Trends in Pension System Reforms in East Asia

- Cases of Japan, Korea and China -

(Preliminary Draft, Do Not Quote)

Akiko Nomura

Nomura Institute of Capital Markets Research

Prepared for Sixth Annual Brookings-Nomura Foundation-Wharton Conference

October 15, 2010

Trends in Pension System Reforms in East Asia
- Cases for Japan, Korea and China -

Akiko Nomura

October 2010

Summary

A number of developed countries have been reforming their pension systems to adapt to their aging populations. The underlying trends of these reforms can be briefly summarized as a shift from public to private pensions, increased levels of prefunding, and a shift from defined benefit plans to defined contribution plans, all aimed at improving both the adequacy and sustainability of pensions.

The pension reforms underway in three East Asian countries, Japan, Korea, and People’s Republic of China, seem to be following this same direction basically. A closer look at the details, however, indicates that each country has its own set of issues and areas with fairly large differences from the overall trends.

Both Japan and Korea have been lowering the replacement rate of their public pensions. Korea is incrementally lowering its replacement rate from 70% to 40%, and also introduced a corporate pension system. Japan too has already passed revisions that will bring its replacement rate down to 50% from 59%. However, the coverage rate of Japan’s corporate pensions is actually in a declining trend. Korea is still at the stage of observing how the newly introduced corporate pension plans fare, while in Japan we think more focus should be paid on policy measures to expand private pensions.

Japan, Korea, and China have made some achievements in public pension prefunding. China has introduced funded personal accounts as a component of its public pension. Japan's Government Pension Investment Fund (GPIF) is the largest pension fund in the world, while Korea's National Pension Fund (NPF) and China's National Social Security Fund (NSSF) have also built up sizable assets despite being around for only about 10 years. All three countries, however, have room for improving the governance of the organizations that manage their reserve funds.

China is taking an aggressive approach in the shift from defined benefit to defined contribution plans with its mandate that all new corporate pensions must be of the latter type. In Japan and Korea, both defined benefit plans and defined contribution plans are offered. Measures to strengthen the latter are needed to make corporate pensions more sustainable in Japan.

I. Underlying trends in pension reform

The role and objectives of pension systems differ from country to country, but one pension objective common to all is to provide an old age income security to a wide range of people. The limits to achieving this objective using market principles and self-help efforts alone have justified state involvement in pension systems. This involvement includes both the establishment of public pension programs as well as government policies supportive of corporate, occupational, and other private pensions.

Population aging is probably the single factor with the greatest impact on pension systems worldwide. In the short run, the pressure that pension benefits put on national treasuries could often spark debate over pension reform. If pension costs were completely paid for with insurance premium and received no funding from general revenue, national treasuries would not be directly affected, but because many public pensions are supported by taxes and used as a tool to redistribute income, during times like now when fiscal deficits are growing rapidly, attention is naturally drawn to the cost of social security benefits, which is a mandatory budget expenditure. In addition, tax relief on private pensions must also be paid for, and the need for that relief also normally comes under closer scrutiny when fiscal deficits are growing.

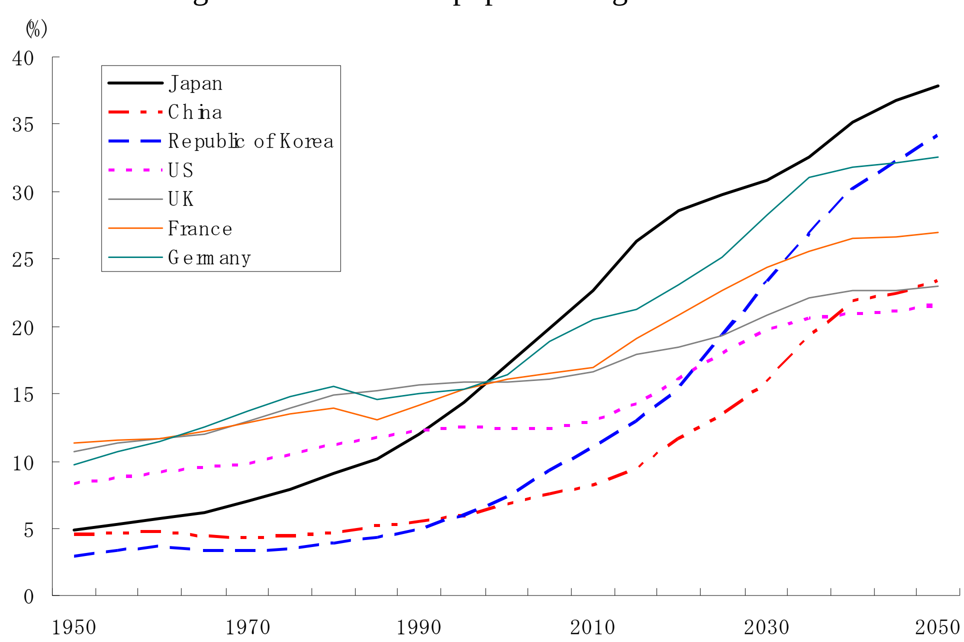
Over the longer term, however, it is population aging that creates the greatest pressure for pension reform. This is primarily because the most widely used method of financing public pensions is pay-as-you-go (PAYGO), and when the population ages faster than planned, it destroys the balance between the working generations and retired generations, which in turn causes pension finances to deteriorate.

Since the 1990s, many countries, primarily those with more advanced economies, have instituted various pension reforms to adapt to the aging of their populations. The objective of these reforms has been to make pensions both more sustainable and more adequate. More sustainable means more affordable from the perspective of the individuals, employers and the national treasury, and means "more financially sound" from the perspective of pension finances. Achieving this means making the pension system more robust to future demographic changes. Ensuring the adequacy of pension means ensuring a broader slice of the population is participating (a higher coverage rate) and receiving a reasonable level of retirement income.

The underlying theme of recent pension reforms in the developed countries can be briefly summarized as a shift from public to private pensions, increased prefunding and a shift from defined benefit plans to defined contribution plans, or the combination of these. The first one, the shift from public to private pensions, may be something occurring inevitably, given that as populations become older, public pensions are bound to play a reduced role to ensure greater sustainability of pensions. People draw on both public and private pensions to ensure they have the funds they need for old age, but the question remains as to how the burden is to be shared between the two systems. Specifically, how much should the government assist people in their own efforts to ensure retirement income above the minimum benefit, and to what extent should the government pursue policies to strengthen private pensions.

Generally, public pensions are PAYGO and private pensions are prefunded, and thus a shift to private pensions also means greater prefunding, although recently there has been more focus on

Figure 1: Share of the population aged 65 and older



(Source) United Nations Population Prospect establishing and managing public pension reserve funds. Putting greater emphasis on prefunding can lessen the impact that societal aging has on pension finances and make pensions more sustainable.

The shift from defined benefit to defined contribution plans is occurring to varying degrees in most developed countries, mainly in the workplace pensions including corporate pensions. It has become more difficult for employers to offer defined benefit plans, which obligate them to make contributions and absorb the investment risk in order to ensure that the promised benefits can be paid. Consequently, defined contribution plans are becoming the plan of choice. There are also some public pensions that are shifting from a defined benefit to a defined contribution structure. One example of this is the notional DC, which although a PAYGO system provides greater clarity regarding the relationship between contributions and benefits. Another example is either the partial or full implementation of a funded defined contribution plan for public pensions.

The Asian countries that are currently the nexus of global growth are expected to experience population aging over the long term, albeit to differing degrees and on differing time horizons. The level of both economic and social development varies widely across Asia, and the same is true of national pension systems. We focus this paper on the three countries, Japan, Korea and China, that we think provide an interesting combination in regards to population, economic size, extent of population aging (Figure 1), types of pensions, and presence of reserve funds. Japan, one of the most mature countries in the world, faces a serious pension problem as a result of the speed with which its population has been aging. Korea is classified as a developed country just like Japan, but its pension system is relatively new. China differs considerably in terms of its stage of economic development and social structure, but the workability of its pension system attracts considerable attention because of the sheer size of its population and its great importance to the global economy. In this paper we look at each of the three countries' pension systems in the context of the shift from public to private pensions, increased prefunding, and shift from defined benefit to defined contribution plans.

In section 2, we provide a brief overview of the systems being used in Japan, Korea, and China. We then look more closely at the shift from public to private pensions in section 3, at increased prefunding in section 4, and at the shift from defined benefit to defined contribution in section 5. We end with our conclusions in section 6.

II. Overview of pension schemes in three East Asian countries

In many countries, people have access to multiple types of pensions, both public and private. The pension conceptual framework drawn up by the World Bank is also based on the thinking that providing a combination of multiple pension types makes it possible to build a pension system that reaches a more diverse range of groups within a population.

The World Bank's framework categorizes pensions into multiple pillars, from 0 to 4. The conceptual framework published in 1994 defined the first pillar as mandatory, PAYGO, defined benefit public pensions, the second pillar as mandatory, funded, defined contribution private pensions, and the third pillar as voluntary savings for retirement. A zero pillar and fourth pillar were added to this in the conceptual framework published in 2005. The zero pillar guarantees a minimum pension funded by tax revenue. The first pillar is based on mandatory enrollment and payment of social insurance premiums by the working-age population, with the level of premium based on income and the pension benefit provided meant to replace that income to a certain extent. The second pillar is a system of mandatory private accounts. The third pillar is voluntary and can take various forms, including either workplace-based or individual-based and either defined-benefit or defined-contribution. The fourth pillar consists of informal family support of and inter-generational wealth transfers to the elderly.

Figure 2 looks at the pension systems in Japan, Korea, and China within the context of the World Bank's conceptual framework. All three countries take a multi-pillar approach to pensions.

Figure 2: Pensions systems in Japan, Korea, and China based on the United Nations Framework

<table>
<tr><th></th><th>Overview</th><th>Japan</th><th>Korea</th><th>China</th></tr>
<tr><td>Zero pillar: Social security funded by taxes</td><td>• Basic pension, universal pension with means testing
• Targeted enrollment: those missed by the universal pension or other system
• Funding source: general revenue</td><td>(See note)</td><td>• Basic old age pension with means testing</td><td>• None</td></tr>
<tr><td>First pillar: Public pension with mandatory enrollment</td><td>• Public pension, defined benefit/deemed defined contribution
• Targeted enrollment: mandatory enrollees
• Funding source: premiums and pension reserves</td><td>• Two tiers: a basic pension for all people and a system for employees. Separate systems established for the self-employed, private-sector employees, and government employees.</td><td>• National pension and public employee pension</td><td>• Basic endowment insurance</td></tr>
<tr><td>Second pillar: Private pension with mandatory enrollment</td><td>• Occupational pensions/individual pensions, funded DB and DC plans
• Targeted enrollment: mandatory enrollees
• Funding source: financial assets</td><td>None</td><td rowspan="2">• Employers are required to provide retirement pay system or retirement pension plan.
• Retirement pensions include both DB and DC plans.</td><td>None</td></tr>
<tr><td>Third pillar: Voluntary private pensions</td><td>• Occupational pensions/individual pensions, funded DB and DC plans
• Targeted enrollment: Voluntary
• Funding source: financial assets</td><td>• Defined benefit pension
• Defined contribution pension (corporate, individual)</td><td>• New corporate pensions are DC plans</td></tr>
<tr><td>Fourth pillar: Non-financial support</td><td>• Access to formal programs as well as informal programs such as family support, non-financial assets
• Targeted enrollment: Voluntary
• Funding source: Financial and non-financial assets</td><td>Yes</td><td>Yes</td><td>Yes</td></tr>
</table>

(Note) One half of the cost of Japan's basic pension benefits is funded by general revenue.
(Source) Nomura Institute of Capital Markets Research

1. Japan's pension schemes

Japan's public pension has two tiers, a fixed basic pension benefit paid to all citizens and an earnings-related benefit for private-sector employees and government employees. On top of these are private pensions, both defined benefit and defined contribution.

Private-sector employees and government employees enroll in the public pension through their workplace, with the earnings-related premium (contribution) split between the employer and employee, and the benefits received are a combination of the basic pension and the earnings-related pension. The system for private-sector employees is Employees' Pension Insurance (EPI) and the plans for government employees are called Mutual Aid Pensions. Those employees spouses who have no income do not directly pay a premium, but receive a basic pension. The self-employed join the National Pension Insurance (NPI), pay a fixed premium and receive a basic pension. The basic pension serves as a common ground for all people.

There are two types of private pensions, defined benefit and defined contribution. There are three defined benefit (DB) plans available, the Employees' Pension Fund (EPF), DB Corporate Pensions (DBCP), and Tax-Qualified Pension Plans (TQPPs). Because of their inadequate protection of participants' right to receive benefits, the 2001 corporate pension reforms included legislation phasing out TQPPs by March 2012 and introducing DBCP. DC pension plans were also introduced in the 2001 reforms. DC plans included corporate DC plans offered by companies to their employees, and personal DC plans for the self employed and employees of companies without any corporate pension.

2. Korea's pension schemes

Korea's pension system comprises a public pension launched in 1988 and corporate pensions begun in 2005. Enrollment in the public pension is mandatory for employees, who enroll through the work place, and for the self-employed, who enroll in individual plans, but voluntary for spouses without an income. Premiums are split between the employer and employee for workplace enrollees while paid entirely by individual enrollees, and set at 9% of income.

The benefit from the basic pension is determined by the participant's number years paying into the system and average income over that entire period, as well as by the average income of all mandatory participants over their last three years prior to retirement. The inclusion of the latter gives the system an element of income redistribution.

Korea is unique in that companies are required to provide employees a retirement pension plan or a lump-sum retirement pay system. The retirement pay system began as a voluntary system in 1953, and companies became obligated to offer it in 1961, which resulted in its widespread adoption. There were, however, apparently problems in ensuring participants' benefits since the system was in book reserve form, and the government responded by introducing employee retirement reserve insurance, retirement insurance, and retirement trusts to encourage savings outside the company. There were a number of problems with these, as well, including the companies being able to use the employees retirement reserve insurance as collateral for borrowing money, and the lack of any mechanism for verifying the funding of retirement insurance and retirement trusts.

Korea introduced corporate pensions in 2005 with the passage of the Employee Retirement Benefit Security Act. Two types of such pensions are offered, defined benefit and defined contribution. Individual retirement accounts (IRAs) were also introduced to ensure portability when changing jobs. In step with this, the government decided to abolish employee retirement reserve insurance, retirement insurance, and retirement trusts.

3. China's pension schemes

Enrollment in basic endowment insurance, China's public pension system, is mandatory and primarily comprises employees and the self-employed in urban areas. In China, state-owned enterprises used to provide the social safety net, but the system has been reformed several times since the 1990s, resulting in the current combination of a public pension (basic endowment insurance) and voluntary corporate pensions.

Basic endowment insurance is two tiered, the first tier being a common pool and the second, individual accounts. Employers contribute a premium set at 20% of wages to the common pool, and employees contribute 8% of their average wage to their individual account. The common pool is a PAYGO defined benefit pension, while the individual accounts are a funded, defined contribution pension. This mix of PAYGO with a funded, defined contribution pension is also used by Sweden for its public pension. Unlike in Sweden, however, participants in China’s basic endowment insurance cannot decide how to invest the funds in their individual accounts, which are basically invested in government bonds through the basic endowment insurance fund.

The corporate pension system that China first introduced in 2004 is noteworthy in that it is only offered as a DC plan. Companies can decide whether to offer a corporate pension or not, and both the company and the employee make contributions.

III. The shift from public pensions to private pensions

1. The role of public pensions is bound to shrink in Japan and Korea

Although there appears to be a trade-off between making pensions more sustainable and ensuring their adequacy, in reality both must be achieved at the same time for reforms to work well. If benefits are continued without regard to sustainability while the population ages, financial realities will eventually force reductions in benefits, thereby adversely affecting their adequacy. Likewise, if pension benefits are too low, confidence in the system itself is undermined, opening the way to undisciplined political pressure that raises benefits, thereby adversely affecting their sustainability. Ultimately, each country must find its own optimal balance between the two.

One of the primary indicators of the adequacy of pension benefits is their replacement rate. Many countries in Europe began lowering the replacement rate of their public pensions in the 1990s. Reforms lowered the replacement rate to 39.9% from 48.7% in Germany and to 51.2% from 64.7% in France. As we note below, Japan and Korea have adopted similar measures. (Figure 3)

Japan's EPI has long used a graduated premium approach to funding, and thus future premium hikes have been taken as a given. The funding mechanism was designed from the outset to incorporate future incremental increases in the premium rate, and the current rate is set based on future expected increases. Because costs are postponed under this funding method, it creates a larger financial burden for future generations.

The public pension reform in 2004 put an end to this behavioral pattern. It gradually raised premiums to deal with the problem of underfunded pension benefits. At the same time, in order to limit the burden on the working generation, the 2004 reform fixed the premium after increases at ¥16,900 for the NPI and 18.3% for the EPI, and also established a schedule for adjusting benefit levels to accommodate the impact from demographics. More specifically, an automatic adjustment of benefits based on demographics ("macroeconomic slide") is accompanied by a lowering of the

Figure 3: Replacement rate of public pensions

Japan	- The 2004 reform lowered the replacement rate from about 59% to just over 50%, based on the model household (single-earner couple household with two children, forty years enrollment). - According to the OECD, the gross replacement rate following the reforms will be 33.9%.
Korea	- The 2007 reform lowered the replacement rate from 60% in 2008 to 50%, and then lowered it in further 0.5 percentage point increments until 40% by 2028. - According to the OECD, the gross replacement rate following the reforms will be 42.1%.
China	- The OECD estimates it to be 35% for the socially pooled account and 24.2% for the individual accounts for a total of 59.2%.
OECD Average	- The average for OECD countries in 2009 for public pensions and mandatory private pensions combined was 59.0%; public pension only was 45.7%.

(Source) Nomura Institute of Capital Markets Research, based on OECD (2009)

replacement rate for the model household [1] to 50% from 59%. In addition, the amount of the basic pension benefit funded by general tax revenues was raised from one third to one half.

In general, an increase in funding from general taxes means strengthening of the minimum benefit security by redistributing income to the lower income classes. Japan's 2004 reforms did not, however, clearly position the basic pension as a minimum benefit. One of the policy issues championed by the Democratic Party of Japan (DPJ), which took power in September 2009, was public pension reform. The DPJ proposed a major reform of the public pension that would combine an income-related pension participated in by all, including employees and the self-employed, and a minimum benefit that uses tax revenue to raise benefits for individuals with a low pension because of low income. An attempt to elucidate a minimum benefit is fine, but the debate has yet to get off the ground because the DPJ has sidestepped the key issue, the level of the overall benefit.

In Korea, in conjunction with expanding the coverage rate, premiums are being raised and the replacement rate is being lowered to make the system more sustainable. The premium began at 3% when the system was launched in 1988, but was raised to 6% in 1993 and then to 9% in 1998.

The replacement rate was initially 70%, but was lowered to 60% in 1999 and to 50% in 2007, and is scheduled to be lowered by 0.5 percentage points annually from 2008 until 2027, after which it will stabilize at 40% from 2028. Simultaneously, in 2007 Korea introduced a basic old-age pension system, a means-tested guaranteed minimum pension funded by general tax revenues.

In Korea, participants must be enrolled for 20 years to receive basic pension benefits and for 40 years to receive full pension benefits, and because the system was launched in 1988, the benefit reductions took place before the full-fledged benefit payments began. Actions were taken early and that probably helped to push through such relatively steep reductions in the replacement rate.

2. Coverage of public pensions

The Chinese government has not always clearly elucidated the replacement rate of its basic endowment insurance, but the OECD estimates that rate to be 35% for the common pool and 24.2% for private accounts, for a total of 59.2%. On the surface, it appears that China's public pension is maintaining a replacement rate on par with the OECD average. The problem, however, lies in China's low pension coverage rate, i.e., the low percentage of Chinese people who are enrolled in the pension program. This makes comparisons with other countries less meaningful.

No matter how attractive the pension's terms are, the limited participation makes it difficult to give China's pension system high scores in terms of adequacy. The coverage rate is a particularly important metric for public pensions. Both Japan and Korea have incrementally raised the coverage rate of their public pensions, and although not perfect, maintain certain level of coverage rates. Japan began with occupational pensions, and expanded coverage by introducing a national pension for the self-employed and others. Japan's introduction of a basic pension in 1985 served to create a link among the until then independently operated national pension, EPI, and mutual aid pensions, bringing into having a basic pension common to all. The 1985 reforms also expanded coverage to dependent spouses, whose participation had been voluntary until then. Korea, too, has incrementally expanded coverage of its public pension. When it was launched in 1988, the pension covered employees of business establishments with at least 10 full-time employees, but it gradually included smaller firms, and by 2006 coverage was extended to all workplaces with at least one employee. The self-employed, farmers and fishermen, and irregular employees are also covered.

China's basic endowment insurance only covers 20.5% of the labor force, well below the OECD average of 83.3%, and raising the public pension coverage rate is likely to become the next urgent issue for China. Whether the current replacement rate is sustainable with higher coverage will then be the issue.

3. The presence of private pensions in terms of assets

Only private pensions can fill the void that will be created by reducing the role of public pensions. In fact, the strengthening of private pensions is a trend that can be seen in a number of countries, including Germany, which introduced its Riester pension at the same time it lowered the replacement rate of its public pension, and the UK, which positioned its public pension as a guaranteed minimum and introduced a stakeholder pension that is easily accessible by low-income individuals who are not enrolled in a corporate pension.

As shown in Figure 3 above, the public pension replacement rate in both Japan and Korea is expected to drop considerably. To examine the presence of private pensions in Japan and Korea, we look at the amount of private pension assets as a percentage of GDP.

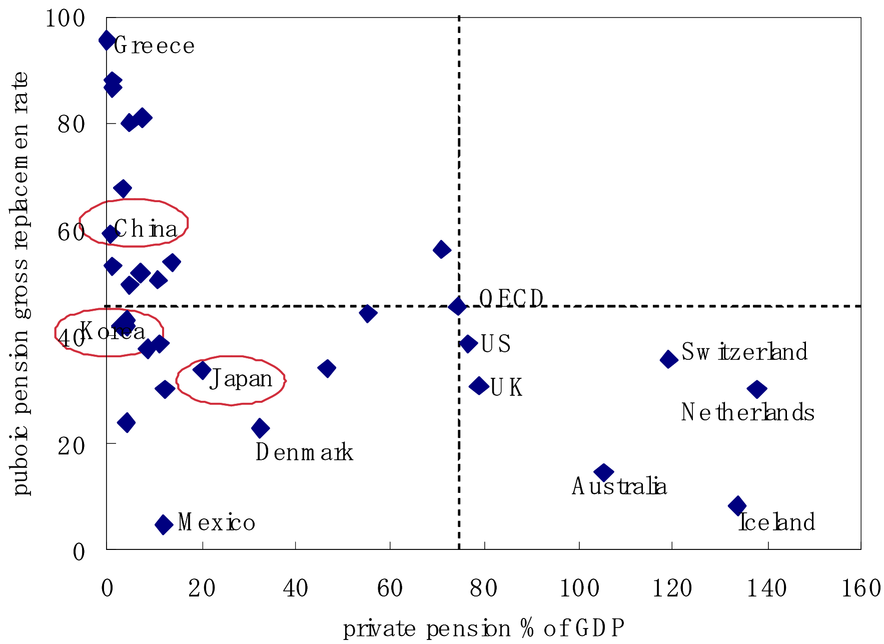
Figure 4 plots private pension assets as a percentage of GDP on the horizontal axis and the gross replacement rate for public pensions on the vertical axis. The OECD averages are a replacement rate of 45.7% and private pension assets totaling 74.5% of GDP. This replacement rate is lower than the 59% noted above because the latter figure includes benefits from private pensions with mandatory enrollment (like Australia's Superannuation) as well as private pensions that are not mandatory but effectively have nearly full participation (such as the Netherlands' occupational pension), whereas Figure 4 shows the replacement rate for public pensions narrowly defined.

The lower right quadrant of the graph indicates a limited role for public pensions and large presence for private pensions, whereas the upper left quadrant is the opposite pattern, a large role for public pensions and small presence of private pensions. What is important is to have a system in place for old age, whether it be a public pension, a private pension, or a combination of the two, and it is ultimately each country's choice as to whether to emphasize the public or the private option.

The lower left quadrant indicates both a weak role for public pensions and a small level of private pensions, and therefore an overall inferior level of pension adequacy. It comes down to deciding whether to shift to the right (in the graph) by expanding private pensions or shift upward by expanding public pensions. The direction of the reforms taken in many Western countries has been a rightward shift in the graph, i.e., an expansion of private pensions.

Both Japan and Korea lie in the lower left quadrant. As to whether there has been a visible shift from public pensions to private pensions in Korea, we think its recent introduction of a corporate pension system should be viewed positively as a first step in that direction. The same could probably be said for China. On the other hand, viewed from the perspective of private pension

Figure 4: Comparing the size of private pensions with public pension replacement rates



(Notes) 1. The gross replacement rate is the gross pension entitlement divided by gross pre-retirement earnings. Public pensions are pensions operated by the government, and do not include mandatory private pensions.
2. Private pensions relative to GDP are based on 2007 numbers.
(Source) Nomura Institute of Capital Markets Research, based on OECD data.

assets relative to GDP, private pensions do not have a very large presence in Japan, despite nearly a 50-year history of corporate pensions dating back to the introduction of TQPPs in 1961. Policy measures to strengthen the role of private pensions seem to be limited. A reform accompanying the public pension reforms of 2004 slightly increased the maximum contribution to DC plans based on the scheduled future declines in the replacement rate of the EPI, but given that the maximum contribution of DC plans was fairly low to begin with and was not raised by very much, the changes were not seen as policy measures to substantially increase the level of private pension assets.

Corporate pension assets totaled approximately ¥61 trillion as of March 2009, or 12% of GDP, in Japan, 10.3 trillion won as of November 2009, or 7.9% of GDP, in Korea, and 191.1 billion yuan as of 2008, or less than 1% of GDP, in China.

4. The coverage of corporate pension plans

Another important measure besides the level of private pension assets is the coverage of corporate pensions. Before looking at this, it is important to see whether corporate pensions are mandatory or voluntary. Countries that have introduced private pensions with mandatory enrollment include Australia, Denmark, Sweden, and Switzerland.

Prior to introducing corporate pensions, Korea required companies with at least five employees to offer lump sum retirement pay system. When retirement pensions were introduced in December 2005, that requirement was changed to offering a lump sum retirement pay system, a retirement pension plan, or both.

According to Korea's Ministry of Employment and Labor, 1.723 million workers, 22.6% of all employees working at a workplace with at least five employees, had enrolled in a retirement pension plan between the time the plans were launched and November 2009. The plans are now offered by 67,705 companies, 13% of the companies eligible. The company participation rate and the employee enrollment rates indicate that larger companies are ahead in offering retirement pensions. It seems that Korea has been fairly successful in spreading pension plans, achieving an enrollment rate over 20% after only four years.

Korea also plans on eliminating the exception for companies with less than 5 employees effective January 2011, at which point all business establishments would be obligated to offer either a lump sum retirement pay system or a retirement pension plan. At the same time, to encourage people to choose the corporate pension over the lump sum payout, the Korea Workers' Compensation & Welfare Service (COMWEL) [2] is scheduled to offer low-income workers a pension plan with low fees.

Corporate pensions are voluntary in Japan and China, where each company makes its own decision on whether to offer one. In Japan, it is necessary to understand the corporate pension reforms of 2001 to gauge the current status of corporate pension usage.

There used to be only two types of corporate pension schemes in Japan, the TQPPs introduced in 1961 and the EPF introduced in 1965. TQPPs were introduced to promote the accumulation of funds outside the company, because the lump sum retirement payouts that had become common at the time were being funded by book reserve. The EPF substitutes a portion of the EPI, the public pension program for private-sector employees.

The corporate pension reforms of 2001 included a ten-year phase out of TQPPs by March 2012, because the plans were deemed to have insufficient funding standards to ensure pension benefits. DBCP plans and DC pensions were introduced in 2001. The expectation at the time was that during the 10 years until TQPPs were eliminated, TQPPs would be rolled over to DBCP plans, DC plans, or Small and Medium Enterprise Retirement Allowance Cooperatives. [3] What appears to have actually happened, however, is that roughly half the companies canceled their TQPPs without rolling them over into another retirement plan. With no data available to adjust for people covered by multiple plans, figures we present are simple totals of the number of participants in each plan. That number declined from over 20 million in FY2001 to about 17 million today. This is equivalent to roughly 50% of all salaried employees in the private sector, and after adjusting for multiple plan participation it is likely that less than half of the work force actually participates in a pension plan. Although this is seen as a problem, an effective solution has yet to be proposed, in our view.

When China instituted public pension reforms in 1990s, it promoted corporate pensions as a way to provide a multi-pillar pension system. After issuing numerous circulars related to corporate pensions, a new system of corporate pensions was established with the enactment of two regulations on occupational pensions in 2004. Companies that want to offer the new corporate pensions have to first prove their participation in the already obligatory basic endowment insurance, and then go through an approval process that includes a thorough inspection by the Ministry of Labor and Social Security. The first companies to be approved to offer the new corporate pensions were the Bank of China, China Everbright Bank, and PICC Property and Casualty. From then until the end of 2008, 33,000 companies had introduced corporate pensions, covering a total of 10.38 million employees. There has already been strong growth in the number of participants, and further growth is expected in light of the large number of those eligible.

Both Japan and Korea have already made clear their intention of lowering the replacement rate of their public pensions which will lead to public pensions having a smaller role, but it is not yet clear whether private pensions will grow enough to make up the difference. That being said, Korea moved quickly to lower its replacement rate while at the same time introducing minimum benefit. In that sense, it has signaled a clearer change of course based on shifting public pensions into the role of providing minimum guarantees while giving private pensions the role of replacing the income earned during the working years. As already noted, it has already over 20% of eligible employees enrolled in corporate pensions, despite only four years after their introduction. The growth in the amount of corporate pension assets is another thing to observe, which some forecast to grow to 30 trillion won ($25 billion) by the end of 2010. [4]

While many observers question the assumptions for the forecast that the Japan’s replacement rate of 50% will be maintained in the future, that issue remains in ambiguity because no official discussions are initiated. The role of the basic pension also remains ambiguous. There is a possibility that such ambiguity has the effect of keeping both companies and individuals from sufficiently sensing the urgency of making their own provisions for retirement.

5. The gap with Western economies

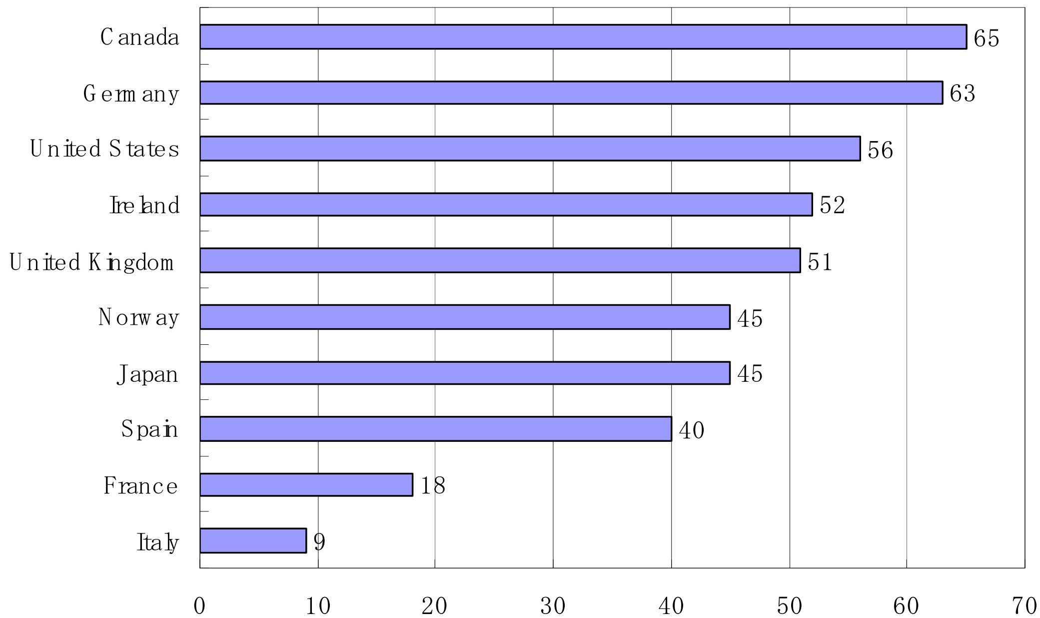
Once private pensions become more important and be recognized as a main supplement to public pensions, the nexus of serious debate should shift to coverage rates, even if they were voluntary programs. In the countries with voluntary participation, Canada, the US, the UK, Ireland, and Germany, the coverage rate of private pension plan including corporate pensions is over 50%, but even this is considered insufficient (Figure 5).

One measure to increase coverage rates of voluntary private pensions recently tried in some countries is known as "soft compulsion," which consists of automatic enrollment in a defined contribution plan from which the employee can opt out. Pension reforms in the UK in 2007 and 2008 required all employers to automatically enroll employees in a pension plan while offering them the option of not participating. These reforms also provided for establishing the National Employment Savings Trust (NEST) as a repository of retirement savings for employees without a pension plan at their workplace, and preparations are being made to launch NEST in 2012. In the US, the Obama administration has proposed introducing automatic IRA enrollment.

The automatic enrollment is a question of what the initial default settings should be. By changing the default setting from non-participation to participation, the participation rate could increase substantially, as is now being witnessed in US 401(k) plans. Although the concept of automation is yet to arrive in Japan, using an automatic enrollment mechanism on individual DC plans as envisioned in the UK could provide a major boost to the percentage of employees covered by private pensions in Japan as well.

In fact, a reform bill submitted in 2010 to the Diet in Korea proposes requiring newly established companies to offer their employees a corporate pension instead of a lump sum retirement pay

Figure 5: Coverage rates in voluntary private pensions



(Source) OECD (2007).

system unless specifically requested by the employees to do otherwise. Under current Employee Retirement Benefit Security Act, those employers who have not established a retirement pension plan are deemed as having chosen to introduce a lump sum retirement payout program. In other words, the default setting when no action is taken is the lump sum retirement pay system. The proposal could be seen as an attempt to change this default setting to corporate pension enrollment for companies establishing new plans.

IV. Increasing levels of prefunding

1. China has introduced a partially funded system into public pension

We next look at how the trend to increase prefunding is materializing in each of the three countries. China has been the most explicit here with its introduction of a partially funded system in the public pension. Employees in China contribute 8% of their wages to an individual account within the basic endowment insurance. The employer's contribution, 20% of wages, goes into the common fund, and upon retirement the employee receives benefits from both the common fund and their individual account.

This is very similar to the system in Sweden, where 16% of the 18.5% premium goes into a PAYGO notional DC plan, and the remaining 2.5% goes into a funded individual account, with the main difference being that in China the assets in the individual accounts are managed centrally rather than by each employee. The individual accounts receive an interest rate based on the rate paid on bank deposits and assets are invested in both bank deposits and government bonds. In 2006, however, nine provinces entrusted management of the investment accounts with the National Social Security Fund (NSSF) described in the next section.

The use of individual accounts within basic endowment insurance puts China among the front runners of the world's public pension schemes, although it must deal with the problem of "empty accounts." This refers to the diversion of funds from the individual accounts to the common fund, which suffers from chronic deficits owing to the aging of the population and insufficient contributions. One cannot say that a truly funded system of individual accounts has been established until there is a clear separation between the common fund and the individual accounts, with the funds designated for the individual accounts accumulating separately.

2. The existence of a large public pension reserve fund

One characteristic that the public pension funds of Japan, Korea and China have in common is that all have reserve funds that are invested in the market. Japan's Government Pension Investment Fund (GPIF) is the world's largest pension fund, with assets totaling $1.3 trillion in 2009, more than triple the size of the next largest fund, Norway's Government Pension Fund—Global. Korea's National Pension Fund (NPF) had assets in 2009 totaling $235 billion, which ranks it behind Norway's fund and ABP in the Netherlands. Its assets are now building up and expected to total $2 trillion by 2043 according to NPF. China's National Social Security Fund (NSSF) was established in 2000 to facilitate the future financing of basic endowment insurance. Its assets are growing rapidly as well, and after less than 10 years in existence it was already in the global top 20 of pension funds, with assets of $114 billion in 2009.

A number of developed countries have pursued a policy of establishing reserve funds for public pensions. In 2001, for example, France established its FRR and Ireland its NPRF, with the aim of slicing off a portion of the national wealth to deal with the pressures on pension benefits in the

Figure 6: World's largest pension funds

($ million)

2009 rank	2008 rank	Fund	Country	Fund Type	Total assets
1	1	Government Pension Investment	Japan	National	$1,315,071
2	2	Government Pension Fund-Global	Norway	National	$475,859
3	3	ABP	Netherlands	Gov. employees	$299,873
4	6	National Pension	Korea	National	$234,946
5	5	Federal Retirement Thrift[1]	U.S.	Gov. employees	$234,404
6	4	California Public Employees[1]	U.S.	Gov. employees	$198,765
7	7	Local Government Officials[2]	Japan	Gov. employees	$164,510
8	9	California State Teachers[1]	U.S.	Gov. employees	$130,461
9	10	New York State Common[1]	U.S.	Gov. employees	$125,692
10	17	PFZW	Netherlands	Private	$123,390
11	16	Central Provident Fund[3]	Singapore	National	$122,497
12	23	Canada Pension[3]	Canada	National	$122,067
13	12	Florida State Board	U.S.	Gov. employees	$114,663
14	24	National Social Security	China	National	$113,716
15	11	Pension Fund Association[2]	Japan	Private	$113,364
16	14	ATP	Denmark	National	$111,887
17	15	New York City Retirement[1]	U.S.	Gov. employees	$111,669
18	29	GEPF[3]	South Africa	Gov. employees	$110,976
19	18	Employees Provident Fund	Malaysia	National	$109,002
20	13	General Motors	U.S.	Private	$99,200

(Notes) 1. Sep. 2009
2. Estimate
3. March 2010
4. Social Security in the US is not included because it does not invest in the market.

(Source) Nomura Institute of Capital Markets Research, based on data from Pensions & Investments website

future, which will be brought by the mass retirements of the baby boomers. Norway's Government Pension Fund—Global, which was restructured in 1996, has a similar objective. Payment into these reserve funds comes from such sources as proceeds from oil sale or privatization, or general revenue (budget surplus), and no payments from these reserve funds are expected until around 2020. In that respect, the funds are independent from pension finance for the time being and are being positioned purely as surplus funds.

In the late 1990s, both Canada and Sweden greatly revamped their reserve funds that had been in existence, positioning them as critical to maintaining the sustainability of public pensions. Reserve funds in Canada and Sweden comprise the surplus of collected pension premiums. Pension financing (liability side) factors in the investment of assets and present the required rate of return. Pure surplus funds like FRR, NPRF and Norway's Government Pension, and funds from surplus premiums are essentially the same in that they are eventually paid out as pension benefits, although the pure surplus funds tend to have a greater degree of investment freedom.

Of Japan, Korea, and China, China established a pure surplus fund, the NSSF, in 2000 in preparation for future increases in pension benefits, as France and Ireland did. The NSSF's funding comes from central government revenues, revenues from the sale of state-owned enterprise stocks, and profits from the lottery. On the other hand, Japan's GPIF invests surplus pension premiums. Korea's NPF also invests surplus pension premiums, but because the public pension is still immature it is very close to being a pure surplus fund for the time being.

Based on the above, all three countries are either current with or even a step ahead of the global trend in terms of building public pension reserve funds. Next we take a closer look at how the pension reserve assets are being managed. How well these assets are invested has a major impact on the sustainability of the public pensions.

3. Investment guidelines and actual investments of public pension assets

When public pension reserve funds are invested in the market, it is normally considered appropriate for that investment to pursue a prudent risk-return based on the conduct standards for institutional investors. What makes this even more important is the perception that in general the investment of public pension reserve assets could be susceptible to political intervention. In other words, there is a risk that the funds will be diverted from their true objective of funding pension benefits and used to fund investments in economic development, thereby lowering the returns they can otherwise generate. In addition to reserve funds being diverted directly to public investments, they can also be used to purchase government securities yielding below-market rates, which is not in keeping with the standards of behavior for institutional investors either. Other examples of political interference include use of pension assets to defend against the acquisition of critical domestic industries by foreign interests, and conversely the prohibition against investing in companies based in countries that have soured diplomatic relations with that government.

Because of this perceived vulnerability to political interference, it is important that pension assets be managed according to investment guidelines established by the national pension authorities based on legislated investment objectives. In addition, as we describe later, a governance structure should be put in place to keep government intervention in check.

Before going into the governance issues, let us look at the investment policies for pension reserve funds in Japan, Korea and China. Those for Japan's GPIF call for safe and efficient investments with a long-term horizon and try to ensure the investment yield required by pension finance. This may be somewhat conservative but a fairly typical way of phrasing the investment policy. China's policies are similar, calling for specialized and standardized investments that are safe and responsible. The investment principles spelled out by Korea's NPF, on the other hand, have the phrases that could be construed as elements outside of pursuing just risk-return parameters. Namely,

(1) Stability: The fund should pursue a sustainable level of profit to achieve stability of the fund and the national economy as well.

(2) Profitability: The fund should play a role on the social safety net and contribute to the growth of the national economy as a supplier of long term capital. The fund is to be managed based on the principle of maximizing returns within the constraint of not harming stability.

(3) Public benefit and welfare: In addition to maintaining both stability and profitability, the fund should have a positive impact on the national economy and contribute to the public benefit and welfare, such as by providing social infrastructure.

(4) Liquidity: In the future, measures that ensure liquidity in order to achieve stable benefit payments should be considered.

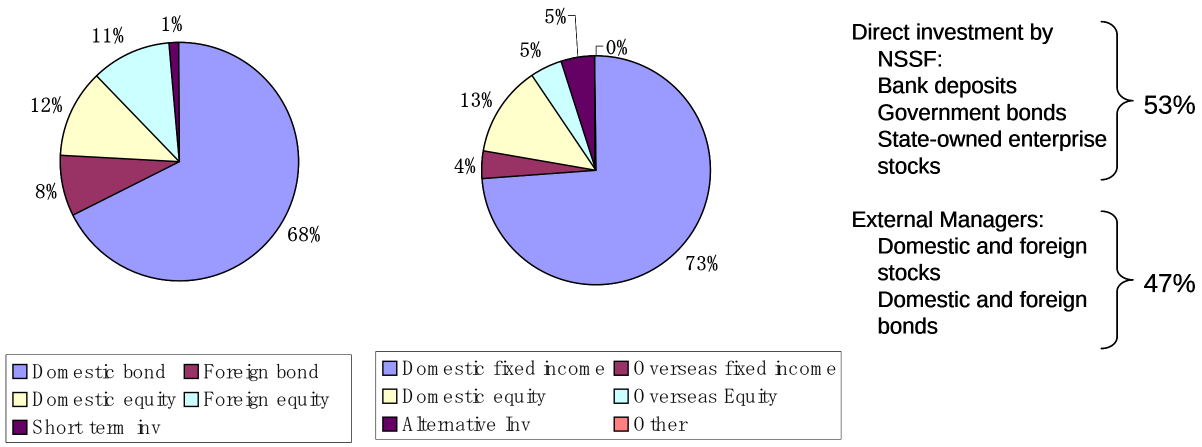
(5) Independence: Be committed to investing based on the investment principles and strive only for the long-term interests of all stakeholders.

Of these, (1) achieving a stable national economy, (2) contributing to growth in the national economy, and (3) having a positive impact on the national economy while contributing to the public benefit and welfare indicates the possibility of behavior beyond simply pursuing risk-return parameters.

However, when Korea's two major life insurance companies, Korean Life and Samsung Life, had their IPOs in March 2010, the NPF did not subscribe because it deemed the IPO price too high. Immediately prior to Korean Life's IPO, the NPF had revised its internal rules regarding equity investments to allow investing in IPOs, a move that was seen as paving the way for its participation in large-scale IPOs. This made its decision not to subscribe all the more surprising. NPF chairman Jun Kwang-woo made the following comments in an interview. “I think the Korea Life case shows our principles. The pricing was too high, and we had no other reason to consider the deal under such terms, so we didn’t buy. We will take the same professional approach in judging the IPO of Samsung Life.” [5]

Figure 7: Management of pension assets by the GPIF, NPF and NSSF

Japan's GPIF (March 2010) Korea's NSF (2009) China's NSSF (2009)



(Source) Nomura Institute of Capital Markets Research, based on disclosures from each organization

One more observation that could be made about Korea's NPF is that under Chairman Jun, who was appointed to his post in 2009, it has aggressively invested in alternative investments. Figure 7 shows the asset allocations of the three countries' public pension reserve funds. Like Japan, Korea has a high allocation to domestic bonds, but unlike Japan, it allocates 5% to alternative investments. In its medium-term asset allocation plan, by 2014 the NPF plans to lower its allocation for domestic bonds to 60% from 78%, and instead raise its allocations to 10% from 4% for overseas bonds, to 20% from 12% for domestic stocks, to 10% from 2% for overseas stocks, and to 10% from 4% for alternative investments. While each country has its own definition of alternative investments, if Korea follows its medium-term plan, its allocation to alternative investments will be at the level not far from that of the public pension reserve management organizations such as Sweden's AP Funds, Canada's CPPIB and Ireland's NPRF.

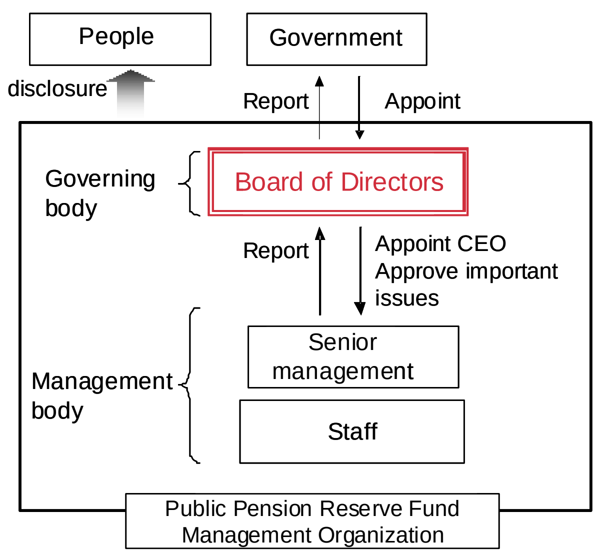
4. Governance structures of public pension reserve management organization

As already noted, the management of public pension reserve assets could become vulnerable to political influence, and to ensure independence from such pressure it is considered desirable to have a governance structure that separates the governing body from the group that carries out day-to-day investment management. This governing body would be charged with approving investment policies and other key issues, and the asset management group would report its activities to this governing body rather than to the government. The governing body would thus serve as a buffer zone between the government and the asset management group. Based on the debate over pension governance such as at the World Bank and OECD, this appears to be the approach to governance of public pension asset management currently being accepted by many developed countries (Figure 8).

The more diverse that pension investments become, the more important becomes the governance structure. Take, for example, a portfolio that focuses on just domestic bonds and/or passive stock investments, and one that also invests overseas and includes alternative investments. The degree of conflicts of interest and the complexity of decisions will no doubt be greater for the latter.

The organizations managing the national pensions in Japan, Korea, and China all appear to have some issues to deal with in terms of the independence from the government. Korea's NPF and China's NSSF have board of directors as their main governing entity, like in the case of those in developed countries. The governing bodies of organizations managing reserve funds can be broadly classified into two types: "stakeholder participation," in which labor, management, and other

Figure 8: Governance structure with a governing body



(Source) Nomura Institute of Capital Markets Research

stakeholders have representation, and "specialist," comprised of financial and pension specialists. Korea's NPF Management Committee is basically comprised of stakeholder participants, with its 20 members including three employer representatives, three employee representatives, six representatives of the self-employed, and two specialists. Apparently, its structure is quite similarly to France's FRR. The chairman of the NPF Management Committee, however, is the Minister of Health, Welfare, and Family Affairs, who is the head of the government ministry that supervises the National Pension Service (NPS). Having the head of the supervisory agency also serving as the head of the governing body of the organization managing the reserve fund limits the degree of autonomy from the government.

The Board of China's NSSF also has 20 members, and these include active high-ranking government official (vice ministers). The top four members of the asset management body (Chairman and Vice Chairmen) are also members. The deputy head of a labor union and an academic (head of the Development Research Center of the State Council) are also members, but the board membership of government officials leave limited autonomy from the government, and that of top four of asset management body a lack of clarity over the division of roles, and relationship with the asset management body.

Of the three countries, however, Japan deviates most from what could be the global standard governance structure. Japan's GPIF does not have the equivalent of a governing body. The Chairman of the GPIF is the head of the asset management body, and holds the bulk of the decision-making authority related to GPIF operations. Although there is an investment committee comprising specialists, it purely serves in an advisory capacity, with neither the rights nor responsibilities of management.

Problems with the GPIF's governance structure are already recognized within Japan, however. A committee to study how the GPIF is run established in November 2009 has been looking at the way the basic investment policy is decided, how assets are invested (asset classes, active versus passive investment), the structure for governance of investments, whether the fund, which is frequently cited as having become too large, should be broken up, and whether socially responsible investment (SRI) principles should be followed. The interim report issued by the Committee in June 2010 did not go beyond presenting both sides of the argument to most of these issues, but it did pledge to present its conclusions on how to revise the governance structure to the government by December 2010.

The impact that governance structures have on investment performance was pointed out by Ambachtsheer (2007). Recognizing that the best governance structure is currently seen as establishing a board as the governing body, all three countries have some changes that they need to make.

5. Japan's public pension reform and reserve fund

Although Japan has issues with GPIF's governance structure, it is actually ahead of many countries in that it has built up a large public pension reserve fund and that it has been investing in the market. However, it was decided in the public pension reform of 2004 that the pension reserves, which were equivalent to five years of pension benefit costs at the time of the reform, will be reduced to just one year of the benefit cost in the next 100 years. As noted earlier, the 2004 reforms fixed the maximum pension premium while lowering the replacement rate through a demographics-based adjustment of the benefits. By drawing down reserves, premium increases and benefit reductions will be moderated. The basic thinking behind the reform was that the role of pension reserves was to contribute to the stabilization of pension financing while controlling premium increase and keeping benefits as high as possible.

There is no consensus, including at the global level, of what constitutes the right level of public pension reserves. It is difficult to say at this point whether Japan's decision to lower its level of reserves (vis-à-vis the benefit payment amount) should be viewed as contrary to the current trend or instead be construed that Japan had built the reserve fund ahead of the times and thus now can move to lower reserve levels over the long term.

V. The shift to DC plans and improvement of sustainability

1. The shift from DB plans to DC plans

The pension systems of many countries have historically been DB plans, but there has been a shift in recent years to DC plans. One reason for this is that many companies have learnt the difficulty of providing a DB plan, as much as they would like to do so. The very existence of DC plans as an alternative makes it possible for companies not to completely give up on the idea of providing a corporate pension. Achieving a smooth transition from DB plans to DC plans is another critical element in making private pensions more sustainable as a whole.

Both DB plans and DC plans have their own advantages and drawbacks. However, by skillfully combining the two schemes in a way that meets their own situation, companies are able to diversify their pension schemes. From the perspective of the country as a whole this will result in a greater number of companies providing private pensions in a more balanced manner.

Among Western countries, corporations in the US have shown the most pronounced shift in their pensions from DB to DC. DB plans used to be the primary form of corporate pensions, but the number of such plans, as well as their number of participants, peaked in the mid-1980s, and has been declining ever since. Measured in assets under management, DB plans were overtaken in the latter half of 1990s by DC plans. Today 401(k) plans have become the most popular form of corporate pensions. This change has been fueled not only by changes in the economy and society, including industrial structure changes and an increasingly mobile labor market, but also by measures introduced to strengthen defined benefit plans, including stricter funding standards, the introduction of pension benefit insurance, and stronger disclosure requirements based on pension accounting standards. Since around 2005, even those large companies that had provided both DB and DC plans have begun to freeze the former. We think this was motivated by a number of factors such as an increasingly volatile investment environment, radical changes in the global competitive landscape including the severe pressure from emerging markets, and the shift to immediate recognition in the pension accounting.

There has also been a shift into DC plans by European countries like the UK with well-developed occupational pensions, for similar reasons as in the US. There are also countries, like France, Italy and Spain that have traditionally relied heavily on public pensions but are turning to DC plans for the new pensions being introduced to offset what is seen as the unavoidable shrinkage of public pensions. Numerous other countries, including Denmark, Sweden, and some countries in central Europe, are starting to use DC plans for their private pensions with mandatory enrollment. The combination of these factors is leading to growth in the size of DC pension plans. A survey by the European Federation of Retirement Provisions (EFRP) in March 2010 found that DC plans had 58 million participants and assets of €1.3 trillion. With both France and Italy planning to introduce measures to expand eligibility and raise contribution rates, this growth trend in DC plans is expected to continue.

2. Situations in Japan, Korea, and China

As was the case with public pensions, China is adopting more aggressive policies than Japan and Korea, namely by introducing the funded DC format in its public pensions. In addition, the only new corporate pensions China allows are DC plans, a policy choice aimed at avoiding the limitations of DB plans and the transfer cost of switching from DB plans to DC plans experienced in the US and Europe.

Meanwhile, both Japan and Korea have only defined benefit public pensions but offer private pensions in both DB and DC versions. When it introduced corporate pensions in 2005, Korea made both DB and DC plans available. It also implemented special measures for small business [6] and introduced individual retirement accounts (IRAs) as a way to ensure the portability of pensions. As of November 2009, DB plans had a greater share of both participants and assets under management, as shown in Figure 9. Some observers attribute this to the introduction of DB pension plans by large corporations.

Japan introduced DC pension plans for the first time in 2001. There are two types, corporate plans established by companies for their employees to join, and individual plans that the self-employed and others can enroll in. The reasons for the introduction of DC plans can be traced back to the 1990s, when a weak Japanese stock market and weak economy made it more difficult for corporations to contribute to their pension plans, while at the same time the introduction of new pension accounting rule associated with Japan's financial big bang made the funding status of defined benefit plans more transparent. After DC plans were introduced in 2001, they gradually caught on, both with large corporations and with smaller firms. DC plans were offered by 13,222 companies as of June 2010, and had 3.572 million participants by May 2010. These are not very impressive numbers, however, given that DB plans have a simple total of roughly 14 million participants (participation in multiple plans not adjusted). The gap in assets under management is even greater, ¥57 trillion in DB plans versus only ¥4 trillion in DC plans as of March 2009.

With public pensions expected to shrink, a strengthening of DC plans is probably the only way to boost the growth of private pensions. However, there are numerous problems with Japan's current rules on DC pensions, including the low contribution amounts allowed, the limited scope of people eligible to enroll, and the very strict rules governing early withdrawals. Reforms are needed to address these problems so that Japan’s DC plan can grow to its potential.

Figure 9: DB and DC plans in Japan and Korea

	DB plans	DC plans	Individual DC plans
Japan			
Number of firms	-	13,222	-
Number of participants	13,620,000	3,572,000	114,136
Total assets (¥ trillions)	57	3.7	0.3
($ billions)	662.8	43.0	3.5
Korea			
Number of firms	18,926	27,067	21,712
Number of participants	1,172,344	472,854	77,464
Total assets (won trillions)	6.8	2.6	0.9
($ billions)	5.7	2.2	0.8

(Source) Nomura Institute of Capital Markets Research, based on Korea Ministry of Employment and Labor, Japan Ministry of Labour, Health and Welfare, and the Japan Association of DC Plan Administrators

One development common to both Japan and Korea that could cause a shift to DC plans in the near future is the convergence with or adoption of the International Financial Reporting Standards (IFRS). Korea will start requiring the application of IFRS in 2011. Japan plans to make a decision by 2012 as to whether it will adopt IFRS, but whatever the decision, the convergence of Japan's accounting standards with IFRS will continue. A shift is underway toward immediate recognition of pension funding on financial statements, without any multi-year smoothing adjustments. What this means is that the impact from fluctuations in interest rates and stock prices on pension funding levels must be reflected each year on the balance sheet.

Looking back, the introduction of pension accounting in FY2000 spurred large companies to begin offering DC plans. The shift that is now underway toward immediate recognition of pension funding status is expected to motivate Japanese companies to revise their own pension plans yet again. In Korea, as well, all eyes are on how the requirement of IFRS application may affect employers' choice of pension plans.

3. Corporate pension contributions and investment (with a focus on DC plans)

If the shift from DB plans to DC plans is going to ultimately contribute to the sustainability of corporate pensions, it is imperative that DC plans ensure that appropriate contributions are made and that the assets in that plan are invested properly. Although it is difficult to stipulate what contributions and investments are "appropriate," it is generally accepted that ensuring reasonable contributions and investments over a long period is more difficult for DC plans, given the large role that participants, who are not pension investment professionals, have in making decisions on contributions and investments. As the shift into DC plans gains momentum in the US and Europe, debate over how to deal with the irrationality of participant behavior is heating up.

Up until the 1990s, the most common approach to 401(k) plans in the US was to rely on the pro-activeness of employees who join the plans based on their understanding of the advantages and, after receiving some basic investment education, make their own investment decisions in their own personal accounts. As it turned out, however, on average about 30% of employees did not enroll even after being explained the advantages, while it also became clear that it was unrealistic to assume all participants would act as rational investors. The Pension Protection Act of 2006 legislated some automatic mechanisms, namely automatic enrollment and automatic increases in the contribution rate. In addition, it (and regulation thereafter) made clear that as long as the product selection process was appropriate, the employer would not be responsible for investment losses, even when products with the potential for a loss in principal were chosen as the default products. The general views are that more employees will be automatically enrolled in 401(k) plans, and their investments will be in the default product. Currently target-date funds are the most popular default product for plans with automatic enrollment.

A variety of approaches to contributions and investments are seen in DC plans in Europe. In some cases, employers are obligated to match contributions made by participants, and in other cases the contribution level is set by group-level negotiation, with labor and management each contributing. On the investment side, according the EFRP survey mentioned above, 60% of the plans offer participants a choice of at least two investments, while 40% of the plans do not offer participants a choice. In the UK, Denmark, and Sweden, 80–90% of the participants who were given a choice wound up investing in the default product, half of which were life-cycle funds.

Japan, Korea, and China still have a gap with Europe and the US in several respects in regards to these trends in corporate pension contributions and investments.

In Korea, corporations are required by the Employee Retirement Benefit Security Act to make contributions, and participants are allowed to make additional contributions. Because neither firms nor their employees are yet comfortable with pension investing, at this point there are restrictions on how pension assets can be allocated. Even for DB plans, maximum allocations are 30% for listed domestic and overseas stocks, 50% for equity funds, 50% for balanced funds, and 50% for overseas bond funds. DC plans for which the employee directs the investment have even stricter rules, with no investment allowed in individual stocks, equity funds, or balanced funds. The only allowed investments are deposit accounts, insurance products (with guaranteed principal), and funds with no higher than a 40% equity allocation. With such restrictions, the asset allocations are conservative. As of June 2009, 91.4% of DB plan assets, and 64.8% of DC plan assets, were invested in instruments with guaranteed principal.

In China, DC plan participants are not allowed to direct their investments. The authority to make investment decisions lies with the institution designated as trustee, which could be either a corporate pension board comprising representatives of the company and employees or a specialized institution with trustee credentials, such as a trust investment company or insurance company. The trustee is normally a corporate pension board when both labor and management are members of an institution that makes high-level investment decisions. This is similar to the arrangement with collective DC plans in the Netherlands. One problem with collective investment in DC plans is that employees bear the investment risk but lack the authority to make investment decisions. This can be alleviated somewhat by putting employee representatives on the governing board. But it still does not overcome the difficulty of shoe-horning participants of different ages and with different risk tolerances into the same investments. [7]

Japan also used to put restrictions on the asset allocations of DB plans. The old 5:3:3:2 rule required at least a 50% allocation to safe assets, no more than a 30% allocation to stocks and to foreign-currency-denominated assets, and no more than a 20% allocation to real estate, although the rule was phased out in 1990s. The DC plans introduced in 2001 started out without any of these asset allocation restrictions, although they were required to provide at least one product in the principal secured category, which includes deposit accounts and insurance products with guaranteed yield. According to the Association of Japan DC Plan Administrators, as of March 2009, 67.4% of DC plan assets were invested in principal secured products (45.1% in deposits and 22.3% in insurance) and 32.5% were invested in investment trusts and others. This is a fairly conservative allocation in light of the age distribution of plan participants, 19% of which are in their 20s, 33% in their 30s, 30% in their 40s, and 17% in their 50s.

Although DC investment continues to be an issue for debate, probably a bigger predicament causing the inadequacy of Japan's DC plans is the low maximum contribution and the inability of plan participants to contribute to corporate DC plans. Legislation proposing that participants be allowed to make contributions has recently been submitted to the Diet, and this is a reform that needs to be implemented promptly, given that the system is posited as one based on self-responsibility. The fundamental reason behind the difficulty in introducing participant contribution or raising contribution limit is the view that tax incentives for enhancing household savings rate are unnecessary. However, now that a rapid decrease in Japan’s savings rate is often pointed out it is likely that such views need to be revised.

All three countries thus have room for improvement of their corporate pension systems, both on the contribution and investment sides. The issue for China is whether to continue with the collective investment approach or to allow individuals to make their own investment decisions. The question in Korea is whether investment restrictions should remain in place for corporate pensions, which were introduced five years ago. In Japan, in addition to allowing employee contributions, the maximum contribution needs to be raised so that DC plans are capable of building sufficient assets. On the investment side, given that Japan's DC plans are based on the US model, there is probably a need for debate over how to position investments in the default product. [8]

VI. Conclusion

This paper looked at pension reforms in Japan, Korea and China in the context of the global trend in pension reform, which can be characterized as (1) a shift from public pensions to private pensions, (2) increased levels of prefunding, and (3) a shift from DB plans to DC plans (Figure 10).

Of these three major trends, all three countries are raising the level of prefunding by establishing and managing public pension reserve funds. Japan has the world's largest public pension reserve fund, and both Korea and China are rapidly building their own reserves. In addition, Korea has been aggressively adding alternative investments to its portfolio. In the area of governance structures, however, all three countries have room for improvement in terms of the independence from the government.

Both Japan and Korea have begun lowering the replacement rate, and reducing the role of their public pensions. To fill the gap, Korea introduced corporate pensions in 2005, and more time is needed to judge whether a shift from public to private pensions is truly underway. Meanwhile, Japan's public pension reforms of 2004 set in motion a lowering of the replacement rate, but only slightly increased the maximum contribution to DC plans in a weak attempt to strengthen private pensions. Japan faces the most difficult pension system environment among the three countries, namely huge government deficits and a rapidly aging population. A priority for the public pension should be to improve its sustainability, and it would be reasonable to rely on private pension for the adequacy of benefits. Japan needs to clearly delineate the respective roles of its public and private pension systems.

Figure 10: Global trends in pension reform and conditions in Japan, Korea and China

	Japan	Korea	China
Shift from public pensions to private pensions	• Public pension reform of 2004 lowered replacement rate, but maximum contribution to DC plans was only raised slightly • Private pension funds as percentage of GDP only one-third the OECD average	• Incrementally lowers replacement rate; introduces a minimum pension; • Introduces corporate pension in 2005; roughly; 20% of those eligible enroll	• Coverage rate of public pension only 20%, well below the OECD average of 83%; raising this is a priority
Increasing levels of prefunding	• The GPIF is the world's largest pension fund • Investments focused on domestic bonds	• National Pension Fund established in 1999, now growing rapidly; • Invests in overseas real estate, infrastructure, and other alternative investments	• Funded individual accounts introduced to public pension system • The National Social Security Fund established in 2000 to provide future surplus funds
Shift from DB to DC plans	• Introduced DC plans in 2001 • Number of participants is growing but still substantially smaller than DB; assets also remain small	• Introduced both DB and DC plans in 2005 • Larger firms appear to be using DB plans	• Only DC corporate pensions are allowed for new plans

(Source) Nomura Institute of Capital Markets Research

While China only allows the creation of DC corporate pension plans, Japan and Korea allows companies to choose between DB and DC. There has yet to be any clear shift from DB plans to DC plans. Although it has almost been nine years since Japan introduced DC plans, only 3.4 million, 10% of private-sector employees, have enrolled, and DB plans are still considerably larger. Korea introduced both DB and DC corporate pensions at the same time, and although a larger number of companies offer the latter than the former, the former exceeds the latter in both number of participants and total assets.

The basic direction of pension reform in Japan, Korea and China aligns with the global trend. Each country has its own set of challenges, however, and it will be interesting to see how they will be able to overcome them. Although Japan may be slightly ahead of the other two countries in terms of the timing of the introduction of pension schemes, all three are in a position to be able to learn from the US and European experiences. As the three countries leverage their position moving forward, it will be interesting to see whether a solution originates in Asia when the next global trends develop, such as the search for a way to guarantee lifetime income through DC pensions.

Notes

1. This is defined as a couple household with a single earner enrolled for 40 years with two children. This definition has been criticized as no longer being the standard household.

2. A government agency that offers welfare services to small businesses.

3. A public plan for smaller firms that would have a difficulty in offering a retirement payout scheme on their own.

4. “Your after-retirement nest egg at stake,” Korea Times, 16 August, 2010.

5. “Pension Fund to Boost Overseas Investment,” Korea Times, 11 March 2010.

6. A policy that treats companies that have nine or less employees, all of whom have opened an IRA, as having offered a corporate pension.

7. Asset allocation is restricted to at least 20% for deposit-like products (deposits and money market funds), 50% to fixed-income products (including CDs, government bonds, corporate bonds, and bond funds) and 30% for equities (stocks, equity funds, and investment-like insurance products), and less than 20% for individual equities.

8. Currently, investment in default products is considered an exceptional measure used when the participant does not give investment instruction, and just a stopgap investment until instructions are given. Deposits are typically designated as the default product.

References

Ambachtsheer, Keith, *Pension Revolution*, Wiley 2007.

Cerulli Associates, Asia Pensions: An Emerging Opportunity, 2010

European Federation of Retirement Provisions, Workplace Pensions – Defined Contribution, March 2010

Holzman, Robert and Hinz, Richard, "Old-Age Income Support in the 21st Century," The World Bank, 2005.

Japan Ministry of Health, Labour, and Welfare, "*Kosei Nenkin/Kokumin Nenkin – Heisei 16 Nen Zaisei Saikeisan Kekka"* (Results of recalculating 2004 finances of Employees' and National Pensions) (in Japanese).

Nomura, Akiko, "*Koutekinenkin Setsuritsukin Unyou no Gabanansu wo Meguru Giron*" (Debating governance of investments by public pension reserve funds), Zaikai Kansoku, October 2008 (in Japanese)

Nomura Institute of Capital Markets Research, (editors) "*Chugoku Shouken Shijou Taizen*" (All about the Chinese securities market), Nihon Keizai Shimbun-sha, 2007 (in Japanese)

OECD, Pensions at a Glance, 2009

OECD, Pensions at a Glance, 2007

OECD, Survey of Investment Regulation of Pension Funds, Feb. 2010

Ono, Masaaki, "*Fuka Houshiki ni yoru Kouteki Nenkin Seido no Un'ei ni okeru Setsuritsu Suijun no arikata*" (Reserve funds for operating PAYGO public pensions), *Kaigai Shakai Hosho Kenkyuu* (Research on social security overseas), Spring 2007 (in Japanese)

Ryu, Jae-kwang, "*Kankoku no Taishoku Kyuufu Seido no Genjou to Kadai*" (On the Korean retirement pension plan), Nenkin to Keizai (Pensions and the economy), Vol. 28, No. 4 (in Japanese)

Park, Donghyn, "Aging Asia's Looming Pension Crisis," ADB Economics Working Paper Series, July 2009.

Park, Jung-bae, "*Kankoku Nenkin Seido no Doukou*" (Trends in Korea's pension systems), Kaigai Shakai Hosho Kenkyuu (Research on social security overseas), Summer 2009 (in Japanese)

Sekine, Eiichi, "*Chugoku no Koutekinenkin Unyou*" (The investment of China's pension fund), Nenkin to Keizai (Pensions and the economy), Vol. 28, No. 1 (in Japanese)