THE AGING OF KOREA

Demographics and Retirement Policy in the Land of the Morning Calm

CSIS Center for Strategic and International Studies

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ON THE COVER

The cover shows a *Hahoe* mask used in traditional Korean dance performances dating back to the middle of the 12th century. These masks allow a performer to portray either anger or laughter. *Hahoe* masks are considered a precious cultural inheritance and have been designated as national treasures of Korea.

THE AGING OF KOREA

Demographics and Retirement Policy in the Land of the Morning Calm

by
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GLOBAL AGING INITIATIVE
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FOREWORD

Around the world societies and governments are confronting new challenges to old thinking about the elderly and retirement. Rapid advances in medicine, diet, and living standards have increased life expectancy in both the developed and developing worlds. Economic "miracles" have transformed many societies by creating robust and growing urban middle classes where rural poverty was the norm only a few generations ago. In country after country, this remarkable story is the same. Governments that had been focused on the social impact of their productive workers dying too young now are worried about those workers rapidly approaching retirement years and living too long—past the ability of their families, their savings, or their government systems to provide for them.

In many ways Korea is one of the world's most extreme examples of these demographic challenges. Its story is one of the most inspiring and at the same time its coming challenges will be some of the most daunting. As outlined in this policy discussion, Korea's meteoric economic growth and health-care advances have positively altered the fabric of Korean society. But as a consequence, Korea faces the challenge of providing for one of the most rapidly aging populations on the planet. This calls for unique solutions distinct from what has been suggested in markets like the United States, Europe, Japan, or China.

MetLife is proud to have sponsored this important report by the Center for Strategic and International Studies. The report offers a detailed exploration of Korea's demographic challenges and outlines CSIS' creative ideas to meet them. As an established leader in the retirement market, and a company actively engaged in public policy forums, MetLife has long been at the forefront in advocating meaningful reform in the pension and retirement arena in the United States. MetLife believes it has a responsibility to advance the dialogue about these challenges wherever it does business. We do not have all the answers. No one does. But by engaging resources such as CSIS and others to investigate the challenges and to suggest solutions, the answers can be found through constructive informed dialogue among experts from many areas. We can observe what is tried in one part of the world and learn from each other's experience.

This report is important but not definitive. From MetLife's perspective, the single most powerful tool in meeting the needs of aging populations and mitigating longevity risk is the pooling of those risks. The mechanism of using mortality pools to balance the needs of aging societies to fund longer-lived populations will be fundamental to solving many different nations' demographic challenges. Working with academics, business, and governmental partners to address these challenges will also be fundamental—again pooling, in this case a pooling of intellectual capital. It's our hope that this type of research will stimulate a dialogue that can bring together the best minds and the best ideas to meet Korea's challenges and to help inform Korea's choices for tomorrow.

C. Robert Henrikson
Chairman of the Board, President & Chief Executive Officer of MetLife, Inc.

INTRODUCTION

Korea is still a demographically youthful nation.[1] In 2005, the elderly made up just 9 percent of the population, far beneath the developed-country average of 15 percent. But with life expectancy rising and birthrates plumbing record lows, Korea is about to undergo a stunning demographic transformation. According to the latest government projections, 38 percent of Korea's population will be elderly by 2050, putting it in contention with Japan, Italy, and Spain for the oldest country on earth.[2] (See Figure 1.)

KOREA TODAY IS A DEMOGRAPHICALLY YOUNG NATION, BUT BY 2050 IT MAY BE THE OLDEST COUNTRY ON EARTH.

The aging of its population will bring profound changes to nearly every dimension of Korean life. Government budgets will come under relentless pressure from rising expenditures on pensions and health care. Businesses will have to cope with a deficit of entry-level workers and young consumers, while families will have to cope with a surplus of frail elders. Unless Korea takes adequate and timely steps to prepare, it could face a future of slower economic growth and stagnating living standards.

KOREA MUST CONFRONT THE AGING OF ITS POPULATION WHILE IT IS STILL IN THE MIDST OF MODERNIZATION.

Populations are of course aging throughout the world. The challenge facing Korea, however, is especially daunting. Quite simply, no other society at a similar stage of development faces an age wave that is as massive as Korea's—or as fast approaching. Unlike China, which is also aging rapidly, Korea is already a high-income society in which most citizens, including most elders, have grown accustomed to middle-class living standards. Yet unlike Japan, the United States, and Europe, Korea must confront the aging of its population while it is still in the midst of modernization.

The overlap of rapid aging and rapid development in Korea creates a unique set of challenges. Despite the breathtaking economic growth of recent decades, Korea in many ways remains a traditional society with a traditional understanding of social roles. Workers are expected to retire early from formal employment. The elderly are expected to live with and be supported by their extended families. Women who

1 Korea in this report always refers to the Republic of Korea (or South Korea), unless otherwise noted.

2 All population projections for Korea cited in this report refer to the Korea National Statistical Office's 2006 baseline scenario. The KNSO projections, as well as all other major sources for data on Korea's population, economy, and retirement system, are discussed in the Note on Data and Sources at the end of the report.

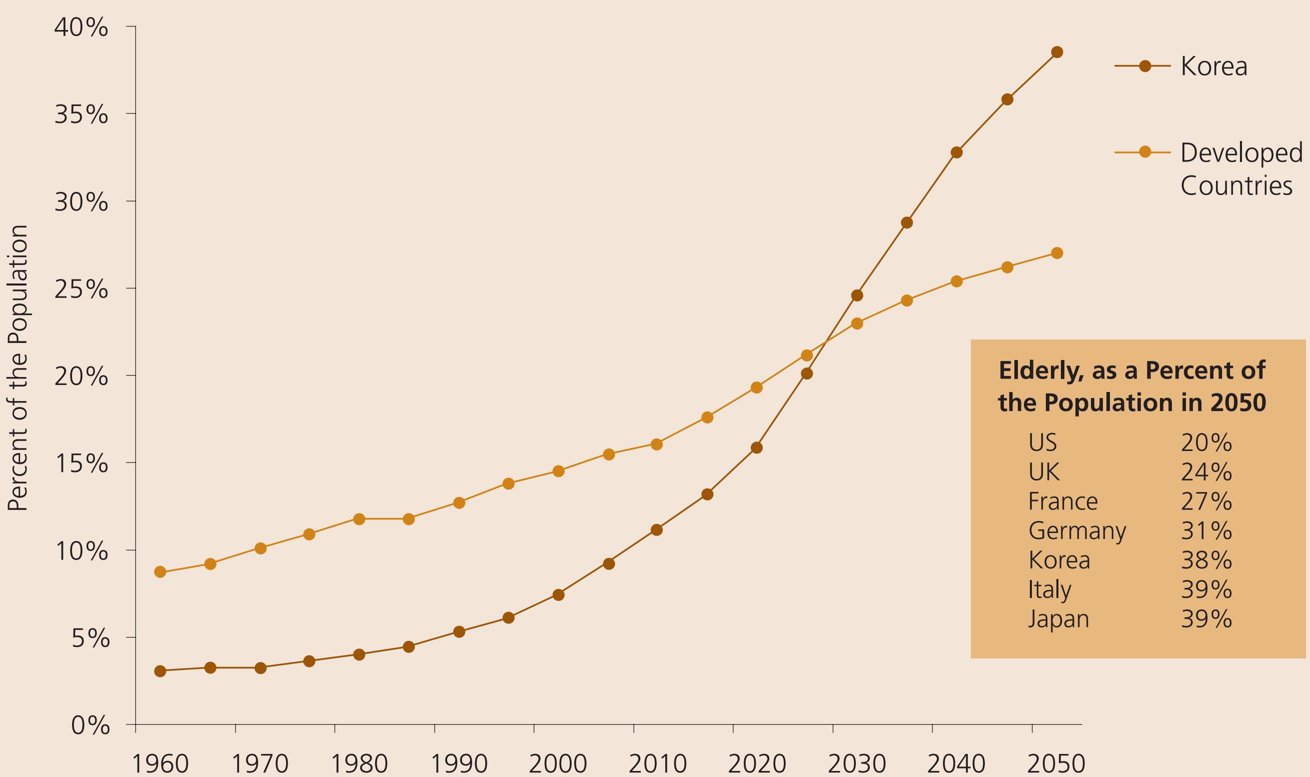
marry are expected to quit their jobs. Some of these traditions pose a problem for a rapidly aging Korea because they are still so strong. The culture of early retirement, for example, increases the burden of elder dependency, while the marriage job trade-off facing women pulls down the fertility rate. Other traditions pose a problem because they are weakening and Korea has not yet devised effective modern substitutes for them. The share of elders living with their grown children is already declining rapidly, but Korea's National Pension System (NPS) does not yet protect most dependent elders living alone.

Most Koreans assume that the growing vulnerability of the elderly is a near-term problem that will eventually correct itself when the NPS, which was established less than two decades ago, matures and begins to pay out full pensions to millions of elders. But in fact, the problem is likely to be enduring. NPS benefit levels will be much less generous than most Koreans assume—and because the system leaves a large share of the workforce uncovered, a large share of the elderly, perhaps one-third, may still be without any public pension at all even a half century from now.

Yet at the same time, so massive is Korea's impending age wave that the cost of the NPS will still grow explosively, from just 0.4 percent of GDP in 2005 to 7.3 percent of GDP by 2050. If the government were to fill in all the benefit and coverage gaps, the cost would rise much further—to 13.9 percent of GDP. Including health care and other programs, the total cost of benefits to the elderly could easily exceed 25 percent of GDP by 2050. Retirement strategy in Korea is therefore caught on the horns of a dilemma. How does one reform a system whose coverage and benefits are inadequate and yet whose ultimate cost is unaffordable?

A young Korea is about to grow old.

Elderly (Aged 65 & Over), as a Percent of the Population, Korea versus Developed-Country Average, 1960-2050



Source: KNSO (2006) and UN (2005)

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Some might suppose that faster economic growth could make the future burden manageable. The problem is that growth in an aging Korea is almost certain to slow as the number of workers shrinks, as their average age rises, and as national savings declines. Others might suppose that eventual reunification of an aging South Korea with a younger North Korea could alter the old-age dependency equation. But in the near term, any economic benefit to the South from the North's more abundant youth would be overwhelmed by the economic cost of reunification with a country whose per capita income is less than one-tenth of its own. In the long term, living standards in the North would rise—and as they do, the demographics of the two Koreas would converge. Reunification may be an important policy goal, but it is not a solution to the aging challenge.

Still others hope that higher birthrates and longer work lives may change the demographic and fiscal projections in Korea's favor. While this is possible, moving Korea in this direction will require sweeping changes in social institutions and attitudes. This too must be part of Korea's overall strategy for confronting its age wave. To prepare for the coming demographic transformation, Korea will not only have to reform its retirement system, but also realign traditional social norms with the needs of a fast-developing and fast-aging society.

KOREA'S LEADERS HAVE BEGUN TO GRAPPLE WITH THE AGING CHALLENGE.

Over the past few years, Korea's leaders have begun to grapple with the aging challenge. The Presidential Committee on Aging Society and Population Policy has published a long-term future scan called "Vision 2020" that outlines broad strategic goals, from raising retirement ages to raising fertility rates. In August 2006, it also issued a "five-year aging plan" that includes concrete measures, from subsidies for companies that hire or retain older workers to subsidies for families to help pay for day care and education. While most experts agree that the measures fall far short of a complete solution, they send the right signal and push in the right direction. The government's decision to make higher fertility an explicit policy goal is especially significant and represents a dramatic reversal of decades of restrictive family planning policy.

The government is also trying to reform the retirement system and strengthen the old-age safety net. It recently proposed increasing means-tested assistance for the low-income elderly and will soon begin phasing in a new long-term care program. It has also begun to lay the groundwork for a new corporate pension system that could greatly improve the future retirement income prospects of middle-income elders.

DESPITE THE PROGRESS, KOREA'S RETIREMENT SYSTEM REMAINS ON AN UNSUSTAINABLE COURSE.

Despite the progress, however, Korea's retirement system remains on an unsustainable course. Although the government is trying to expand coverage under the NPS, as of 2005 just 65 percent of the labor force actually contributed to the system or one of the special government pension plans for government employees, private school teachers, and the armed forces. As for the future cost burden, the government enacted a major reform in 1998 that raised NPS contributions and reduced promised benefits in an effort to close the system's long-term deficit—and the National Assembly is now considering a second reform that would raise contributions and reduce benefits again. While the system's long-term deficit needs to be closed, the benefit cuts are undermining its adequacy. What's worse, even if the reform now under consideration in the National Assembly is passed, it would still leave the NPS facing long-term insolvency.

This report turns the spotlight on Korea's efforts to grapple with its aging challenge. The first chapter looks more closely at the underlying demographic trends and their long-term fiscal, economic, and social implications. The second chapter describes the contours of Korea's retirement system, both public and private, and suggests a possible reform strategy. The third chapter looks at broader trends—in the labor market, in the family, and in the society at large—that may help or hinder a successful response to the aging challenge. A conclusion then briefly summarizes the report's conclusions and discusses the prospects for reform.

THE CENTRAL CHALLENGE FOR AN AGING KOREA IS HOW TO PROVIDE A DECENT LEVEL OF SUPPORT FOR THE OLD WITHOUT OVERBURDENING THE YOUNG.

The central challenge for an aging Korea is how to provide a decent level of support for the old without imposing a crushing burden on the young. This report argues that the current retirement system must be fundamentally restructured to meet these twin goals. It recommends a three-step reform strategy: creating a universal floor of old-age poverty protection that would be financed through general government revenues, transforming the NPS by combining it with a mandatory system of fully funded "add-on" personal accounts, and expanding supplementary employer pensions.

A FULLY FUNDED RETIREMENT SYSTEM WOULD ALLOW KOREA TO ESCAPE THE TYRANNY OF ITS OWN DEMOGRAPHY.

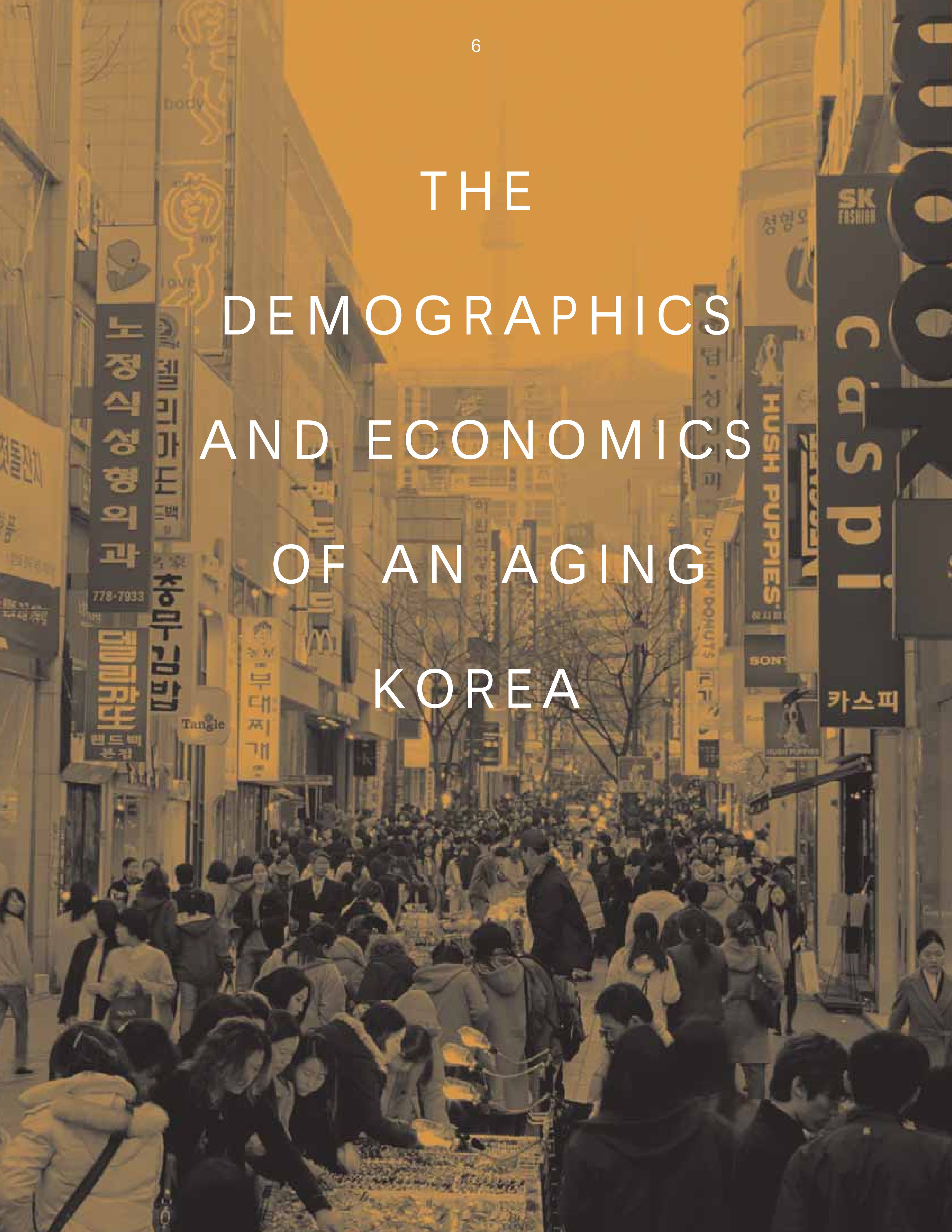
The case for full funding is compelling. At the macro level, fully funded pensions help to maintain adequate rates of savings and investment, which is one of the greatest challenges facing an aging Korea. At the micro level, they offer higher returns, and hence higher benefits, at any given contribution rate than a pay-as-you-go system can. There are other advantages as well. A fully funded retirement system would help broaden and deepen Korea's capital markets. It would also allow an aging Korea to escape the tyranny of its own demography. In pay-as-you-go systems, benefits are ultimately determined by national population and productivity growth. In fully funded systems, workers and retirees in aging and slowly growing economies are able to invest their savings in younger and faster growing economies around the world.

The good news is that Korea still has time to prepare for the aging of its population. For the next 10 to 15 years, it will continue to enjoy the benefits of a youthful population and a growing workforce. Along with this demographic window of opportunity, Korea also has an economic and political window. While the immaturity of Korea's National Pension System poses real challenges, it also confers an important advantage. Most fast-aging developed countries are burdened by enormous unfunded benefit liabilities that raise the economic and political costs of reform. Korea, precisely because its welfare state is so new, can more easily change course.

Back in the 1960s, Korea set out to transform itself from an impoverished agrarian society into a world-class economic power—and successfully harnessed its national will and national resources to the task. Now the aging of its population confronts Korea with a challenge that is every bit as great. Although meeting the challenge will not be easy, few who know Korea doubt that the Land of the Morning Calm will be up to the task.

UNLIKE MOST DEVELOPED COUNTRIES, KOREA STILL HAS TIME TO PREPARE FOR THE AGING OF ITS POPULATION

THE DEMOGRAPHICS AND ECONOMICS OF AN AGING KOREA



CHAPTER 1

Forty-five years ago in 1960, there were 18 Koreans under age 20 for every one Korean aged 65 or older. By 2050, there will be three Koreans aged 65 and over for every one Korean child. A generation ago, the problem was too many babies. A generation from now, it will be too many old people.

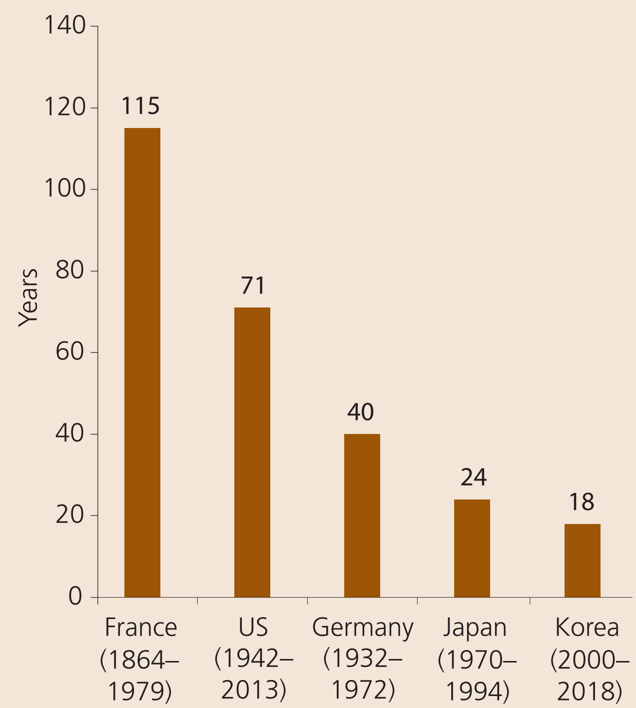
BY 2050, THERE WILL BE THREE ELDERLY KOREANS FOR EVERY KOREAN CHILD.

What makes Korea's age wave so challenging is not just its magnitude, but the blistering pace of the demographic transformation. The United Nations somewhat arbitrarily defines an "aging society" as one in which the elderly make up at least 7 percent of the population and an "aged society" as one in which they make up at least 14 percent. Korea passed the first threshold in 2000 and is due to pass the second in 2018—just 18 years later. It took France (starting in 1864) 115 years to complete this transition. It will take the United States (starting in 1942) 71 years. Even Japan, legendary for the rapidity of its aging, required (starting in 1970) 24 years. (See Figure 2.)

The United Nations also defines a "super-aged society" as one in which the elderly make up at least 20 percent of the population. Korea is expected to reach that milestone in 2026, just eight years further into the future—again, faster than

Korea is aging faster than any country in history.

Years Required for the Elderly Share of the Population to Double from 7 to 14 Percent in Selected Countries



Source: Kim (2006)

Behind Korea's age wave: A dramatic decline in fertility.

Korean Total Fertility Rate, 1960-2006

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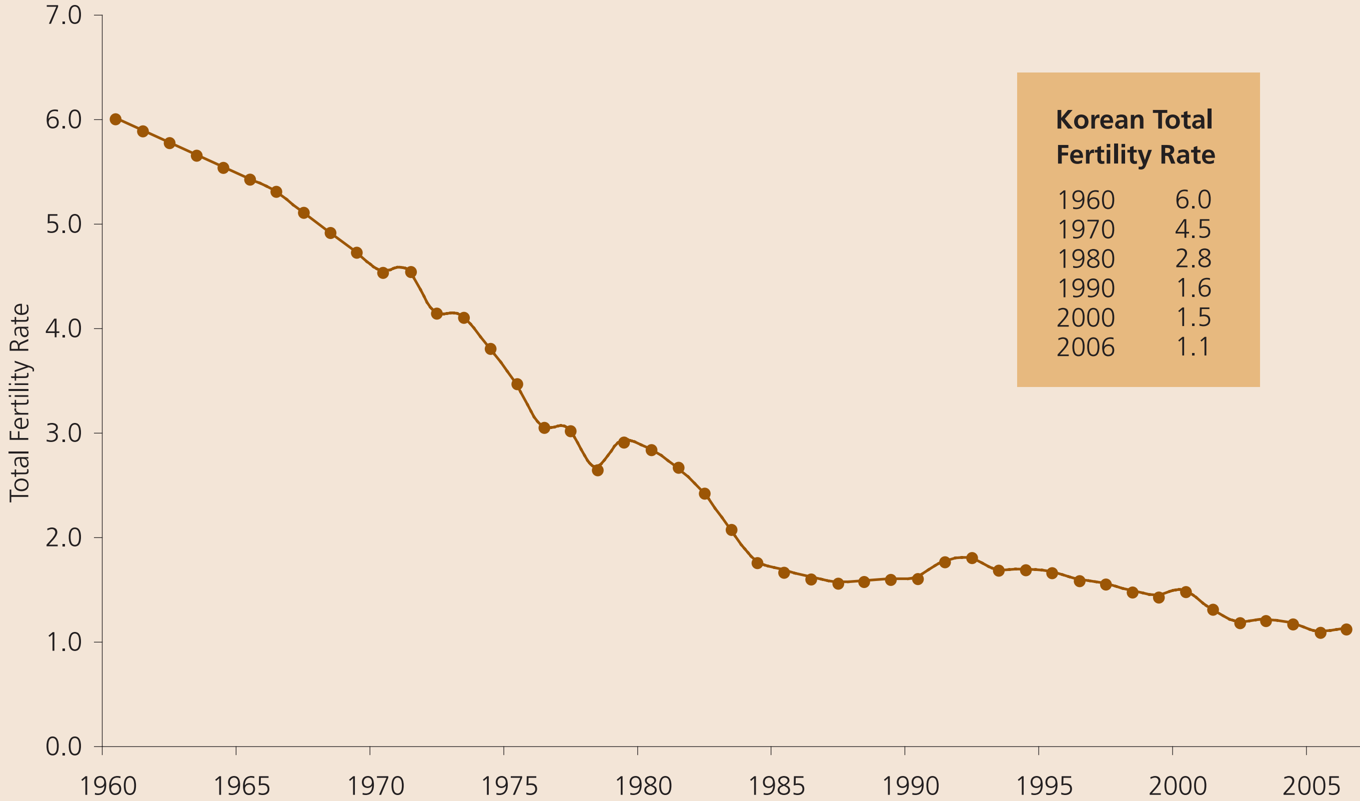

Source: KNSO (2006)

any other nation either in the past or projected future. By 2050, Korea's elder share is projected to reach 38 percent, surpassing milestones for which the United Nations has yet to invent a name.

THE DEMOGRAPHICS OF KOREA'S AGE WAVE

Korea's demographic transformation, like similar transformations underway in other aging societies around the world, is the outcome of two fundamental forces—falling fertility and rising longevity. The first is decreasing the relative number of young in the population, while the second is increasing the relative number of old.

KOREA'S FERTILITY RATE IS NOW JUST 1.1—THE LOWEST LEVEL IN THE WORLD.

Korea's fertility rate has fallen precipitously since the first five-year economic plan launched the nation on its development odyssey. Back in 1960, Korean women on average gave birth to 6.0 children. By 1983, the fertility rate had fallen to 2.1—the so-called replacement rate needed to keep the population from shrinking from one generation to the next. After stabilizing briefly at between 1.5 and 1.7 from the mid-1980s to the mid-1990s, it resumed its decline, plummeting all the way to 1.1 in 2006, the lowest level today of any country in the world. (See Figure 3.) Even as fertility rates have fallen, improved nutrition, sanitation, and health care have led to large increases in life expectancy. Since the Korean War, life expectancy at birth has risen by a breathtaking 29 years. In 2005, it stood at 78.6, higher than life expectancy in the United States and not far behind Japan, the world leader. (See Figure 4.)

In the early 1960s, Korea was a country haunted by the specter of overpopulation. With mortality rates falling rapidly, continued high fertility threatened to lead to runaway population growth and leave the country mired in poverty. Chunghee Park, the authoritarian president who masterminded Korea's economic development during the 1960s and 1970s, set out to lower the birthrate as part of an overall strategy to slow population growth and raise per capita living standards. The state set targets—a three-child family in 1968, a two-child family in 1971, and a one or two-child family in the early 1980s—and backed them up with economic incentives and a relentless public relations campaign. As recently as the 1980s, government slogans proclaimed that "even two are a lot" and "one child per family and our land still overflows with people."

At the time, no one anticipated that fertility would sink to the replacement rate within a generation—much less fall far beneath it. Few believed that government anti-natal policies, combined with the impact of rural-urban migration, industrialization, rising educational attainment, and the changing role of women, would be so effective. Nor did anyone give much thought to the inevitable sequel to below-replacement fertility—the eventual dramatic aging of Korea's population and the fiscal, economic, and social challenges it would pose. The specter now haunting Korea—surging old-age dependency costs and a shrinking and graying workforce—was over the horizon and off the radar.

BY 2050, NEARLY TWO IN EVERY FIVE KOREANS WILL BE AGED 65 OR OLDER.

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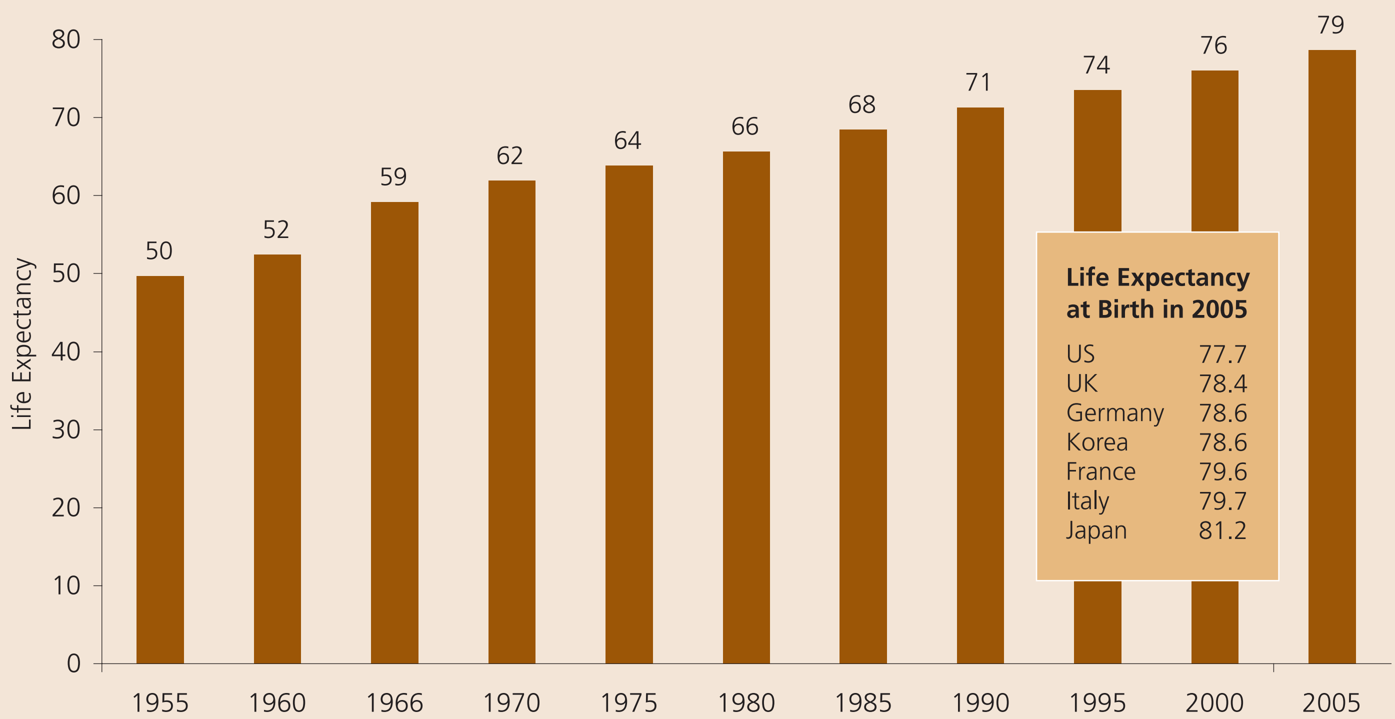
Behind Korea's age wave: An equally dramatic rise in life expectancy.

Korean Life Expectancy at Birth, 1955-2005



Life Expectancy at Birth in 2005

US	77.7
UK	78.4
Germany	78.6
Korea	78.6
France	79.6
Italy	79.7
Japan	81.2

Source: KNSO (2006), Kwon (2003), and U.S. Census Bureau (2006)

That once far-off future is now rapidly approaching. About 10 years from now, Korea's outsized "baby boom" cohorts, born in the 1950s and 1960s before fertility rates plunged, will begin to reach the threshold of old age. As they do, the number of elderly will surge. Just 9 percent of Koreans are aged 65 and over today. That share is projected to rise gradually to 13 percent in 2015—then leap to 24 percent by 2030 and 38 percent by 2050. By 2050, the median age of the Korean population is projected to be 57, nearly twice what it is today and three times what it was in 1960. By then, the projected number of Koreans aged 85 and over (3.4 million) will nearly equal the number of children under age 15 (3.8 million).

KOREA IS ON TRACK TO LOSE A THIRD OF ITS WORKING-AGE POPULATION BY MID-CENTURY.

Meanwhile, Korea's workforce and population will enter a gathering decline. Korea's child population already peaked in 1974 and has since shrunk by 31 percent. The working-age population, which is still experiencing moderate growth, is due to peak in 2018 and decline thereafter. By 2050, there will be 34 percent fewer Koreans aged 20 to 64 than there are today. Excluding adults in their fifties and early sixties, whose numbers are still growing rapidly, the projected decline is much larger. (See Figure 5.) Korea's total population is also due to peak in 2018, the same year as its working-age population. The decline in the total population will initially be more gradual, since the number of elders will still be rising. But after mid-century, it will accelerate as well. By the year 2100, unless fertility rises, Korea is on track to lose more than half of its current population.

Such dramatic projections raise an obvious question: Do the underlying assumptions overstate the likely magnitude of the coming wave? We believe that the answer is no. The official government demographic projections used in this report conservatively assume that the rate of improvement in Korean life expectancy will slow in the future, despite the enormous potential of biomedicine to extend the human life span. They also assume that Korea's fertility rate, which has been in almost continuous decline for half a century, will gradually rise to 1.3, significantly above today's level.

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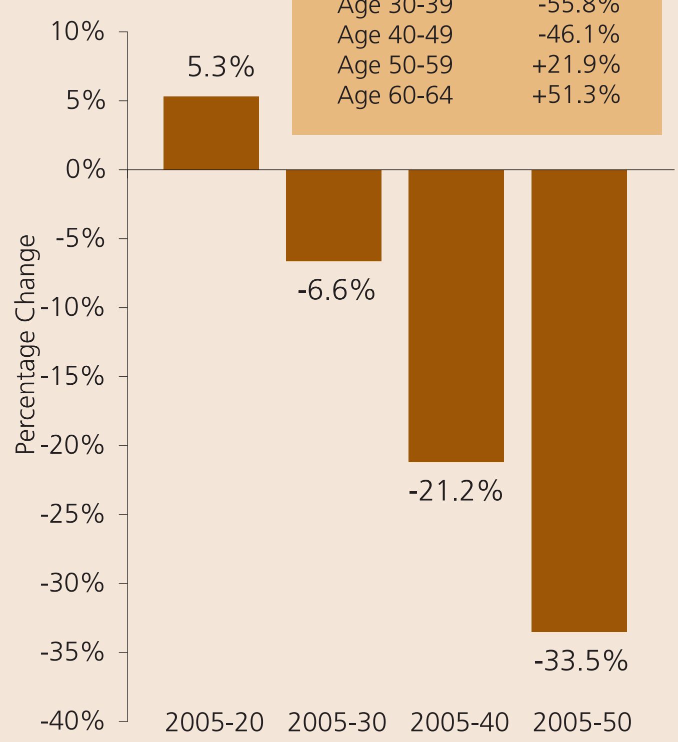
Korea's working-age population will enter a gathering decline.

Cumulative Percentage Change in Korea's Working-Age Population (Aged 20-64), by Time Period



Percentage Change in Korea's Working-Age Population by Age Group, 2005–50

Age 20-29	-53.9%
Age 30-39	-55.8%
Age 40-49	-46.1%
Age 50-59	+21.9%
Age 60-64	+51.3%

Source: KNSO (2006)

Some demographers point out that today's new generation of young Korean women are delaying marriage and child-birth—and conclude that the fertility rate is therefore bound to rise over time. This timing or cohort effect may well be real. While the decline in fertility was driven primarily by a decline in marital fertility up to 1990, since then it has been driven by the rapid rise in the age of marriage—from 24.8 to 27.7 for women over the last 15 years. It is reasonable to suppose that these women will recoup in their thirties some of the babies they didn't have in their twenties. Yet the projections already build in a substantial cohort effect. Age-specific fertility rates among women aged 30 to 34 are assumed to rise by 20 percent and among those aged 35 to 39 to triple. These assumptions explain the projected rise in the fertility rate from today's 1.1 to 1.3.

While a larger rise in fertility is certainly possible, Korea cannot count on it. Although the government's family planning policies helped initiate the slide in fertility rates back in the 1960s and 1970s, the slide would surely have occurred even in their absence. It has been observed in nearly all modern societies that have experienced rising incomes, the growing educational attainment and economic emancipation of women, and the widespread availability of effective contraception and abortion. It is called the "demographic transition." In Korea, as indeed in most East Asian countries, the demographic transition has been given an extra and powerful push by a workplace and family culture that makes it difficult for women to balance jobs and babies.

THE COMING AGE WAVE IS INEVITABLE—AND FOR BETTER OR WORSE, KOREA WILL HAVE TO FACE THE CHALLENGES IT POSES.

Raising fertility, moreover, is a long-term strategy. Even if Korea's fertility rate doubled next year, it would have no appreciable impact on the size of the workforce or the old-age dependency burden for the next 25 to 30 years. Demography is like an ocean liner and cannot be turned around quickly. The age wave is the consequence of demographic trends that have already been set in motion. For better or worse, Korea will have to face the challenges it poses.

MODERNIZATION AND RISING OLD-AGE DEPENDENCY

When Korea embarked on its development odyssey in the early 1960s, it was an impoverished nation with a real per capita GDP of roughly $1,500, just one-ninth of the U.S. level, even at purchasing power parity values that take into account differences in living standards. Then came the "miracle on the Han" and four and a half decades of nearly uninterrupted economic growth. By 2005, Korea's real per capita GDP had risen to nearly $20,000, over half of the U.S. level and two-thirds of the developed-country average. Korea now has the world's eleventh largest economy, measured in exchange rate dollars. In 1996 it was admitted into the "high-income" membership of the Organization for Economic Cooperation and Development (OECD).

Korea is not the only country in Asia to have catapulted itself into the ranks of high-income countries over the past 50 years. Japan and the three other "Tigers" (Hong Kong, Singapore, and Taiwan) did so as well. With the exception of Taiwan, however, the other countries all had a substantial head start—and Korea's GDP now exceeds that of the other three Tigers combined.

Along the way, Korea has undergone a series of dramatic changes—from overwhelmingly rural to predominantly urban, from copycat manufacturer of cheap industrial products to high-tech trailblazer, from cultural follower to undisputed arbiter of cultural "cool" in East Asia. Just since 1980, the agricultural share of the workforce has shrunk from 34 to 8 percent, while the service share has expanded from 44 to 73 percent. The share of Koreans in their late twenties with college degrees has risen from under 10 percent to 36 percent. Korea now has the highest rate of high school graduation in the OECD—and among the highest rates of college graduation. Korea's "human development index" (a measure of social health and education compiled by the United Nations) has risen from 0.75 to 0.91, by far the steepest climb since 1980 of any OECD nation.[3]

KOREA'S RAPID AGING IS INTERACTING WITH ITS RAPID DEVELOPMENT TO CREATE NEW SOCIAL STRESSES.

In short, the breathtaking speed at which the Korean population is now aging is matched by the breathtaking speed at which the Korean economy and society have been developing. These two facts indeed are connected, since the aging associated with the demographic transition tends to track, in all societies, the speed and timing of their modernization. Rapid development, in turn, brings with it not just new affluence and opportunity but also new vulnerability and stress. Inevitably, when development is rapid, the affluence and opportunity land mainly on the young while the vulnerability and stress fall mainly on the old. The same historical process which is expanding the relative number of elderly is also threatening their material security and social identity.

3 *Human Development Report* (United Nations Development Program; various years).

The new vulnerability begins in midlife. In a labor market no longer sheltered from the winds of globalization (especially since the 1997 Asian financial crisis), older workers often find themselves sidelined when their lifelong jobs are no longer in demand. Traditional or "paternalistic" protection of older employees is no longer affordable. As Korea's industry moves up the global value-added scale, the speed with which the skills of the workforce become obsolete is accelerating—rendering older workers unemployable even as they are becoming more numerous.

THE POVERTY RATE OF THE ELDERLY IS THREE TIMES THAT OF THE YOUNG.

Once older workers retire, their vulnerability grows. They are unlikely to have saved much on their own, and only a minority have a public pension or employer retirement benefit. Means-tested welfare provides some assistance, but the benefits are small and the coverage is narrow. In 2005, just 14 percent of the elderly received government social assistance, and the monthly benefit averaged less than $80 per person.[4] Not surprisingly, the elderly poverty rate has been rising and is now three times that of the young.[5]

THE SHARE OF THE ELDERLY LIVING WITH THEIR CHILDREN FELL FROM 81 PERCENT IN 1980 TO 44 PERCENT TODAY.

Most ominously, informal family support networks for the elderly are coming under increasing stress. Like most East Asian societies, Korea's traditional Confucian ethic of filial piety requires the young to care for the old—and care for them they do. Nearly half of Korean elders still live in extended families with their children, and an even larger share rely on them as their primary means of financial support. But the ethic of filial piety is waning rapidly. In a 2006 survey of adults in their fifties, only 28 percent answered yes when asked if they thought their children would support them.[6] As recently as 1980, 81 percent of elders lived with their extended families. Today, the figure is 44 percent and (apparently) still declining under the influence of modernization—including the decline in family size, the rise in individualistic or "western" values, and the emergence of a yawning generation gap. (See Figure 6.) In none of today's fully developed countries are the differences in income, educational attainment, formative life experiences, and (even) political party affiliation between young adults and elders so vast as they are in today's Korea.

Absent new government policies, the vulnerability of Korea's elders is almost certain to grow more acute. As both the number of children per family and the marriage rate decline, it will become ever-less likely that an adult child or in-law will

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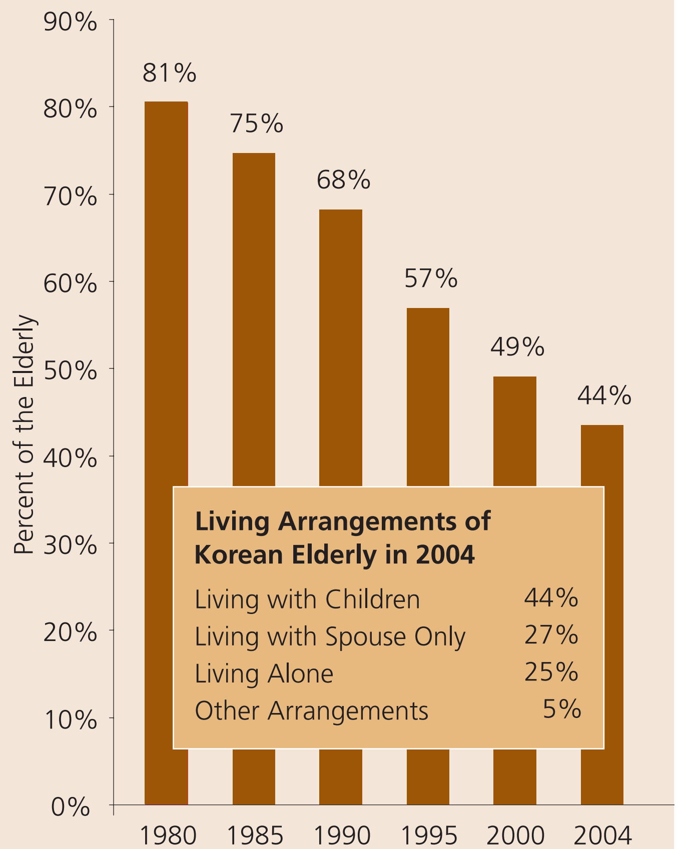
Fewer elders are living with their children.

Percent of Korean Elderly (Aged 65 & Over) Living with their Children, 1980–2004



Source: Chung (2005) and KNSO (2004)

4 Korea National Statistical Office, "2006 Statistics on the Aged," *News Release* (October 2, 2006), online at www.nso.go.kr/; and Seongsook Kim, "Income Security of the National Pension in Korea: Challenges and Future Directions," paper presented at the International Forum on Low Fertility and Aging Society (Seoul; September 13-14, 2006).
5 *Republic of Korea: Four Decades of Equitable Growth* (World Bank; 2004).
6 Kwanghyun Kim *et al.,* "The Korean 50s: The Portrait of 2006," (in Korean) *Donga Ilbo* (November 17, 2006).

be available to care for an elder. Higher geographic mobility will also tend to disrupt the lifelong care networks that elders traditionally rely on for assistance. In developed societies, moreover, a rising share of what elders need—especially medical and skilled nursing care—cannot always be reliably provided by sympathetic friends and kin. Inevitably, tomorrow's elders will be more in need of financial resources than today's.

Given how successful Koreans have been at developing their economy over the last half century, many may suppose that continued economic growth and rising affluence will by themselves overcome the problems posed by the aging of the population. The experience of other high-income countries shows otherwise. Without sound public policy direction, modernization increases the vulnerability of the old.

More critically, when modernization is not integrated into enduring social traditions, it can give rise to a clash in social expectations that can worsen the severity of the aging challenge and threaten the mainspring of national develop-ment itself. An important example is the slow adaptation of customary workplace and family culture to the changing role of women. The difficulty that Korean women face in balancing jobs and babies is a major reason why the fertility rate has

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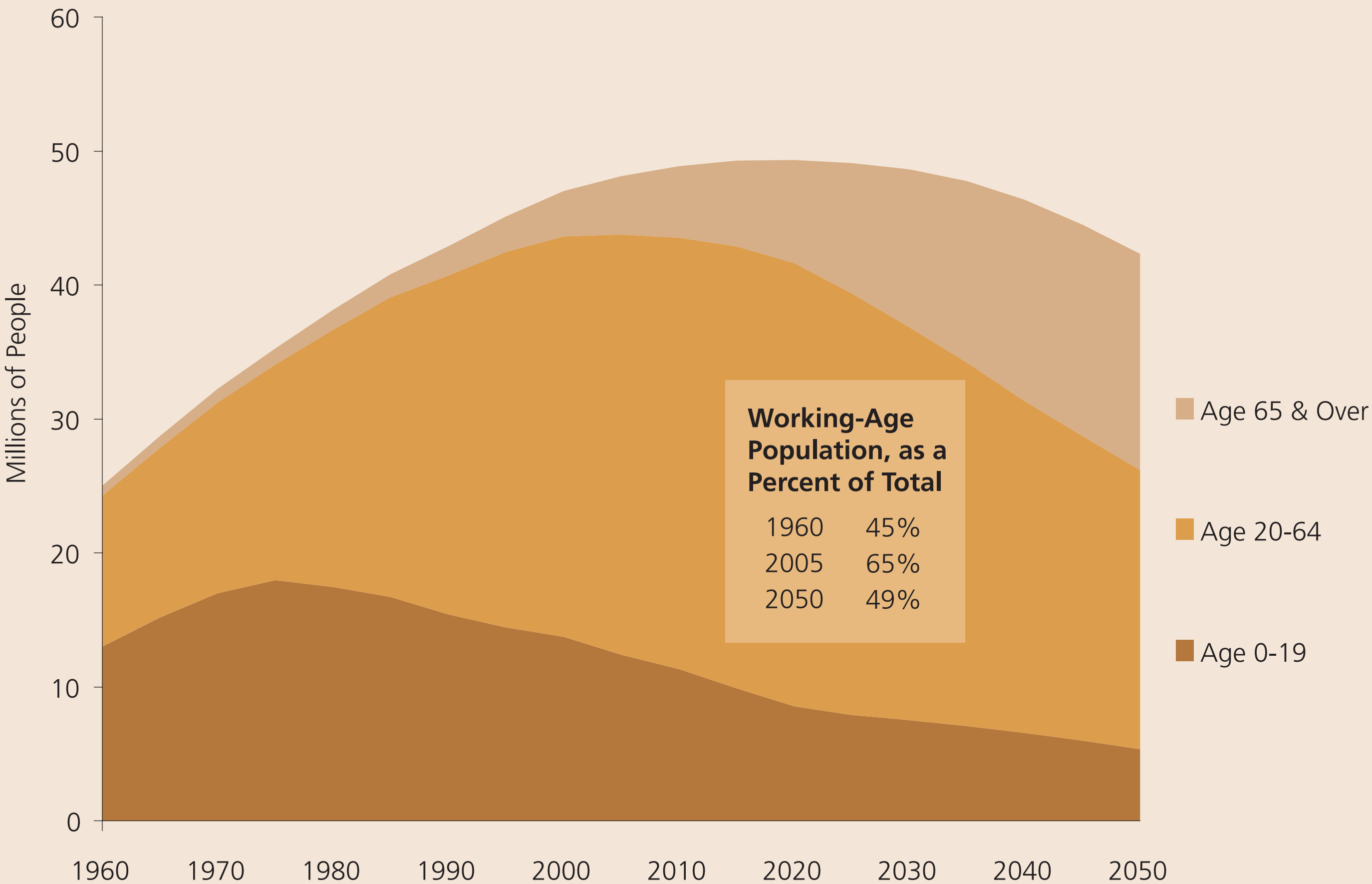
The demographic dividend: A record share of the population in the working years.

Korean Population by Age Group, in Millions, 1960-2050



Working-Age Population, as a Percent of Total

1960	45%
2005	65%
2050	49%

Source: KNSO (2006)

fallen so low and why the extended family continues to weaken. Unless it is resolved, it may gradually push Korea into a vicious cycle of faster aging, swifter population decline, and intolerable elder dependency. Changing course will depend on national leadership. But it will also require all Koreans (men and women alike) to change deep-seated social attitudes and help reshape family and workplace institutions.

THE ECONOMIC CHALLENGES AHEAD

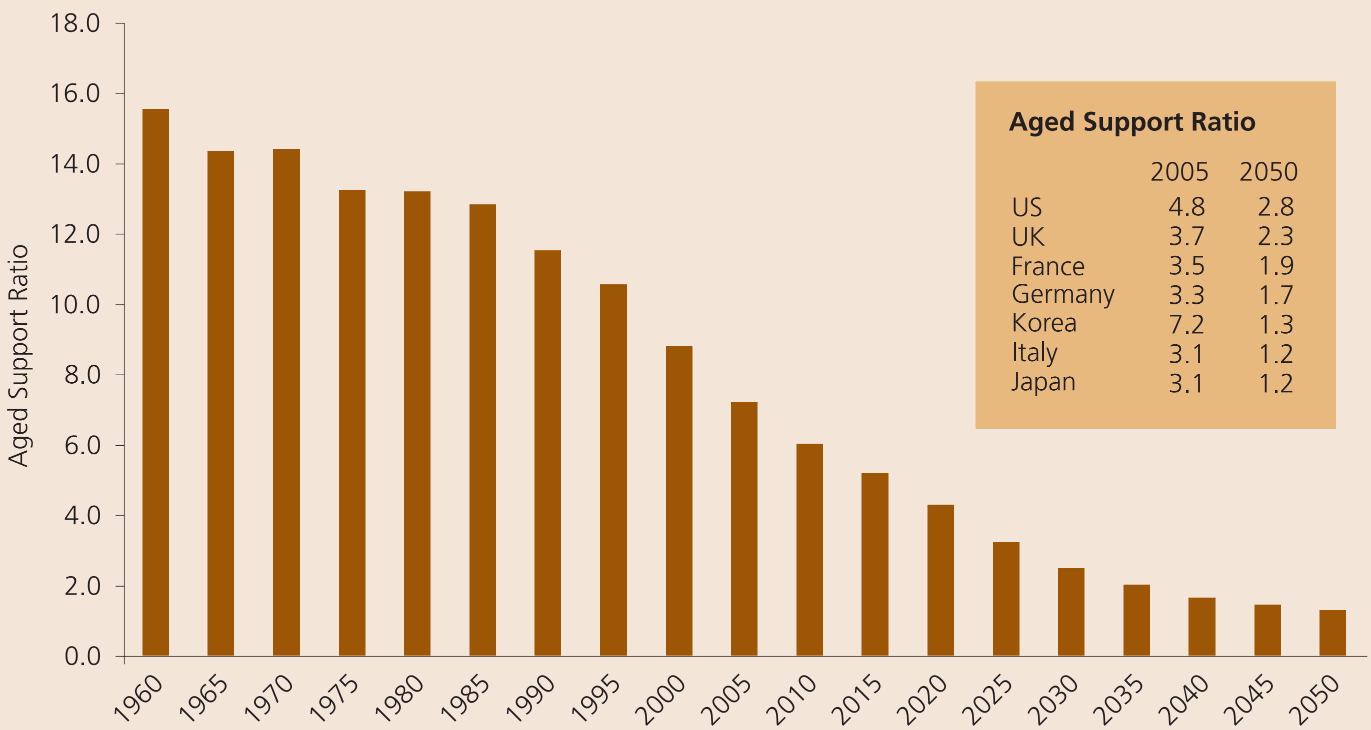
The initial phase of Korea's demographic transformation has brought undeniable economic benefits. When fertility rates fall, societies typically enjoy a temporary "demographic dividend," a span of time in which the relative number of children declines much more rapidly than the relative number of elders rises. The result is a dramatic increase in the share of the population in the traditional working years. Since fertility rates first began falling in Korea, the population aged 20 to 64 has grown steadily as a share of the total population—from 45 percent in 1960 to 65 percent in 2005. (See Figure 7.) At the same time, declining child dependency has freed up women's time for participation in the market economy. Over the past 45 years, the overall rate of female labor-force participation in Korea has increased from 37 to 50 percent. Both of these trends have helped fuel development and boost per capita incomes.

Beginning 10 to 15 years from now, however, the period of demographic dividend will end as the relative growth in the elderly population begins to overwhelm the relative decline in the child population. While the demographic transformation has so far been leaning with economic growth, it will soon begin leaning against it.

8

There will be fewer working-age adults to support each elder.

Aged Support Ratio of Working-Age Koreans (Aged 20-64) to Elderly Koreans (Aged 65 & Over), 1960-2050



Aged Support Ratio

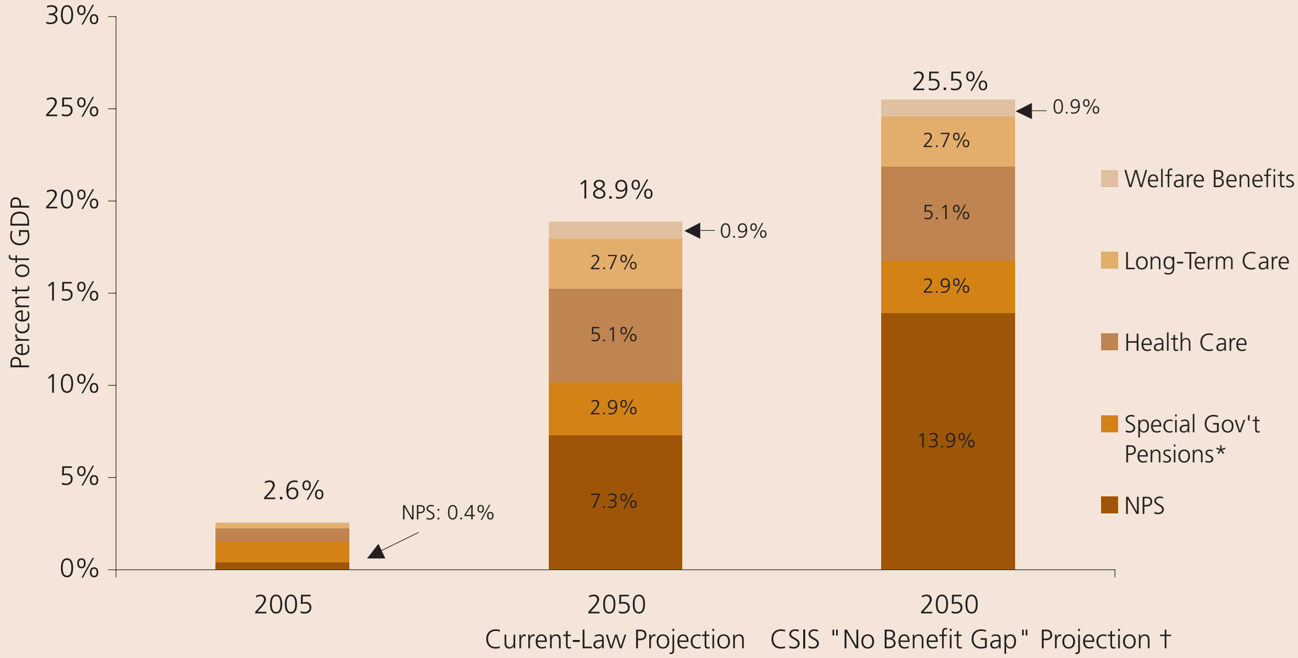
	2005	2050
US	4.8	2.8
UK	3.7	2.3
France	3.5	1.9
Germany	3.3	1.7
Korea	7.2	1.3
Italy	3.1	1.2
Japan	3.1	1.2

Source: KNSO (2006) and UN (2005)

Graying means paying more for pensions and other old-age benefits.

Korean Government Spending on Old-Age Benefit Programs, 2005 and Projections for 2050

9



* Public employees, private school teachers, and the armed forces.
† Assumes that the active contribution rate among NPS covered workers rises to 90% and that the system's actual replacement rates (initial benefits as a % of final salary) will match its nominal replacement rates.

Source: Moon (2006), Choi (2006), and CSIS calculations

BY 2050, THERE MAY BE ONLY ONE KOREAN WORKER TO SUPPORT EACH RETIRED ELDER.

Today in Korea, there are 7.2 working-age adults available to support each elder. That "support ratio" is due to fall to 2.5 by 2030 and to 1.3 by 2050. (See Figure 8.) Assuming that not every man and woman is continuously employed between age 20 and 64, this projection implies that there may be only one (or even less than one) taxpaying worker for each retired beneficiary. Much of the rising burden of caring for the elderly will continue to fall on families. But as Korea's welfare state matures, a large share will inevitably show up in public budgets—and in taxpayer contributions.

Graying means paying—more for pensions, more for health care, more for nursing homes and other social services for the elderly. The Korean government today spends just 2.6 percent of GDP on old-age benefits. Assuming that current benefit programs remain unchanged, this share is on track to rise to 18.9 percent of GDP by 2050, a seven-fold increase. (See Figure 9.)

Much of the extra burden is attributable to the growing cost of public pension programs. The cost of the National Pension System, which covers private-sector workers and has yet to mature, is projected to rise from 0.4 percent of GDP in 2005 to 7.3 percent by 2050. Including Korea's special pension programs for government employees, private school teachers, and the armed forces, the total cost of public pensions will reach 10.2 percent of GDP. Pensions, of course, are not the only spending programs whose cost will be rising as society ages. The elderly are also disproportionate consumers of medical and long-term care services. If current rates of per capita utilization remain unchanged and historical cost trends continue, spending on health care and long-term care for the elderly will reach 7.8 percent of GDP by 2050. Means-tested welfare programs account for the remainder of the projected spending burden.

UNDER A REALISTIC SCENARIO, THE COST OF GOVERNMENT OLD-AGE BENEFITS COULD EASILY EXCEED 25 PERCENT OF GDP BY 2050.

As dramatic as these projections are, they may vastly understate the future burden that the aging of Korea will place on public budgets. The projections for the NPS assume that a large share of the workforce will remain outside of the system and earn no benefit at all. They also assume that benefits for those in the system will replace a much smaller share of preretirement income than the system's nominal replacement rates suggest. If the public insists that the NPS protect vulnerable elders and correct for these shortfalls, its cost (as we shall see) would climb by another 6.6 percent of GDP by 2050. The cost of all benefits for the elderly would then rise to 25.5 percent of GDP. Even this number assumes that utilization rates for long-term care services will not rise in the future—although they will likely increase rapidly after 2008, when the government plans to phase in a new universal long-term care entitlement.

Korea today is a relatively low-tax economy with diminutive social insurance and welfare programs and a smaller public sector than any OECD country other than Mexico and Turkey. The aging of Korea's population is about to change all of that. Without fundamental reform of its retirement system, the rising old-age dependency burden will translate into a rising tax burden. Either that, or the government will run mounting fiscal deficits that will undermine national savings and cripple the economy. In the latter scenario, according to Standard & Poor's, the credit rating of the Korean government would sink to junk bond status ("speculative grade," to be exact) as early as 2025.[7]

Even apart from the fiscal impact, Korea's demographic transformation threatens to usher in an era of slower economic and living standard growth. Assuming current rates of labor-force participation remain unchanged, Korea's workforce will be shrinking by 1.2 percent per year by the 2030s and

KOREA'S DEMOGRAPHIC TRANSFORMATION THREATENS TO USHER IN AN ERA OF SLOWER ECONOMIC AND LIVING STANDARD GROWTH.

7 Standard & Poor's, "Global Graying Country Report: Korea," *Commentary Report* (June 8, 2006).

THE IMPACT OF STAGNATING GROWTH ON KOREA'S NATIONAL MOOD MAY BE PROFOUND.

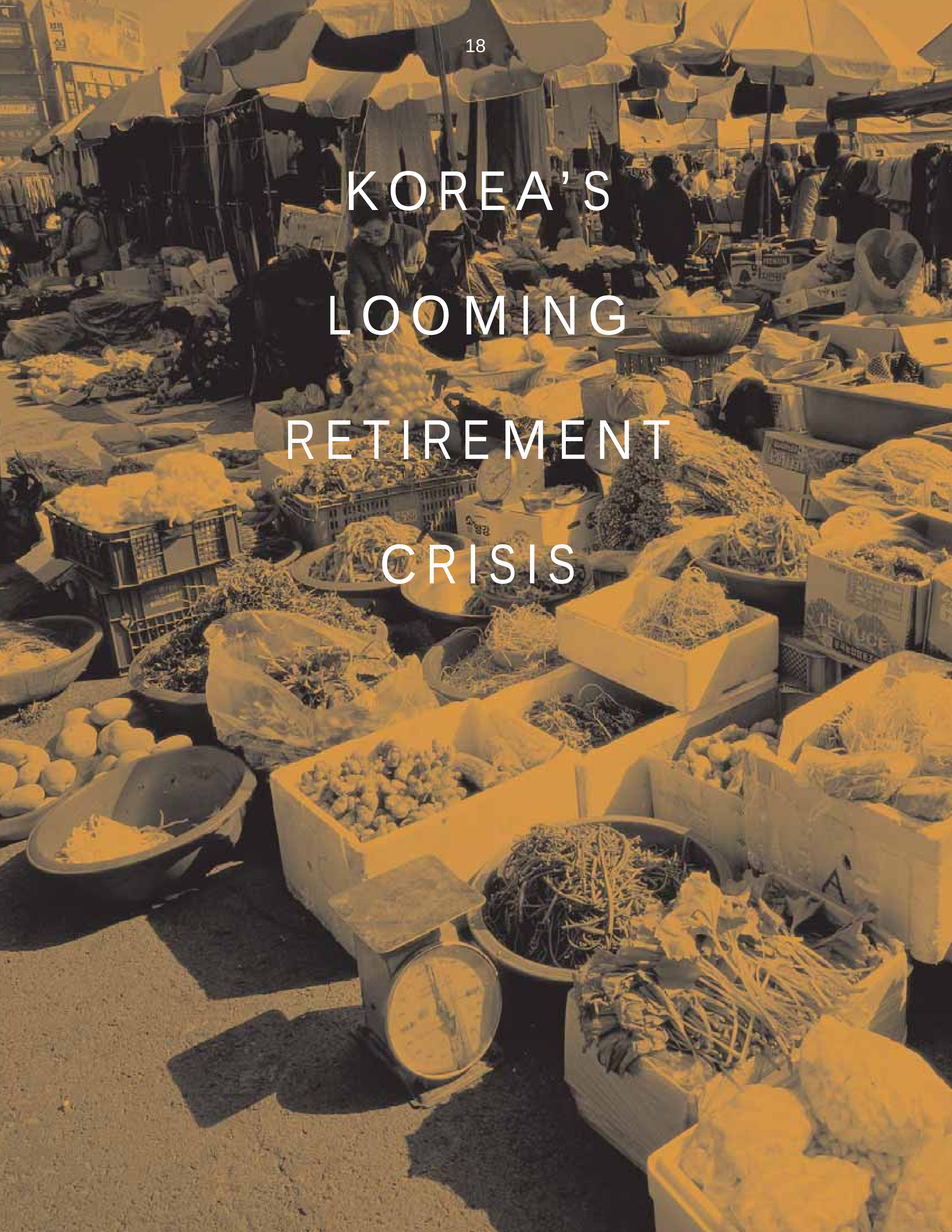
1.4 percent per year by the 2040s. Unless productivity rises at least as fast as employment declines, the growth in Korea's real GDP will stagnate—not just during recessions, but chronically over the entire business cycle. While a 1.4 percent productivity growth rate may not seem like much by Korea's historical standards, it is about the average for mature developed economies over the past 25 years.

While faster productivity growth is possible, here too demographics will be leaning the other way. A demographically contracting Korea, having less need for capital broadening, will tend to accumulate an aging stock of physical capital. And with each birth cohort smaller than the last, it will also acquire an aging stock of human capital—quite possibly deficient in the risk-taking and entrepreneurial drive associated with youth. Although the possibility of capital shortages seems like a remote danger today, this too could become a challenge as the share of Korea's population in the high-saving middle years declines and the share in the low-saving elder years rises. Several economists have concluded that the "life-cycle savings" incentive (saving in midlife to prepare for old age) is an especially powerful savings motivator in East Asian societies.[8] If so, a fast-aging Korea may need to take precautions against a falling savings rate—a development which is now prompting worries in Japan.

The impact of stagnating growth on Korea's national mood may be profound. The young and growing Korea of the past 45 years has been an optimistic and future-oriented Korea, focused on posterity and confident in its destiny. The mood in a demographically aging and contracting Korea could be very different. Societies often react defensively when facing a zero-sum and zero-growth economy. In the business realm, they may favor cartels, managed trade, and beggar-thy-neighbor protectionism. In the political realm, they may favor consumption over investment, the present over the future, and the old over the young. These challenges are not unique to Korea, but given the magnitude of its age wave—and the speed with which it is approaching—they are especially daunting.

8 Paul R. Masson *et al.,* "International Evidence on the Determinants of Private Saving," *The World Bank Economic Review,* vol. 12, no. 3 (September 1998); Matthew Higgins, "Demography, National Savings, and International Capital Flows," *International Economic Review,* vol. 39, no. 2 (May 1998); and Barry Bosworth and Gabriel Chodorow-Reich, "Saving and Demographic Change: The Global Dimension," paper presented at the 8th Annual Joint Conference of the Retirement Research Consortium on Pathways to a Secure Retirement (Washington, D.C.; August 10-11, 2006).

KOREA'S LOOMING RETIREMENT CRISIS



CHAPTER 2

Korea launched its National Pension System in 1988 amid great optimism. It was the year of the Seoul Olympics and a new democratic government, and the pension system was seen as a marker of increased development and expected entry into the OECD. In the years since, the optimism has faded as aging has begun to wreak its toll on the system's cost projections. There may still be some Koreans who think that the NPS is a "low contribution, high benefit" miracle, but most are coming to suspect that this is an illusion. The government has already raised contributions and cut benefits once, and has proposed doing so again. Adding to concerns is the fact that growing numbers of workers are gaming the system and not paying their fair share of contributions.

The cost outlook is certainly dire. According to the official government projections, NPS outlays are due to rise from 1.7 percent of workers' taxable earnings in 2005 to 30 percent by 2050. The situation, however, is even more serious than the cost projections suggest. Despite the rising fiscal burden, the benefits that the NPS offers are not very generous. In fact, they are actually quite modest, both because the system leaves one-third of the workforce uncovered and because its replacement rates, properly measured, are nearly one-third lower than the government claims. This means that cutting NPS benefits to control long-term costs may not be a viable option. Indeed, Korea will be under increasing pressure to raise, not lower, benefits as it continues to develop and traditional support networks for the elderly unravel.

AN AGING KOREA NEEDS A PUBLIC RETIREMENT SYSTEM THAT IS BROAD, GENEROUS, AND WELL DESIGNED.

There are two distinct, if related, developments now conspiring to push up old-age benefit spending in Korea. The first is the extraordinarily rapid pace of aging, which in and of itself will require a very large increase in spending. The second is the extraordinarily rapid pace of development, which means that Korea needs a public pension system that is broad and generous and well designed. An underdeveloped economy with a young population and intact family support networks can get by with a small pension system that tolerates gaps in coverage and widespread gaming. A developed economy with an aging population and weakening families cannot. This is especially true in Korea, since the personal saving rate is low and the private pension system is in its infancy.

In short, there is no such thing as a low cost public pension system for a rapidly aging developed economy. But fortunately, Korea is in a better position to minimize the cost than any of today's developed economies. Because the NPS is still immature, it is not yet burdened economically by large unfunded benefit liabilities or hemmed in politically by powerful entitled constituencies. If Korea faces up to the challenge, it still has time to change course and transition from today's unsustainable system to a less costly and more adequate system based in large part on fully funded retirement savings.

KOREA'S PUBLIC SYSTEM: "HIGH CONTRIBUTION, LOW BENEFIT"

Although Korea has had special public pension schemes for government employees and the armed forces since the 1960s and for private school teachers since the 1970s, it only established a public system for private-sector workers in 1988. Coverage under the National Pension System was originally limited to workers at firms with 10 or more employees, or about 25 percent of the labor force. Beginning in the early 1990s, however, the system was expanded in stages to include employees at smaller firms, farmers, and the self-employed. Although the NPS in principle now offers universal coverage, it is still immature. The number of beneficiaries is small and payroll contributions exceed benefits by a wide margin, generating large payroll tax surpluses. As of 2005, just 23 percent of adults over age 60, the NPS retirement age, were collecting a pension.

When the government first set up the NPS, it promised participants a 70 percent replacement rate at an ultimate contribution rate of 6 percent. The system was hardly up and running, however, when it became clear that collapsing fertility and soaring life expectancy made this original deal unaffordable. In 1998, the government raised the contribution rate to 9 percent and lowered the replacement rate to 60 percent, while also scheduling a phased increase in the retirement age from 60 to 65 between 2013 and 2033. With the demographic outlook continuing to deteriorate, the National Assembly is now considering raising the contribution rate and cutting the replacement rate once again.

THE COST OF THE NPS WILL RISE FROM 1.7 PERCENT OF WORKERS' EARNINGS TODAY TO 30 PERCENT BY 2050.

As these worries about long-term costs reveal, population aging is beginning to undermine the sustainability of the NPS. In 2005, total benefits paid out under the NPS amounted to 1.7 percent of workers' taxable earnings, or just one-fifth of the system's current 9 percent contribution rate. By 2025, however, the system's cost rate is projected to exceed its contribution rate—and the cost rate is due to keep rising thereafter, to 21.5 percent by 2040, 30.0 percent by 2050, and 39.1 percent by 2070, the government's projection horizon. (See Figure 10.)

Public defined benefit pension plans like the NPS seem affordable when contributors greatly outnumber beneficiaries. But, unless they are fully funded, the contribution rate needed to pay promised benefits rises by leaps and bounds as populations age and the systems mature. It is true that the NPS is now accumulating a large reserve fund that is supposed to help defray future costs, but even if the reserve fund build-up occurs exactly as planned it will not constitute anything close to full funding of the system's benefit promises. Consequently, the NPS will suffer the fate of pay-as-you-go pension plans around the world. Its surpluses will eventually narrow and, unless contributions are raised or benefits cut, turn into widening deficits. In the end, despite offering a deteriorating rate of return, it will go bankrupt. According to the official government projections, this is due to happen in 2047.

Even the system's partial prefunding, moreover, may rest on little more than an accounting illusion. Many other countries, including Japan and the United States, have tried to use government reserve funds to partially prefund public pension systems. The track record is not encouraging. With few exceptions, the funds have ended up serving as back-door financing mechanisms for the general government budget. The reserve fund surpluses have not been translated into overall budget surpluses—and so have not raised national savings, the essential precondition for genuine prefunding.

Although the Korean government is taking steps to shore up the reserve fund's finances, it is unclear how effective they will be. Prior to a major reform in 2000, the reserve fund was

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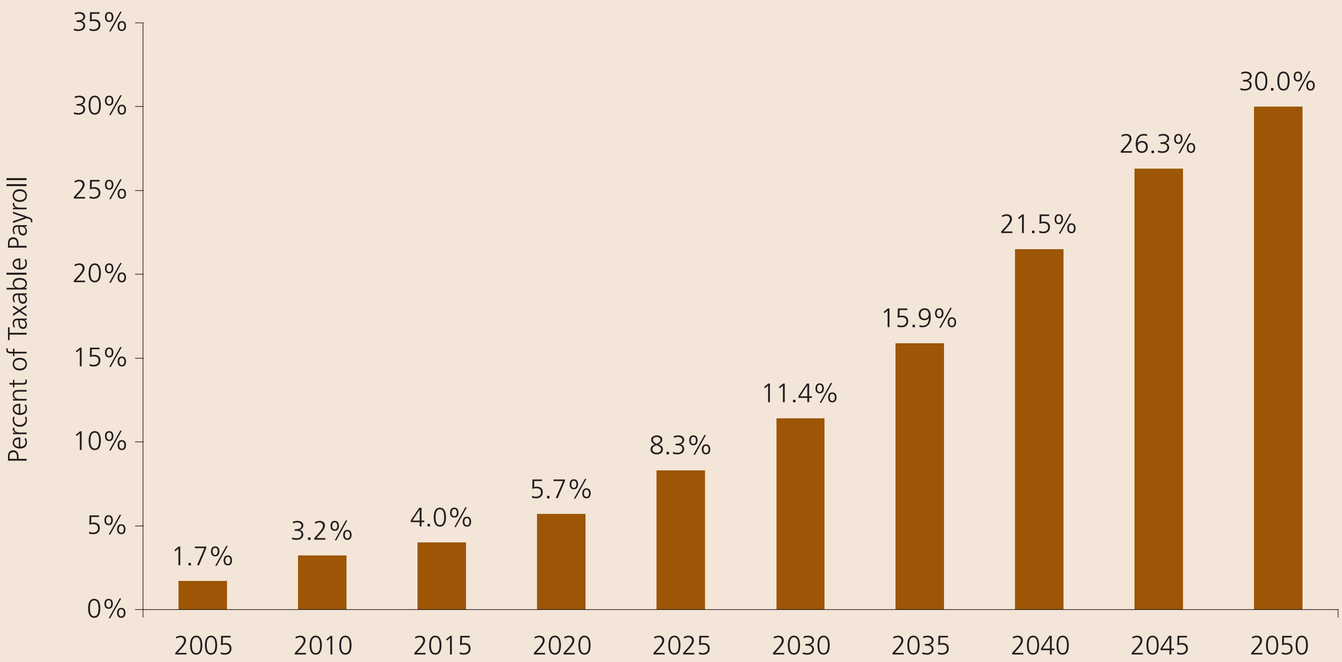
The National Pension System: A heavy burden on tomorrow's workers.

NPS Expenditures as a Percent of Workers' Taxable Payroll, 2005-2050



Source: NPDC (2003)

managed by the Ministry of Finance and Economy, which used most of it to finance "social overhead capital" and pay for other government programs. Since the reform, which transferred management of the fund to the Ministry of Health and Welfare, the assets have been shifted into financial-sector securities, including a small share in domestic and foreign equities. There is still no effective legal or procedural firewall, however, that prevents the government from spending or borrowing against the reserve fund savings. And in fact, in the nearly twenty years that the NPS has been in operation, there has been only one year in which the government has run a budget surplus excluding the reserve fund surplus.[9]

THE PROBLEM WITH GOVERNMENT PREFUNDING IS THAT IT REQUIRES A LEVEL OF FISCAL DISCIPLINE FEW GOVERNMENTS CAN SUSTAIN.

The fundamental problem with government prefunding is that it requires a level of fiscal discipline that few governments are able to sustain. For the strategy to work, Korea's leaders would have to let the reserve fund accumulate untouched decade in and decade out, no matter what the economic or political emergency. Inevitably, there will be occasions—perhaps a major recession, perhaps reunification—when the temptation to tap into the fund will become overwhelming.

If the government's partial prefunding strategy fails, Korean workers will find themselves facing huge contribution hikes beginning in the 2020s—either that, or retirees will find themselves facing huge benefit cuts. Yet even if the strategy succeeds, the NPS will still not be sustainable. Once the reserve fund is exhausted in 2047, the contribution rate would have to be raised all at once to 30 percent to cover the system's full annual pay-as-you-go cost—thus inflicting an enormous

9 Youngsun Koh, "Reforming the Fiscal Management System in Korea," paper presented at the National Bureau of Economic Research's Sixteenth Annual East Asia Seminar on Economics (Manila; June 23-25, 2005).

injustice on future generations of workers. The government's current reform proposal, which calls for raising the system's contribution rate to 12.9 percent and cutting its replacement rate to 50 percent, would merely postpone the day of reckoning to 2065. In the end, the NPS would still run over the same financial cliff.

The Korean press often describes the NPS as a "low contribution, high benefit" system. Pension reformers have come to understand that the first part of this proposition is not really true. Although the contribution rate is relatively low today, it will have to rise steeply as the age wave rolls in. What the reformers have yet to understand is that the second part of the proposition is not true either. The breadth and level of retirement income protection that the NPS offers is in fact quite modest, indeed inadequate—and will come increasingly to be regarded as such as Korea becomes a fully developed economy.

ACTUAL NPS BENEFIT LEVELS ARE MUCH LESS GENEROUS THAN THE SYSTEM'S NOMINAL REPLACEMENT RATES SUGGEST.

The NPS promises average earners a benefit replacing 60 percent of wages after 40 years of contributions. Most Koreans assume this means that their pension will replace 60 percent of their final earnings, but this is not the case. The system's nominal 60 percent replacement rate refers to a worker's career average earnings, which are typically much lower. Replacement rates are almost always calculated relative to final earnings, since it is the share of final earnings a pension replaces that determines living standards in retirement. On a final salary basis, the NPS now offers average earners with a full 40-year career a replacement rate estimated to be just 42 percent. Under the government's reform proposal, that final salary replacement rate would fall all the way to 35 percent. (See Figure 11.)

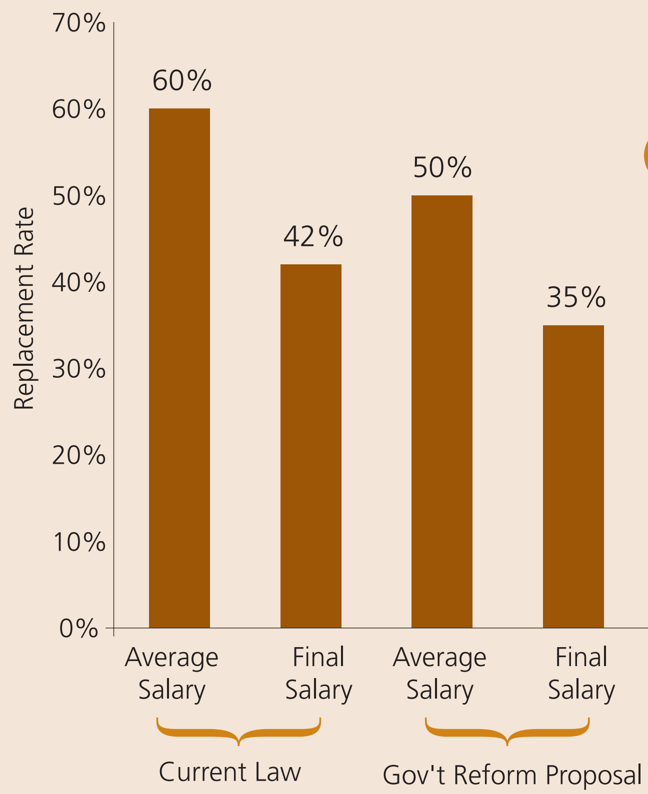
Most of tomorrow's workers, moreover, will have careers that are shorter than 40 years. As Koreans become more educated, they are entering the labor force at later ages. Many, especially women, will experience lengthy interruptions in their careers when they are not employed and so are not earning benefits. The vast majority of workers at medium and large firms are also subject to mandatory retirement in their mid-fifties, and thus exit the labor force early as well. The government's long-term projections assume that the typical retiree will have contributed to the NPS for just under 30 years—which, given the way contribution years are credited in the system's benefit formula, means that the final salary replacement rate for the typical average earner may only be about 30 percent under current law and 25 percent under the government's reform proposal.

There is another little understood feature of the NPS which could drive replacement rates even lower. The official

The National Pension System: Disappointing benefits for tomorrow's retirees.

11

NPS Replacement Rates for Average Earners with 40 Years of Contributions: Current Law versus Government Reform Proposal



Source: NPS (2007) and CSIS calculations projections cited in this report assume that the ceiling on taxable wages will, in the future, be indexed to the growth in average wages. The ceiling, however, is not currently indexed—and in fact has been fixed in nominal won since 1988. Unless the law is changed, the replacement rates of many—and eventually most workers—will fall over time as incomes rise and a growing share of total earnings exceeds the cap and so is excluded from the benefit formula.

JUST 65 PERCENT OF KOREA'S LABOR FORCE IS CURRENTLY EARNING A BENEFIT UNDER THE NPS OR ANOTHER PUBLIC PENSION PROGRAM.

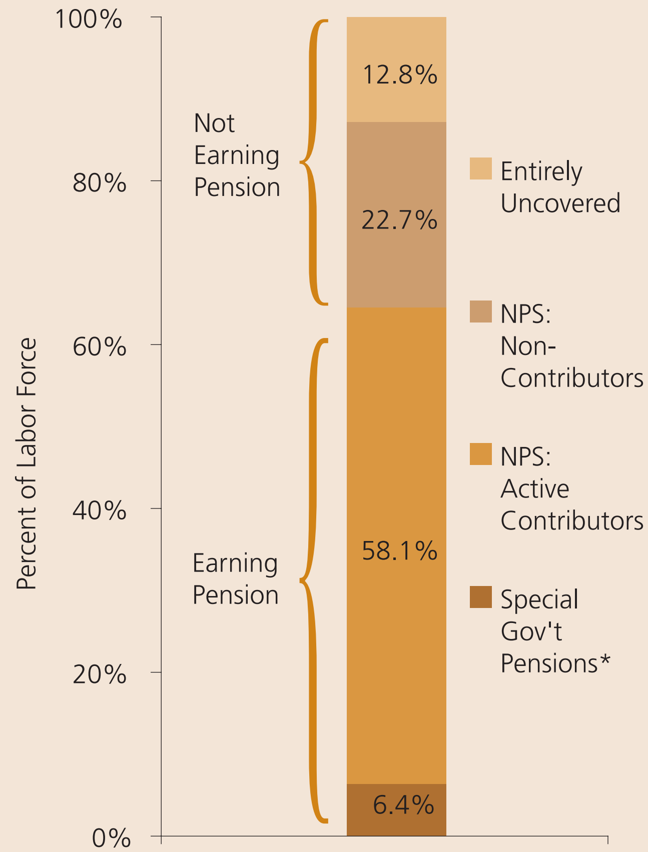
As for breadth of benefits, the NPS is universal in name alone. As of 2004, 13 percent of the covered labor force failed to participate at all. Evasion is an especially serious problem among the self-employed, who, unlike employees, must pay the full 9 percent contribution rate themselves. With nearly two-thirds of Korea's total labor force either self-employed or working as day laborers, unpaid family workers, or short-term "irregular" employees, enforcing compliance is next to impossible. Even among those workers who do participate in the NPS, nearly one in three make no contributions in a given year, usually because their reported earnings fail to exceed the system's taxable earnings floor. Overall in 2004, just 65 percent of Korea's labor force was actually earning a benefit under the NPS or one of the special public pension plans for government employees, private school teachers, and the armed forces. (See Figure 12.) While rates of pension receipt among the elderly will rise as the NPS matures, the large gaps in coverage mean that even a half century from now a large share of the elderly—perhaps as many as one-third—will still not be receiving a benefit.

A related problem is the failure of the NPS to target elders in poverty. To be sure, the system has a progressive benefit formula that pays higher replacement rates to lower earners—and allows them to qualify for full benefits with fewer years of contributions. But public policy experts universally agree that progressive benefit formulas are a very inefficient way to help the poor elderly, since retirees' wage histories only bear a loose relationship to their actual need in old age. To the extent that a contributory pension system tries to redistribute income through its benefit formula, moreover, it invites participants

The National Pension System: Large gaps in coverage.

12

Percent of Korean Labor Force (Aged 18-59) Covered by Public Pension Systems in 2004



* Public employees, private school teachers, and the armed forces.

Source: NPS (2006) and NJC (2006)

to underreport their earnings in order to get a more generous return on their contributions. This is an especially serious problem in Korea, given the government's weak enforcement capability. It may also be a partial explanation for the low levels of active participation in the NPS. Some people may be cycling in and out of contributor status in order to earn the full subsidized benefit with the minimum required contribution years.

Korea's leaders seem to believe that it is possible to take the NPS, with its relatively modest benefit levels and large gaps in coverage, and cut it back further. The reality is that, as Korea continues to develop, it will need a more, not a less generous public pension system. The ethic of filial piety is declining. Families are getting weaker, and, as the marketized and monetized economy grows, even strong families are able to provide for fewer needs of the elderly. Signs of an emerging crisis are already visible in rising rates of elderly poverty and a widening income gap between young and old. Korea's leaders are becoming concerned about these trends, which is why, even as they discuss rolling back "overly generous" NPS benefits, they are beginning to expand means-tested poverty protection for the poor elderly.

AS CURRENTLY STRUCTURED, KOREA'S NATIONAL PENSION SYSTEM IS BOTH UNAFFORDABLE AND INADEQUATE.

Although a rapidly developing Korea needs a more generous retirement system, it is also true that a rapidly aging Korea cannot afford to finance it on a pay-as-you-go basis. If coverage under the NPS were actually universal, and if the system really paid the government's announced replacement rates, its long-term cost would be nearly twice current projections—not 7.3 percent of GDP in 2050, but 13.9 percent.[10] And this projection assumes a future fertility rate (1.4) that is substantially above today's level and a blistering future rate of real wage growth (an average of 3.6 percent until 2040) that will be increasingly difficult to achieve as Korea's population ages. The huge gap between the official projections and the cost of honoring today's implicit promises is at once a measure of how unaffordable and inadequate the current system is.

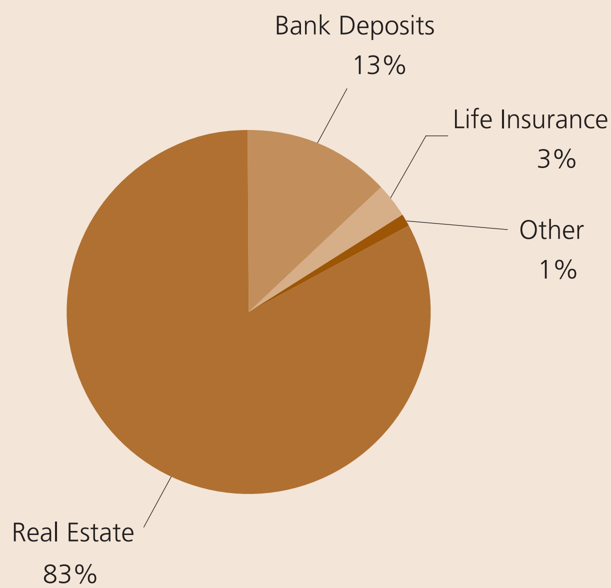
KOREA'S PRIVATE SYSTEM: FROM SEVERENCE PAY TO PENSIONS

A broad and generous public pension system would be less crucial if most Koreans were saving adequately for their retirement privately, either on their own or through employment-based pension plans. Unfortunately, this is not the case. Most households have little long-term savings, and though the government is trying to encourage the development of a corporate pension system, its size is still small and its outlook uncertain.

13

Most Korean household wealth is in real estate and bank deposits.

Korean Household Wealth by Type in 2001, as a Percent of Total



Source: Yoo (2005)

MOST KOREANS SAVE LITTLE FOR RETIREMENT ON THEIR OWN.

The lion's share of household wealth in Korea—83 percent in 2001—is invested in housing. While the family home may have been sufficient old-age security in the days of dutiful children and an exchange economy, tomorrow's elderly increasingly will have to rely on financial assets. Yet financial wealth accounts for just 17 percent of total household wealth, and of this three-quarters is in low-return bank deposits.[11] (See Figure 13.) Although households may intend some share of the bank deposits for retirement, they are rarely locked in for the long term. Since 1994, individuals have had the option of contributing to a tax-favored personal pension system, but only 11 percent of working-age adults do so. Overall, total

10 CSIS' "no benefit gap" projection assumes first, that the active contribution rate among NPS covered workers will rise from roughly 60 to 90 percent and that two-thirds of the increase will be translated into new benefit awards; and second, that the system's actual replacement rates (initial benefits as a percent of final salary) will match its nominal replacement rates.

11 Kyeongwon Yoo, "Empirical Analysis of Precautionary Portfolio Allocation: Evidence for Korea," Bank of Korea Economic Papers vol. 8, no. 1 (September 2005).

personal pension assets amounted to just 2.7 percent of GDP in 2005.[12] The one place where most households are doing any real retirement savings is in life insurance, where total invested assets came to 19 percent of GDP in 2005.[13]

To be sure, Korea is famous for its high national savings rate, which registered an impressive 33 percent of GDP in 2005. But most of this consists of government savings and retained corporate earnings. The overall household-sector savings rate is much lower—just 6.5 percent of GDP—and the personal savings rate is lower still. In 2005, Korean families on average saved just 4.3 percent of their disposable incomes. And this average conceals vast differences between upper-income households (whose saving rate is positive and rising) and lower-income households (whose savings rate is negative and falling). The Bank of Korea recently warned that these trends threaten to place a growing share of Koreans at risk of poverty in old age.[14]

Many developed countries have large funded employer pension systems that help take pressure off public retirement systems and family support networks. Korea does not. The principal employer-sponsored retirement benefit for private-sector workers consists of a lump-sum severance pay allowance payable when a worker leaves the firm. While the system offers significant benefits to long-term career employees, it is entirely inadequate to meet the needs of most of tomorrow's elderly.

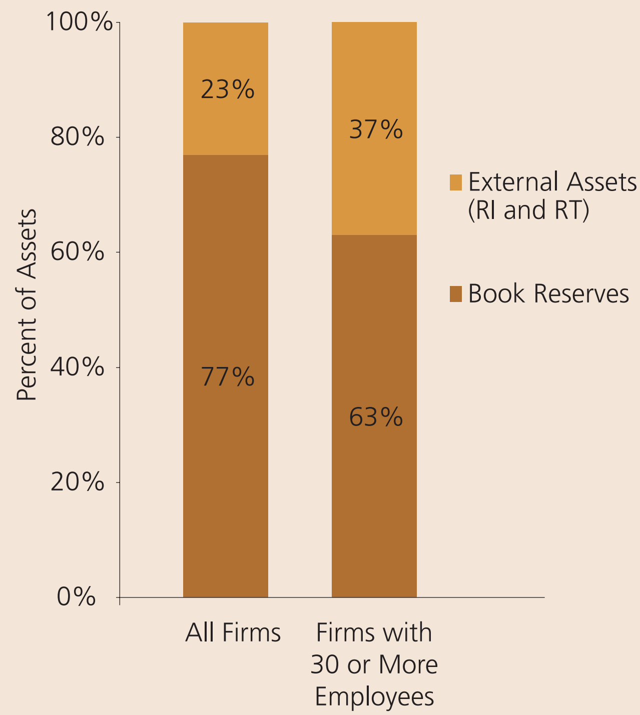
THE EMPLOYER SEVERANCE PAY SYSTEM COVERS LESS THAN ONE-THIRD OF KOREA'S TOTAL LABOR FORCE.

To begin with, the severance pay system covers only a fraction of the workforce. Korea's labor laws require that firms with five or more employees pay workers with long-term employment contracts a severance pay allowance equal to at least one month of salary for each year of job tenure. Such workers, however, represent a relatively privileged labor-force elite. As of 2002, the severance pay system covered just 46 percent of all wage and salary workers—and just 29 percent of Korea's total labor force.[15]

14

Only a fraction of severance pay benefits are externally funded.

Percent of Severance Pay Assets by Type of Funding in 2004*



* Data for firms with 30 or more employees are for 2002.

Source: Kwon (2005) and Lee (2004)

Narrow coverage is not the system's only problem. While it may once have functioned as a retirement scheme back in the days of lifetime employment, it no longer does so for most workers. With average employee job tenure just 5.6 years, many workers get multiple lump-sum payouts during their careers. According to a Korea Labor Institute survey, 53 percent of recipients use the payouts to cover basic living expenses, while just 21 percent save them.[16] Many employers do not even wait for workers to leave the firm before cashing out their severance pay. A large number pay out the benefits

12 Korea Fund Ratings, "Current Situation of Individual Pension Management," (in Korean) *Fund Research* (February 17, 2006).
13 *Financial Market Trends,* vol. 2006/2, no. 91 (OECD; November 2006).
14 Jayoung Yoon, "Saving Gap Widens Classes," *The Korea Times* (October 26, 2006).
15 Jaijoon Hur, "Korean Severance Pay Reform: For Old-Age Income Security or Coverage Expansion?" paper presented at the International Workshop on Severance Pay Reform: Toward Unemployment Savings and Retirement Accounts (Laxenberg/Vienna; November, 7-8, 2003).
16 Jaijoon Hur, *op. cit.*

each month as they accrue along with workers' regular paychecks, an arrangement allowed under the special "Yeonbong" wage contract system.

MOST SEVERANCE PAY ASSETS ARE IN CORPORATE BOOK RESERVES.

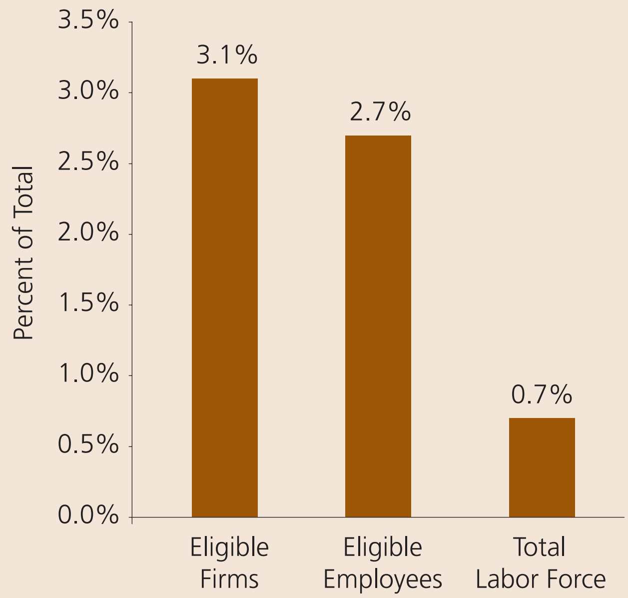
Benefits earned under the severance pay system are also insecure. Many employers do not fund the benefits at all—and even when they do, much of the funding occurs through internal corporate "book reserves." As of 2004, 77 percent of all funded severance pay assets were in book reserves, while 23 percent were externally funded through special investment arrangements known as Retirement Insurance (RI) and Retirement Trusts (RT). (See Figure 14.) Book reserve financing leaves workers' severance pay benefits entirely dependent on the continued solvency of the firm. Yet even the RI and RT arrangements offer little of the protection of genuine pension funds, since employers have broad discretion over how much they contribute annually and can often borrow against the funds.

Not surprisingly, workers frequently end up losing their benefits when a firm goes bankrupt. According to a Korea Labor Institute survey of workers who were laid off in 1998, nearly one-quarter of those entitled to severance pay did not receive it.[17] The government has tried to address the problem by establishing a "Pay Guarantee Fund" financed through employer premiums. The fund, however, only covers benefits up to three years of job tenure, and so does not offer meaningful retirement income protection.

The Korean government is now trying to convert the existing unfunded severance pay system into a new system of funded corporate pensions. As of December 2005, firms have the option, with union consent, of replacing their old severance pay scheme with a defined benefit or defined contribution pension plan. Coverage under the new pension plans is limited to workers with long-term employment contracts, just as it is for the old severance pay schemes. Beginning in 2008, however, firms with fewer than five employees will for the first time be required to participate in the system.

Korea's new corporate pension system is off to a slow start.

Percent of Eligible Firms, Eligible Employees, and Total Labor Force Participating in Corporate Pension System, End of November 2006



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Source: MOL (2006)

ALTHOUGH THE GOVERNMENT IS TRYING TO ENCOURAGE THE DEVELOPMENT OF GENUINE PRIVATE PENSIONS, THE REFORM IS OFF TO A SLOW START.

Korea's new corporate pension system could play a crucial role in improving the future retirement security of at least a part of the workforce. If it is to do so, however, firms will first have to join it—and thus far participation has come in far beneath initial government expectations. As of November 2006, just 3.1 percent of eligible firms and 2.7 percent of eligible employees were enrolled in the new pension plans. (See Figure 15.)

17 Jaijoon Hur, *op. cit.*

Industry experts are beginning to worry that the reform will not take off unless employers are given greater incentives to set up pension plans. Although the tax treatment accorded the new pension funds is more favorable than that accorded the book reserves, the overall limit on deductibility for each participant is relatively low. For many employers, the non-tax advantages of book reserves, which allow them to use severance pay assets as operating capital, may outweigh the tax advantages of the pension plans. As for employees, many have a strong cultural preference for lump-sum payouts, and so may prefer traditional severance pay schemes despite their greater risk. Some experts expect that participation rates will rise after 2010, when the existing RI and RT external funding arrangements are due to lose their tax-favored status, and employers will be required to roll over the funds into a pension plan or pay them out as lump sums to workers. Just a fraction of total severance pay funds, however, are now in RIs or RTs—and while large firms who want to be perceived as responsible employers may choose the roll over option, many smaller firms may simply cash out.

A CLOUD OF INSECURITY HANGS OVER THE RETIREMENT PROSPECTS OF MOST KOREANS.

A cloud of insecurity now hangs over the retirement prospects of most Koreans. Many are still in a state of denial. In a survey of 1,000 Seoul office workers conducted by the Korea Chamber of Commerce and Industry, 45 percent admitted to having no retirement savings at all, but just 1.3 percent said they were counting on "their children or society" for support in old age.[18] Others seem to have accepted the new insecurity as an inescapable fact of life. In this environment, a best-selling book called "My Dream, Making One Billion Won" can pass as a retirement planning primer. Striking it rich is a necessity, explains author Daejung Kim, since the National Pension System is in financial trouble and "the value of filial piety is almost gone and you can't rely on your children after retirement."[19] The problem, needless to say, is that not everyone can win the lottery.

A NEW DIRECTION FOR REFORM

The central challenge of retirement reform in an aging society is how to ensure a decent standard of living for the old without placing an unsustainable burden on the young. Meeting this challenge will require a fundamental restructuring of Korea's retirement system. CSIS recommends a three-step reform strategy: creating a universal floor of protection, transforming the NPS by combining it with a mandatory system of fully funded "add-on" personal accounts, and expanding supplementary employer pensions.

KOREA MUST FUNDAMENTALLY RESTRUCTURE ITS RETIREMENT SYSTEM.

The debate over retirement reform in Korea often begins and ends with proposals to extend the "solvency" of the NPS reserve fund. This is the wrong goal. While the system's long-term deficit needs to be closed, reforms that merely raise NPS contributions and cut NPS benefits will not correct its underlying problems. Despite the rising burden on workers, they will not ensure the system's long-term fiscal and economic sustainability. And they will not improve—and indeed would worsen—the retirement income prospects of future retirees.

ONLY ONE OUT OF TEN WORKING-AGE PARTICIPANTS IS "SATISFIED" WITH THE NPS.

The Korean public is understandably growing impatient with "pay more, get less" solutions that fail to address the underlying problems. Numerous recent opinion surveys have shown that large majorities of the public distrust the current NPS system, doubt they will receive a pension, and would prefer that participation be voluntary. Among the young, the level of discontent is especially high. According to a 2005 survey commissioned by the National Pension Service, just 11 percent of participants in their forties, 10 percent of those in their thirties, and 9 percent of those in their twenties are "satisfied" with the system.[20] Yet at the same time, the overwhelming majority of Koreans say that they are counting on government to find a solution to the aging challenge.

18 Yonse Kim, "1 in 2 Workers Unprepared for Retirement," *The Korea Times* (August 8, 2006).
19 Quoted in Taegyun Kim, "Many Workers Chasing 1 Billion Won Pot of Gold," *The Korea Herald* (January 30, 2004).
20 "National Pension: Satisfaction and Reliability are Going Down," (in Korean) Yonhap News Agency (October 27, 2006).

How can an aging Korea care for its growing number of elders without overburdening the young? How can it honor the promise of adequate retirement income support that the National Pension System is making but failing to deliver?

THE FOUNDATION OF KOREA'S RETIREMENT SYSTEM MUST BE A UNIVERSAL FLOOR OF PROTECTION AGAINST POVERTY IN OLD AGE.

The foundation of the retirement system must be a floor of protection against destitution in old age. The NPS is supposed to provide this, but it is not succeeding. The combination of weak enforcement and high levels of self-employment and irregular employment makes it nearly impossible for today's contributory system to ensure universal coverage. What's needed is a general revenue financed basic pension system that would guarantee a minimum level of old-age support to all Koreans, regardless of their employment history. Korea's 1997 National Pension Reform Board, the OECD, and the World Bank have all recommended the introduction of just such a system.

The floor of protection could consist of either a means-tested benefit or a universal flat benefit—that is, a fixed won amount for everyone. The advantage of means-testing is that the cost of the system would be more manageable. The disadvantage is that it might create incentives to undersave during the working years and to underreport income during the retirement years. Assessing financial need is also inherently complex and can become the object of political manipulation. A means-tested system would therefore have to be carefully designed, with benefits phased out gradually as incomes rise. A flat benefit would avoid these incentive problems. Delivering the same level of poverty protection, however, would be much more expensive. According to the OECD, a universal flat benefit equal to 20 percent of average earnings would cost roughly 2 percent of GDP today and more than triple that by 2050.[21] Either strategy could be made to work, but each has its own pros and cons.

Beyond the floor of protection, Korea needs to fashion a retirement system which, over time, can allow most of the elderly to enjoy something close to their preretirement standard of living. Many Koreans are counting on the private severance pay system to fulfill this income replacement function, but the system's coverage is relatively narrow and the benefits are insecure. The NPS is also supposed to fulfill this function, but it too is failing. Not only will a significant share of tomorrow's elderly have no pension, but the benefit levels of those who do will be relatively low. The wide gap between what the NPS seems to promise and what it will actually deliver poses a serious fiscal and social challenge, since the cost of supporting elders with inadequate retirement incomes will ultimately be shifted to government welfare budgets or fragile family support networks. It could also become a political problem if Koreans conclude that the government has betrayed its promises.

FINANCING MORE GENEROUS BENEFITS ON A PAY-AS-YOU-GO BASIS IS NOT AN OPTION.

Financing more generous retirement benefits on a pay-as-you-go basis is not an option. The only viable solution is to rely more heavily, in both the private and public sectors, on fully funded systems that allow elders to finance a much larger share of their own retirement incomes through savings set aside during the working years.

On the private side, Korea could begin to move in this direction by strengthening incentives for employers to convert existing unfunded severance pay schemes into genuinely funded pensions. The place to start is to increase tax deductibility limits for the new corporate pension option, while entirely phasing out tax breaks for internal book reserves. The government should also consider making the corporate pension system "opt out" rather than "opt in"—in other words, making corporate pensions the default option, while only allowing firms to opt out with union consent. This is the approach now being followed in Italy, which like Korea is also trying to convert a largely unfunded severance pay system into corporate pensions. At the same time, to improve the security of the system and increase its attractiveness to employees, government will need to establish a pension insurance agency, similar to the Pension Benefit Guaranty Corporation in the United States, that guarantees benefits in the event firms with underfunded plans go bankrupt. If even

21 Randall S. Jones, "Reforming the Pension System in Korea," *Korea's Economy 2006,* vol. 22 (Korea Economic Institute and Korea Institute of International Economic Policy; April 2006).

these stronger incentives fail to jump start the system, the government could simply mandate that firms convert their severance pay schemes into pensions. While this may meet considerable resistance from employers, it is the standard practice in nearly all developed countries with large private pension systems, including Australia, Canada, the Netherlands, the United Kingdom, and the United States.

THE GOVERNMENT SHOULD MAKE EXPANDING THE NEW CORPORATE PENSION SYSTEM A TOP PRIORITY.

Korea's new corporate pension system has the potential to greatly improve the retirement security of millions of Korean workers. The government should make expanding it a top priority. In the end, however, even a well-developed private pension system is not a substitute for an adequate and affordable public system. Even if the government were to make corporate pensions mandatory for all regular employees, a large share of the labor force would still be without funded retirement savings. The generosity of the benefits, moreover, would vary greatly from firm to firm—and, to the extent that companies offer defined benefit pensions, workers' retirement savings might not be fully portable.

The NPS should therefore remain the mainstay of retirement support. To achieve its mission, however, it will have to be restructured. Some have proposed allowing employers to "contract out" of the system so long as they offer their employees funded private pensions whose benefits are at least as generous as NPS benefits, a practice that is common in Japan and the United Kingdom. But allowing contracting out would create multiple classes of beneficiaries and undermine the efficiency, equity, and economies of scale that only a single national system can provide.

CSIS believes that a better approach is to transform the NPS by combining it with a system of fully funded personal retirement accounts. Let us be clear: This is not a recommendation to privatize the system. The accounts would be personally owned and privately managed. However, the accounts would also be mandatory and strictly regulated as an integral part of Korea's social insurance system.

AT THE SAME TIME, IT SHOULD CONSIDER COMBINING THE NPS WITH A MANDATORY SYSTEM OF FULLY FUNDED PERSONAL ACCOUNTS.

Under the CSIS proposal, the government would create a National Personal Accounts (NPA) plan and formally incorporate it into the NPS as a new component of the system. Under the NPA plan, a personally owned account would be set up on behalf of every worker enrolled in the NPS. The NPA plan would have the following features:

- The NPA plan would not change current or future NPS benefits for disabled workers or young survivors. Unlike benefits to retirees and aged survivors, these categories of benefits function purely as insurance and can be provided more efficiently by taking advantage of the risk pooling that the current system allows.
- The NPA plan would be mandatory, because its benefits would constitute an important part of what Korea deems to be an "adequate" retirement income—and because experience shows that the people who opt out of a voluntary system tend to be the people most in need later on.
- The NPA plan would be fully funded, meaning that the accumulated funds in each individual account would be sufficient to pay out benefits to each enrolled worker. There would be no implicit or explicit borrowing from the rest of government or from the existing component of the NPS.
- All investments in the NPA plan accounts would be strictly regulated, with rules establishing everything from fund manager certification to allowable portfolio allocation.
- Finally, all NPA assets would be transformed into monthly benefits upon retirement by means of a population-wide annuitization formula.

The NPA plan could be implemented on different scales. The minimal plan would be a pure "add on" to the current NPS contribution rate of 9 percent. The government would still follow through on its proposal to raise the NPS contribution rate to 12.9 percent, but the extra 3.9 percent would go entirely to the NPA plan. As part of the legislation setting up

ALL WORKERS WOULD STILL RECEIVE THE FULL BENEFITS THEY HAVE ALREADY EARNED UNDER THE NPS.

the NPA, the benefit formula for retirement and aged survivor benefits under the existing component of the NPS would be reduced to match the limitations of a permanent 9 percent of payroll contribution rate. The formula, however, would only be cut for newly earned benefits. Thus, all workers would still receive the full benefits they have earned under the NPS to date. An automatic stabilizer would also be added to the NPS benefit formula to guarantee long-term solvency in the event that Korea's economic or demographic future differs from current projections. It is critical that NPA benefits not be "borrowed" in any way at the expense of NPS solvency.

A larger NPA plan would be similar to the minimal plan, except that here the legislation would make larger reductions in the current NPS retirement benefit formula, which would allow larger contributions to flow into the NPA plan accounts. For example, by reducing the permanent "solvency" contribution rate to 7 percent, NPA plan contributions could be raised to 5.9 percent. If, at the extreme, newly earned NPS benefits were reduced to zero, then the contribution rate for the current NPS system would only need to cover benefits accrued up to the year of reform. This cost would amount to perhaps 4 percent of payroll at its peak, allowing all the rest of the contributions—at least 8.9 percent of payroll—to flow into the NPA plan.

If the most extreme option is chosen, and existing NPS benefits are essentially "frozen" at the date of reform, it might make sense as well to fold the benefits into the new NPA system. Following the example of reforms in Chile, Hungary, and Poland, the accrued benefits of workers who have not yet retired—or perhaps just workers younger than a certain age—could be credited to their personal accounts, either in the form of recognition bonds or a pro rata distribution of the reserve fund. The advantage of this approach is that it avoids a lengthy transition (75 years or more) for a small residual system that would be paying out relatively modest benefits.

Contributions allocated to the personal accounts could be small or large. Korea's leaders may consider large personal accounts politically unrealistic. On the other hand, the larger they are the greater the burden they would take off future workers and the higher future retirement incomes would be.

Because personal accounts are a controversial reform option, it is worth examining the criticisms that are sometimes leveled against them.

First of all, it is said that personal accounts funded by a payroll tax "carve out" end up undermining the solvency of the existing system and thus are not really funded at all. This is a valid criticism. A pure carve out plan can only achieve a rate of return equal to the rate of return on a pay-as-you-go system. Indeed, for the typical retiree, the return may even be worse, since a pay-as-you-go system can cross-subsidize the benefits of workers who live to retirement age with the benefits foregone by those who die prematurely, while a personal accounts system cannot. This is why the CSIS proposal avoids a carve out. The NPA plan stands entirely on its own, as should the existing NPS. There is no borrowing and no "clawbacks" or "benefit paybacks" by which one system subsidizes the other.

Second, personal accounts are sometimes criticized because they are not progressive. But in combination with a floor-of-protection component (either a means-tested or flat benefit), the entire NPS system can be as progressive as the Korean people wish. To build a more progressive system, policymakers could simply design a larger floor of protection. If some progressivity is also desired for middle-income workers, more sophisticated devices are possible—such as a matching contribution by government into the accounts of low-income workers that would be gradually reduced at higher income levels.

Third, personal accounts are sometimes criticized because they subject retirement benefits to the risks of the ups and downs of financial markets. Economists largely agree, however, that these risks can be minimized by regulations that require workers to maintain an adequate spread in their portfolios and to move into fixed-income assets at older ages. Government could also encourage broad-based index funds. At the regulatory extreme, it could force workers to choose among a small number of index funds. The financial risk of a personal account can never be eliminated entirely, of course, but neither can the "political risk" of a conventional public pension system—that is, the risk that future politicians will change its benefits.

TO PROTECT AGAINST "LONGEVITY RISK," PERSONAL ACCOUNT ASSETS WOULD BE SUBJECT TO MANDATORY ANNUITIZATION UPON RETIREMENT.

Fourth, personal accounts are sometimes criticized for failing to protect against "longevity risk"—that is, the risk that retirees will outlive their assets. This too is a valid criticism, but only if the accounts allow lump-sum payouts. Longevity risk can be eliminated by requiring mandatory annuitization. Some experts say that it would be difficult to annuitize personal account assets upon retirement. But annuities are problematic (and subject to moral hazard and asymmetric information) only when they are optional. If the personal accounts are mandatory and longevity risk can be averaged across the entire population, efficient annuities ought to be easy to price (as they are under most of today's universal pay-as-you-go systems).

Finally, it is said that personal accounts can damage the political legitimacy of a public retirement system and undermine the public's confidence in government. This may be true in most of today's developed countries—where current social welfare systems are trusted, where payroll tax compliance is high, and where public retirement systems are so mature that any movement to personal accounts would entail enormous transition costs. Yet none of this is true in Korea. In Korea, opinion polls confirm that levels of trust in the current system are very low. Just 10 percent of Koreans think "positively" about the NPS, and by 69 to 17 percent they say that "an individual pension" would be a better deal.[22] In Korea, payroll tax compliance is low—a fact which further feeds the distrust by persuading much of the public that the system is being gamed. And in Korea, the public retirement system is immature and therefore easy to integrate with a system of personally owned accounts.

FUNDED RETIREMENT SYSTEMS HAVE DECISIVE ADVANTAGES OVER PAY-AS-YOU-GO SYSTEMS.

Funded retirement systems have decisive advantages over pay-as-you-go systems. While the long-term rate of return that workers can earn in a pay-as-you-go system is limited to the rate of economic growth, the rate of return in a fully funded system is equal to the rate of return to capital, which is typically much higher, especially when the population is aging rapidly. Funded systems can thus offer participants higher benefits at any given contribution rate than pay-as-you-go systems can.

22 Hanjin Song, "3 Out of 5 Say that the Universal Flat Benefit should be Introduced in the National Pension Scheme," Newsis (December 5, 2005).

A reformed NPS with a personal accounts component would not only improve rates of return, but also improve rates of compliance and participation. Given the government's weak enforcement capability, the current system's redistributive benefit formula is an invitation to gaming. Under the reformed system, redistribution would be handled entirely through the floor of protection. Within the personal accounts, benefits paid out would be precisely proportional to contributions paid in. The fact that the accounts are personal property would give workers a further incentive to participate. Most Koreans today view their NPS contributions as a tax. If they knew that they were accumulating personally owned savings, they would be more enthusiastic about joining the system. Although gaps in coverage would surely remain, the problem would be more tractable.

A FULLY FUNDED RETIREMENT SYSTEM WOULD HELP BROADEN AND DEEPEN KOREA'S CAPITAL MARKETS.

There are other advantages as well. A fully funded system would help to maintain adequate rates of savings and investment, which is one of the greatest challenges facing an aging Korea. It would also help to speed the development of Korea's capital markets. In many developed countries, including the United States, funded pensions have played a crucial role in broadening and deepening capital markets. As Korea's pension funds grow, so would the size and liquidity of its capital markets. Along with professional fund management would come greater accountability, transparency, and long-term returns.

Although the NPS is now in principle partially funded, it is unclear how effective the system's annual surpluses have been at raising national savings. A fully funded system that is privately managed and invested would eliminate the risk that the government's fiscal policy will end up undoing the savings of Korean workers. It would also eliminate another risk—namely, that of political interference in the private economy. Minister of Health and Welfare Simin Rhyu recently caused a stir when he suggested that the National Pension Fund would "not sit back and watch" as foreign companies take over large domestic enterprises.[23] According to Korea Development Institute scholar Woochan Kim, "politics-free management of the fund, unfortunately, seems to be nearly impossible at this point."[24] In the long run, a large government run reserve fund may simply not be consistent with an open and globalizing Korean economy.

The benefits of successful reform would be enormous—higher retirement incomes, lower costs, and greater security. Under the government's reform proposal, which would raise the NPS contribution rate to 12.9 percent and cut its nominal replacement rate to 50 percent, the system would only be able to pay benefits until 2065, even assuming the reserve fund is genuinely saved. After 2065, the contribution rate would have to be raised to over 30 percent, imposing a catastrophic burden on future workers. At the same 12.9 percent contribution level, the NPA reform could deliver the 60 percent nominal replacement rate that the NPS now offers but cannot afford—and do so forever. Contributions would never again have to be raised or benefits cut. At a 16 percent contribution rate, the reformed system could actually deliver the genuine 60 percent of final salary replacement rate that is entirely beyond the reach of the current system.[25]

A workable personal accounts system would of course have to be underpinned by a broad and sturdy floor of protection. While building this floor will require a significant up-front investment, Korea will eventually incur the cost one way or another. The government is already proposing a significant expansion of means-tested old-age benefits. And in the future, if today's inadequate NPS is left unreformed, the pressure on public welfare budgets can only increase as family support networks weaken and the number of elderly grows. On the other hand, if most Koreans are contributing to a national system of personal accounts, future retirement incomes will be higher and elderly poverty lower. In the long term, the cost of the floor of protection may be no greater—and indeed, could be substantially less—than the cost of the status quo.

Still, the government may need to find new fiscal resources. The outsized pensions for government employees, private school teachers, and the armed forces—Korea's real "high benefit" pension systems—are one obvious place to look for savings. The plan for government employees offers

23 "Minister: National Pension Fund Can Protect Korean Firms," *The Chosun Ilbo* (January 30, 2007).
24 Hawon Jung, "Pension Fund Seen as Weak Leader in Reforms," *JoongAng Daily* (November 29, 2006)
25 These calculations assume a real rate of return of 4.0 percent after administrative costs.

THE BENEFITS OF SUCCESSFUL REFORM WOULD BE ENORMOUS—HIGHER RETIREMENT INCOMES, LOWER COSTS, AND GREATER SECURITY.

participants a pension that replaces 70 percent of final salary after 30 years of service, and is indexed to wages for life. The plans for teachers and the armed forces are similar. So generous are these benefits that, even though the NPS covers thirteen times as many workers, its cost in 2050 is projected to be just two-and-one-half times as great. Trimming back Korea's special government pension schemes would not only be good for the taxpayer, but might also go a long way toward restoring public confidence in the overall fairness of Korea's retirement system.

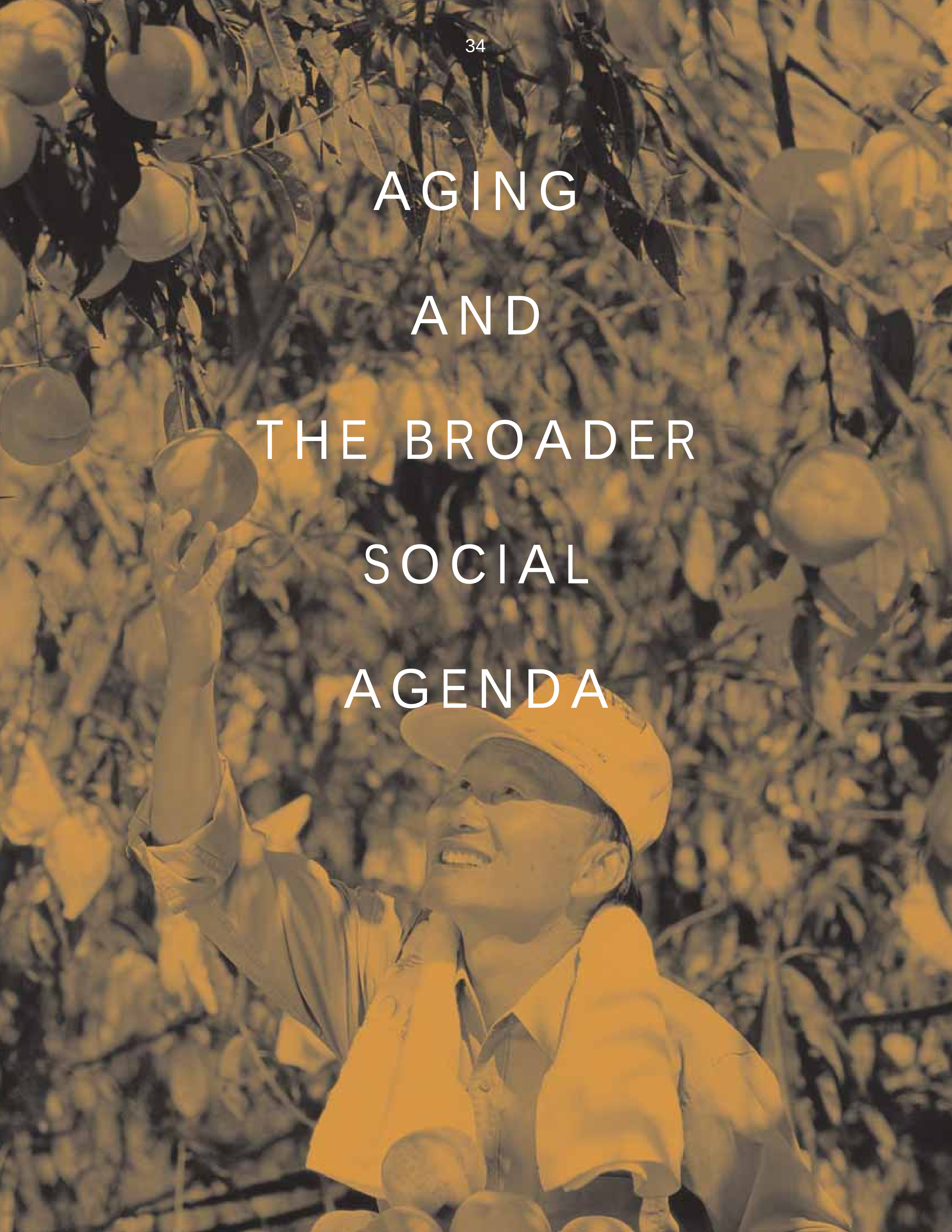
Now is the time to act. Because the NPS is still immature, it is possible to fund a personal accounts system while still preserving all of the benefits earned by workers to date. The system's unfunded liability is now just 33 percent of GDP, and this "closed group" calculation assumes that all of today's workers will continue to earn new benefits.[26] The system's "termination liability"—that is, benefits accrued to date minus the existing reserve fund —is perhaps just half that, or about 15 percent of GDP. These are not large liabilities for an economy that is now growing at 4 to 5 percent per year.

THE LONGER REFORM IS DELAYED, THE MORE DIFFICULT IT WILL BECOME.

The longer reform is delayed, the more difficult reform will become. Korea needs to avoid the mistakes of the developed countries and begin to transition, at least partially, to a fully funded public pension system before it is too late. Most of these countries now have unfunded public pension liabilities that exceed 100 percent of GDP—and some have unfunded liabilities that exceed 200 percent. It is too late for them to transition, even partially, to such a system without huge economic and political cost. But, it is not too late for Korea.

26 Hyungpyo Moon, "Population Aging and Sustainability of the National Pension System," paper presented at the East-West Center and Korea Development Institute's Conference on Social Policy at a Crossroad: Trends in Advanced Countries and Implications for Korea (Honolulu; July 20-21, 2006).

AGING AND THE BROADER SOCIAL AGENDA



CHAPTER 3

Transitioning to a more adequate and affordable retirement system is a necessary part of an overall strategy for confronting the age wave, but it is not the only part. Korea will also need to bring about even more fundamental changes in its society and culture if it is to meet the needs of the old while ensuring a future of rising living standards for the young. This is not a question of accepting or rejecting traditional social and cultural norms. The task, rather, is to reshape those norms to meet the challenges of an aging society. Among the most important of these challenges are encouraging longer work lives, helping women balance jobs and babies, and caring for a fast-growing number of frail elders.

THE CHALLENGE OF LONGER WORK LIVES AND A GRAYING WORKFORCE

The central economic challenge of an aging society is how to afford the growing resource transfer from workers to nonworking retirees. There are two main ways to limit this burden. One is to rely more heavily on funded retirement systems, and the other is to encourage higher retirement ages and longer work lives. The second strategy has a double benefit, since it not only reduces the number of retired beneficiaries, but also increases the number of workers and producers. Even apart from the challenge of supporting tomorrow's much larger elderly population, longer work lives will thus be crucial for maintaining economic growth in an aging Korea.

LONGER WORK LIVES ARE CRUCIAL FOR MAINTAINING ECONOMIC GROWTH IN AN AGING KOREA.

The current retirement age in Korea is extraordinarily low—typically in the mid-fifties for workers with regular employment contracts. According to a Korea Labor Institute survey, 76 percent of businesses have a mandatory retirement age in effect, and among firms with 300 or more employees the share is 96 percent. Just 3.7 percent of regular employees at medium and large firms are 55 or older.[27]

LESS THAN 4 PERCENT OF REGULAR EMPLOYEES AT MEDIUM AND LARGE FIRMS ARE AGED 55 OR OLDER.

27 Jiyeun Chang, "Labor Market Policies in the Era of Population Aging: the Korean Case," paper presented at the Seminar on Labor Market Policies in an Aging Era: Country Cases (Seoul; October 23, 2003).

To be sure, overall labor-force participation rates for older adults are high by developed-country standards. Even after age 65, 30 percent of Koreans still work, compared with 20 percent of Japanese, 15 percent of Americans, and just 3 percent of Germans. Very few of the elderly, however, are employed in high-productivity or high-growth sectors of Korea's economy. A huge share of working elders—54 percent in 2001—are farmers whose jobs will not exist a decade from now. Overall, 58 percent of elderly workers are self-employed, while another 39 percent are short-term irregular employees, often working at low-skilled jobs at small firms. (See Figure 16.) There are few opportunities for more highly skilled older workers in a society in which, in the words of one expert, "it is nearly impossible to find a new job after 40."[28]

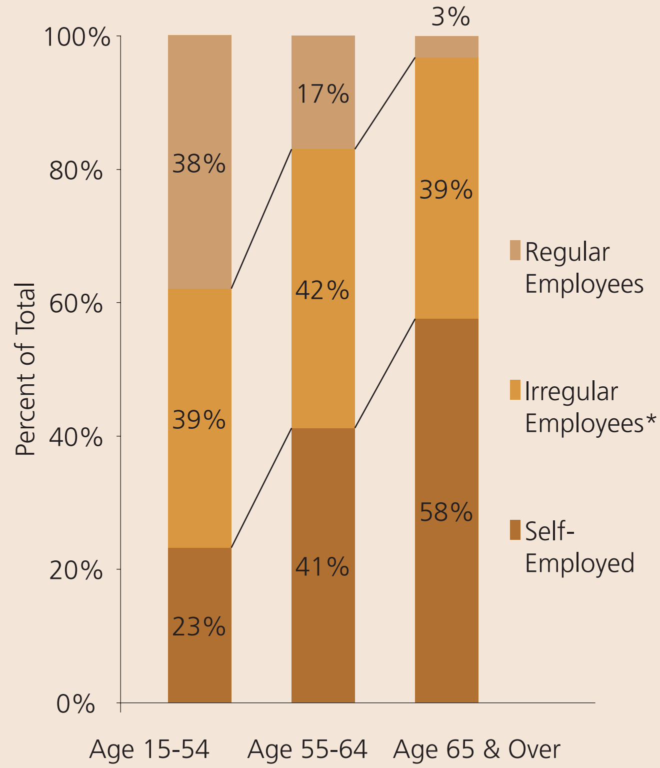
As Korea ages, the current culture of early retirement will become a mounting burden on formal and informal old-age support systems—and a growing drag on the economy. Employers need to be persuaded that workers can remain valuable resources to the company long after the traditional retirement age. Although attitudes may begin to change on their own as younger workers become relatively more scarce in the years to come, government policy will need to help the shift.

The government is taking steps to encourage longer work lives. It recently set employment quotas for older workers and offers subsidies to firms that hire or retain them. But with rates of older worker employment still vanishingly small at medium and large firms, experts agree that more fundamental reforms are required.

16

Only a tiny share of working elders are regular employees.

Korean Employment by Type in 2004, as a Percent of Total in Different Age Groups



* Includes temporary, daily, and unpaid family workers.

Source: MOL (2005)

KOREA'S RIGID SENIORITY PAY SYSTEM MAY BE THE SINGLE BIGGEST OBSTACLE TO LATER RETIREMENT AGES.

The place to start is to overhaul Korea's rigid seniority pay system. The system's lock-step pay and promotion schedules make it expensive to retain older workers and discourage hiring new ones. They can also interact as a multiplier with the severance pay system, which is "progressive" at many firms—meaning that the employer's contribution rate rises along with worker tenure. Although the seniority pay system is deeply embedded in Korea's workplace culture, employers and employees are beginning to question its economic rationale. One sensible solution would be to replace it with a "wage peak" system, in which companies and unions would be allowed to negotiate lower pay for older workers in exchange for job security.

There are other reforms that could help as well. Workers past the age of 59 do not currently contribute to the National Pension System or earn new wage credits toward their pensions. Extending coverage to all workers, regardless of age, would send the right signal to employers and employees alike. The government should also consider raising the minimum age for benefit eligibility under the new corporate pension system, which was set at 55 to facilitate early retirement, in tandem with the scheduled increase in the NPS eligibility age. In the

28 Jiyeun Chang, *op. cit.*

end, however, these changes may only have a limited impact unless the government is also prepared to abolish mandatory retirement ages and enforce robust anti-age discrimination laws.

KOREA NEEDS TO MOVE BEYOND THE TRADITIONAL "THREE-BOX LIFECYCLE" OF EDUCATION, WORK, AND RETIREMENT.

Whether or not Korean workers retire later, the ongoing inversion of the age pyramid ensures that tomorrow's typical worker will be much older than today's. Yet even as the average age of Korea's workforce rises, the rate at which new technologies are introduced and old skills become obsolete is increasing. To meet the challenge of a graying workforce, Korea will have to move beyond the traditional "three-box lifecycle" of education, work, and retirement. While students are still at school, educators will have to prepare them to be self-starters responsible for maintaining their own skills in an economy in which many may have to change jobs and even careers several times. This in turn will require far-reaching reform of an educational system notorious for its reliance on rote learning and its emphasis on intellectual conformity. Educators will also have to develop lifelong "distance learning" and continuing education programs tailored to current workers who need to upgrade their skills.

Korean companies have traditionally assumed much of the responsibility for worker training. In recent years, however, the unraveling of the lifetime employment system and the explosion in the number of short-term irregular employees has begun to undercut incentives for employers to invest in Korea's increasingly mobile workforce. It may fall to government to step in with viable alternatives.

THE CHALLENGE OF BALANCING JOBS AND BABIES

Making it easier for women to balance jobs and babies may be even more critical for an aging Korea than encouraging longer work lives. On the one hand, Korea needs more women in the workforce to boost employment and keep the economy growing. On the other hand, it needs more children to slow its gathering population decline.

As it is, Korea is having difficulty reconciling the two needs. It has an ostensibly gender-blind educational system designed to prepare women for entrance into the workforce. As of 2005, 99 percent of women aged 25 to 29 had completed at least high school and 40 percent had completed college—graduation rates that are actually higher than the comparable rates for men. Yet at the same time, Korea also has a Confucian family culture that encourages traditional sex roles in marriage and a male-dominated work culture that tends to view jobs and motherhood as incompatible. Among married women under age 45, 61 percent say that they quit their jobs after getting married.[29]

KOREA HAS BOTH THE LOWEST FERTILITY RATE IN THE DEVELOPED WORLD AND ONE OF THE LOWEST RATES OF FEMALE LABOR-FORCE PARTICIPATION.

The result is in many ways the worst of both worlds. Korea now has a lower fertility rate than any developed country and one of the lowest rates of female labor-force participation—60 percent for women aged 25 to 54 versus 75 percent in the United States and 76 percent in the European Union. Even among highly educated women, there is a wide gap between Korea and other high-income countries. Only 58 percent of college-educated women are employed in Korea, compared with an average of 77 percent for the OECD countries.

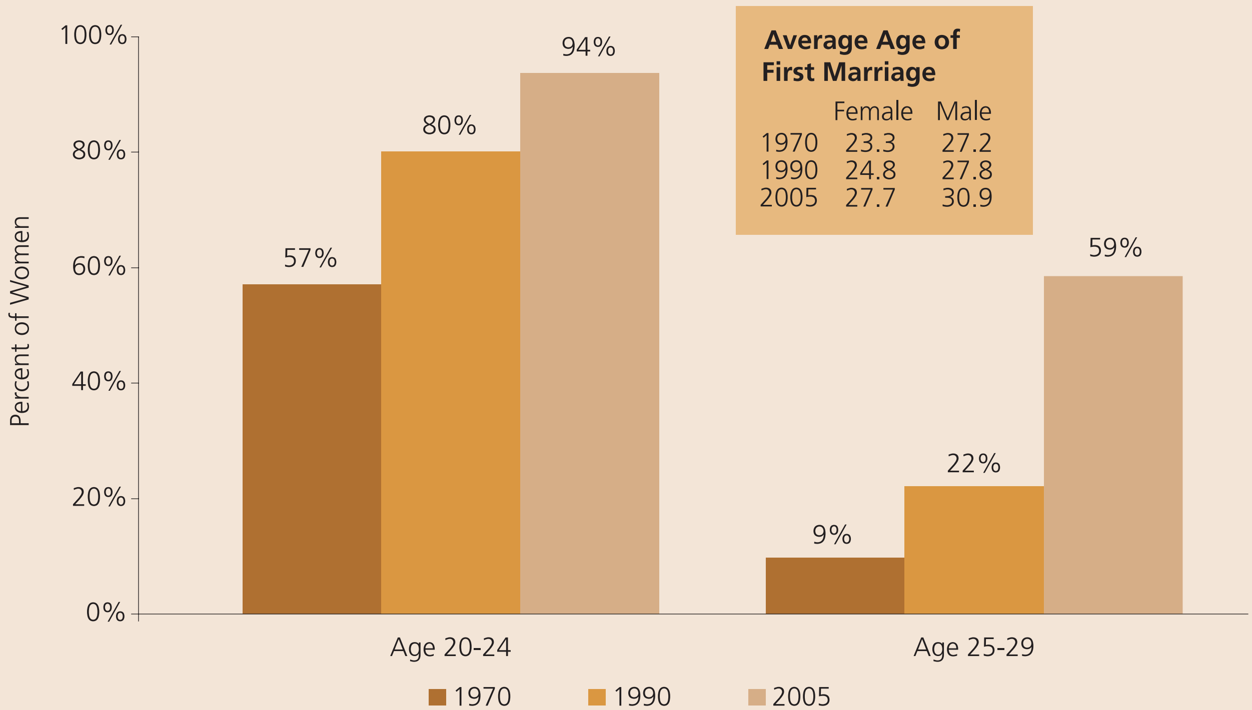
THE SHARE OF WOMEN WHO SAY CHILDREN ARE "NECESSARY" FELL FROM 90 PERCENT IN 1991 TO 58 PERCENT IN 2000.

Increasingly, younger women are reacting to the impasse by choosing jobs over marriage and motherhood. Although still low by the standards of most developed countries, rates of labor-force participation among younger women have been rising rapidly over the past decade. Meanwhile, far fewer are getting married. The share of women aged 20 to 24 who are single increased from 80 percent in 1990 to 94 percent in 2005, while the share aged 25 to 29 who are single increased from 22 to 59 percent. (See Figure 17.) Just 13 percent of single women now say that marriage is a "necessity."[30] Attitudes

29 *2005 Survey on Marriage and Fertility Behavior* (in Korean) (Korea Institute for Health and Social Affairs; December 2005).
30 KIHASA, *op. cit.*

A growing share of Korean women are postponing marriage.

Single Korean Women as a Percent of All Women by Age Group in 1970, 1990, and 2005



Source: KNSO (various years)

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toward motherhood have undergone a parallel transformation. The share of women who say it is "necessary" to have children fell from 90 percent in 1991 to 58 percent in 2000.[31] Even among married women, the share saying that having children is "quite necessary" has plummeted, from 90 percent in 1991 to 23 percent in 2005.[32]

Some of the recent decline in marriage rates is attributable to rising insecurity in the wake of the 1997 Asian financial crisis. The surge in youth unemployment, together with the dramatic rise in irregular employment, undermined men's traditional role as breadwinners just as women were becoming more financially independent. Many young men may have been permanently shut out of regular employment, since rigid age-based hiring rules apply not only to the old but to the young as well. As the "cursed class" of 1998 learned, once you fall off the job escalator you can't climb back on. All of this fundamentally changed the marriage market.

Most experts agree, however, that the roots of the problem run much deeper. If Korea wants to have both higher female labor-force participation rates and higher fertility rates, its leaders will need to reach out to employers, combat stereotypes of women in the workforce and the family, and persuade society as a whole that productive careers for women are not incompatible with raising families.

The experience of other developed countries offers some useful lessons. Although it is common wisdom that more working women means fewer babies, the common wisdom turns out to be wrong. In fact, across the developed world, it is the countries with the highest rates of female labor-force participation that have the highest fertility rates. In some of these countries, like France and Sweden, society heavily subsidizes childrearing—both directly through government cash benefits to families with children and tax-financed day care, and indirectly by mandating that employers

31 Minja Kim Choe *et al.*, "Very Low Fertility in South Korea: Patterns and Prospects," paper presented at the 2004 Annual Meeting of the Population Association of America (Boston; April 1-3, 2004).
32 KIHASA, *op. cit.*

offer expectant mothers generous paid maternity leave and job guarantees. In other counties, however, state support for families is minimal. The United States offers few government benefits or workplace guarantees, yet has both a high rate of female labor-force participation and a high fertility rate—in fact, the highest in the developed world. What all of these countries have in common is that, over time, attitudes and expectations about the social role of women have changed in ways that support—or at least do not stigmatize—their decision to have both jobs and babies. More traditional societies like Japan, Italy, and Spain find themselves in the same bind as Korea.

When demographers survey women about their family plans, they typically ask two questions: What is the ideal number of children and how many children do you expect to have. In most countries, the answer to the first question is somewhat higher than the second. The gap in Korea, however, is both large and growing. In the most recent survey in 2000, Korean women in their childbearing years said that the ideal number of children was 2.2, but that, on average, they only expected to have 1.4.[33] This birth gap is both a hopeful sign that a turn-around in fertility is possible—and an indication of how great the obstacles are that must be overcome.

THE GOVERNMENT HAS SHIFTED COURSE AND IS NOW ACTIVELY PURSUING A PRONATALIST AGENDA.

After decades of seeking to limit births, the Korean government has decisively shifted course and is now actively pursuing a "pronatalist" agenda. Up to the mid-1990s, the government penalized large families by limiting the child income tax deduction to their first two children. It also required parents to pay more out-of-pocket for each extra child's health-care bills. Today the government offers a whole series of generous income tax breaks for families with children, from birth allowances to educational expense deductions, all available without limit on the number of children who can be claimed. The government has also proposed granting workers who have two or more children additional wage credits in calculating their NPS pension benefits.

The government's five-year plan for responding to the aging challenge also includes direct subsidies to help families cover the rising cost of educating children. While this is a concern for families in most developed countries, nowhere is the burden heavier than in Korea. Middle-class families spend small fortunes on English-only nursery schools for toddlers and private academies and cram courses for high school students. The goal is a high score on the make-or-break college entrance exams that open the door to Seoul National University, Korea University, and Yonsei—the so-called SKY Triumvirate—and largely determine future career success. For households headed by adults in their forties, those most likely to have students in high school, spending on education now accounts for a remarkable 18 percent of total household consumption.

The government's new pronatalist agenda represents a big step in the right direction. If it is to work, however, it will have to be accompanied by deeper changes in prevailing social and cultural attitudes. Even generous child tax breaks and subsidies may not make much difference to most of today's young women if having a child means losing their job—or if keeping their job means an obligatory "second shift" at home, without any assistance from their husbands. The opportunity cost of motherhood will continue to remain too high. In today's environment, it is hardly surprising that the government's recent "1-2-3" public relations campaign, designed to persuade women to have a first child in their first year of marriage and a second child by age 30, elicited much amusement among Korean youth.

KOREA'S TRADITIONAL WORKPLACE AND FAMILY CULTURE MAY BE PUSHING IT INTO A DEMOGRAPHIC FREE FALL.

The collision of Korea's traditional workplace and family culture with the aspirations of the rising generation of educated and independent young women is pushing Korea into a demographic free fall—what Seunggwon Baek, Assistant Secretary for Public Information, calls "a downhill road without any brakes."[34] In the end, resolving Korea's "gender problem" may be even more important than resolving its pension problem, for in the long run there can be no solution to Korea's aging challenge at a 1.1 fertility rate.

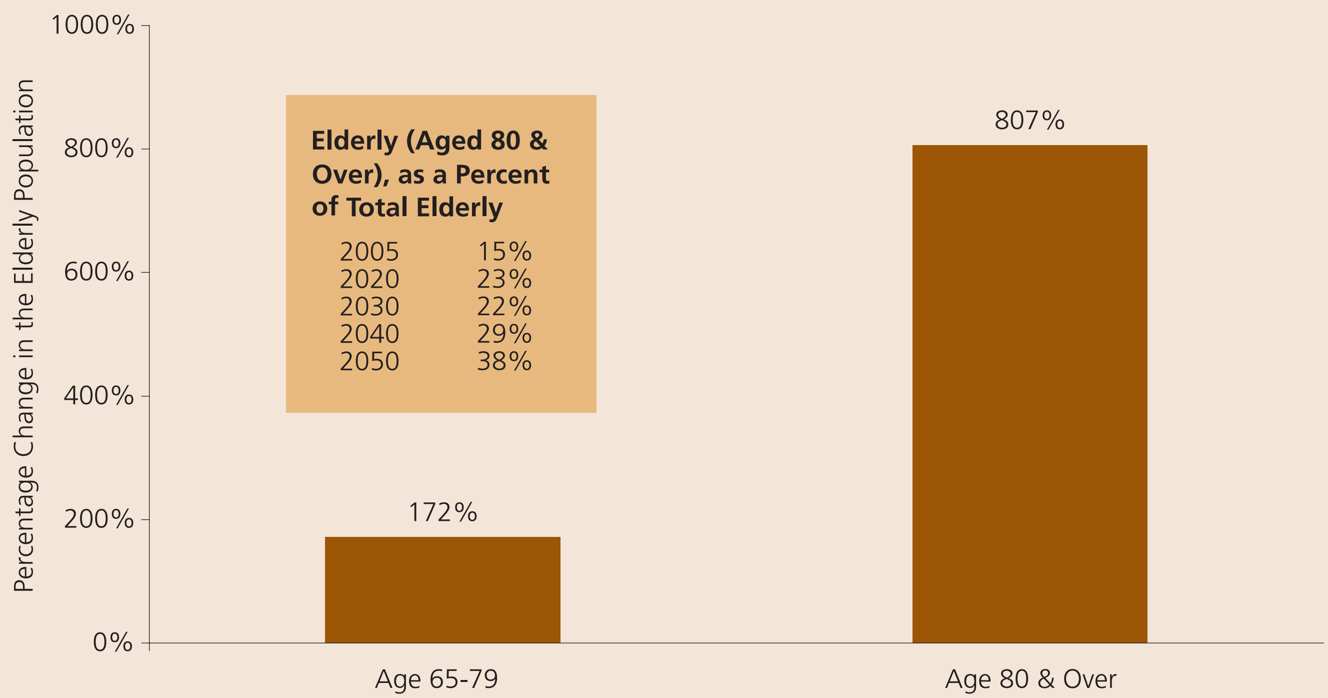
33 Minja Kim Choe *et al., op. cit.*

34 Seunggwon Baek, "Don't Have Money and Difficult to Bring up and Educate," *In Focus* (Cheong Wa Dae Office of the President, Republic of Korea: February 22, 2006), online at http://english.president.go.kr/cwd/en/archive/archive_list.php?meta_id=en_infocus/.

The oldest elderly age brackets will be the fastest growing of all.

Percentage Change in the Korean Elderly Population by Age Group, 2005–2050

18



Source: KNSO (2006)

THE CHALLENGE OF CARING FOR THE FRAIL ELDERLY

From time immemorial in Korea, the care of the frail and disabled elderly has fallen to the family. Even today, the vast majority of Korean elders who are in need of assistance with basic activities of daily living are cared for informally by relatives, most typically their daughters-in-law. As of 2002, barely 1 percent of the population aged 65 and over received public long-term care assistance of any kind, despite government estimates that as many as 15 percent are in poor enough health to need it. The share of the elderly living in nursing homes is even smaller—just 0.3 percent.[35]

BARELY 1 PERCENT OF THE ELDERLY RECEIVE PUBLIC LONG-TERM ASSISTANCE OF ANY KIND.

Korea's informal care arrangements have worked well for centuries because the number of frail elders has been relatively small and their children have been numerous and dutiful. The ethic of filial piety is weakening, however, and demography is about to turn the traditional population pyramid on its head. It is not just a question of the overall growth in the number of elderly, but of a phenomenon demographers call the "aging of the aged." From 2005 to 2050, the number of "young old" aged 65 to 79 is projected to increase by 172 percent, while the number of "old-old" aged 80 and over is projected to increase by 807 percent. While today just 15 percent of all Korean elders are aged 80 and over, that share is due to rise to 22 percent by 2030 and to 38 percent by 2050. (See Figure 18.) What makes this trend so ominous is that the per capita incidence of morbidity and disability rises steeply with age, even among the elderly themselves.

35 Sunwoo Duk, "Long-Term Care Policy for Functionally Dependent Older People in the Republic of Korea," *International Social Security Review,* vol. 57, no. 2 (April 2004).

THE NUMBER OF KOREANS AGED 80 AND OVER IS DUE TO GROW BY 807 PERCENT BETWEEN 2005 AND 2050.

The challenge of providing long-term care for tomorrow's frail elders will be especially great in the countryside, which is aging much more rapidly than Korea's urban centers. As Korea has urbanized and industrialized, young people have abandoned their villages for the cities, often leaving the old behind. As of 2001, just 37 percent of rural elders lived with their children, compared with 58 percent of urban elders. With the countryside failing to repopulate itself, the shortage of family caregivers can only grow more acute in the future. Young men, experiencing more and more difficulty in finding Korean wives, are turning to the foreign bride market. In rural Korea in 2005, four out of ten men's marriages were to foreign brides, mostly from South Asia—a remarkable statistic for a culture that has always stressed ethnic homogeneity.[36]

THE "AGING OF THE AGED" WILL PLACE AN ENORMOUS NEW BURDEN ON FAMILY SUPPORT NETWORKS.

The coming explosion in the number of old-old threatens to place a heavy new burden on tomorrow's young women, urban and rural alike, and make it even harder for them to balance work and family. After all, while it is the eldest son who has the duty to care for his aged parents in traditional Korean culture, it is the daughter-in-law who does the actual caring. Just as worrisome, many of tomorrow's elders may have no daughter-in-law at all—and not just because marriage rates are falling. As birthrates dropped beneath replacement in the 1980s and 1990s, the traditional preference of Korean families for sons translated into a dearth of baby girls. The sex ratio at birth in Korea peaked at 116.5 boy babies for every 100 girls babies in 1990, far above the 105 ratio in a normal population, and remained high through the middle of the decade.[37] While it has since fallen dramatically, thanks in part to a major government campaign stressing the value of daughters, yesterday's baby girl shortage will exacerbate tomorrow's caregiver shortage for decades to come.

The government is trying to fill the gap. In 2006, it announced the launch of a new Elderly Care Insurance program. Modeled on Japan's long-term care system, the program, which is scheduled to begin operating in 2008, is a universal entitlement financed through a combination of payroll taxes, government subsidies, and beneficiary cost-sharing. The government intends to phase in coverage gradually, not just to limit costs but also to allow time to construct a long-term care infrastructure that is now almost entirely lacking. Eventually, however, the plan is supposed to pay for both home care and nursing home services for all elders who meet its disability test.

KOREA'S EXTENDED FAMILIES ARE ONE OF ITS GREATEST ASSETS IN CONFRONTING THE AGE WAVE.

There is no doubt that the new program meets a critical need. The question is whether it is affordable. The danger with universal long-term care entitlements is that, over time, they may end up shifting the entire burden of caring for the frail elderly to public budgets. Korea's extended families, though under mounting stress, are still one of its greatest assets in confronting the age wave. There are ways to lend them critically needed support without undermining their incentive to provide care—for instance, by combining a floor of means-tested assistance with "respite" care benefits that pay for temporary substitute caregivers so family caregivers can take time off.

The government may be hoping that Koreans' strong cultural preference for family-based care, together with the program's cost-sharing requirements, will limit demand for the new long-term care benefit. If so, the experience of Japan offers a sobering warning. The same cultural preference existed there when it introduced its long-term care entitlement in 2000, yet costs have far exceeded initial projections.

36 Anna Fifield, "South Korean Farmers Look Further Afield for Brides," *Financial Times* (November 28, 2006).
37 Kwanghee Jun, "The Transition to Sub-Replacement Fertility in South Korea: Implications and Prospects for Population Policy," *The Japanese Journal of Population,* vol. 3, no. 1 (June 2005).

PROSPERING WHILE AGING

CONCLUSION

Within living memory, the Koreans have proven themselves to be a people of extraordinary resilience, resourcefulness, and will to succeed. In the 1940s and 1950s, they defeated and deterred powerful invaders. In the 1960s and 1970s, they built a mighty engine of national economic growth. In the 1980s, they invested in a quality system of universal secondary education. In the 1990s, they ushered in a vibrant democracy with protected civil liberties. And, more recently, they have become cutting-edge innovators in the popular culture, pioneers of mass wireless communication, and inventors at the global frontiers of infotech, biotech, and nanotech.

LEARNING HOW TO THRIVE AS IT AGES IS THE GREATEST CHALLENGE FACING KOREA IN THE 21ST CENTURY.

The very success of this transformation from traditional to modern and now (perhaps) to postmodern has set the stage for the next great challenge facing the Korean people: how to maintain their national prosperity while also aging as fast as they have been developing. To be sure, Korea faces other national challenges over the coming century, from negotiating the shifting geopolitical tides of the East Asian region to staying globally competitive in a "winner-take-all" era of trade and capital flows. Nothing, however, is likely to require as much creativity and hard work as learning how to continue to thrive as a much older society.

BY 2050, THERE WILL BE MORE KOREANS TURNING 90 EACH YEAR THAN BEING BORN.

Imagine, by 2050, a Korea in which half of all adults are over age 60 and in which more people celebrate their 90th birthday each year than are born. Imagine a workforce whose size is shrinking by 10 percent every seven years. Imagine voters and leaders struggling to figure out how to find at least one taxpayer to support each retiree. Now imagine the difficulties Korea will face if it fails to prepare for these fiscal, economic, and social challenges. Or, conversely, imagine the opportunities Korea will enjoy if it does. Some may object that these projections, which we believe are based on conservative assumptions, are not foreordained. The future may turn out differently. Indeed it may, but it is hard to see how this will happen unless Korea takes deliberate steps to change course and to steer its future along a different path.

To steer a different path, we argue in this report that Korea needs to move decisively in three broad areas: retirement policies, workplace policies, and family policies.

KOREA NEEDS TO BOOST FUNDED PENSION SAVINGS TO ENSURE THE RETIREMENT SECURITY OF TOMORROW'S ELDERLY.

In the first area, we outline a simple three-step reform strategy. The first step is to enact an efficient and universal floor of protection for low-income elders, either as a means-tested program or as a universal flat benefit. The second step is to transform the NPS by combining it with a mandatory funded system of add-on defined-contribution accounts that would be individually owned but strictly regulated. Compared to the current NPS, such a system would be regarded as fairer, encourage much higher rates of participation, and—most importantly—generate higher benefit levels at lower contribution rates. The third step is to encourage (and perhaps require) businesses to transition from internally funded severance pay benefits for retired workers toward externally funded pension systems. This too would greatly improve the incomes and security of tomorrow's retirees.

KOREAN BUSINESSES MUST COME TO VIEW OLDER WORKERS AS A VALUABLE RESOURCE LONG PAST AGE 55 OR 60.

In its workplace policies, Korea needs to encourage medium and large firms to phase out their mandatory retirement rules and rigid seniority wage system. Instead, businesses must begin to view older workers as a valuable resource who have the potential, with lifelong learning and communities of practice, to generate ample value-added long past age 55 or 60. As early as 2025, fully one-third of Korea's adults will be over age 60, most still in excellent health and few (by then) still self-employed on farms. There is simply no way Korea can age successfully while leaving this vast army of veteran workers unemployed, absorbing public income as dependents rather than generating income as taxpayers. If business hesitates, government will have to force action. The stakes here are simply too large.

KOREAN SOCIETY MUST TRANSCEND THE FALSE DICHOTOMY BETWEEN WOMEN HAVING BABIES AND WOMEN HAVING JOBS.

In its family policies, Korea must transcend the false dichotomy between women having babies and women having jobs. In fact, Korean women have not been doing much of either. Chafing under a strict and traditional definition of family duties, today's young women are delaying marriage and are reluctant to have children even after marriage—pushing Korea's fertility rate to the lowest in the world. Many instead are pursuing careers. But even here they often find that businesses and families do not welcome them as professionals once they become mothers—causing female labor-force participation to be lower in Korea than in many other countries with much higher fertility rates. While government can and should implement pronatal and pro-employment incentives, social attitudes will have to change before family behavior shifts decisively. Above all, the country must begin to regard women—in their roles as mothers, workers, and caregivers—as critical assets in an aging Korea.

Because the age wave is projected to hit so soon and so quickly, Korea cannot afford to delay preparing for this dramatic demographic transformation. Once the wave arrives, it may be too late to prepare. On the other hand, because Korea today remains relatively young, an effective policy agenda may be easier to implement. Unlike most other high-income nations, for example, Korea has an immature public pension system that has yet to accrue large unfunded liabilities to current workers. This will make reforming the system fiscally less costly and politically less troublesome.

In any event, preparing for an aging future means anticipating future needs that may not yet be urgent, such as designing an efficient long-term care program and encouraging the retention of older workers. Though few Koreans today regard savings as a problem, it would be prudent to anticipate a rapid decline in Korea's savings rate once today's large middle-aged population retires. Boosting national savings, both to counteract this demographic shift and to prepare the economy for emerging public-sector deficits, must therefore be an important objective of Korea's overall reform strategy.

Beyond the demographic projections and possible policy responses, a final question must be asked: What sort of national aging strategy are the Koreans themselves, both as leaders and voters, likely to favor in the coming decades? It helps to put a human face on this question by looking at it through the eyes of today's living generations.

To begin with, there is the elder "Korean War Generation," who ruled the nation with an authoritarian hand for 40 years, from 1962 until 2003, until a seismic political realignment removed them from power. They have always stood for economic development, civic discipline, traditional Confucian culture, and strong national defense. Growing old with their numerous children, who were born in an era of high fertility, they are leaving the aging challenge for younger leaders to tackle.

There is the "Cold War Generation" of President Moohyun Roh, now in their late fifties and sixties, who are trying cautiously to manage the rise of a more open political system and a more democratic culture. They are acutely aware of the coming age wave, yet feel torn between traditional norms and more innovative solutions. As leaders, they have been responsible for most of the policy responses to date, which mostly focus on repairing existing institutions like the National Pension System.

AS KOREA'S "GENERATION 386" ASSUMES LEADERSHIP OVER THE NEXT DECADE, IT MAY FAVOR BOLDER AND MORE VISIONARY REFORMS.

There is the so-called "Generation 386," now in their mid-thirties to early fifties, who in their youth spearheaded a passionate political protest movement and who today are loudest in their demands for an overhaul of national defense policy (so that it tilts less to the United States), of economic policy (to purge the influence of the *chaebols*), and of the Confucian family (to make it less strict and patriarchal). As workers today entering midlife, the 386ers include Korea's largest postwar birth cohorts. When they begin retiring, Korea's age wave will hit with full force, making them the generation with the most to lose if the system breaks under their impact. As voters, they will be more apt to understand and embrace broader social reforms (regarding retirement age and the role of women) that older generations have avoided—perhaps de-emphasizing filial piety and employer benevolence and stressing generational equity and stewardship. As 386ers assume national leadership over the next decade, they may propose reforms that are bolder and more visionary than those seen to date.

Finally, there is Korea's emerging "Generation X," still in their twenties and early thirties, who are exploring the cutting edge of a newly affluent and entrepreneurial society. Thanks to their energy and creativity, Korea now defines the frontier of digital and cultural "cool" throughout East Asia. Three Generation X traits could profoundly shape Korea's response to the aging challenge. The first is their penchant for free-agent market behavior and a distrust of large institutions. The second is their hostility toward lifetime careers. The third is their ambivalence about traditional Confucian family expectations, as epitomized by today's unattached singles. Though Korea's Generation X will not become national leaders until well after the age wave has arrived, their attitudes may facilitate some of the policy responses suggested in this report. Generation X's market orientation, for instance, should favor funded retirement savings and (perhaps) higher retirement ages. Similarly, their preference for more modular careers may facilitate new roles for women by making it easier for them to move in and out of employment.

A VERY OLD KOREA CAN STILL BE A VERY PROSPEROUS KOREA IF ALL GENERATIONS WORK TOGETHER.

We are convinced that by the time this rising generation reaches old age, no one will see a contradiction between a Korea that is both very prosperous and very old. By the middle of the 21st century, if all of Korea's generations work together, no one will believe that a person cannot be both productive and old, that a woman cannot have both a job and children, or that a public pension system cannot be both adequate and affordable. This will be a Korea in which generational equity will not just be honored in principle, but in practice—embodied in the renewed political and social institutions of a country which will once again have shown the world how to turn challenge into opportunity.

A NOTE ON DATA AND SOURCES

In researching and writing this report, CSIS consulted dozens of specialized studies on the implications of population aging for Korea's economy, society, and of course, public and private retirement systems. The recent three-year research project on aging coordinated by the Korea Development Institute (KDI) proved especially valuable.[1] This note, however, makes no attempt to review this rich secondary literature. Its purpose is more limited—to orient the reader to the basic data sources used in preparing the report.

Most Korean demographic data cited in the report are compiled by the Korea National Statistical Office (KNSO) and published in the Korean Statistical Information System (KOSIS) database, available online at http://kosis.nso.go.kr/. These data include total population, population by age, fertility rates (total and age specific), life expectancy at birth, and average age of first marriage. Data on living arrangements of the elderly are from special studies by KNSO and the Korea Institute for Health and Social Affairs (KIHASA).[2] Data on educational attainment by age and sex are from unpublished tabulations provided by the Korea Statistical Association. All demographic projections for Korea refer to KNSO's 2006 baseline population scenario.[3]

Demographic data for other countries are from the UN Population Division and are published in *World Population Prospects.*[4] Projections refer to the UN's 2004 "constant fertility" scenario, which is broadly consistent with the KNSO baseline scenario for Korea. CSIS believes that the UN's constant fertility scenario constitutes a better baseline for the developed countries than the more commonly cited "medium variant" scenario, which arbitrarily assumes a convergence in fertility rates.

Basic economic data cited in the report come from standard Korean and international sources. Data on Korean GDP, wages, household income, and the government sector are from KNSO's KOSIS database. Data on the Korean labor force (by sector, type of employment, age, and sex) are from the Ministry of Labor and are published in its *Labor Statistics Yearbook.* Data on Korean savings rates (national, household, and personal) are from the OECD and are published in its *Economic Outlook.* Data for international comparisons of GDP and GDP per capita (in exchange rate and purchasing power parity dollars) are from the World Bank's *World Development Indicators.* Data for international comparisons of educational attainment and labor-force participation rates (by age, sex, and educational attainment) are from the OECD and are published in OECD.Stat database, available online at http://stats.oecd.org/WBOS/.

Basic historical data on Korea's National Pension System (NPS), including participants, beneficiaries, revenues and expenditures, and reserve fund finances, are complied by the National Pension Service and published in its *National Pension Statistical Yearbook.* Data on active contributors, however, are from special tabulations prepared for the National Joint Convention for Low Fertility and Aging Society Agenda.[5] Data on the special public pension schemes for government employees, private school teachers, and the military are from KNSO's

1 Hyungpyo Moon ed., *Socio-Economic Impacts of Population Aging and Policy Issues*, vols. 1, 2, and 3 (in Korean) (Korea Development Institute; 2004, 2005, and 2006).
2 Doosub Kim and Cheongseok Kim eds., *The Population of Korea* (KNSO; 2004); and Kyunghee Chung, "The 2004 Survey on the Living Profile and Welfare Service Needs of Older Persons: Results and Policy Implications," (in Korean) *Health and Welfare Forum* (March 2005).
3 *Population Projections for Korea: 2005-2050* (in Korean) (KNSO; November 2006).
4 *World Population Prospects: The 2004 Revision,* 2 volumes (UN Population Division; 2005).
5 Background material prepared for the Meetings of the National Joint Convention for Low Fertility and Aging Policy Agenda (Seoul; October 20-21, 2006).

Korea National Statistical Yearbook, the National Joint Convention for Low Fertility and Aging Society Agenda, and the Korea Institute of Public Finance's (KIPF) Social Indicators for Korea database, available online at http://www.kipf.re.kr/. Data on the National Health Insurance System and government social assistance programs, including the Medical Aid Program and the National Basic Livelihood Security Program, are from the *Korea National Statistical Yearbook* and KIPF's Social Indicators for Korea database.

Data on the severance pay system are collected in periodic supplements to the Ministry of Labor's Survey of the Economically Active Population, as well as special surveys by the Korea Labor Institute that are cited in the footnotes to the text. Data on the new corporate pension system are published in the Financial Supervisory Service's "Weekly Newsletter" and the Ministry of Labor's "Monthly Labor Statistics."

It may be helpful to give a word of explanation about the long-term cost projections for old-age benefit programs cited in the report. Whenever we discuss NPS expenditures as a share of workers' taxable earnings or projected dates of NPS "insolvency," we use the official government projections prepared by the National Pension Development Committee (NPDC) in 2003.[6] The published NPDC report, however, does not include projections of NPS expenditures as a share of GDP. For current-law GDP share projections for the NPS, we use simulations by KDI that are consistent with the NPDC payroll share projections.[7] For CSIS' "no benefit gap" projection, we adjust the current-law projection to reflect the following assumption changes. First, that the active contribution rate among NPS covered workers will rise from roughly 60 to 90 percent and that two-thirds of the increase will be translated into new benefit awards. And second, that the system's actual replacement rates (initial benefits as a percent of final salary) will match its nominal replacement rates.

There are no recent long-term government projections for the special pension schemes for government employees, private school teachers, and the armed forces. For these programs, as well as for welfare programs for the elderly, we use unpublished projection data shared with CSIS by Dr. Joonook Choi, Director of the Public Finance Research Division at the Korea Institute of Public Finance (KIPF).

There are also no official long-term government projections for public health-care and long-term care spending on the elderly. CSIS developed its own projections based on the following assumptions. For both health care and long-term care, we assume constant rates of age-adjusted per capita utilization. For health care, we also assume that the rate of growth in real age-adjusted per capita costs will exceed the rate of growth in real per capita GDP by 1.25 percent, about the historical average over the past 20 years. For long-term care, we assume that real age-adjusted per capita costs will grow at the same rate as real per capita GDP.[8] The CSIS projections are consistent with recent projections by the OECD.[9]

6 *The 2003 Actuarial Estimates of the NPS and Its Reform Proposal* (in Korean) (National Pension Development Committee; 2003).

7 Hyungpyo Moon, "Population Aging and Sustainability of the National Pension System," paper presented at the East-West Center and Korea Development Institute's Conference on Social Policy at a Crossroad: Trends in Advanced Countries and Implications for Korea (Honolulu; July 20-21, 2006).

8 Historical data on public health-care spending are from *OECD Health Data 2006* (OECD; 2006). Public health-care spending on the elderly in the base year was derived from total public health-care spending based on age-specific spending data in Soonman Kwon, "Aging and Health Policy in Korea," paper presented at the 2006 East-West Center and Korea Development Institute's Conference on Social Policy at a Crossroad: Trends in Advanced Countries and Implications for Korea (Honolulu; July 20-21, 2006).

9 "Projecting OECD Health and Long-Term Care Expenditures: What are the Main Drivers?" OECD Economic Department Working Papers no. 477 (2006).

A KEY TO CHART SOURCE CITATIONS

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The Center for Strategic and International Studies (CSIS) is a public policy research institution founded in 1962 and located in Washington, D.C. CSIS is a bipartisan, nonprofit organization with more than 225 full-time staff and a large network of affiliated experts. The **CSIS Global Aging Initiative (GAI)** explores the long-term fiscal, economic, social, and geopolitical implications of population aging and population decline around the world. CSIS established GAI in 1999 to raise awareness of the challenge and to encourage timely reform. Over the past eight years, GAI has pursued an ambitious educational agenda—undertaking cutting-edge research projects, publishing high-profile reports, and organizing international conferences in Beijing, Berlin, Brussels, Paris, Seoul, Tokyo, Washington, and Zurich. To learn more about the Global Aging Initiative, please visit its website at www.csis.org/gai.

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