management in the Chinese Pension System

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Abstract

The Chinese pension system is highly fragmented and decentralized, with governance standards, pension fund management practices, their regulation and supervision varying considerably both across the funded components of the Chinese pension system and across provinces. This paper describes the key components of the system, highlights the progress made to date and identifies remaining weaknesses, in regard to information disclosure, the governance framework and pension fund management standards.

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Contents Page

Figures

Appendices

GLOSSARY

BBVA	Banco Bilbao Vizcaya Argentaria
BoC	Bank of China
BoCom	Bank of Communications
CBRC	China Banking Regulatory Commission
CD	Certificate of Deposit
CICC	China International Capital Corporation Limted
CITIC	China International Trust and Investment Company
CMB	China Merchants Bank
CPP	Commercial Property Parade
CPPCC	Chinese People's Political Consultative Conference
CPPIB	Canadian Pension Plan Investment Board
CIRC	China Insurance Regulatory Commission
CSRC	China Securities Regulatory Commission
EA	Enterprise Annuity System
GDP	Gross Domestic Product
GNP	Gross National Product
GPFG	Government Pension Fund-Global (Noway)
HSBC	Hong Kong and Shanghai Banking Corporation
ICBC	Industrial and Commercial Bank of China
IMF	International Monetary Fund
IPO	Initial Public Stock Offering
ISSA	International Social Security Association
IWG-SWF	Working Group of Sovereign Wealth Funds
KPMG	Klynveld Peat Marwick Goerdeler
MOF	Ministry of Finance
MOHRSS	Ministry of Human Resources and Social Security (China)
MOLSS	Ministry of Labor and Social Security (China)
NBIM	Norges Bank Investment Management
NCSFF	National Council of Social Security Fund
NPFG	Norwegian Pension Fund Global
NPRF	National Pension Reserve Fund of Ireland
NSSF	National Social Security Fund
NTMA	Irish National Treasury Management Agency
NZSF	New Zealand Superannuation Fund
OECD	Organization for Economic Cooperation and Development
PIMCO	Pacific Investment Management Company
Y	Yuan (Chinese Currency)
SOE	State-Owned Enterprise
STA	State Taxation Administration
UBS	Union Bank of Switzerland
WP	Working Paper

I. Introduction

Governance of pension fund management is important as it impacts investment performance and critically determines the success of policies aimed at pre-funding pension liabilities. Internationally accepted standards of governance and fund management have been established by several international organizations and standard setters. These include the International Social Security Association (ISSA), the International Working Group of Sovereign Wealth Funds (IWG-SWF) and the Organization for Economic Cooperation and Development (OECD).[2] While covering a heterogeneous set of entities,[3] these standards and guidelines all highlight the importance of strong governance structures with independence from government interference and high levels of transparency and public accountability.

Historically, public pension reserves have been managed poorly in most countries,[4] primarily as a consequence of explicit social and developmental investment mandates. Even when explicit social and/or developmental mandates have been absent, governments have often relied on their powers of coercion to ensure sufficient demand for their debt to finance public expenditure or for other securities to finance well-connected entrepreneurs and public enterprises. Sometimes regulations have required commercial banks to meet reserve and liquidity requirements by holding government paper. At other times, both in developing and developed countries, social security funds have been required to invest in government bonds, sometimes in specially issued non-marketable instruments, with substantially below-market yields. Finally, investments in foreign assets have been restricted, with the implicit rationale that local savings should be used to develop the local economy.

Poor governance practices come in many different forms. For instance, the procedures for nominating and terminating governing members (directors) generally allow for considerable political influence. As a result, the size of the governing bodies, their composition, and the qualification of governing members vary considerably from country to country. Additionally, while funds often have investment and audit committees, very few have governance committees with the objective of recommending governance policy and monitoring the application of code of conduct and conflict of interest rules for directors and senior management. Indeed, standards of behavior such as codes of conduct/ethics or conflict of interest rules apply only to a handful of funds. Finally, in-house asset management is the prevailing practice with little external and transparent benchmarking, disclosure and accountability.[5]

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[2] See ISSA (2004), IWG-SWF (2008), OECD (2006 and 2009).

[3] It is often very difficult to define and separate public pension plans from ad hoc demographic buffers and from sovereign wealth funds with investment objectives linked often only implicitly to demographic related liabilities. In addition, OECD guidelines cover private pension plans which are relevant for the last section of this paper.

[4] The poor performance of public pension funds has been documented in many studies. For a summary overview of this issue, see World Bank (1994), while for more detailed studies of public pension fund governance and performance see Mitchell and Hsin (1997), Iglesias and Palacios (2000), Useem and Mitchell (2000), Ambachtseer (2001), Hess and Impavido (2004), and Impavido (2002 and 2008).

[5] See Hess and Impavido (2004) for a more complete list of practices drawn from a survey of governance practices for a large number of public pension funds around the world.

The Chinese government is currently pursuing policies aimed at prefunding pension system liabilities. The early implementation of good governance and pension fund management standards is critical to enable the achievement of the policy objectives associated with this initiative.

This paper provides a brief description of the Chinese pension system and it assesses the governance and pension fund management standards in those components of the system where pre-funding of liabilities takes place. These components include the Basic Old Age Insurance System[6] for urban workers, the National Social Security Fund (NSSF) and the Enterprise Annuity (EA) system.

The rest of this paper is structured as follows: section II provides a short description of the Chinese pension system; sections III–V focus on governance and fund management in each of the three components, namely the Basic Old Age Insurance system, the NSSF, and the EA system; conclusions follow in section VI.

II. Brief Description of Current Social Security Arrangements

The Chinese pension system is highly fragmented due to the decentralized nature of the Chinese economy, the large size of the population that should be covered, the large size of the informal labor market and the tradition of local pilot projects or trial programs for the development of social pension policies that for one reason or another have not been replicated at the country level. As a result, financing, administration, and parameters are often defined at the provincial or municipal levels.[7]

As of 2008, around 40 percent of the labor force in China (775 million workers) was covered by one of three government sponsored and mandatory pension arrangements. These include the Basic Old Age Insurance system, the rural pension system and the pension plans of state organizations and public institutions covering respectively 28.3, 7.2 and 5.2 percent of the labor force[8] (Figure 1). Individuals not covered by any one of the aforementioned three government sponsored pension arrangements are covered by the Minimum Life Security System (also known as the urban *di bao*) originally conceived for urban residents but now also extended to rural residents.[9]

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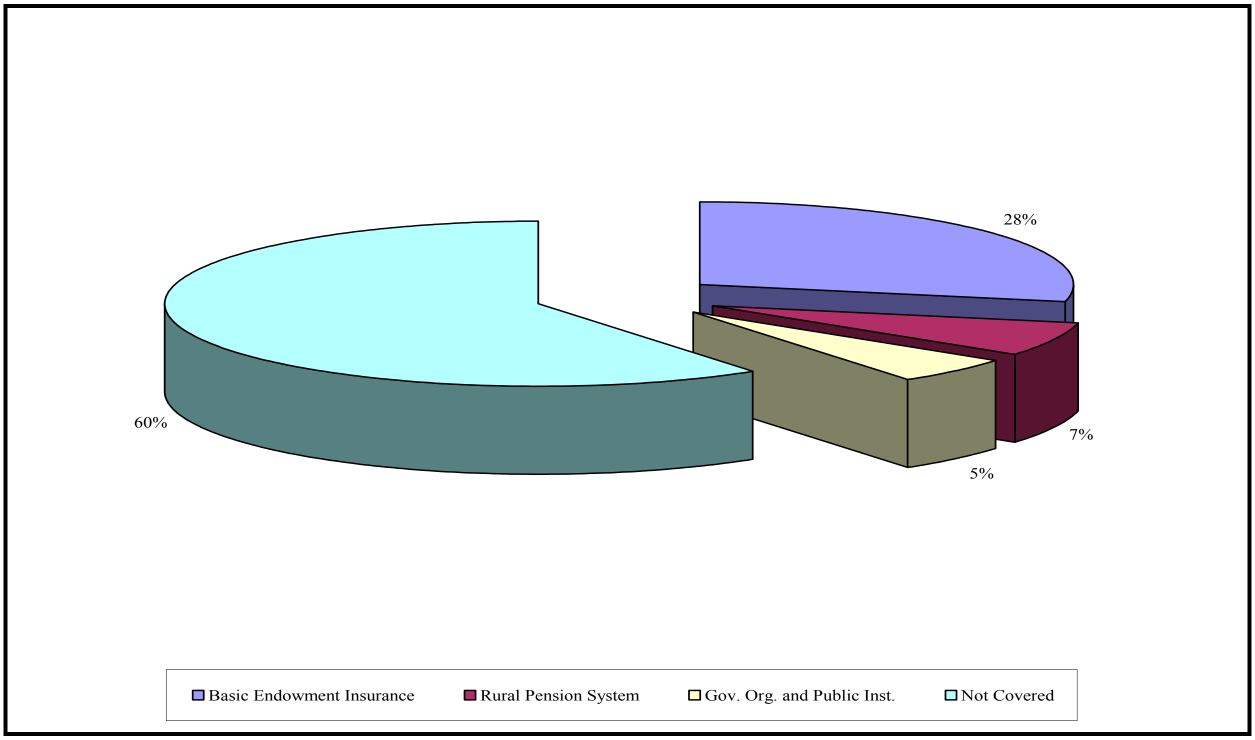
[6] We will use this term in the paper as it is common in the English literature. A more literal translation could also be "Basic Endowment Insurance System."

[7] The history of the Chinese pension system and the reasons for its fragmentation have been covered by many researchers. For good summaries that explain the fragmented nature of today's arrangements see Dunaway and Arora (2007), Hussain (1994), Li et al. (2008), Liu and Zhu (2008), MOHRSS (2009), and Sin (2008).

[8] It is estimated that there are about 40 million employees in state organizations and public institutions.

[9] This system is a non-contributory and unfunded social assistance program under which the government aids and supports the impoverished urban population according to minimum life security standards. At present, such a system has been set up in all cities in China and in places where county people's governments are situated. Formulation of the minimum life security standard is mainly based on the expenses needed in maintaining the minimum local living standard. The minimum life security funds for the urban residents are brought into the financial budgets by the local governments. See World Bank (2007) for an assessment of the urban *di bao* program.

Figure 1. Coverage of the Chinese Pension System



Source: Ministry of Human Resources and Social Security of China (MOHRSS), NBSC, and Ministry of Finance (MOF).

In recent years, the Chinese government has gradually promoted a three pillar system for urban workers in China. It is in these pillars that partial funding of pension liabilities takes place. In particular, the Basic Old Age Insurance system represents the largest pool of assets in the pension system, and this pool has recently been increased by the establishment of the NSSF as a demographic buffer. Additional pools of assets can be found in the even more recently established Enterprise Annuity (EA) system and in the complementary individual voluntary plans (Table 1).

The Basic Old Age Insurance system, the EA system and the complementary voluntary plans are often referred to as "Pillar I", "Pillar II" and "Pillar III," respectively, following the taxonomy established after the publication of the World Bank report "Averting the old age crisis" (World Bank (1994)). For reasons of convenience and clarity, we will also be using this taxonomy in this paper.

Table 1. Key Design Features of the Chinese Pension System

	Basic Old Age Insurance System		**Enterprise Annuity System**	**Complementary Individual Plans**
	(Pillar I)		(Pillar II)	(Pillar III)
	Social Pooling (Tier I)	Individual Accounts (Tier II)		
Main Features	- Based on State Council Document 38 of 2005 - Mandatory - Defined benefit with pooling at the city or provincial level.	- Based on State Council Document 38 of 2005 - Mandatory - Defined contributions - Individual accounts	- Based on MOLSS[10] decrees 20 and 23	
Funding	- Unfunded	- Fully funded in principle but "leakages" to the social pooling are both legal and *de facto*. - At least 13 provinces committed to full funding and prohibited "leakages" to the social pooling. - Heterogeneous funding levels and target rates.	- Fully funded	- Funded
Contributions	- 20 percent (between 17 percent and 30 percent, depending on the city) of payroll. - 100 percent responsibility of employer.	- 8 percent of local covered wage. - 8 percent of individual wages which are subject to lower and upper bounds, i.e., 60 percent and 300 percent of local average wages. - 100 percent responsibility of employee.	- Defined at the company level.2/ - 5 percent tax deduction for employer only. 3/	- Not regulated.
Benefits	- Minimum 15 years of contributions to qualify - 1 percent accrual rate 1/. - 35 percent based on 35 years of service. - Indexation rules not in place but in practice benefits tend to increase by 40–60 percent of local wage increases.	- Phased withdrawals function of average life expectancy in urban areas - Longevity tail risk insured by Tier I. - Target replacement rate of 24.2 percent based on 15 years contributions	- Defined contributions. - Taxed - Payment method: lump-sum or phased withdrawal.	- Not regulated.

Source: Adapted from Banco Bilbao Vizcaya Argentaria (BBVA) (2008 and 2009), Ebbers et al. (2008), Hu et al. (2007), Klynveld Peat Marwick Goerdeler (KPMG) (2008), Salditt et al. (2008), and Whitehouse (2006) and MOHRSS.

1/ 1A benefit = 1 percent * number of years of contribution * pension base; Pension base = (average local salary of last year + indexed salary) ÷2; Indexed salary = last year salary of the person before retirement * average index of the person over his career; Average index of the person = (Xn/Cn-1+……+X3/C2+X2/C1+X1/C0÷N; Xn: salary of the person in year n; Cn-1: average local salary in year n-1; N: total number of years of contribution.

2/ for those large State-Owned Enterprises (SOEs) under supervision of the State owned Assets Supervision and Administration Commission (SASAC), the level of contribution rate need approval from the latter.

3/ The Chinese Ministry of Finance and State Taxation Administration decided to raise the tax relief benefit for EA plans from 4 percent to 5 percent in June 2009.

[10] MOLSS was renamed MOHRSS in 2008.

The rest of this paper focuses on the first two pillars only. No tax relief is foreseen for the long-term complementary individual pension plans and, at present,[11] Pillar III is merely a residual category for long-term savings. In addition, an analysis of governance and asset management for Pillar III would entail a potentially long discussion of governance and asset management in the insurance industry and is therefore beyond the scope of this paper.

III. THE BASIC OLD AGE INSURANCE SYSTEM

The Basic Old Age Insurance system is composed of two tiers introduced in 1997 through State Council Document 26. These tiers are known as the "Social Pooling" and the "Individual Accounts" (Table 1). The first tier is a mandatory, defined benefit system with pooling at different levels of the government, unfunded and pay-as-you-go. The second tier is a mandatory, defined contribution system of individual accounts.[12] Many local governments borrowed monies from Tier II to fund current pension expenditures in Tier I.

Reforms were initiated to strengthen the fund management of the Basic Old Age Insurance system by centralizing the management toward the provincial level by the end of 2006, separating the management of Tier I and Tier II. Reforms were also introduced to increase the level of funding in the individual accounts but as today, the tier is still partially unfunded with no explicit recognition of past liabilities (or "legacy costs"). At least 13 provinces have committed to fully fund Tier II and prohibited "leakages" of Tier II to Tier I.

Very little information is publicly available on governance and fund management of the Basic Old Age Insurance system. According to regulations, pension funds accumulated in the system can only be invested in bank deposits and government bonds with the vast majority reported to be deposited in the banking system. Typically, funds are placed in term deposits but this varies significantly across provinces. In some provinces most funds are placed in current accounts, gaining low interest, while in others more than 75 percent of funds are placed in term deposits. Some provinces simply roll over 1-year deposits. According to a PBC documents, commercial banks should remunerate these deposits with an interest rate equal to that of the three month deposit account.

Responsibility for fund management (i.e., the choice of banks in which monies are placed) at the province level is shared between the local social security bureau and the local financial bureau. With the strengthening of financial management skills in the provinces, local financial bureaus have acquired increasing responsibilities in the area of investment. Even within the local financial bureaus, fund management responsibilities have generally shifted from the social security offices to the treasury offices. However, such patterns are likely to be different across regions.

[11] Notwithstanding this, the government of Shanghai province is studying the possibility of providing tax relief to life and voluntary pension products sold by insurance companies. Local bureaus of various related ministries have been involved in this study.

[12] See Appendix 1 for a summary of the key design parameters of the Basic Old Age Insurance system.

No clear standards exist for the selection of banks and, reportedly, this exposes the fund management process to undue political influence in many provinces. Only in a few provinces such as Guangdong, has the local bureau adopted clear standards for bank selection and performance evaluation.

Levels of funding, governance and fund management in the individual accounts have all been strengthened by the following reforms.

In 2000, State Council Document 42 was issued, reforming Pillar I of the Liaoning province[13] in various ways;[14] in particular, it fully separated the accounts of the two tiers. With the Liaoning Pilot, the individual accounts would not be used to subsidize the social pooling, thereby ensuring full funding of individual accounts for future accrued rights. However, no attempt was made to fund past rights in the individual accounts, the monies of which had been diverted to the social pooling.[15]

In 2004, a reformed version of the Liaoning Pilot was extended to the provinces of Jilin and Heilongjang through State Council Documents 35 and 36. However, for reasons related to a weak tax base, individual accounts in these provinces would be credited with only a notional flow of contributions.[16]

In 2005, State Council Document 38 further reformed the Basic Old Age Insurance system and replaced the provisions contained in Document 26 of 1997. Under the new provisions, at least thirteen provinces[17] are now committed to fully fund the system of individual accounts and fully separate them from the social pooling.[18] Both the level of funding and the speed towards the target are decided at the province level according to the specific local fiscal space. However, central government approval is required as provinces often benefit from central subsidies to meet their funding targets. These subsidies vary by province. For instance, there are no central government subsidies for wealthy provinces such as Shanghai, Zhejiang and Jiangsu. For other provinces, the central government typically covers 75 percent of the flow of contributions based on the locally relevant definition of covered wage up to a maximum of 3.75 percent of the locally relevant definition of covered wage.

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[13] Hence, this reform is also known as the "Liaoning Pilot."

[14] See Sin (2008) for full details.

[15] Indeed, the issue of legacy cost in the whole pension system in China is an area that has not been given satisfactory attention by policymakers (Salditt et al. (2007)).

[16] See later the discussion related to contributions.

[17] These provinces are: Liaoning (2001); Heilongjiang, Jilin (2004); Henan, Hubei, Hunan, Shandong, Shanghai, Shanxi, Tianjin, Xinjiang (2006); Zhejiang (2008); Jiangsu (2009). The years are the time when the State Council approved the provincial schemes.

[18] Full separation cannot be achieved to the extent that the decumulation phase between the two tiers continues to be connected (see the discussion on benefits in the appendix). In addition, the attempts to fully separate accounts appear not to have been fully successful as demonstrated by the misuse of funds in the Shanghai province. Reportedly, undue influence in the asset management of the local individual accounts was the result of unclear regulations and enforcement failures.

Local governments also grant subsidies to facilitate the reform. The extent of the subsidies varies significantly. For Shanghai, Zhejiang and Jiangsu, the level depends on available fiscal resources. For other provinces, local governments normally grant 25 percent of the funds toward the highest target level with subsidies. These subsidies, together with the individual contributions, are invested by the provincial social security agencies.

Fund management has also been centralized ("pooled" in Chinese terminology) as a way to improve standards. The central government's fiscal transfers to nine of these thirteen provinces are managed by the NSSF on behalf of the provinces for a period of at least five years and for a guaranteed rate of return. The provinces do not need to pay NSSF the management fee, which is covered by Ministry of Finance (MOF) budget.

These same thirteen provinces have also largely managed to centralize asset management of local authorities' individual accounts at the provincial level. In addition, other provinces have also managed to centralize asset management at the provincial level.[19] In all other provinces, pension funds are managed in a highly decentralized fashion at the city, county or provincial level.

Pension assets (or surplus) in the combined social pooling and individual account make up the largest pool of pension funds in the Chinese pension system at the moment. Official figures for 2008 reported Y 993.1 billion in total assets at the national level. In addition, approximately Y 120 billion has been accumulated in the individual accounts in the thirteen provinces that are working to fully fund the system of individual accounts. Of these, Y 33 billion in 2008 were managed by NSSF. The other Y 960.4 billion was managed at the provincial, city or county level. Data on how much the individual accounts in the provinces other than those thirteen provinces have accumulated are not publicly available.

IV. The National Social Security Fund (NSSF)

Unlike the system of individual accounts, more information is available about governance and pension fund management of the National Social Security Fund (NSSF).

The NSSF was established in 2000 as a national long-term strategic reserve fund to meet the future pension obligations of the Basic Old Age Insurance system. The NSSF has a dual role as a demographic buffer to absorb the peak of the Chinese demographic transition around 2030 and as a fund of last resort for pension expenditures in the Basic Old Age Insurance system. Given the demographics of the covered population in the Pillar I and the likely gains that can be achieved by improving coverage, the NSSF is not expected to make any major expenditure in the medium term.[20] Notwithstanding this, no reliable projections exist for the Chinese pension system liabilities. This raises concerns about the adequacy of the resources managed by the NSSF to absorb the demographic transition. In addition, it implies that the management of funds is purely driven by an objective of maximizing returns without incurring undue risk rather than by expected liability of cash flows.

[19] It is reported that by 2008, a total of 17 provinces have achieved the centralize asset management at the provincial level. In addition, the government is aims to complete centralization at the provincial level for the whole nation by the end of 2009.

[20] NSSF reports that expenditures are not foreseen for the next 15–20 years until 2025–30.

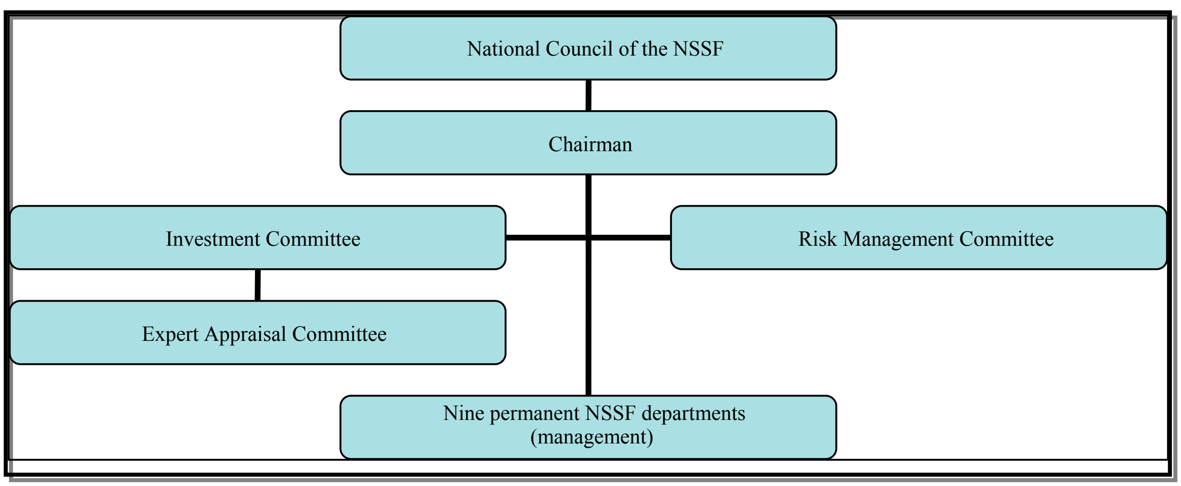
The Chinese NSSF is not an isolated attempt to create a public pension scheme to meet future national pension obligations. Faced with growing financial pressures arising from changing demographics, several countries around the world have decided in the past fifteen years or so to modernize existing pension funds or to create new public pension funds with substantial reserves to help finance the rising cost of public pensions. Japan, Korea and Sweden have taken steps to remove or relax existing restrictions on the investment policies of their public pension funds. Other countries that have long operated completely unfunded or very lightly funded public pension schemes have created new public pension funds. Recent initiatives have been taken in such diverse countries as Australia, Canada, France, Ireland, New Zealand and Norway.

In the rest of this section we benchmark the institutional structure, fund governance, sources of funds, implementation of the strategic asset allocation and performance of the NSSF against the Canadian Pension Plan Investment Board (CPPIB), the Norway Pension Fund Global (NPFG), the National Pension Reserve Fund (NPRF) of Ireland and the New Zealand Superannuation Fund (NZSF). These benchmarks have often been considered as international best practices in the field of public pension fund management.[21] They also meet the governance and fund management principles contained in generally accepted principles like ISSA (2004), OECD (2006 and 2009) and IWG-SWF (2008).

A. Institutional Structure and Fund Governance

The NSSF is a central government agency at the ministerial level. Figures 2 displays the governance structure of the NSSF which includes the National Council (board), three committees and nine management departments.

Figure 2. National Social Security Fund—Governance Structure



The National Council has a chairman, three vice chairmen, and 17 directors, for a total of 21 members,[22] all appointed by and reporting to the State Council. Directors are all ex-officio civil servants representing a variety of stakeholders including the Central Bank, the Ministry of

[21] See Musalem and Palacios (2004), Impavido, O'Connor, and Vittas (2009), and references therein.

[22] According to the State Council document in 2000, the National Council should have 16 members.

Human Resources and Social Security (MOHRSS), the Ministry of Finance (MOF), Ministry of Civil Affairs, Trade Unions, the Chinese Academy of Social Sciences, the Chinese People's Political Consultative Conference (CPPCC), the China Enterprise Federation, the Zhi Gong Party, and various provinces.[23]

No fit and proper tests apply to the appointment of directors. Additionally, the appointment procedure is neither vetted by an independent body nor follows an arm's-length process. Appointments are made for a 3-year period and are renewable, but they are not staggered to ensure board continuity. Finally, regulations[24] provide only general guidelines for the removal of directors. This is understandable given the minister level of the chairman of the NSSF: his or her appointment is a matter for the State Council as it is for the appointment of any other minister. Notwithstanding these observations, the 2009 board includes several members with policy and managerial expertise related to asset management. These include the Chairman, who was formerly governor of the Central Bank and chairman or president of other banks in the country, and other directors who have risen from senior management positions in the investment and equity management departments of the NSSF.

The size of the National Council has recently increased from 17 to 21 members. The large membership reflects the many stakeholders of the NSSF. However, large boards tend to be less effective than smaller bodies. In addition, two directors of the board are former chairmen of the NSSF board itself. While this could provide a newly appointed chairman with invaluable expertise in the management of board operations and policies, it could also represent an obstacle to assessing past performance and introducing governance reforms.

The responsibilities of the National Council are defined in MOF and Ministry of Labor and Social Security (MOLSS) Decree 12 of 2001.[25] The Council is charged with: (i) administration of the assets of the NSSF; (ii) the formulation and implementation of the investment policy; (iii) selection and performance evaluation of fund managers and custodians; (iv) preparation of periodic financial statements and accounting reports; (v) public disclosure of the financial condition of the NSSF, including assets, returns, and cash flows; (vi) distribution of funds according to the joint directives of MOF and MOHRSS; and (vii) execution of other duties assigned by the State Council.

[23] These include the vice governors of the Liaoning, Shanxi, and Sichuan provinces.

[24] See MOF and MOLSS (2001). MOLSS was recently renamed MOHRSS.

[25] Ibidem.

To discharge its responsibilities, the Council chairs the following three committees:

- **The Investment Committee** is composed of board members and NSSF staff. Its main responsibility is to approve the strategic investment policy of the fund and to oversee its implementation.
- **The Risk Management Committee** consists mainly of board members and NSSF staff with the possibility of external experts. Its main responsibilities are to define the investment and operational risk management policies (including internal controls) of the fund and to oversee their implementation.
- **The Expert Appraisal Committee** is composed of board members and a majority of external reputable experts and is involved in the selection of external fund managers and custodians.[26]

The institutional structure and governance of the Chinese NSSF bear many similarities to our benchmarks but also some differences. The key points are:

- **Board Structure.** Like Canada, Ireland and New Zealand, the board of the NSSF is responsible for formulating the investment policy of the fund, setting the strategic asset allocations, and supervising management. However, the boards in these three countries are small and explicitly populated by experts rather than representatives of stakeholders: 6 directors in New Zealand, 7 in Ireland, and 12 in Canada. This structure contributes to greater effectiveness.
- **Appointment of Directors.** In Canada and New Zealand, a two-stage process was followed to appoint directors. Initially, an independent nominating committee was created. In New Zealand, this consisted of private sector executives with relevant experience, while in Canada, it included both business executives and government officials, with a private sector executive in the chair. The nominating committees were required to identify and recommend individuals with the requisite expertise. The governments then made appointments from the shortlists prepared by the nominating committees. In Ireland, the government is required to appoint as commissioners individuals with appropriate professional expertise.
- **Qualifications of Directors.** The relevant acts in the three countries do not specify directors' qualifications in precise terms, which is similar to the situation at the NSSF. In Ireland, commissioners must have acquired substantial expertise and experience at a senior level in a broad range of areas, including investment or international business management, finance or economics, law, actuarial practice, accountancy and auditing, civil service, trade union representation, pension industry, and consumer protection. In Canada, a sufficient number of directors must have proven financial ability or relevant work experience. In New Zealand, board members must have substantial experience, training and expertise in the management of financial investments. These specifications ensure that directors are experienced professionals. They do not, however, ensure that they have adequate knowledge of modern financial instruments and strategies whose complexity is growing at a very rapid pace. However, this is an issue that affects the

[26] The role of this committee is explained in more detail in the section on implementation of the strategic asset allocation.

boards of directors of all types of entities, private corporations as well as public sector bodies, not just public pension funds.

- **Staggered Appointments and Removal from Office.** Unlike appointments at the NSSF, directors in our benchmark countries are staggered to ensure continuity. In fact, the first appointments of some directors were for shorter terms to enable the implementation of ongoing staggering of directors' terms of office. In addition, directors can only be removed for just cause.

- **Governance Structures.** The boards of directors in our benchmark countries operate with strong governance structures. Their operations are based on two important principles: independence from government and other interests, especially in making investment decisions; and full public accountability.[27] In general, the boards of directors of these three funds have adopted corporate governance and conflict of interest guidelines and have set up audit committees to ensure the effectiveness of internal control systems. They have appointed auditors and global custodians and adopted appropriate asset segregation and valuation rules. They have also made considerable use of external advisers on a wide variety of topics, ranging from advice on asset allocation strategies to the selection of external asset managers and the adoption of sophisticated information systems.

- **Code of Conduct.** Finally, the NSSF has neither a publicly disclosed code of ethics and good conduct nor conflict of interest rules applicable to senior management and directors. Consequently, it has not explicitly formed a governance committee to monitor and assess the performance of its governance framework and the application of the code of ethics and conflict of interest rules.

In summary, due to its governmental nature, the institutional structure and governance of the NSSF is closer to the NPFG in Norway than to our other three benchmarks. In Norway, the fund has not been set up as an independent legal entity but as a government account with the central bank. The fund itself has no rights or obligations against private sector entities or public authorities and may not institute, or be subject to, legal proceedings. Responsibility for managing the fund is vested in the Ministry of Finance, which makes all strategic decisions, formulates investment policy objectives, and sets the strategic asset allocation and benchmarks. Given the lack of formal independence from the government, the NPFG did not feel the need to explicitly establish a code of conduct and conflict of interest rules for its staff as this would be covered by the conduct rules applying to all civil servants. However, in contrast to Norway, there is no fiscal rule for the NSSF that prevents the Chinese government from using the funds accumulated in the NSSF at its discretion.[28]

[27] In New Zealand, the Minister of Finance has the power under the law to issue directions to the governing board of the public pension fund. However, these must be in writing, must be presented to Parliament, and must be published in the official gazette. No direction has been issued up to now.

[28] Norway adopted in 2001 the so-called 4 percent fiscal rule. This limits the non-oil government budget deficit to 4 percent of the value of the accumulated fund, i.e., the expected real rate of return on fund assets. This was introduced to insulate the fund from political interference.

B. Sources of Funds

NSSF funding sources are mostly represented by central government budget allocations. In addition, other sources include the proceeds from lottery licenses and investment income. Finally, Chinese state-owned enterprises must contribute 10 percent of their IPO proceeds to the NSSF at the time of their public offerings. The policy was originally applied to both domestic and international offerings, but was suspended for domestic offerings in June 2002. Since June 2009, a new regulation now requires state owned enterprises which sold shares after the structural reform in 2005, or plan to do so in future, to transfer shares in amount equivalent to 10 percent of their initial public offerings (IPOs) to the NSSF.[29] This measure applies to 131 state-controlled companies that are listed on domestic stock exchanges.[30]

Historically, annual transfers from the central government have varied considerably (Table 2). The concentration of the NSSF sources of funds has decreased in the past few years with the share of proceeds from IPOs and lotteries increasing from 20 percent in 2001 to more than 50 percent in 2006 as shown in Table 2.[31] In 2007, following the extremely good performance of the domestic equity market, the NSSF recorded a large increase in realized and unrealized gains from its equity portfolio in Chinese companies.

Table 2. National Social Security Fund—Source of Funds

	Unit	2000	2001	2002	2003	2004	2004	2006	2007
Central government	Percent	100.0	78.2	69.6	…	44.3	24.6	14.1	6.4
SOE IPOs	Percent	…	20.2	20.1	4.8	12.2	20.4	57.3	8.0
Lotteries (and other)	Percent	…		5.5	54.2	15.5	11.3	10.4	5.3
Investment income 1/	Percent	…	1.7	4.8	41.0	28.0	43.7	11.7	70.7
Individual accounts	Percent	…	…	…	…	…	…	6.5	9.7
Total net flows	Y billon	20.0	60.5	43.7	8.3	38.6	40.7	71.0	156.9
Total assets	Y billion	20.0	80.5	124.2	132.5	171.1	211.8	282.8	439.7

Sources: NSSF annual reports (cash flow statements), various years.

1/ Calculated as residual.

The sources of funds in each of our benchmark countries and in China are all different, reflecting the country specific circumstances in which pension reserves have been created. Norway transfers to the NPFG the net oil revenues that are saved for future generations. In Canada, the Canadian Pension Plan Investment Board (CPPIB) receives all cash flows that are not required by the Commercial Property Parade (CPP) to pay current pensions and also retains all investment income generated from its operations. The CPPIB also received the proceeds of redeemed federal and provincial government bonds that the CPP used to hold before 1998. The Irish NPRF is funded with annual government contributions equal to 1 percent of Gross National

[29] There is a lock-up period of three years during which the NSSF cannot sell the shares received. In addition, Initial Public Stock Offering (IPO) shares do not give voting rights to the NSSF so as to avoid transforming the NSSF into a manager of public companies.

[30] Source: MOF.

[31] Appendix 2 reports more details on the use of proceeds from IPOs as a way to transfer assets to the NSSF and as a way to implement strategic asset allocation.

Product (GNP), possibly supplemented by privatization proceeds. Finally, the NZSF is funded by annual government contributions. These vary from year to year and depend on a formula that calculates annually the required contribution for meeting the financial objective of the fund.

Total assets of the NSSF increased from 0.2 to 2 percent of Gross Domestic Product (GDP) in the period between 2000 and 2007. Notwithstanding the rapid growth, the Chinese NSSF is still very small when compared with other demographic buffers in countries like Canada, Norway, Ireland and New Zealand (Table 3). With the exception of the Norwegian fund (which is already very large but is required to invest in overseas markets), all the other funds are small relative to the size of the national economy. Their assets range between 6 and 11 percent of GDP.

Table 3. Total Assets of Select Demographic Buffers (Percent of GDP)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
China—NSSF	0.2	0.7	1.0	1.0	1.1	1.2	1.3	1.8	1.7
Norway—GPFG	26.3	40.2	40.1	53.6	59.2	73.5	83.0	88.6	89.6
Canada—CPPIB 1/	4.5	4.1	4.4	4.6	4.6	5.5	5.9	6.8	7.6
Ireland—NPRF	…	6.6	5.7	6.9	7.9	9.6	10.8	11.1	N/A
New Zealand—NZSF	…	…	…	…	4.0	4.2	6.3	7.5	7.9 2/

Source: Individual institutions annual reports and Vittas et al. (2008).

1/ Net assets as of March of the following year.

2/ Estimate.

C. Investment Policy Objectives and Asset Allocation

The investment activities of the NSSF are mainly governed by two sets of rules:

- The Interim Measures on the Administration of the Investment of the NSSF contained in the MOLSS and MOF Decree No. 12 of December 2001[32]; and

- The Interim Provisions Concerning the Administration of Overseas Investment issued by the National Council of the NSSF in March 2006.[33]

These two sets of rules provide quantitative investment limits for domestic and foreign investments as well as guidelines for the execution of the strategic asset allocation.

The investment universe in which the NSSF is allowed to invest includes domestic and foreign assets. Domestic assets include: cash, bank deposits, treasury bonds, mutual funds, equities and at least investment grade corporate bonds. Foreign assets include: cash, bank deposits, certificate of deposits (CDs), bonds of foreign governments, bonds of international financial organizations, bonds of foreign organizations and companies, Chinese bonds issued abroad, equities, mutual funds and financial derivatives traded on organized exchanges.

[32] See MOF and MOLSS (2001).

[33] NCSSF (2006).

According to the Interim Measures on the Administration of the Investment of the NSSF, in house asset management is limited to bank deposits and the primary market of government. Any other form of investment needs outsourcing to external asset managers. However, with the approval of the State Council, MOLSS, MOF and other government agencies, the investment universe for in house asset management was recently broadened. For instance, NSSF started implementing its first trust investment program in 2005. Trust investment programs are used by NSSF to invest in infrastructure. In the same year, NSSF was authorized to invest directly in central government enterprises for up to 20 percent of total assets. In 2008, NSSF was allowed to invest in venture capital and private equity industry funds[34] registered with the National Development and Reform Commission up to 10 percent of total asset. It is reported[35] that NSSF is seeking approval to invest billions of dollars in foreign private equity funds. Final approval is expected in the second half of 2009 and the NSSF aims to complete its first foreign private equity deal before the end of 2009.

Table 4. National Social Security Fund—Domestic Strategic Asset Allocation

Domestic Asset	Limit	Credit	Concentration	Limit
Cash and deposits	≥ 10 percent	…	o/w in any given bank	≤ 50 percent
Government bonds and cash and deposits	≥ 50 percent	…		…
Corporate bonds	≤ 10 percent	≥A	o/w in any individual issuer	≤ 5 percent
Mutual funds and equities	≤ 40 percent	…	o/w in any individual fund/issuer	≤ 5 percent
	…	…	Total domestic assets outsourced per year to any single manager	≤ 20 percent
Central government enterprises	≤ 20 percent	…	o/w in any given program	≤ 20 percent
Trust investments	…	…	o/w in any given program	≤ 20 percent
Trust investments with bank guarantee 1/	≤ 5 percent			

Source: MOF and MOLLS (2001), NSSF, and MOF.

1/ Of NSSF total asset.

The strategic asset allocation of the NSSF is simple. Tables 4 and 5 report the quantitative limits for domestic and foreign assets, concentration limits related to individual issuers or any single external manager and any applicable minimum credit rating.[36] The strategy does not contain a rate of return target for the fund. It is also interesting that foreign investment targets rely mainly on credit ratings and less on quantitative limits, probably reflecting the scarcity of internationally rated Chinese investments. Finally, domestic and foreign assets are considered separate pool of funds as far as investment risk management is concerned.[37] In other words, there does not appear to be a joint strategy for achieving any specific target rate of return while minimizing overall risk.

[34] Venture capital investment funds are known in China as "industry funds" while private equity investment funds are known as "equity funds."

[35] Source: China daily.

[36] The information in these tables is likely to be outdated as many amendments made to the investment rules have not been published.

[37] This is confirmed by the presence of two separate investment departments for domestic and foreign assets.

(continued)

Table 5. National Social Security Fund—Foreign Strategic Asset Allocation

Domestic Asset	Limit	Credit	Concentration	Limit
Cash and deposits	…	≥A	o/w in any given bank	…
Government bonds and cash and deposits	…	…		…
Corporate bonds	…	≥BBB	o/w in any individual issuer	≤ 10 percent
Mutual funds and equities	…	…	o/w in any individual fund/issuer	≤ 10 percent
CDs	…	≥AAA	Total foreign assets per manager	≤ 50 percent

Source: NCSSF (2006).

The following tables provide a general overview of the actual allocation of NSSF assets. The NSSF is increasingly allocating assets to external asset managers (Table 6), both domestic and foreign. The share of assets outsourced increased from 24 percent to 47 percent in the period 2003–2007.

Assets managed internally by the NSSF have been traditionally held in bank deposits, although the share of deposits in assets managed internally has decreased from 65 percent to 44 percent in the period 2001–2007 (Table 7). Fixed income assets represent the second largest component of assets managed internally. These are essentially limited to government debt bought and held until maturity. Also the portfolio share in fixed income instruments has decreased from 34 percent to 18 percent in the period 2001–2007. These changes have been compensated by an increase in equities, trust investments and other indexed products[38] which, non-existent in 2001, represent around 37 percent of assets managed internally in 2007.

The portfolio managed in-house is heavily concentrated in bank deposits, bonds, and equities. Exposure to credit risk in the banking sector appears very high. In addition to deposits, NSSF held about Y 65 billion in equities by the end of 2008, of which Y 30 billion is invested in the three largest banks in the country: the China Bank of Communications, Bank of China and the China Industrial and Commercial Bank. Portfolio information on assets outsourced to external asset managers is not published by the NSSF.

[38] Essentially, stock, debt and other market indices.

Table 6. National Social Security Fund—Increasing Use of Outsourced Asset Managers

	Unit	2000	2001	2002	2003	2004	2005	2006	2007	2008
Share of in house assets	Percent	100.00	100.00	100.00	75.93	64.20	65.52	62.63	52.94	N/A 1/
Share of outsourced assets	Percent	…	…	…	24.07	35.80	34.48	37.37	47.06	N/A 1/
Total assets	Y billion	20.02	80.51	124.19	132.50	171.14	211.79	282.77	439.69	562.37

Source: NSSF annual reports, various years.

1/ The 2008 annual report does not disclose information regarding in-house and externally managed assets.

Table 7. National Social Security Fund—Internally Managed Portfolio

	Unit	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bank deposits	Percent	...	64.59	75.60	59.65	59.63	73.60	53.73	44.04	…
Receivables	Percent	0.08	0.28	0.84	1.44	1.42	1.26	0.99	1.21	…
o/w Interest receivable	Percent	*100.00*	*100.00*	*100.00*	*100.00*	*100.00*	*100.00*	*99.82*	*98.98*	*...*
o/w Trust income receivable	Percent	*…*	*…*	*…*	*…*	*…*	*…*	*0.18*	*1.02*	*…*
Short-term notes (< 1 year)	Percent	…	…	0.08	1.07	0.21	0.14	0.11	0.55	…
Bonds (< 1 year)	Percent	…	…	1.18	15.33	3.88	3.04	0.32	0.67	…
Bonds (> 1 year)	Percent	99.92	33.56	22.46	37.85	24.28	9.18	7.15	16.79	…
Index products	Percent	…	…	…	…	…	2.64	2.42	0.50	…
Equities 1/	Percent	…	…	…	…	…	…	13.74	11.59	…
Equity assets 2/	Percent	…	…	…	…	10.59	9.86	19.28	16.39	…
Trust investment 3/	Percent	…	…	…	…	…	…	1.69	7.95	…
Securitization products	Percent	…	…	…	…	…	0.28	0.55	0.31	…
Sinopec IPO Shares	Percent	…	1.57	1.02	…	…	…	…	…	…
Total in house assets	Y billion	20.02	80.51	124.19	100.61	109.88	138.76	177.11	232.75	N/A 4/

Source: NSSF annual reports, various years.

1/ Equities directly held by the National Council of Social Security Fund (NCSFF) as a result of the transfer or allocation of SOEs holdings.

2/ Book value of equities held directly by the NCSSF.

3/ NSSF started trust investment in 2005 with approval of the State Council, the MOLSS, and the MOF. Through this channel, NSSF mainly invested in infrastructure construction.

4/ The 2008 annual report does not disclose information regarding in-house and externally managed assets.

D. Implementation of the Strategic Asset Allocation and Performance

The NSSF can either directly invest the assets, or appoint licensed investment managers. Currently, the implementation of the strategic asset allocation of the NSSF broadly follows the modern practice in pension fund management of outsourcing asset management in specialist asset classes and limiting its in house operations to more traditional classes (cash, deposits and government debt).

Day-to-day investment operations are conducted by at least four of the nine permanent departments[39] (refer to the organizational chart in Figure 2).

- **The investment department** conducts in-house asset management.
- **The equity management department** is involved in the selection of external equity asset managers and conducts their performance evaluation.
- **The overseas department** participates in the selection of external asset managers for overseas investment and conducts their performance evaluation.
- **The finance and accounting department** is involved in the safe keeping of fund assets and supervises and manages the activities of custodian banks.[40]

External asset managers and custodians

Detailed provisions exist for the selection of external asset managers and custodians. These cover: (i) the selection process; (ii) selection criteria; (iii) roles and responsibilities; and (iv) dismissal. The selection process for external asset managers and custodians is conducted at arm's-length and is therefore not subject to undue political influence. In particular, an independent board committee, composed of a majority of independent, qualified and experienced external professionals, is tasked with drawing up the shortlist from which the National Council can appoint managers and/or custodians. Selection criteria include qualifications, expertise for the relevant mandate, reputation, financial soundness and sound governance structure, including internal control systems and an independent internal audit function. The responsibilities of external asset managers include respect for the strategic asset allocation and for the given investment mandate, the maintenance of relevant accounting documents, books and investment records. Notwithstanding these detailed criteria, the Interim Measures contain only vague provisions related to withdrawal of mandates. In particular, it is not clear if individual mandates provide for dismissal on the basis of underperformance relative to well identified and replicable benchmarks and over a relatively long period of time, as should be the case.

The selection of external asset managers started in 2002. Between 2001 and 2002, except for a one-time purchase of about Y 1.3 billion (US$153 million) of Sinopec IPO shares in 2001, most of the NSSF's funds were managed in-house and kept in the form of cash and government bonds. In December 2002, six domestic fund managers for domestic equity and bond mandates were appointed. The managers included Boshi,[41] Changcheng, Huaxia, Harvest, Penghua and Southern, all considered among the best in the Chinese fund management industry. The NSSF 2003 annual report indicates that the amount of assets mandated to these managers was Y 32 billion (US$4 billion), or approximately 24 percent of the total assets, at the end of the year. In 2004, the NSSF appointed another four additional managers—China International Capital Corporation (CICC) Limited, China Merchants, and E-fund and Guotai for "stable allocation" mandates.

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[39] These are: General Office (External Affairs), Finance and Accounting, Legal and Compliance, Investment, Overseas Investment, Equity Management, Information and Research, Human Resources, and Administrative Services.

[40] The roles of these departments may have changed with the recent expansion in the scope of in-house asset management.

[41] Now renamed Bosera.

The selection process of external asset managers

In the selection of external asset managers the NSSF has followed due process with some degree of transparency. When the NSSF opens the procurement process qualified institutions are invited to submit their expression of interest. The China Securities Regulatory Commission (CSRC) is responsible for certifying that applicants meet the minimum qualification. These qualifications include:

- Registration in China.
- Minimum paid in capital of Y 50 million.
- Experience in local asset management of at least 2 years (this requirement is waived for highly reputable international investment management experiences).
- No serious misconduct in the past three years.
- Sound corporate governance.
- Sufficient qualified professional staff for investment management of social security funds.
- An effective internal risk control framework. The independent supervision and audit department should have enough professional staff.

After the expressions of interest are received, the NSSF publishes the list of applicants. For instance, in 2004 there were 17 fund management companies and 12 securities companies applying for 4 mandates. The National Council for the Social Security Fund then selects the external asset managers on the basis of the recommendations of the expert appraisal committee established for this purpose. Finally, the NSSF reports the selection procedures and outcome to MOF, MOHRSS and CSRC for the record.

Overseas investment was allowed only in 2006. Invitations for bidding were posted in April 2006 for five different overseas mandates, specifying eligibility criteria for bidding firms, target returns against benchmark indices and tracking errors, plus a step-by-step review and selection process. In addition, Mercer, an international investment consultancy, was appointed as the advisor to the manager selection process. Table 8 reports the details of such mandates while Table 9 reports the list of the winners of the 2006 bidding process.

Table 8. National Social Security Fund—Foreign Investment Mandates (2006)

Mandate	Index	Target Net-of-Fees Excess Return p.a.	Tracking Error p.a.
Global (ex-U.S.) equities	MSCI World (ex USA)	+200 bps	Within 8 percent
U.S. equities	S&P 500	+50bps	Within 2 percent
Hong Kong equities	FTSE/Xinhua Hong Kong	+300 bps	Within 8 percent
Global fixed income	Lehman Brothers Global Aggregate Bond	+100 bps	Within 2 percent
Cash	6-month LIBOR	…	…

Source: NSSF.

Table 9. National Social Security Fund—Foreign Investment Managers (2006)

Asset class	Manager(s)
Hong Kong equities	Allianz; Invesco; UBS/CICC
Global (Ex-U.S.) equities	Alliance Bernstein; AXA Rosenberg; State Street
U.S. equities	JanusINTECH; T. Rowe Price
Global fixed income	Alliance Bernstein; Blackrock; Pacific Investment Management Company (PIMCO)
Cash	Blackrock

Source: NSSF.

Custodians

According to the Interim Measures on the Administration of the Investment of the NSSF, custodians should be licensed by the People's Bank of China. However, licensing powers were transferred to the China Banking Regulatory Commission (CBRC) in 2003. Until 2007 a double licensing process existed until the State Council abolished this double hurdle. Notwithstanding this, the Interim Measures appear not to have been amended.

The selection of custodians started in 2002. In June 2002, Bank of Communications and Bank of China were selected as the first two custodians. In September 2006, to facilitate overseas investment, NSSF selected the North American Trust Bank and Citi Bank in accordance with the Interim Provisions Concerning the Administration of Overseas Investment. In July 2007, with the rapid expansion of NSSF's assets, Industrial and Commercial Bank of China was added to the list of custodians (Table 10). Notice that the local custodians are not fully independent as NSSF owns Y 30 billion of their shares.

Table 10. National Social Security Fund—Custodians (2008)

Custodian	Asset Managers' Mandate
Bank of Communications (2002)	Domestic
Bank of China (2002)	Domestic
Industrial and Commercial Bank of China (2007)	Domestic
North American Trust Bank (2006)	Foreign
Citi Bank	Foreign

Source: NSSF.

The selection procedure for custodians is similar to that for external asset managers and is based on the recommendations of the expert appraisal committee. However, selection criteria are less specific than those laid down for external asset managers. According to available rules, applicants need to: (i) have Y 8 billion in paid-up capital; and (ii) have a fund custodian department, with sufficiently qualified and experienced professional staff for custodian business.

The responsibilities of custodians include: (i) safekeeping of assets; (ii) the settlement of external asset managers' transactions; (iii) monitoring of asset managers' investments; and (iv) maintenance of records for at least 15 years. In particular, custodians are required to monitor the execution of trades by hired asset managers to ensure that they comply with the terms of their mandates. Interestingly, custodians are also required to ensure that settlement terms and execution prices are in favor of NSSF.

Investment performance

Overall performance of the NSSF has been modest in gross terms but very good in net terms and generally improving over time until 2008 (Table 11).

Table 11. National Social Security Fund—Investment Performance

	Unit	2000	2001	2002	2003	2004	2005	2006	2007	2008
Gross operating income	Y billon	0.02	0.97	2.10	3.41	4.66	5.56	20.04	113.20	(33.76)
o/w outsourced assets	*Percent*	…	…	…	*4.81*	*19.65*	*18.67*	*65.68*	*82.27*	…
o/w in house assets 1/	*Percent*	*100.00*	*100.00*	*100.00*	*95.19*	*80.35*	*81.33*	*34.32*	*17.73*	…
Expenses 2/	Y billion	…	…	…	...	0.07	0.27	0.46	0.28	5.7
Net income	Y billion	0.02	0.97	2.10	3.41	4.59	5.29	19.58	112.92	(39.37)
Provisions to risk reserves	Y billion	…	0.20	0.42	0.68	0.92	1.06	3.92	23.76	N /A 6/
Net income after provisions	Y billion	0.02	0.77	1.68	2.73	3.67	4.23	15.66	89.16	(39.37)
Gross income/average assets 5/	Percent	0.17	1.92	2.05	2.65	3.07	2.90	8.10	31.34	(5.95)
Expenses/average assets 5/	Percent	…	…	…	...	0.04	0.14	0.19	0.08	1.01
Net income/average assets 5/	Percent	0.17	1.92	2.05	2.65	3.02	2.76	7.92	31.26	(6.96)
Inflation	Percent	0.4	0.7	-0.8	1.2	3.9	1.8	1.5	4.8	5.9

Source: NSSF annual reports, various years.

1/ The 2008 annual report no longer discloses the performance of assets managed in-house and by external asset managers.

2/ Expenses are not comparable between 2007 and 2008. In 2008, expenses include a mixture of operating expenses and financial losses. The former include asset management and custodian fees and the latter interest expenses and losses on the revaluation of investment securities available for sale and held to maturity.

3/ The Social Security Fund risk reserve is capped at 20 percent of the net value of NSSF assets and it is used to offset eventual investment losses.

4/ The Individual Account Fund risk reserve is capped at 20 percent of the Individual Account Fund value and it is used to offset eventual investment losses.

5/ Own calculations based on two year average assets.

6/ The 2008 annual report does not disclose information regarding Provisions to Risk Reserves.

Nominal gross returns were particularly low in the initial years of operation due to the large share of assets managed internally and in low-yielding instruments such as bank deposits and government bonds. During the period between 2001 and 2005 nominal realized gross returns were on average 2.5 percent of average assets. However, following the rebalancing into riskier assets and the increasing use of external asset managers, nominal yields improved in 2006 and 2007. In particular, nominal yields in 2007 were around 31 percent of average assets. This is mainly due to the sharp increase in equity prices in 2007 in both direct and index linked holdings.[42] Finally, in 2008, the fund experienced a loss of Y 34 billion, which, in absolute terms, was twice as large as the interest and dividend income earned by the fund.

[42] This can be inferred by the large increase in the share of non realized capital gains in direct equity holdings and index products in total investment income from assets managed internally by the NSSF reported in Table 11.

Information on the source of the NSSF performance is only available for assets managed internally (Table 12) and for the period up until 2007. Reflecting the overall rebalancing of the investment portfolio, investment income from fixed income instruments and bank deposits decreased over time representing in 2007 around 24 percent of total returns generated from internal asset management, while, the investment return generated from equity, index products and trust investments represented around 75 percent.

Table 12. National Social Security Fund—Investment Performance of Assets Managed Internally

	Unit	2000	2001	2002	2003	2004	2005	2006	2007	2008
Gross operating income	Y billion	0.02	0.97	2.10	3.24	3.74	4.52	6.88	20.07	N/A 1/
Bond income	*Percent*	96.70	60.55	36.92	24.17	29.64	21.80	8.35	4.10	…
o/w treasuries income	*Percent*	*100.00*	*99.55*	*96.94*	*96.98*	*97.86*	*97.67*	*95.87*	*97.12*	…
o/w other bond income	*Percent*	…	*0.45*	*3.06*	*3.02*	*2.14*	*2.33*	*4.13*	*2.88*	…
Deposit income	*Percent*	3.30	39.45	61.65	75.83	58.60	60.05	49.59	19.77	…
Index-based income	*Percent*	…	…	1.43	…	…	1.14	7.01	38.53	…
Stock price capital gains	*Percent*	…	…	…	…	…	…	16.71	20.99	…
Trust income	*Percent*	…	…	…	…	…	…	1.51	2.17	…
Asset securitization income	*Percent*	…	...	…	…	…	0.04	0.42	0.14	…
Equity asset income	*Percent*	…	…	…	…	11.76	16.93	16.41	14.30	…
Other investment income	*Percent*	…	…	…	…	…	…	…	…	…
Tax refund income 2/	*Percent*	…	…	…	…	…	0.03	0.01	…	…
Other income	*Percent*	…	…	…	...	...	...	...	...	…

Source: NSSF annual reports, various years.

1/ The 2008 annual report does not disclose anymore the performance of assets managed in-house.

2/ The tax refund income is the refund of the stamp tax on securities transactions, which was collected through the exchanges and will be refund to NSSF later.

Operating expenses

Until 2007, operating expenses have been very low averaging 11 basis points of average assets. This is the level of expenses that we would expect from the NSSF, typical of a large fund, that manages assets primarily through the external assert managers, with a relatively strong monopsony power and investing in low risk assets or plain vanilla instruments like bank deposits, government bonds and index products.

Since 2008, the NSSF started implementing the new enterprise accounting standards issued by the Ministry of Finance through Document 38 on February 15, 2006. With the reclassification of accounts reported in the financial statements, expenses are hard to compare to previous years.[43] [44]

[43] According to the new accounting standards, assets are valued at fair value by revaluing securities through the profit and loss account. In other words, assets held to maturity and available for sale are valued at book value unless their market value deviates substantially from the book value. The criteria used by the NSSF for the 2008 statements include: (i) the market value has been less than the book value for a year; (ii) the market value has been 20 percent less than the book value for 6 months; or (iii) the market value at the report date is less than 50 percent of the book value.

The 2008 financial statements report expenses of Y 5.7 billion, or 1 percent of average assets. However, these include both operating expenses, such as asset management fees (15 percent of total expenses), custodian fees (2 percent of total expenses), and 3 percent transaction fees (10 percent of total expenses), as well as financial losses, such as securities revaluation losses (63 percent of total expenses) and interest expenses (9 percent of total expenses) (Table 13). If financial losses are excluded, operating expenses are only Y 1.6 billion, or 0.30 percent of average assets. Overall operating expenses are likely to be higher as notably, wages and salaries of NSSF staff, as well as other fixed costs are not included or reported.

Table 13. National Social Security Fund—Expenses

		2003	2004	2005	2006	2007	2008
Operating expenses	Y billion	…	…	…	…	…	1.6
Asset management fee	*Percent*	…	…	…	…	…	15.09
Custodian fees	*Percent*	…	…	…	…	…	2.04
Transaction fee	*Percent*	…	…	…	…	…	9.78
Taxation and fee	*Percent*	…	…	…	…	…	0.38
Other expenses	*Percent*	100.00	0.01	0.01	0.01	0.04	0.03
Financial losses	Y billion	…	…	…	…	…	4.1
Interest expense	*Percent*	…	102.68	42.76	28.47	64.07	8.80
Exchange loss	*Percent*	…	(2.69)	57.23	71.51	35.89	0.70
Securities revaluation loss	*Percent*	…	…	…	…	…	63.18
Total expenses	Y billion	...	0.07	0.27	0.46	0.28	5.7

Source: NSSF annual reports, various years.

NSSF operating costs are already higher than the costs of demographic buffers which follow more active strategic asset allocations and outsource a large share of assets to external asset managers through specialized mandates (Table 14). For instance, the NPFGs' total operating costs over average assets (which include the operating costs of the fund manager Norges Bank Investment Management (NBIM)) does not exceed 10 basis points, reflecting the large size of the fund that can negotiate very competitive fees with external providers. Notwithstanding this, external management experienced a rising trend and its costs amounted to close to 30 basis points of average externally-managed assets in 2006. Also, the Irish NPRF has overall operating costs (which include the operating costs of the fund manager, the Irish National Treasury Management Agency (NTMA)) not exceeding 20 basis points of average assets. Also in the case of the NPRF, external asset management focuses on more active mandates and its operating costs have been increasing over time representing more than 15 basis points of average assets in recent years. Finally, the costs of the NZSF are high in comparison with other large public pension funds. However, this is due to the young age of the fund and its small size, as well as the need to create all computing and information systems. Operating expenses rose to 88 basis points in 2008, up from 28 points in 2004 and again, investment management fees account for the lion's share of expenses.

[44] The accounting firm Beijing Jingdutianhua audited NSSF 2008 financial reports. However, it is not clear what use the NSSF has been making of the external auditor in previous years.

Table 14. Comparison of Operating Costs—Select Funds

Fund		2001	2002	2003	2004	2005	2006	2007	2008
China—NSSF	b.p. av. assets	…	…	…	…	…	…	…	30.7
Norway—NGPF	b.p. av. assets	…	9.0	10.4	10.5	10.6	9.8	9.5	n/a
New Zealand—NZSF	b.p. av. assets	…			28.3	47.5	71.1	96.2	87.7
Ireland—NPRF	b.p. av. assets	4.1	14.0	21.2	20.9	22.7	20.8	18.2	n/a

Source: Annual reports of different funds, various years.

Similar to other demographic buffers, we would expect overall operating costs of NSSF to grow in line with the increasing use of external asset managers, a shift towards more aggressive investments and the adoption of an increasingly active strategic asset allocation. For this reason, it is important to reduce the fixed costs represented by the wages of the management agency and the custodian fees.

Final considerations

Overall, the implementation of the strategic asset allocation of NSSF reflects the young age of the fund. In general, the NSSF has set good standards for the implementation of its strategic asset allocation and the selection of external asset managers and custodians through a reasonably transparent process and stringent selection criteria. However, the lack of details in investment rules and other relevant provisions allow for sufficient discretion on the part of the NSSF board so that there is a distinct possibility that due process may not be followed.

For instance, the recent amendments to the strategic asset allocation contained in MOLSS and MOF Decree No. 12 of December 2001 have not been published. In addition, the selection of specific venture capital funds does not follow clearly disclosed guidelines and criteria. As an example, NSSF invested in its first venture capital companies (Zhongbi and Bohai) in 2004 and 2006 with the special approval of the State Council. After it received a more general approval to invest in venture capital and private equity funds in 2008, it has invested around Y 2 billion in another 2 companies. However, neither the process followed nor the criteria used for the selection were disclosed. It would be desirable if more detailed selection criteria could be established and disclosed before NSSF broadens its asset allocation in industry and equity funds.

Also, the provisions regarding the minimum qualifications for external asset managers and more critically for custodians, as well as the process followed for their selection, are only approximately defined. For instance, without further clarifications of existing provisions, it is very difficult to define the minimum qualification and experience standards for staff working for custodians. In addition, the level of publicity and the disclosure of information supporting selection decisions seem to be left to the discretion of the NSSF. Finally, no provisions requiring custodians to be independent of the NSSF appear to exist and indeed, NSSF has shares in some of them. Given the lack of details, the procurement of asset management and custodian services by NSSF can be exposed to undue political influence.

Disclosure standards are also weak. According to the Interim Measures on the Administration of the Investment of the NSSF, the National Council for the NSSF needs to disclose only its financial statements. However, the State Council issued in 2007 a new government information disclosure regulation, which came into effect in May 2008. The recently revised website of NSSF reflects its effort to meet the requirement of this new regulation. We can expect that greater publicity and disclosure of information in the future.

In addition, the NSSF tends to hire asset manager specific custodians while a global custodian would be preferable. The key roles of a custodian are to ensure segregation of assets and their safe keeping, to promote transparency and to apply consistent valuation and accounting principles. In addition custodians can provide important services in transaction settlement, collection of income, claiming of tax refunds, treasury cash sweeps, fund reporting, and securities lending. Custodians can also be a valuable source of information that can be fed into the investment strategy, such as in-depth analyses of global investment flows, guidance on legal and fiscal structures of particular markets as well as portfolio analytics that drill down to return and risk factors. Good providers of custodial services constantly evaluate and expand their product line, for example, adding risk management systems, hedge fund servicing, and administration and compliance solutions. There is currently a trend towards the use of global custodians as opposed to asset manager specific custodians. The advantage of a global custodian is that the client has a choice of service provider and can ensure that the service provider's systems are compatible with its own internal systems for the purpose of conducting periodic performance evaluations and replicating in-house asset allocation across possibly many outsourced asset managers. The advantage of the economies of scale enjoyed by having a global custodian (rather than many independent ones) should not be underestimated.

Finally, the NSSF has a large fixed cost component of operating costs relative to average assets. These costs are represented not only by wages, but by custodian fees that are difficult to justify, given the high absolute size of the fund. As the fund moves toward a more aggressive asset management style, and thus makes greater use of external asset managers, it is important that these fixed operating costs be contained.

V. The Enterprise Annuity System

The last segment of the Chinese pension system covered in this paper is the Enterprise Annuity (EA) system, which covers occupational pensions. The EA term was first introduced in the 1990s when the Chinese authorities started to reform the old pension system towards the multi-pillar model described in the introduction. Over the past 15 years or so the EA system in China has broadly experienced two phases:

- During the first phase (1990s–2004), the Chinese government encouraged enterprises to establish the then called "complementary pension insurance schemes" in addition to the mandatory Basic Old Age insurance. During this period, urban enterprises—particularly the profitable state-owned enterprises (SOEs)—set up such schemes for their employees. In this regard, group insurance products, essentially of the DB type, provided by commercial insurance companies have traditionally played an important role.
- During the second phase (2004 onwards), the MOHRSS released two EA regulations, Decrees No 20 (Interim Measures for the EA system) and No 23 (Interim Measures for Management of Pension Funds), with the purposes of consolidating the Chinese EA market and strengthening regulation and supervision. In the meantime, the former "complementary pension insurance schemes" were renamed as "enterprise annuities", which in principle also includes the legacy schemes established before 2004 subject to the condition that they are redesigned in line with requirements as specified in Decrees 20 and 23, otherwise they would not be entitled to tax relief benefits like EA schemes.

A. Size and Performance of the Enterprise Annuity System

The EA system is embryonic but it has already grown considerably. At the end of the first phase in 2004, a total of 22,463 firms had established complementary pension insurance plans, covering approximately 7 million workers and with accumulated assets of around Y 50 billion, or 0.3 percent of GDP. Since the release of the two EA decrees in 2004, the market started growing rapidly, particularly in terms of assets under management. Table 15 shows that the number of firms that established EA plans increased by around 40 percent to 33,000 in 2008 reaching a coverage level of 10.4 million workers. Over the same period, assets under management trebled reaching Y 191.1 billion in 2008, or 0.6 percent of GDP.

Table 15. Evolution of the Enterprise Annuity System Market

	Unit	1991–2000	2001–2004	2005	2006	2007	2008
Enterprises	1	16,274	22,463	23,000	24,000	32,000	33,000
No of participants	Y 1,000,000	5.6	7.0	9.2	9.6	9.3	10.4
Assets	Y 1,000,000,000	19.1	49.3	68.0	91.0	152.0	191.1
Assets/GDP	Percent	…	0.3	0.4	0.4	0.6	0.6

Source: Hu *et al*. (2007); Hinz (2007), and MOHRSS.

In addition, the potential for future growth is considerable mainly due to the very low current coverage. In some OECD countries private complementary pensions have reached a quasi universal coverage and accumulated large volume of assets. For instance, as of 2007 private pensions accounted for 75.5 percent of GDP in the OECD region as a whole, while in some countries (e.g., Iceland and Netherlands), the ratio was well above 100 percent (OECD 2009). Notwithstanding these considerations, the already high savings rate of the Chinese population and the particularly complex governance structure for corporate trustee EA plans (see later for a full discussions) may slow down growth in the EA sector.

Table 16. Nominal and Real Returns in the Enterprise Annuity System—2006–2008

	Unit	2006	2007	2008	Average
Nominal return 1/	Percent	9.6	24.5	-1.8	10.8
Inflation	Percent	1.5	4.8	5.9	4.1
Real return 1/	Percent	8.1	19.7	-7.7	6.7
Operational fees 2/		N/A	N/A	N/A	N/A

Source: Various. 2006 data refers to Q4 2006.

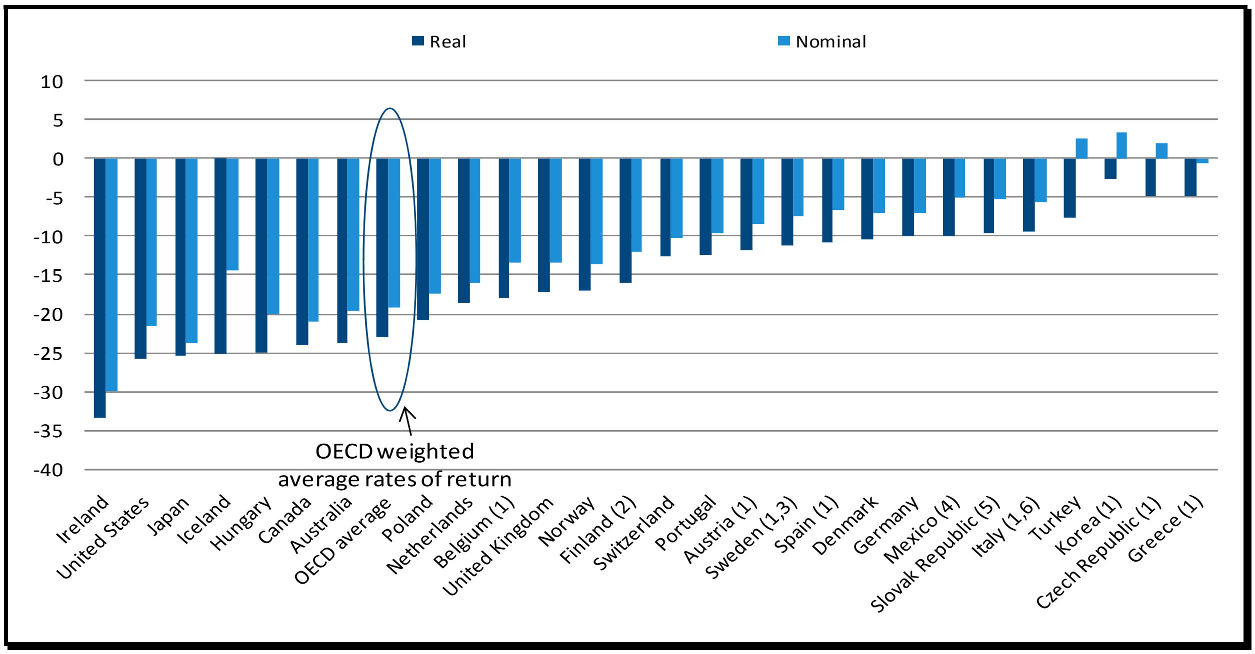
1/ MOHRSS does not publish risk adjusted figures.

2/ MOHRSS does not publish the level of operational fees.

Performance of the EA system has also been high (Table 16). Performance statistics are available starting with Q4 of 2006, when assets started being entrusted to and invested by professional asset managers. Nominal arithmetic mean return was around 9.6 percent in Q4 2006 and 24.5 percent in 2007. Real yields are impressive: 8.1 and 19.7 percent, respectively. In contrast, nominal and real returns in 2008 were -1.8 and -7.7 percent, respectively, which is mainly due to the global financial crisis that also affected China.

The market downturn of 2008 does not seem to have affected EA performance as badly as in other countries, which is principally explained by the strict EA investment rules in China. For instance, private pensions in OECD countries reported US$4 trillion losses in asset values in the first 10 months of 2008. Pension funds in OECD countries have experienced a negative return of nearly 20 percent in nominal terms (22 percent in real terms) on average since the beginning of the year (Figure 3). Most of the loss is accounted for by pension funds in the United States (US$2.2 trillion out of the total OECD loss of US$3.3 trillion) due to their larger than average exposure to equity risk. Only four other OECD countries saw pension fund returns worse than minus 20 percent in nominal terms. In absolute terms, the second largest loss was the United Kingdom (US$0.3 trillion), followed by Australia (US$0.2 trillion). Including other private pension assets, such as those held under personal plans in the United States (i.e., IRAs) and in other countries, the loss increases to about US$5 trillion.

Figure 3. Pension Fund Returns in Select OECD Countries (January–October 2008) 1/



Source: OECD Global Pension Statistics.

1/ Data draw on official data received from OECD Working Party on Private Pensions Delegates (Austria, Belgium, Czech Republic, Denmark, Finland, Greece, Hungary, Ireland, Italy, Korea, Mexico, Poland, Portugal, Slovak Republic, Spain, Switzerland, and Turkey), various sources and OECD estimates. OECD average is an asset-weighted average.

The relatively satisfactory performance in Chinese EA assets is reportedly due to conservative investment limits on risky assets (such as equities, foreign markets and housing) and conservative investment strategies adopted by EA asset managers in China. However, it is not possible to support this statement with factual evidence as actual asset allocation in the EA system is not disclosed by the MOHRSS. Requested information was reported as confidential.

B. Governance Framework in the Enterprise Annuity System

The key regulatory framework for the EA system is contained in Decrees 20 (Interim Measures for the EA System) and 23 (Interim Measures for Management of Pension Funds). The basic requirements for sponsors to establish an EA plan are rather simple. Enterprises in China have to: (i) participate in the Basic Old Age insurance system and fulfill the obligation of statutory contribution; (ii) be solvent; and (iii) have established a mechanism for collective bargaining.

In contrast, the governance framework is rather complex. The trust model (common in Anglo-Saxon countries) is followed, but with two key differences related to (i) the internal structure ("pension council" in Chinese terminology), with trustees appointed by employers and employees; and (ii) the external structure ("corporate trustee" in Chinese terminology), with financial institutions acting as professional, commercial trustees (Hu *et al*. 2007).

Governance standards for the pension council are contained in Decree 20 and foresee the typical tripartite board[45] common in most jurisdictions. Essentially, employee representatives should comprise at least one-third of the board of trustee and professionals are allowed (but not required) to serve as trustee members. No other criteria such as fit and proper tests, appointment and dismissal criteria, code of conduct and conflict of interest rules are specified.

Governance standards for corporate trustees are far more complex. Decree 23, issued by MOHRSS jointly with three other ministerial agencies (CSRC, CIRC and CBRC) envisages four different players in the governance structure of EA plans: (i) the corporate trustee that has ultimate fiduciary duties regarding the overall performance of the plan; (ii) the custodian that ensures safe keeping of pension funds; (iii) the account administrator that keeps the records of plan members such as transactions and payments; and (iv) the asset management company that conducts professional management and investment of pension funds.

Since 2004, EA licenses (trustee, custodian, account administrator and asset manager) have been granted twice, first in 2005, and then in 2007. The license is initially granted by MOHRSS for 3 years, and towards the end of the mandate financial institutions need to re-apply for renewal if they wish. At present, there are a total of 58 licenses, among which there are 11 trustees, 16 account keepers, 10 custodians, and 21 asset managers. In 2007, three licenses were withdrawn by the MOHRSS.[46] Finally, although current provisions also allow foreign companies registered in China to apply for any of the four licenses, so far only domestic Chinese firms or joint-ventures have been licensed to operate in the EA system.[47]

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[45] This is a representative board with no independent trustees or directors.

[46] One trustee and two account administrators.

[47] See Appendix 4 for detailed information.

Table 17. Minimum Capital Requirements for Enterprise Annuity Providers

	Unit	Minimum Paid up Capital	Minimum Net Assets
Corporate Trustees	Y 1,000,000	100	150
Account Administrator	Y 1,000,000	50	…
Asset Manager	Y 1,000,000	1,000–100 1/	1,000–100 1/
Custodian	Y 1,000,000	5,000	…

1/ Lower limit in case of professional trustees only.

According to Decree 23, strict requirements are imposed on institutions that want to serve as any one of the above players in China (Table 17). For example, the minimum capital adequacy requirement for corporate trustees is set at Y 100 million, and the minimum net assets at Y 150 million at all times. In addition, a well-functioning corporate governance framework should be in place. For account administrators, the minimum capital requirement is Y 50 million. Custodians are required to register at least Y 5 billion in net assets, and commercial banks who serve as custodians should have a dedicated trustee department. Fund managers are also subject to strict capital requirements. For example, for comprehensive securities companies both registered capital and net assets should be at least Y 1 billion at all times. For the fund manager working for professional trustees minimum capital requirement is lower: Y 100 million for both registered capital and all-time net assets.

In addition, in order to reduce conflict of interest and maximize the independence of custodians, custodians and asset mangers should be separate legal entities. However, provisions do not include prohibitions against asset managers and custodians that belong to the same financial group.

Role of corporate trustees

The basic principle in Decrees 20 and 23 is that the EA trustee is at the apex of the governance framework for EA plans and it has ultimate responsibility for the overall performance of the plan.

However, in reality, the trustee is probably the weakest player in the EA system, with plan sponsors and custodians *de facto* controlling the plan. This happens for at least three reasons. First, the sponsoring firm typically chooses all four EA players, including the trustee: i.e., the trustee is a service provider to the sponsor and bound to a mandate based on a contractual arrangement with it. Second, most EA custodians are served by the largest state-owned banks, which enjoy a good reputation and trust among Chinese enterprises and individuals. Finally, (according to Decree 23) administration fees for trustees are capped at 0.2 percent of net assets and in practice, due to fierce market competition, the average fee charged by corporate trustees is typically less than 0.1 percent of net assets. This makes trustees virtually unable to market their products to enterprises when compared to other players.

In reality, the custodian and the asset manager, or sometimes the custodian and the account administrator, team up to obtain mandates from plan sponsors. Afterwards, they find the trustee and the other player to complete the governance structure as required. Consequently, the trustee is *de facto* selected and controlled by the plan sponsor and other more dominant players. This strongly limits the ability of the trustee to independently discharge its fiduciary duties enshrined in EA regulations and normally observed in the occupational pension system in Anglo Saxon countries.

The Chinese authorities are aware of this problem and have tried to promote the trust-based system by strengthening the role of the trustee. In particular, there is currently in China a debate on the potential merits of merging the function of the trustee, account administrator and the asset manager as is the case in Latin American jurisdictions (Zheng 2009). This would consolidate the market while strengthening the power of corporate trustees indirectly.

This policy option has some merits and reflects the reality on the ground. Financial institutions have tended to obtain as many licenses as possible, in order to achieve economies of scale and take advantage of vertical integration in terms of management and licensing. In particular, three financial groups in China have been able to obtain all the four licenses; namely, the Industrial and Commercial Bank of China (ICBC), the China Merchants Bank (CMB), and the China International Trust and Investment Company (CITIC) Group. These three groups are *de facto* the major players in the EA system.

Audits and whistle blowing

The supervisory functions are typically "leveraged" in most jurisdictions through the activities of the custodian and the internal and external audit functions. In discharging their responsibilities, these entities are required to report serious breaches of obligations by various parties to the governing body of the plan and the supervisory authority.

Decree 23 envisages this "whistle blowing" responsibility, especially for the custodian. According to Decree 23 whenever any of the four players, namely the trustee, account administrator, custodian and asset manager, spots any misconduct by another player, they are obliged to report it to the plan sponsors and MOHRSS. This role is particularly emphasized for the custodian as follows:

"If the custodian discovers that the investment manager's order breaches law, rules or the contract, the custodian shall refuse to execute and immediately inform the investment manager and report to the trustee and the regulator in time.

If the custodian discovers that the investment manager's order which has been effective breaches law, rules or the contract, the custodian shall immediately inform the investment manager and report to the trustee and the regulator in time."

Regarding external auditors, provisions are much weaker. For instance, external audits are required only for the annual financial statements prepared by trustees, but the activities of asset managers or plan administrators appear not to be audited as part of MOHRSS's supervisory functions.[48] Also, external auditors are not required to report either to the trustee or to MOHRSS (as relevant) any breach of regulatory and fiduciary obligations. Finally, EA plans are simply not required to establish an internal audit function.

Notwithstanding the aforementioned considerations, some reporting to MOHRSS takes place in case of termination of business by one of the service providers in the EA system. For instance, financial reports should always be audited when the mandates of the account administrators,

[48] See appendix 3 for a more detailed description of the EA regulatory and supervisory framework.

custodians and asset managers are terminated for whatever reason. The audit report is submitted to the trustee and filed with MOHRSS and/or its local bureau. When the mandate of the trustee is terminated, its financial statements should also be audited and the audit report should be submitted to the plan sponsor and filed with MOHRSS and/or its local bureau.

In summary, the current provisions regarding audits and whistle blowing appear to require different standards for different parties and suffer from a number of other weaknesses. A few examples are:

- There is no clear distinction in the current rules between the governing responsibilities and fiduciary duties of trustees and the internal audit function.
- Audit provisions do not distinguish between accounting, financial and actuarial audits as needed, and it is unclear whether MOHRSS can establish minimum audit standards for the EA system.
- Trustees and custodians are audited periodically while account administrators and asset managers are not required to be audited externally.
- Provisions regarding whistle blowing are particularly weak, in terms of both scope and the follow-up process by the supervisor.

While not critical at this stage of development of the market, the authorities will soon need to strengthen provisions regarding internal and external audit functions as well as establish a consistent whistle blowing framework for relevant parties so as to leverage the supervisory function of MOHRSS.

Investment rules

Funds can be invested in high liquidity money market instruments (such as current deposits, central bank notes, and short-term bond repos) with a minimum of 20 percent of net assets. They can also be invested in term deposits, contractual deposits, government/ financial/corporate bonds, convertible bonds and securities funds not exceeding 50 percent of net assets. Among these, government bonds cannot represent less than 20 percent of net assets. Finally, investment in equities, investment-linked insurance products and equity funds is limited to a maximum of 30 percent of net assets. Among these, investment in equities cannot exceed 20 percent of net assets.

In addition, concentration limits apply to pension funds managed by a single investment manager. Investments in any given corporate stock or single security investment fund cannot exceed the minimum of 5 percent of the issuer’s equity or 10 percent of the fund shares.

Finally, EA funds cannot be invested in high risk assets such as hedge fund, property, infrastructure, private equity and foreign markets.

The current investment regulation is very conservative and based on holdings and some concentration quantitative limits that are mainly aimed at controlling market risk. However, no credit quantitative limits are prescribed to control for credit and liquidity risk.

The main positive impact of these conservative rules is that EA funds were well protected from the market downturn of 2008. This is particularly important from the political economy point of view in a recently established system. Highly negative returns in the initial years of operation of the EA system would have undermined the overall policy for developing complementary occupational plans in China.

However, market shocks experienced globally in 2008 are temporary and the regulatory framework for investments will need to be made more sophisticated and liberal in order not to hamper expected performance over the long term. In particular, quantitative restrictions could be liberalized and complemented by a more prudent person approach. In doing so, the authorities would need to assess the policy tradeoff of encouraging higher long term expected performance, in terms of risk adjusted returns, and the inevitable increase in administrative fees that this will entail.[49]

VI. Conclusion

The Chinese pension system is highly fragmented with separate and distinct regulatory and supervisory frameworks for its different components. Differing sets of rules and standards apply to governance and fund management in the Basic Old Age Insurance system, the National Social Security Fund (NSSF) and the Enterprise Annuity (EA) system.

In general, basic information on governance standards, investment rules, implementation of strategic asset allocation and performance is not publicly available. Disclosure of such information is substantially better (albeit with serious gaps as noted in the text) for the NSSF and the EA system. This lack of public disclosure can seriously limit accountability and jeopardize the policy of pre-funding pension liabilities.

A. The Basic Old Age Insurance System

Very little information is publicly available about total assets accumulated in the Basic Old Age Insurance system and their management. As of end of 2008, official figures report Y 993.1 billion in total assets (4.2 percent of GDP) in the combined social pooling and individual accounts at the national level. Of these, approximately Y 120 billion have been accumulated in the individual accounts in the thirteen provinces that are working to fully fund the system of individual accounts of which, Y 33 billion were managed by NSSF. The other Y 961.4 billion were managed at the provincial or county level. No information is published on investment rules and asset allocation but it is believed that assets are mostly invested in deposit accounts in the banking system. Finally, no information is available about the enforcement level of existing provisions in the areas of pension governance and fund management.

Pension fund governance practices and standards in the Basic Old Age Insurance system are virtually undocumented. This is explained by the decentralized and autonomous manner in which provinces, cities and other municipalities have so far developed and implemented pension policies. In the last few years, around 21 provinces have succeeded in centralizing asset management at the provincial level. Of these, 13 provinces have been centrally encouraged to prefund the liabilities in the individual accounts of the Basic Old Age Insurance system, with 9 provinces delegating the management of central government pension subsidies to the NSSF.

[49] MOHRSS is revising Decree 23 and the consultation draft includes a gradual liberalization of quantitative limits.

B. The National Social Security Fund

The NSSF has accumulated assets amounting to Y 562 billion (at market price), or 2 percent of GDP at end of 2008. Information on asset allocation is only available for assets managed in-house (around 50 percent of total assets) but only up to 2007. Assets managed in-house are concentrated in deposits and government debt, and overall the NSSF in-house portfolio is exposed to credit risk from banks, three of which are used as its own domestic custodians. Information disclosure on investment rules, portfolio allocation and the performance of external asset managers is in stark contrast to the high degree of publicity given to the selection process of external asset managers.

The governance framework of the NSSF is not dissimilar from the framework of other demographic buffers managed within governments such as the Norwegian Pension Fund Global (NPFG). Standards are somewhat weaker than those applied to the management of public pension reserve funds outside the government such as in Canada and New Zealand. However, this is often compensated by high levels of transparency, information disclosure and use of external professional resources. In particular, while the National Council of the NSSF is large and populated by representative members, it explicitly makes use of external professional inputs in the selection of custodians and asset managers, as well as in the formulation of its strategic asset allocation.

The evolution of the implementation of the NSSF strategic asset allocation is not dissimilar from the initial phases followed by other demographic buffers used in this paper as a benchmark. Initially, these funds started with simple in house investments in conservative assets. Later, implementation involved the selection and appointment of global custodians, transition managers and external asset managers. The number of retained external managers and the number of mandates have increased dramatically over time in all cases following the expansion of investments in private equity, real estate and infrastructure projects. Initially, external managers were specializing in passive indexing but over time the emphasis has shifted to asset managers specializing in particular sectors, regions, or strategies.

This increased activism reflects the growing trend over the past decade or so among large university endowment funds, charitable foundations, and corporate pension funds to diversify out of investments in listed equities and bonds and seek higher returns in alternative asset classes, including private equity, real estate, hedge funds, and emerging markets. Alternative asset classes may promise higher expected returns, but their expected volatility is also likely to be higher. However, the low correlation of their returns with those of listed equities and bonds implies at most a small increase in the volatility of total portfolio returns. In addition, some of these assets are marked-to-market at infrequent intervals, which implies a smaller recorded volatility, even if the underlying volatility is much greater.

The NSSF is currently in the initial phase of this trend and this has allowed administrative costs to be contained and its assets shielded from the volatility of 2008. However, NSSF is already more active in local IPOs, diversifying into riskier assets and increasingly making use of external fund managers for specialized mandates. In due course, the authorities need to be prepared for an increased activism in fund management. This raises three specific policy concerns. First, with increased risk taking and activism, the governance framework will need to be strengthened so as to shield asset management from undue political influence. Second, the NSSF needs to develop strong risk management skills that will correspond with the inevitable departure from traditional investing towards more "activism" and alternative asset classes. Finally, with the increased sophistication of the strategic asset allocation and increased use of external fund managers for specialized mandates, operating costs are expected to grow accordingly. This suggests that fixed costs, like wages and custodian fees (which are currently very high), need to be contained.

C. The Enterprise Annuity System

The EA system has accumulated around Y 191.1 billion, or 0.6 percent of GDP. The system is embryonic but it has strong potential for growth due to its low coverage. The investment rules are very conservative but no information is available on actual asset allocation.

The governance framework of the EA system is complex, especially relative to the small size of the market. The framework is based on the trust principle common in Anglo-Saxon countries with fiduciary duties discharged by either a tripartite internal trustee board or outsourced to an external corporate trustee. Provisions on minimum governance standards for internal trustees are almost non-existent while provisions for external trustees are very clear and detailed.

Although it incorporates several important design principles, the current EA system is unlikely to be able to effectively fulfill its intended purposes. This is because (i) participation by employers and coverage of workers remain low due to uncertainty about the design and security of the system and because the tax treatment of savings is uneven; (ii) the legal framework for the system is not fully developed and cannot, in its current form, provide an adequate foundation to ensure that the system can be effectively regulated to provide the degree of security necessary for an occupational pension system to flourish; and (iii) supervision of the system is not developed, lacks an adequate institutional basis and is not afforded sufficient resources.

A few policy concerns stem from the analysis of the existing provisions. In general, the legal framework for the system is not fully developed and cannot, in its current form, provide an adequate foundation to ensure that the system can be effectively regulated to provide the degree of security for an occupational pension system to flourish.

- **Weak Legal Framework.** The legal framework is not sufficiently developed, as mentioned above. For instance, the different regulatory treatment of internal versus outsourced corporate trustees may provide opportunities for regulatory arbitrage.
- **Weak Standards for Trustees.** Minimum standards for internal trustees need strengthening, especially so as to require (and not simply allow for) the use of professional (non-representative) trustees on the board.
- **Lack of Independence of Service Providers.** The framework for corporate trustees requires the existence of independent corporate service providers for the four key pension management functions: trustee services, account administration, custodianship and asset management. While unbundling of pension services may in principle promote entry into the system, the Chinese financial sector is not sufficiently diversified to guarantee independence among the different service providers. The lack of independence among the different service providers implies that the corporate trustee is often in practice captured by the custodian, thus raising concerns about its ability to fully discharge its fiduciary duties.
- **Weak Governance Framework.** The governance framework does not fully exploit the role of external auditors as whistle blowers. In particular, the activities of asset managers

and account administrators are not required to be audited on a regular basis. MOHRSS would need to increase its internal capacity to be able to establish itself as a credible negotiator of minimum audit standards.

- **Conservative Investment Rules.** The current EA investment rules are too conservative, which would be sub-optimal in the long run. Therefore, over time with improved conditions in capital markets and the increased experience of the regulators among others, the government might consider gradually liberalizing the EA regulatory framework.

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Appendix I. Key Design Parameters of the Basic Old Age Insurance System

Contributions to the basic old age insurance system

First tier contributions were initially set in State Council Document 26 at a flat 20 percent of employee's contributory wage and the employer is fully responsible for their payment. Actual rates vary by province between 17 percent and 30 percent of employee's wage and between a maximum of 300 percent of local average wage and a minimum of 60 percent of that (Salditt et al. (2008)). Second tier contributions were initially set at 11 percent of employee's contributory wage. Employees would contribute at 4 percent of wages with 1 percent increments every two years after 1997 to reach the ceiling of 8 percent. Employers would contribute the complement to 11 percent with a corresponding decreasing schedule from 8 percent to a floor of 3 percent. These parameters were subsequently changed for new pilots and the key reforms are:

- In 2000, the Liaoning Pilot reformed provisions related to contribution rates by introducing a 10 percent rate to the social pooling for self employed individuals and abolishing employer's contributions to the individual accounts. For the specific province, employees would contribute only to the second tier with a rate set at 8 percent of individual's contributory wage.[50]
- In 2004, the provinces of Jilin and Heilongjang adopted a modified version of the Liaoning pilot. Under the provisions of Documents 35 and 36, individual contributions would be reduced from 11 to 8 percent with the full 8 percent being credited to the individual accounts and separate from the social pooling.
- In general, the pilots for the thirteen provinces generally maintain the contribution levels for the individual accounts at 8 percent with full responsibility of the employee and the separation of the individual contribution from the social pooling.[51] The separation has helped not only accumulate the funds for the future, but also strengthen financial discipline.

Benefits from the basic old age insurance system

First tier benefits were initially set by State Council Document 26 at 20 percent of previous year's local average wage indexed to the local average cost of living. Benefits from the individual accounts were set as a monthly "annuity" of 1/120 of accumulated account balances at retirement with no adjustments for early retirement. Given that no mortality risk pooling takes place in the decumulation phase of the individual accounts,[52] this is technically

[50] Contributory wage in chine includes most of the monetary income: i.e., basic salary, bonuses and other subsidies.

[51] Due to fiscal constraints, some provinces have reduced contribution rates to 3 or 5 percent, although eventually these should return to 8 percent.

[52] Individuals are not required to buy annuities from the private sector as commonly seen in mandatory DC pensions in Latin America and Eastern Europe.

(continued)

a phased withdrawal with longevity risk in the tail insured by the social pooling. Retirement age was set at age 60 for men, 55 for women, and 50 for employees in hazardous categories. Finally, minimum qualification rules included a minimum contributory period of 15 years. The now familiar key reforms modified these provisions as follows:

- In 2000, incentives to work longer were introduced in the Liaoning Pilot at a rate of 0.6 percent increase in overall benefits per additional contributory year in excess of the minimum qualification period of 15 years. No information is available on whether the new benefit formula for the province is actuarially fair. Despite representing an obvious improvement on a fixed annuity conversion factor, it is likely that it is not. In fact, no provisions were introduced to account for longer expected life expectancy of women.
- The Jilin and Heilongjang pilots and the pilots of all the thirteen provinces covered under State Council Document 38 follow the same guidelines. The target replacement rate from Tier I was set in Document 38 at 35 percent of local average wage[53] while the target replacement rate from Tier II at around 24.2 percent of local average wage (Salditt et al. (2008)).[54]

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[53] It should be noted that this 35 percent has been changed in the past ten years based on various Pilots in different provinces.

[54] Starting from January 1, 2006, the MOHRSS enhanced the pension benefit formula so that actual target replacement rates are now probably higher. No information is available on the extent to which target rates have increased in consequence of such adjustments.

Appendix II. Reliance on Proceeds from IPO to Fund Pension Liabilities.

An interesting evolution of the implementation of the strategic asset allocation has been the increased participation of the NSSF in IPOs of major reforming state-owned enterprises, especially the banks, at extremely attractive prices.

One of the earliest investments of this kind occurred in June 2004, when the Bank of Communications (BoCom), one of China smaller yet more profitable state-owned banks, restructured in preparation for a Hong Kong listing. The NSSF invested Y 10 billion (US$1.2 billion) in BoCom as a strategic investor, and became the third largest owner of BoCom after the MoF and Hong Kong and Shanghai Banking Corporation (HSBC). In July 2005, BoCom shares were listed in Hong Kong at a price 42 percent higher than that paid by the NSSF, netting it with a handsome (although unrealized) return of over Y 4 billion (US$0.5 billion).[55]

Encouraged by this result, the NSSF made similar pre-IPO investments in bigger banks, including Y 10 billion (US$1.2 billion) in the Bank of China (BoC) and same amount in the Industrial and Commercial Bank of China (ICBC), both at extremely attractive prices. The successful Hong Kong listings of BoC in June and ICBC in October of 2006 benefited the NSSF with immediate unrealized returns totaling approximately Y 30.5 billion (US$3.9 billion)[56]. Given that all three bank stocks have performed well post-IPO, and assuming that the shares have not yet been sold because of a lock-up period, the cumulative unrealized gains for the NSSF in these three banks would approximate US$ 7 billion as of the end of October 2006.

This form of activism in IPOs of Chinese state-owned banks and the ministerial nature of the NSSF, raises concerns linked to governance, and more specifically in the area of related party transactions. Given that IPO prices tend to be significantly higher than the prices paid by pre-IPO private equity investors, these investments have generated substantial (unrealized) profits for the NSSF. In addition, the NSSF is a passive investor and is not likely to provide substantial value added in improving the governance of the banks.[57] Hence, participation in IPOs has to be linked to an implicit political decision to help the NSSF boost its returns as quickly as possible.

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[55] Bank of Communications IPO Prospectus and IPO Allotment Result, June 2005.

[56] Based on information obtained from BoC and ICBC's IPO Prospectuses and IPO Allotment Results in May and October 2006, respectively.

[57] According to relevant regulations on investments in major reforming state-owned enterprises, NSSF should not aim at the control of the company and does not participate in the day-to-day operational management. i.e., the NSSF is a passive investor in these companies.

At present, NSSF has allocated around Y 30 billion (US$3.8 billion) into the three aforementioned banks[58] and Y 10 billion in Beijing-Shanghai high-speed railway company. In addition, the State Council approved the investments in the China Development Bank and the Agriculture Bank of China as a strategic investor. The investment in the China Development Bank is estimated to be about Y 50 billion.

[58] BoC, ICBC, and BoCom.

Appendix III. Regulatory and Supervisory Architecture for the Enterprise Annuity System

As for the Basic Old Age Insurance and the NSSF, regulation and supervision of the EA system is separate and distinct.

The EA market is currently regulated and supervised by various ministries and governmental agencies, although the main agency is the MOHRSS. Internally, the supervisory responsibility lies within a specialized department, i.e., Department of Supervision of Social Insurance Fund, (known as the Department of Supervision). This Department was established in 1998, and it is currently organized in three divisions. One division is in charge of supervisory issues relating to social insurance funds which have been administered in a commercial manner, which mainly refer to EA assets at the moment. Other two divisions focus on regulation and supervision of public pensions, and general administrative issues (e.g., staffing and budgeting), respectively.

Capacity constraints, as well as constraints in budget levels and flexibility, seriously undermine the operational independence of MOHRSS to discharge its responsibilities. Currently, there are only 3–4 staff directly working on EA issues, which include a Deputy Director General and 2–3 staff from the EA division. MOHRSS has also branches at the level of provinces, cities and counties bringing the number of individuals involved in the supervision of both the EA system and the public pensions to an estimated 100. However, only 11 of the 31 provinces have established specialized divisions for pension supervision. In all other cases supervision activities are mingled together with other activities. Finally, in addition to the MOHRSS budget which is fully funded by the central budget, various fees are also charged to supervised entities but they are far being sufficient to cover the operational costs.

MOHRSS's current supervisory approach includes both on-site and off-site supervision. So far, on-site supervision has been the main method used by MOHRSS to monitor the EA market. On-site inspections include routine visits, ad-hoc inspections and the supervision of fund frauds. It is unclear whether procedure manuals have been defined to distinguish among these three types of on-site inspections and the inspection teams. It is understood that on the one hand, ad-hoc inspections are essentially focused on specific cases of interest to MOHRSS and on the other hand, on-site inspection focusing of frauds are also on an ad-hoc basis, but deserve a self standing category due to the important impact that frauds would have on the credibility of the system.

Regarding off-site surveillance, investigators analyze annual reports, financial accounts and other requested data, so as to monitor the market and identify any irregularities. It is believed that manuals for the financial analysis of EA plan have yet to be developed, as well as a system of early warning ratios to guide supervisory resources and on-site inspections. Indeed, MOHRSS is thought to have developed a fully fledged regulatory ladder to guide its supervisory and regulatory response in these early phases of development of the EA market.

At present, MOHRSS is focusing on developing reporting mechanisms for the different layers of authorities across the country. The Chinese authorities started the "Jinbao Project" in 2003, which aims to introduce a networked system through three levels of government, e.g., national, provincial and city. This should allow MOHRSS to monitor the market in a more efficient manner. However, as of May 2009 such system was only partially implemented across the country.

In addition to MOHRSS, three other agencies are involved in regulation and supervision of the private pension sector. These include the China Banking Regulatory Commission (CBRC), the China Insurance Regulatory Commission (CIRC) and the Securities Regulator (CSRC). So far, banks mainly serve as custodian and administrator, insurance companies serve as trustees and securities firms serve as asset managers. In practice, financial institutions have to obtain two licenses before conducting EA business, one from one of the three specialized financial regulators, and the other one from the MOHRSS.

Coordination across these agencies is not formalized but allegedly implemented in practice. Although there is not a regular collaboration mechanism in place between MOHRSS and the three financial regulators, cooperation between them in certain areas is already in place. For instance, there is a general consensus that as far as EA supervision is concerned, MOHRSS plays a leading role, while the other three regulators provide assistance if necessary.

The CIRC is the principal regulator/supervisor of voluntary private pensions in the form of insurance products (group or individual). These are mainly products falling under pillar III of the pension system summarized in table 1 in the main text. The CIRC is responsible for approving any establishment and disclosure of life insurance companies in China. Principally due to this reason CIRC has been in effect an important EA regulator as well. Latest statistics as given in Table 1 show that as of 2008 the five specialized pension insurance companies[59] in China accounted for 10.8 percent of the Chinese EA market as account administrator, 24.8 percent as trustee and 19.7 percent of asset manager.

Finally, the State Taxation Administration (STA) and the Ministry of Finance have certain responsibilities on pension policy and tax exemption. For instance, the question as to whether to exempt some tax collections (e.g., tax on investment income) is within this Ministry's jurisdiction. However, policy coordination among the multiple regulatory and supervisory agencies in this area appears problematic. For instance, in early 2008, the CIRC and the municipal government of Tianjin introduced a new trial scheme in Binhai, which gave tax relief for pension contributions for voluntary private pension products sold by insurance companies. Few months later, MOF and STA issued a joint statement, calling off this trial, stating that it was against accounting rules. Meanwhile in June 2009 the STA and MoF

[59] Specialised pension insurance company was first established in China in 2004 largely in response to potential development of the EA market in the country. As of the time of writing the report there were five such companies in China.

increased tax benefit limit in related to EA contributions, i.e. previously 4 percent of payroll to 5 percent attempting to encourage development of the EA market in China.[60]

Table 1. Enterprise Related Business by Pension Insurance Company in Yuan Million in 2008

Company	Account Administrator	Trustee	Asset Manager
Taiping	3,428	6,166	9,426
Pingan	9,017	12,402	14,613
China life	5,357	6,137	…
Changjiang	2,158	22,261	13,699
Taikang	589	398	2
Total	20,548	47,364	37,737
As percent of the EA market (in percent)	10.8	24.8	19.7

Source: CIRC (2008).

Note: 1/. As shown in Appendix 4 Taiping is not currently EA account administrator, therefore, the figure might be related to business which was conducted via partnership with other EA account administrator(s).

Licensing criteria and responsibilities of corporate trustees

As noted earlier, both corporate trustee and pension council models are permitted by relevant EA regulations. However, the regulatory and supervisory focus is on the former as highlighted by release of Decree No. 23. This possibly leaves open the door for regulatory arbitrage across the two models.

According to this legislation, the corporate trustee needs to meet the following requirements in order to obtain a license:

- Approved by state financial regulatory authority and registered in China.
- Having registered capital no less than Y 100 million and maintaining no less than Y 150 million net assets at any time.
- Having a sound corporate governance structure.
- Staffed with required numbers of professionals qualified for pension fund management.
- Equipped with proper business site, safety facilities and other necessary facilities for trust management of pension fund.
- Having sound internal auditing system and risk control system.
- No serious violation of law and regulation in recent 3 years.

[60] There have been some arguments, however, regarding whether this policy initiative would be enough to have any significant impact in the market.

- Other conditions required by the State.

Main functions and duties of the EA corporate trustee are to:

- Choose, monitor, and change the record keeper, the trustee and the investment manager and other intermediary service provider.
- Set down pension fund investment strategies.
- Prepare pension fund management and accounting report.
- Monitor corporate annuity fund management basing on the contract.
- Collect contribution from the company and employee according to the contract and distribute benefits to beneficiaries.
- Deal with enquiry of client and beneficiaries. Provide clients, beneficiaries and regulators with pension fund management report regularly. Report to them on a timely manner in case of significant event.
- Keep records pertinent to pension fund management for at least 15 years.
- Other duties defined in the contract and required by the State.

Appendix IV. List of Enterprise Annuity Licenses by Type of Company in China as of May 2008

Trustee (11)	Custodian (10)	Account Administrator (16)	Asset Manager (21)
Insurance company (5)	Bank (10)	Insurance companies (6)	Fund Manager (15)
Taiping Pension Insurance	China Ind. and Comm. Bank	~~China Life Insurance~~ 2/	South Fund Management
Pingan Pension Insurance	Bank of China	~~Taikang Life Insurance~~	Boshi Fund Management
Changjiang Pension Insurance	China Construction Bank	Xinhua Life Insurance	Huaxia Fund Management
China Life Pension Insurance 1/	China Communications Bank	China Pacific Life Insurance	Harvest Fund Management
Taikang Pension Insurance	China Merchants Bank	*China Life Pension Insurance*	Fullgoal Fund Management
	China Everbright Bank	*Taikang Pension Insurance*	EFund Management
Trust company (3)	*CITIC Bank*	*Pingan Pension Insurance*	Yinhua Fund Management
CITIC Trust	*Shanghai Pudong Dev. Bank*	*Changjiang Pension Insurance*	China Merchants Fund Manag.
~~Zhongcheng Trust~~	*Agricultural Bank of China*		Haifutong Fund Management
Huabao Trust	*China Minsheng Bank*	Bank (8)	*Guotai Fund Management*
Shanghai International Trust		China Ind. and Comm. Bank	*ICBC CS Fund Management*
		China Communications Bank	*Guangfa Fund Management*
Bank (3)		Shanghai Pudong Development Bank	*Taikang Fund Management*
China Construction Bank		China Merchants Bank	*PICC Fund Management*
China Merchants Bank		China Everbright Bank	*Changjiang Pension Insurance*
China Ind. and Comm. Bank		*China Construction Bank*	
		China Minsheng Bank	Insurance company (4)
		Bank of China	China Life Insurance
			Huatai Insurance
		Trust company (2)	Taiping Pension
		CITIC Trust Investment	Pingan Pension
		Huabao Trust Investment	Securities company (2)
			CITIC Securities
			China Int. Capital Corp.

Source: various.

1/ Texts in italic refer to licenses granted in 2007, while others to licenses granted in 2005.

2/ Three licenses were taken back by the MOHRSS, which are indicated by texts with crossing lines.