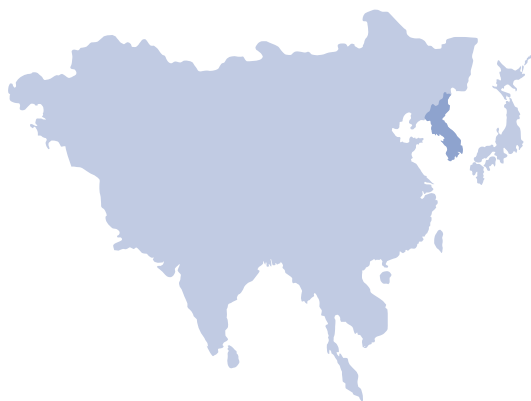


South Korea



Modernising occupational pensions

Pension System Design

South Korea's pension system has taken shape in the last two decades. In 1988, the state-run National Pension System was established, covering workers in the private sector. Before it was introduced, public pensions covered only government employees, private school teachers and military personnel, and these schemes still exist today. Traditionally, employees in the private sector have been covered by the severance pay system, which has been mandatory for firms with more than four employees since 1961. It provides employees with certain entitlements when they leave the company. In 2005, the legislative foundations were laid to transform the severance pay system into a funded corporate pension system. The new corporate pension system is currently in the start-up phase. Tax-favoured private pension plans have been available in South Korea since 1994.

Apart from the reform of the corporate pension system, the National Pension System is also undergoing reforms. 2008 will see the introduction of a basic pension pillar, which will aim to provide means-tested retirement benefits to combat poverty among the elderly. Contribution rates are also set to rise.

South Korea faces one of the most severe demographic challenges in the world. Today's dependency ratio stands at 13. It is expected to rise to 64 by 2050. The total population is expected to peak at around 50 million in 2020 and decline by about 15% until mid-century. The dependency ratio in South Korea is changing faster than in any other OECD country. While the proportion of elderly people is currently the second lowest in the OECD, it will be among the highest by

Demographics and macroeconomics

Population [m]	48
Population over 65 [%]	9.4
Old-age dependency ratio*	2005: 13 2050: 64
GDP [EUR]	692.4 billion
GDP per capita [EUR]	14,410
GDP growth 2001–2006 [av. in % p.a.]	4.6
GDP growth 2007–2015 [av. in % p.a., est.]	4.6
Unemployment rate [%]	3.5

Data from 2006 or latest available year

* Ratio of over 65-year-olds to 15–64-year-olds

2050. This demographic pattern can mainly be explained by the fact that South Korea has rapidly transformed from an agricultural to an industrial and urban society. In the 1960s, 28% of the population lived in urban areas. In 2005, that figure had risen to slightly over 80%. This transformation had a noticeable impact on fertility. From the 1960s to 2005, Korea's fertility rate dropped from 6.0 to 1.2. The current fertility rate is far below the rate of 2.1 children per woman required to maintain the population. It is also the lowest in the OECD. During the same period, life expectancy increased from 55 years in 1960 to 77 years in 2006.

In 2006, assets in the new corporate pension system amounted to EUR 631 million in 2006, and we expect a CAGR of 70% until 2015. According to our estimates, private pension plans, the assets of which currently amount

to EUR 30.4 billion, will show a CAGR of 16.8% during the same period.

Public Pensions

Korea's elderly were traditionally supported by their children. According to the World Bank, even in 1990, average Koreans over 60 received 55% of their income from their children. Public and private pensions accounted for roughly 3%, while the rest was wage income. However, due to industrialisation and demographic development, the system of family support is becoming less common and formal systems have been established. These will cover the bulk of retirees in the medium-term.

National Pension System

The National Pension System (NPS), established in 1988, is a partially funded, defined-benefit system. Its coverage has been gradually expanded. Initially, the scheme covered all workers in firms with 10 employees or more. In 1992, it was extended to firms with 5 or more employees. From 1995 onwards, it covered fishermen, farmers and the rural self-employed. Finally, in 1999, the urban self-employed were included in the system. These steps made a steep increase in coverage possible, from 4.4 million people in 1988 to 12.8 million people in 2006. This means that 53% of the labour force is now covered by the NPS, a high coverage rate compared to many other Asian countries. Groups that are not in the system include many self-employed as well as low-income people, temporary and daily workers as well as self-employed workers who do not declare income.

Employers and employees contribute 4.5% of wages each. The benefit formula consists of basic and earnings-related portions. The system is progressive and applies an average accrual rate of 1.5% over a 40-year contribution period. This aims at a gross replacement rate of 60% of lifetime average income for persons with a 40-year work history; initially, a 70% replacement rate was targeted. Benefits are paid mainly in the form of an annuity, which is indexed to prices, with the full pension available at age 60. The retirement age will rise to 65 by 2033. The increase in retirement age was part of a

First pillar design	
Contribution rate [% of gross salary]	Employers: 4.5 Employees: 4.5
Gross replacement rate	58.5
Legal retirement age	60

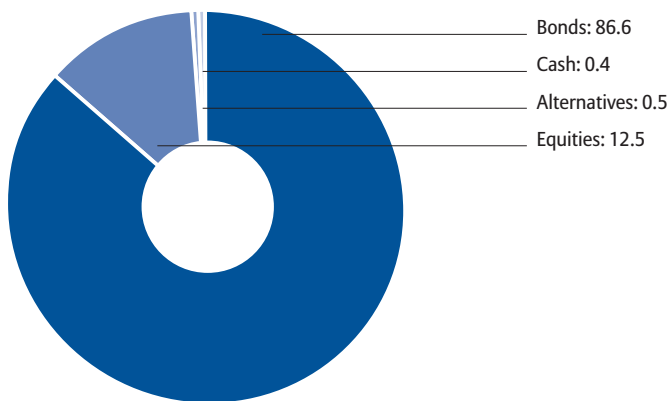
1998 reform package that also lowered accrual rates, thereby decreasing replacement rates. The reform was drafted by the National Pension Reform Board, which was established to avert the foreseeable NPS financial crisis. Full NPS pension payments will begin in 2008, when the first participants have completed the minimum 20 years of contributions.

The debate about further NPS reforms has been ongoing. In 2003, a bill was introduced in Parliament that aimed to reduce the replacement rate from 60% to 50% and suggested that the contribution rate be increased to 15.9% by 2030. However, this bill was not accepted. In July 2007, a compromise proposal was passed in the National Assembly, which foresees that the contribution rate remains at 9%, while the replacement rate will be reduced to 50% in 2008 and then decrease by 0.5% each year until it reaches 40% in 2028.

Another reform concerns the introduction of a basic pension pillar in 2008, which will initially cover 60% of retirees with benefits equal to 5% of average wages. This benefit is meant to combat old-age poverty in South Korea. Although not decided at this stage, in the future this pillar will probably aim to provide universal benefits to all retirees with a projected replacement rate of 20%. The financing details of this new scheme have not yet been finalised. However, to achieve the extra 20% replacement rate, there must be contributions on top of the NPS.

Since payments have not yet begun, assets accumulated in the NPS have grown substantially since its inception. In 2006, assets amounted to EUR 142 billion (KRW 172 trillion). This makes the NPS one of the largest pension funds in the world. The NPS' investment policy has gradually changed in the last few years. While a sizable portion of

Asset allocation of NPS investment in the financial sector 2005 [%]



Source: OECD, National Pension Research Institute, Financial Supervisory Authority

assets was traditionally invested in government projects such as railroad and rural infrastructure, financial market investments now account for the overwhelming majority of assets.

99.6% of NPS funds are currently invested in the financial sector, 0.2% in the welfare sector and another 0.2% in the public sector. 86.6% of these assets are invested in bonds, 12.5% in equities, 0.5% in alternatives and 0.4% in cash.

7.3% of assets were invested in foreign bonds, 0.4% in international equities. Outsourcing of NPS assets has accelerated in recent years. For example, in 2005, 3.1% of domestic bond management was outsourced, as was 5.8% of domestic equities management. The corresponding values for 2003 were 0% and 3.5%.

Despite its current surpluses, the NPS will face serious financing difficulties in the long-term due to South Korea’s demographics. Under current parameters, the fund’s surplus will be exhausted by 2047.

Other public schemes

Apart from the NPS, South Korea runs additional pension schemes for public sector employees, which were introduced before the NPS and operate independently from it. In all, they cover 1.4 million employees, or 6% of the workforce. The Government Employees Pension System was established in 1960; the Military Personnel Pension System was introduced in 1963; and the Private School Teachers Pension System came into force in 1975.

These schemes operate according to the pay-as-you-go principle and are earnings-related. At 17%, contributions are higher than in the NPS, and are equally shared between the government and employees. At around 70% after 30 years of contributions, replacement rates are generous. However, all three schemes are either already facing financial hardship, or will in the future. The scheme for government employees generated a deficit for the first time in 1995, and this deficit is expected to grow substantially in coming years. The scheme for teachers is in better financial shape, but is expected to generate a deficit by the mid-2020s. The scheme for military personnel has been dependent on substantial direct government support since the mid-1970s, since contribution periods are much shorter for the military than for other sectors due to very early retirement. Total government subsidies currently amount to EUR 1.2 billion (KRW 1.5 trillion) and are expected to increase substantially.

Occupational Pensions

South Korea has two occupational systems that exist alongside each other. One is the severance pay system, which was introduced in 1961. In order to build a modern corporate pension system, the government drafted a severance pay reform plan in 2003, which was approved by the National Assembly in 2005. This reform aims to convert the severance pay system into a modern corporate pension system.

The severance pay system

Until recently, the severance pay system was the main pension scheme for private sector employees, and it is mandatory for companies with five or more employees. Contributions are made by employers only, who contribute 8.3% of wages. Employees are entitled to severance pay after one year of continuous employment. When they leave the company, they receive one month's pay for every year completed, regardless of the reason why they are leaving. Payment is based on the salary of the employee's final three months of employment. For certain types of acquisitions, such as property, accumulated severance may be paid while workers are still employed. For this reason, only around 50% of severance payments are actually saved. Companies running severance pay schemes may qualify for tax benefits of up to 30% in the case of internal reserves and 100% in the case of external funding. Investment income is tax-exempt, while benefits are taxed; benefit taxation differs for annuities and lump sums.

A shortcoming of the system is that it is mandatory for firms with five or more employees only, and such companies account for less than half of the total workforce. Additionally, around a quarter of those entitled to severance pay do not receive it because of their employers' financial difficulties. Employers have traditionally financed severance payments through book reserves, as advance funding is not required. A 1997 reform made it easier for financial assets to be managed internally or externally through insurance companies. If employers decide to fully or partially fund severance payments, they use insurance or trust-based contracts. However, most plans continue to be based on unfunded book reserves. According to estimates, 75% of severance pay liabilities are unfunded. Benefits are typically paid out as lump sums, but annuitisation is possible. Due to the severance pay system's shortcomings, particularly in terms of funding, and because of incomplete coverage, the scheme could not be classified as a genuine pension system. This is why the government attempted to modernise the system with a reform that introduced corporate pension plans.

The new corporate pension system

The new system, which is based on the Employee Retirement Security Act (ERSA), operates on a voluntary basis. Companies with five or more employees can convert severance pay into corporate pensions. This conversion needs to be based on an agreement between employers and employees, and at least 50% of a company's employees must agree to the conversion. Unlike in the severance pay system, from 2010 onwards enterprises with less than five employees will also be allowed to participate in the new system. Part-time employees are also meant to be covered by it. Employees can contribute voluntarily.

The new system allows both DB and DC plans. Plan sponsors and members are free to choose the plan they want. Much like the existing severance pay system, DB plans must provide a minimum benefit equivalent to one month's final salary per year of service. They must also have a vesting period of 10 years. DB funds must be managed by a separate trust, which can either be a bank, insurance or trust company. In the case of DC plans, employers must make contributions of at least 1/12 of total annual salary. Additional employee contributions are also possible.

DB plans require funding of 60% of accrued termination benefits, while DC plans must be 100% funded. Employers with less than 30 employees are allowed to offer Individual Retirement Accounts (IRA) instead of occupational schemes. These accounts are subject to the same regulatory treatment as the DC schemes. Sponsors must provide at least three investment options in DC plans and Individual Retirement Accounts, including one with an interest guarantee. Benefits are payable in the form of annuities from age 55, based on number of years of service.

Both plans are subject to investment regulations that are based on Financial Supervisory Service guidelines. More flexible guidelines are under consideration, as DC regulation is currently markedly strict. Both DB and DC schemes can invest without limit in government and investment grade bonds as well as in bond

Asset investment regulations of the New Corporate Pension System [% of assets]		
	DB plans	DC plans and IRAs
Domestic or foreign listed equities, equity funds	30	Not allowed
Subordinated bonds, stock-indexed equity (max loss 40%)	30	Not allowed
Mixed funds (with 40 to 60% equities)	40	Not allowed
Non-investment grade bonds	40	Not allowed
Funds with more than 50% investments in foreign bonds	40	30
Investment-grade bonds of OECD countries	40	30

funds. The main quantitative limits are shown in the table above.

Upon termination of the employment contract, employees can either receive a lump-sum payment, transfer their assets to another ERSA plan or roll it over to an IRA. The minimum benefit of one month's salary for each year of service is always fully vested. Benefits can be paid out in the form of annuities or lump sums if the employee retires at age 55 and has at least 10 years of service. If the employee does not meet these requirements, the accumulated benefits must be transferred to an Individual Retirement Account.

A new tax law became effective on January 1, 2006. The limit allowing employees to have tax relief benefits for their personal saving plans, including ERSA plans, increased from EUR 1,984 (KRW 2.4 million) to EUR 2,480 (KRW 3.0 million). The amount of annuity income that can be deducted from taxes increased from EUR 4,961 (KRW 6 million) to EUR 7,441 (KRW 9 million) per year. Employer contributions to an ERSA DB or DC plan and investment income are tax-deductible, while pension payments are subject to taxation. Hence, taxation in the occupational pillar follows the EET principle.

So far, the take-up of the new corporate schemes has been slow. As of December

2006, 16,000 companies (3.5% of all companies), had introduced the new plans. It was expected that DB plans would initially dominate, as employees and trade unions are more familiar with DB schemes. Trade unions were also assumed to prefer that the sponsor bears the investment risk. Survey research shows that this holds true, at least among large companies. Out of the 59 largest companies in Korea that are implementing the new system, 75% chose a DB scheme.

Private Retirement Savings

Private personal pension plans have been available in Korea since 1994 and have grown substantially since then. Personal pension plans are various types of personal annuities and can either be tax-exempt or non-tax exempt. Savings are tax-exempt up to a limit of EUR 2,480 (KRW 3 million). A lower tax rate on additional annuity income is available under certain conditions, which include a holding period until the age of 55, annuity payments of at least 5 years and a contribution period of at least 10 years. Given that these plans provided attractive returns even without tax exemptions, many investors choose to terminate their plans prematurely. For this reason, they are often seen more as a financial investment than as old-age provision. According to estimates, private

pension plans covered roughly 15% of employees at the end of 2005, and the average contribution is said to lie between 2% and 5% of salary. Taxation is of the EET type.

Pension Market Trends

Pension market structure

To participate in the pension market, providers must be authorised by the Financial Supervisory Service. At present, 47 companies have this authorisation. The new corporate pension market is fairly concentrated. In 2006, the three biggest players had a market share of 48%, and the biggest five held 66% of the market. Insurance companies accounted for 58% of the corporate pension market, banks held 33% and securities houses 9%. In terms of assets under management, defined benefit plans accounted for 57% of the market, defined contribution plans for 28% and Individual Retirement Accounts for 15%.

South Korea adopted International Financial Reporting Standards in 2007, which could make DC schemes more popular. From 2011 onwards, listed companies will be obliged to apply the IFRS standard, while other companies will have to do so two years later. The adoption of IAS 19 in particular implies that shortfalls must be recognised immediately on the company's balance sheet, which may imply higher pension expenses and a higher volatility at most companies with unfunded pension schemes. Such standards have also driven the adoption of DC schemes in the Western world.

While personal pension plans are mainly provided by insurance companies, banks and asset management companies are also active in the market. The predominance of insurance companies can be explained by their long involvement in this market, their strong distribution channels and the fact that the market was opened to other financial institutions later. Additionally, banks and asset management companies provide only tax-exempt and temporary life annuities, whereas insurers also offer lifelong and variable annuities. A new development is the growing popularity of

bankassurance, which was introduced in 2003.

At 7.9% of GDP, life insurance density in South Korea is the fourth highest in the world; the country accounts for 3.3% of the world life insurance market.* Domestic life insurers make up the bulk of the market; the three biggest insurers account for 64% of premiums written and for 75% of total assets. Foreign companies account for a total of 18% of written premiums and 12% of total assets.

Future pension assets

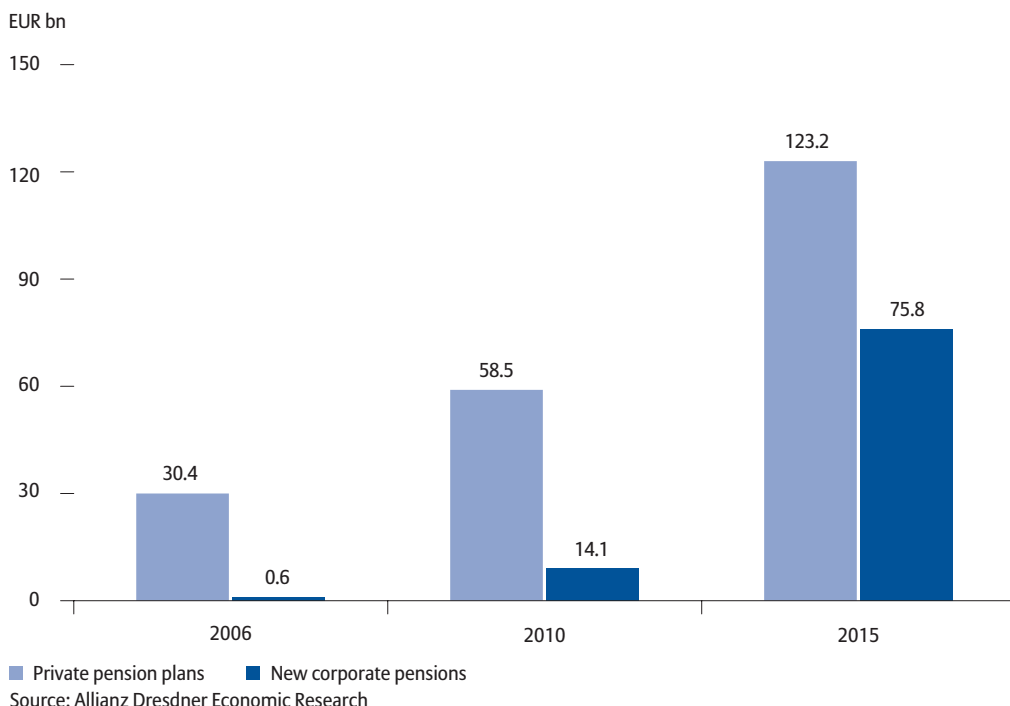
Initial experience has shown that the implementation of the new corporate pension programme is more difficult than originally expected. Nevertheless, participation grew at a rate of 17% per month during the second half of 2006, and assets increased by 30% per month. By the end of 2006, 213,000 people had joined the new schemes and assets stood at EUR 631 million.

Because of the slower than expected take-up, we have calculated only one, conservative, scenario for pension asset development. Since there is no information on existing assets in the severance pay system, which can be transferred to the new system, we have not taken these potential amounts into account. In an optimistic scenario, a larger transfer of SPS assets would boost growth. This may happen in 2011, when companies are required to apply International Financial Reporting Standards. In our scenario, contributions will rise by around 42.8% p.a. due to strong income increases, particularly within high-income groups, and a rising coverage. Assets under management will amount to EUR 75.8 billion in 2015 (CAGR 70%).

Further potential is generated within the private pension program. Assets amounted to EUR 30.4 billion in 2006 with a participation rate of 15% of the working population (3.2 million). For this pension scheme, we assumed that higher and middle income employees would participate, as would a small group of low income workers. Participation will

* Data from Swiss Re Sigma, World Insurance in 2006, No. 4, 2007

Korea: Pension assets under management




Technical note

The projection is based on population, workforce and income data provided by the UN, the International Labour Association, the Korea Labour Institute, the Asian Development Bank and the National Statistical Office of Korea. We have assumed an increase in the total number of economically active people based on population growth in the respective age groups; i.e. a constant labour participation rate. We have also factored in a minor shift away from employment in agriculture and industry into services, as Korea already has a large portion of employees working in the services sector. Employment in agriculture was around 8% in 2005, while 28% of the labour force worked in industry. The combined figure will slip to about 32% by 2015.

The National Statistical Office of Korea provides data on income distribution for households, which we have taken into account to differentiate old age saving. We combined the data into three income groups: 30% of the employees are in the lower group, which earns 70% of average income; 50% are in the middle bracket, earning the average wage of around EUR 2,100 (KRW 2.54 million) per month and 20% have a salary of about 150% of the average. We calculated with differing growth rates in the three income groups (4%, 6%, 8%).

We also assumed that between 2007 and 2015, corporate pension scheme coverage will spread from 3% to 25% in the higher-income group; from 1% to 13% in the middle bracket and from 0.5% to 4% in the lower-income group. We applied the severance pay contribution of 1/12 of annual wages to our calculation for all groups, as this is the amount payable by the employer. The employee does not make an extra contribution in our calculation.

increase to 45% by 2015 in the highest income class (30% in 2005), to 25% in the second (15% in 2005) and to 10% (5% in 2005) in the low income class. This will lead to around 5.6 million participants in 2015. We have taken 5%, 3% and 2% contribution rates for the upper, middle and low income groups, respectively. According to these assumptions, annual flows will increase by 13.5% and assets under management will amount to EUR 123.2 billion (16.8% CAGR).

 Even though it is one of the most established in Asia's emerging economies, South Korea's pension system is in transition. The new occupational system, the future basic pillar, as well as the National Pension System reform have changed the basic parameters of the pension system. These changes have been inevitable given the scale of South Korea's

demographic challenges. The new corporate pension plans will be essential for retirement income security as benefits from the first pillar are being trimmed down. These plans enable companies to establish formal occupational plans, a substantial improvement over the severance pay system, as it provides a much higher predictability of retirement income for employees. While the initial take-up among firms was modest, the system will experience enormous growth rates in the years to come.

All these developments and its advanced economic status make South Korea one of the key pension markets in Asia. Since South Korea will experience the demographic transition earlier than many other countries, the solutions found in South Korea have the potential to lead the way for other countries in the region and elsewhere.

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