





*Over the next 50 years, the number of elderly men and women in Asia will more than triple (Chiangmai, Thailand) © Wisut Jaijagcome/ East-West Center*

All across Asia, the number of people age 65 and above is expected to grow dramatically over the next 50 years. For the region as a whole, the population in this age group will increase by 314 percent—from 207 million in 2000 to 857 million in 2050 (Table 1). Facing an unprecedented pace of population aging, Asian governments must tackle important policy challenges. How best can the needs of the elderly be met? Will current approaches to support the elderly place an undue burden on the younger generation? And are there dangers that programs for the elderly will undermine economic growth? These issues are also being confronted in the West where population aging is more advanced. But the process of population aging is occurring much more rapidly in Asia than it did in Western countries, and it will occur in some Asian countries at a much earlier stage of economic development.

In 2000, the average age in Asia was 29 years. An estimated 6 percent of the region's total population were age 65 and older, 30 percent were under age 15, and 64 percent were in the working-age group of 15 to 64 years (United Nations 2001). Appendix Table 7 gives the proportions in these age groups for Asia's subregions and countries. United Nations medium projections estimate that the proportion in the working-age group will be the same in 2050, at 64 percent, but there will be a dramatic shift in the proportion of children and the elderly (Figure 1). The proportion under age 15 will drop to 19 percent, and the proportion 65 and older will rise to 18 percent. The average age in Asia will be 40 years.

In general, the countries of East Asia are furthest along in the population-aging process, followed by Southeast Asia and then South Asia (Appendix

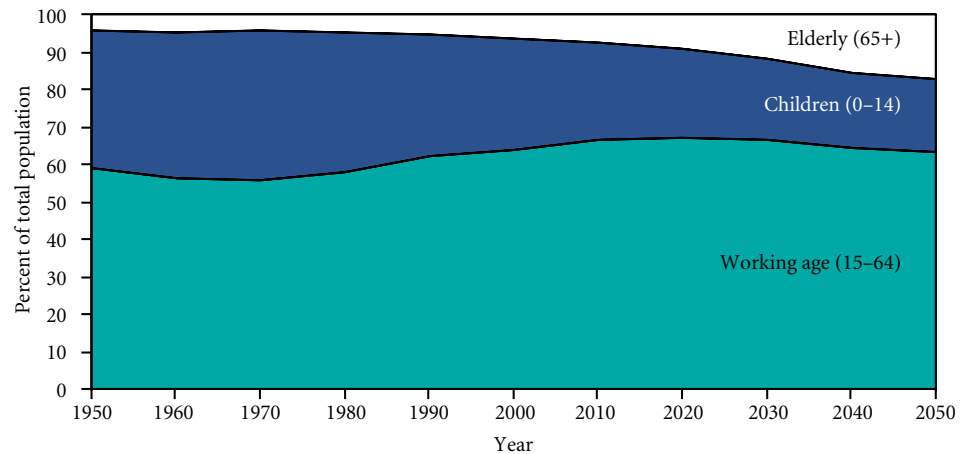
**Table 1. Projected growth of Asia's elderly population**

Region or subregion	Number of people age 65 and above (1,000s)			Percent increase 2000–2050
	2000	2025	2050	
Asia	206,822	456,303	857,040	314
East Asia	114,729	244,082	393,802	243
Southeast Asia	24,335	57,836	128,958	430
South Asia	67,758	154,385	334,280	393

*Source:* United Nations (2001).

*Notes:* All data are based on the United Nations medium fertility variant. The analysis includes Taiwan.

Figure 1. Asia's age transition: Proportions of working-age adults (age 15–64 years), children (age 0–14 years), and elderly (age 65+ years), 1950–2050



Source: United Nations (2001).

Table 7). The exceptions are Singapore in Southeast Asia and Sri Lanka in South Asia, where relatively large proportions of the population are elderly, and Mongolia in East Asia, where the proportion elderly is still small.

Japan has the oldest population in Asia, with 17 percent age 65 and older, and the most rapidly aging population in the world. The United Nations medium scenario anticipates that 29 percent of Japanese will be 65 or older by 2025 and 36 percent will be 65 or older by 2050. Bangladesh, by contrast, has the youngest population of any major country in the region, with 3 percent 65 or older in 2000. But even Bangladesh and Asia's other young populations will experience rapid population aging during the coming decades. Bangladesh's 65-and-older population is projected to rise to 5 percent in 2025 and 11 percent in 2050.

### *Future trends for Asia's elderly*

**More will be in the oldest age groups.** Today, Asia's elderly are concentrated primarily in the younger segments of the old-age population group. Over time, however, the greatest increases in population will occur in the oldest age groups. Of all Asians age 55 and older, roughly one-half are now between the ages of 55 and 64, about one-third are between 65 and 74, and not quite one-sixth are 75 and above. These proportions will remain fairly stable over the next 25 years, but over the following 25-year period the proportion in the oldest age group (75 and above) is expected to increase substantially—from 15 percent in 2000 to 17 percent in 2025 and then up to 27 percent in 2050.

**Most will be women.** In most countries of Asia, as in the rest of the world, older women outnumber older men, particularly in the oldest age groups. Today, among the population age 55 and above, there are about 90 men in Asia for every 100 women. Among those age 75 and above, there are only about 70 men

for every 100 women. This is a persistent feature of Asia's population that is not expected to change much over the next 50 years.

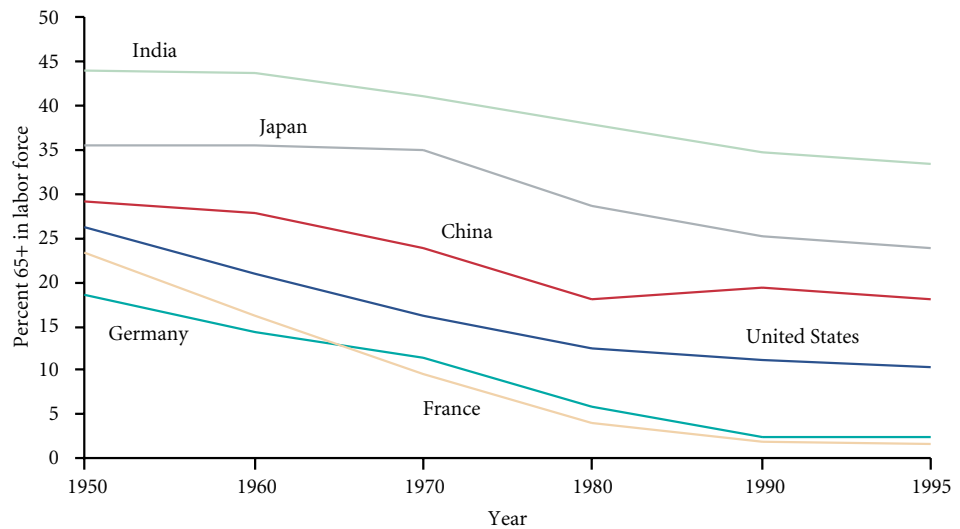
*Fewer will be widowed.* Traditionally, nearly everyone in Asia has married, and very few have divorced. Thus, most of the elderly are living with a spouse or are widowed. As life expectancies rise, the proportion of the elderly who are widowed at any given age will decline sharply. Women will be especially affected because they are much more likely than men to be widowed. Today, for example, just over one-half (52 percent) of all South Korean women age 65 to 69 are widows. This proportion is expected to drop to 17 percent in 2050. In Thailand, 32 percent of women in this age group are widowed today, also projected to drop to 17 percent in 2050. Among men age 65 to 69, only 8 percent are widowers in South Korea and only 10 percent in Thailand. Because the proportions of men widowed are already low, the decline will be more modest for men than for women.

*They will have fewer adult children.* In many Asian countries, the elderly have more surviving adult children today than at any time in history, a consequence of previous declines in infant and child mortality. In 1990, Korean women in their sixties, for example, had 4.4 surviving children on average. With the decline in childbearing, however, elderly parents will be increasingly dependent on only one or two adult children. Women in Japan who turned 65 between 1995 and 2000 were the first Japanese women in the 20th century to have an average of only two surviving children (Feeney and Mason 2001). Given low levels of childbearing in China (including Hong Kong), Japan, Singapore, South Korea, Taiwan, and Thailand, many elderly women in the future will have even fewer than two surviving children. The illness, death, or estrangement of even a single adult child will threaten the viability of the traditional family support system for the elderly.

*They will retire earlier.* With economic development, workers everywhere in the world tend to retire at younger ages (Figure 2). In part, this reflects the greater wealth of older workers. But it also reflects larger numbers who are subject to mandatory retirement ages or retirement plans that penalize those who continue to work. Although older adults are much more likely to work in Asia than in Europe or the United States, the proportion of all Asian elderly in the labor force has already declined and is projected to decline further—from 38 percent of the population 65 and above in 1950 to 25 percent in 2000 and 22 percent in 2010. The estimated median retirement age for men dropped from 67 in 1960 to 63 in 2000.

Labor-force participation varies widely among specific subregions and countries. Forty-one percent of Japanese men age 55 and above were still working in 2000, projected to drop to 29 percent in 2050. Labor-force participation

Figure 2. Trend toward early retirement (percent of age 65+ in labor force): India, Japan, China, Germany, France and the United States, 1950–95



Source: International Labor Office (1995).

is higher for Indian men in this age group and is projected to decline much less—from 46 percent in 2000 to 41 percent in 2050.

Older women in Asia are much less likely to work than older men. In 2000, there were about 150 working men age 55 and above for every 100 working women. The preponderance of men in the work force is even larger in the oldest age groups. Among those 65 and above, there are 250 men in the labor force for every 100 women.

### *Policy options for an aging region*

Efforts to assure adequate support for Asia's expanding elderly population focus on four approaches. These are: (1) policies and program that enhance traditional Asian systems of family support; (2) policy reform that encourages the elderly who are still capable to remain in the work force; (3) institutions and systems that support high levels of personal saving; and (4) public programs, including pension schemes and national healthcare systems.

**Family support systems.** In most traditional Asian societies, the elderly live in extended, multigenerational households and rely on their adult children, their spouses, and other family members for material needs and personal care. During the 1980s, more than three-quarters of the elderly in Asia were living with children or family (World Bank 1994). During the 1990s, about two-thirds were living with their adult children, ranging from about one-half in Kazakhstan to more than four-fifths in Pakistan and Bangladesh (Bongaarts and Zimmer 2001).

Today, the traditional family support system is under pressure from demo-

graphic, social, and economic change. In countries where fertility has been low for decades, the elderly have few adult children to provide support, and many of these children have moved away from their family homes. Marriage rates have dropped sharply in some countries, and women are entering the work force in increasing numbers. Middle-aged women, the traditional caregivers, are likely to have less time than they did in the past to care for elderly family members. Increasing exposure to the West may also be introducing new ideas about marriage, family, and individualism—ideas that clash with the traditional sense of responsibility for the elderly.

It is not clear how quickly or to what extent these pressures will undermine traditional family support systems. Family support for the elderly is already on the decline in some of Asia's most economically advanced countries. The proportion of Japanese elderly living with their children dropped from 80 percent in 1950 to 50 percent in 1990 (Ogawa and Retherford 1997). In South Korea, the proportion of elderly women living with their children declined from 78 percent in 1984 to 47 percent in 1994. In Taiwan, the proportion of elderly parents living with a married son declined from 82 percent in 1973 to 70 percent in 1986 (Weinstein et al. 1994).

The expectations and preferences of today's working-age adults suggest that even fewer of the elderly will live with their children in the future. In 1997, only 8 percent of South Korean women of childbearing age indicated that they wished to live with their children when they grow old (Lee 1998). Although the actual proportion of elderly living with their children has not gone down in the Philippines, fewer working-age adults wish to live with their children in the future (Natividad and Cruz 1997).

The changes in living arrangements probably indicate a broader decline in family support. In 1996, only 15 percent of elderly men and women in Japan mentioned children as a source of income, down from 30 percent in 1981 (Ogawa and Retherford 1997).

Even if the elderly wish to rely on their children, the family support system will become less effective as people have fewer children and live longer. Lee and others (2000) show that by 2050 a fully functioning family support system will be able to meet only about one-half of the retirement needs of the elderly in East Asia's low-fertility countries. To meet their retirement needs fully, the elderly will have to work longer, save more, or rely on substantially enhanced public programs.

The challenge for public policy is to assess the viability of family support systems and to devise programs that will be supportive or complementary. Several governments have adopted such policies. In Singapore, children are now legally responsible for the support of their elderly parents. Many East and Southeast Asian countries are providing adult day care and other support services aimed at helping adult children care for their elderly parents. Malaysia and Singapore have revised their public housing policies to accommodate

*With fewer adult children to provide support, many men and women in Asia will be forced to continue working into old age (Nepal)*  
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multigenerational living arrangements, and Malaysia also provides families with tax incentives for elderly care (World Bank 1994).

**Greater employment opportunities.** For many Asians, early retirement is a welcome component of general improvements in the standard of living. Yet policies that specifically promote—or dictate—early retirement are damaging in several ways. First, older workers who are not yet financially prepared for retirement are forced to accept a lower standard of living during their retirement years. Second, economic growth is reduced by the loss of human capital. Despite claims to the contrary, there is no convincing evidence that encouraging early retirement increases job opportunities for the young. Third, the fiscal viability of public pension and healthcare programs is threatened by the decline in the number of earners and taxpayers relative to the number of beneficiaries. These issues are particularly salient in aging societies, but eliminating work disincentives and labor market impediments is sound economic policy under any circumstance.

Today, mandatory retirement ages range from a high of 65 in Japan to a low of 55 in India, Indonesia, and Singapore (Table 2). China, Vietnam, Pakistan, and Sri Lanka impose a lower retirement age for women than for men, despite the fact that women generally live longer than men and may spend many years in old age without employment or a spouse to provide financial support. One policy option is to raise these mandatory retirement ages or to eliminate them altogether.

A second policy option is to encourage firms to retain older workers by making employment conditions more flexible. Because wage systems in many Asian countries are based on seniority, employers may believe that older workers are receiving wages and benefits that are too high relative to their productivity. Many firms also have inflexible rules about work hours that make it impossible for older workers to retire gradually by working part time.

Employers will be more willing to hire and retain older employees if they have the flexibility to hire them on a part-time basis, to modify their responsibilities as their capabilities change, and to pay them a wage commensurate with productivity rather than seniority. Such flexible employment options will become increasingly attractive to Asian employers as the growth of the labor force slows down.

Flexible and part-time employment options may be especially attractive to women, who make up a majority of the elderly but a minority of the elderly work force. Occupational retraining programs and general educational upgrading will also allow older men and women to take up new occupations and to cope with technological change in the workplace.

Improving the flexibility of the labor market, of course, raises a danger that older workers will experience reduced responsibilities or wages for reasons unrelated to their capability. Governments need to set up effective systems for monitoring and correcting problems related to age discrimination in the workplace.

Table 2. Mandatory retirement ages: Selected Asian countries

Country	Mandatory retirement age	
	Men	Women
China	60	55
Japan	65	65
South Korea	60	60
Indonesia	55	55
Philippines	60	60
Singapore	55	55
Vietnam	60	55
India	55	55
Pakistan	60	55
Sri Lanka	55	50

Sources: Social Security Administration (1999); United Nations (1999).

*Saving and financial reform.* Rapid population aging in Asia has been accompanied by a dramatic increase in saving and investment. In 1960, saving and investment rates were extremely low in countries such as South Korea, Singapore, Indonesia, and Thailand, but by 1990, these countries had some of the highest saving and investment rates in the world (Figure 3). In Bangladesh and Pakistan, saving rates remained low over the same 30-year period, and investment as a percentage of gross domestic product (GDP) went down.

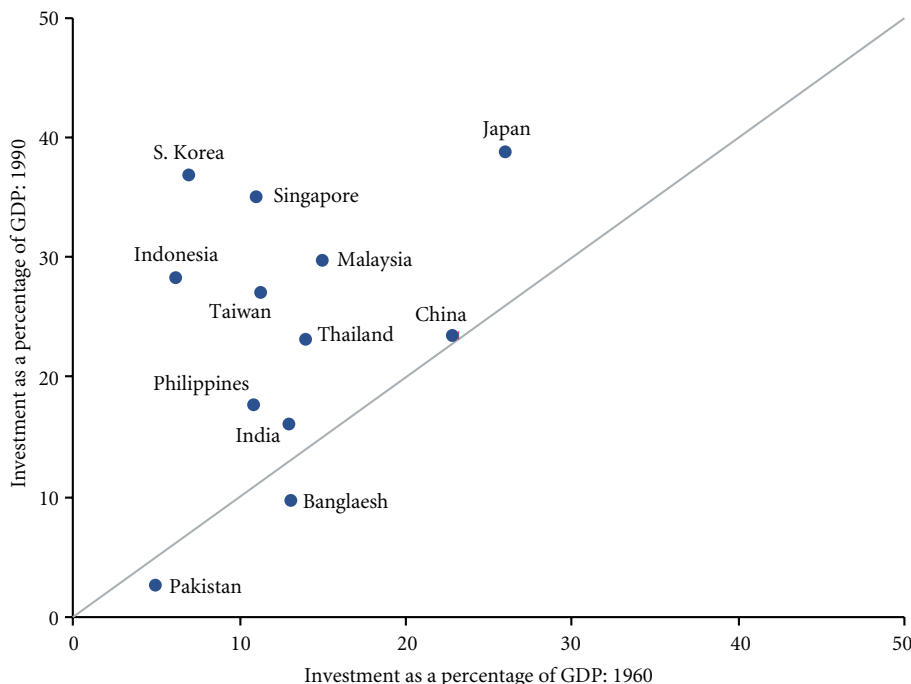
High rates of personal saving have important implications for national development. The dramatic increase in saving and investment in some Asian countries has played a decisive role in the region's unprecedented economic growth. High rates of saving also provide an important source of retirement income for the elderly who do not wish to work or to depend on their children for old-age support. Unfortunately, low rates of return and financial turmoil in recent years have wreaked havoc with the savings of many who are retired or nearing retirement.

In countries where saving rates are low, policymakers have several options if their goal is to encourage workers to save toward retirement. One priority is to ensure that the nation's financial institutions provide attractive and secure long-term investment opportunities. A second is to control the rate of inflation so that money saved today will retain its value in the future. Several government policies have been designed to influence saving rates more directly. Some countries, such as Singapore and Malaysia, have established retirement programs that require workers to contribute to personal saving accounts.

The difficulty in many Asian countries is not so much the level of saving as the level of risk and return. In recent years, the failure of financial institutions and the precipitous decline in property and equity values have had a disastrous



Figure 3. Investment as a percentage of gross domestic product (GDP) in 12 Asian countries: 1960 and 1990



Source: Penn World Tables.

Note: Countries that experienced sharp increases in investment rates over the 30-year period (with dots well above the trend line) were characterized by rapid economic growth.

impact on those who had planned to depend on their personal wealth for support during retirement. In Japan, with nominal interest rates near zero, retirees can count on little interest income from their saving accounts. More than any demographic group in Asia, the elderly stand to benefit from far-reaching financial reforms to correct these problems.

**Pension programs.** During the past 60 years, national governments throughout the world have come to play an increasingly important role in providing old-age security for their citizens. Many Asian countries offer some type of support program for the elderly. Japan and Singapore have large-scale programs with close to universal coverage, but in most countries coverage is restricted to narrow population groups (Table 3). The Employees Provident Fund in India, for example, restricts coverage to employees in one of 177 prescribed occupations working in establishments with at least 20 workers.

The relatively modest scope of programs in most Asian countries is also reflected in financial measures of their size. In 1993, the proportion of public expenditure earmarked for social security programs was only 2 percent in the Philippines and 8 percent in South Korea, compared with 22 percent in the United States and more than 40 percent in most European countries.

Public pension programs offer two important advantages. First, they represent a politically acceptable means of providing an economic safety net for

those of the elderly who might otherwise experience severe levels of poverty. Second, national programs allow risk pooling. Individuals who must provide for their own retirement needs may make poor investments. They may suffer a disability that curtails their income-earning capacity or experience unusual longevity and outlive their savings. Public programs can spread these risks and provide a monthly benefit that lasts as long as the beneficiary survives. Most also include some form of disability insurance.

Public programs entail their own set of risks, however. First, providing wide coverage may entail enormous administrative hurdles, particularly in low-income countries with large numbers of agricultural, self-employed, casual, domestic, and informal-sector workers. It is notoriously difficult to collect pension payments in sectors where labor turnover is high and documentation is weak (Bailey 1997). Recent legislation in the Philippines, for example, requires that household help and self-employed workers be covered; yet there is probably a substantial gap between coverage under the law and coverage in practice.

Second, public pension programs are only feasible in countries with a substantial degree of political stability. The taxing ability of a government may decline, or the political regime may change, with new leaders backing out of promises made by their predecessors. As governments obtain privileged access to large pension reserves, they may also make unwise investments or pursue large-scale public infrastructure projects without adequate scrutiny of potential risk and return (World Bank 1994).

Third, public pension programs that are not carefully designed will prove to be unsustainable as the number of elderly increases relative to the working-age (and taxpaying) population. Many countries have pay-as-you-go systems in which current retirees are supported not by their own savings, but by contributions from current workers. Current workers will, in turn, be supported in old

**Table 3. Coverage of pension schemes: Selected Asian countries, 1992**

Country	Percent of work force covered
Japan	100
Singapore	100
Malaysia	96
Philippines	53
South Korea	26
China	21
Indonesia	7
India	1
Bangladesh	0

*Sources:* International Labor Office (1995); Japan International Social Security Association (1999).

age by the next generation of workers. As the number of retirees increases relative to the number of workers, either payroll taxes must rise to very high levels, or benefits must be reduced to very low levels, or some combination of the two. There is little doubt, for example, that Japan's public pension program will face enormous difficulties in the coming years.

For a country such as Japan with a large and unsustainable program, reform is urgent. Other Asian countries that are about to experience rapid aging but lack the strong political and financial institutions critical to meeting the needs of the elderly face an even bigger challenge.

### *Healthcare systems*

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Population aging will place an increasing burden on national healthcare systems. Among the world's economically advanced countries, including Japan, healthcare spending per capita is about four times higher for people age 65 and older than for the rest of the population. Whatever the level of economic development, population aging presents challenges in financing and delivering healthcare.

As people live longer, there is a growing demand for care related to conditions such as cardiovascular disease, cancer, chronic obstructive pulmonary disease, osteoporosis, vision impairment, and dementia. At the same time, many countries in Asia still face much higher prevalence rates of childhood diseases—such as acute respiratory infection and measles—than countries in the West. They also face a continuing need for reproductive-health services and increasing costs of treating new and re-emerging infectious diseases such as HIV/AIDS, drug-resistant tuberculosis, and malaria.

The focus of healthcare systems in many developing countries, including India, Indonesia, and the Philippines, is currently on maternal and child health and reproductive-health services. In countries that have not yet achieved basic healthcare for all, treating disease and disability among the elderly is generally not a high priority. In these countries, a major challenge will be to meet the needs of expanding elderly populations without sacrificing essential services for everyone else.

In many countries, spending on healthcare has been going up for years, in part as a result of population aging. Between 1960 and 1997, healthcare spending in Japan increased from 3 to 7 percent of GDP. Between 1970 and 1997, the increase in South Korea was from 2 to 6 percent. The difficulty is that other countries in Asia have expanding elderly populations with associated healthcare needs, but at much lower levels of economic development. Given the high costs involved, adequate healthcare services for the elderly may simply be beyond the reach of many Asian countries.

Asian governments are taking a variety of approaches to healthcare financing. In India, individuals and households pay for three-quarters of all healthcare expenses out of pocket. In South Korea, out-of-pocket payments account for

*Pension and healthcare programs for the elderly will require a difficult balance between growing needs and the willingness of taxpayers to provide support (Fujian, China)*  
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about one-half of healthcare expenditures, while Japan has universal health insurance funded by individuals and their employers with significant government subsidies. Premium structures in Japan are designed to generate cross-subsidies from the rich to the poor and from the young to the old. In Thailand, 59 percent of the population is covered by some type of health insurance, while the Philippines is attempting to achieve universal health insurance coverage by 2010.

Many of the challenges faced by the healthcare systems in these countries are similar to those faced by pension schemes. Both require a difficult balance between the needs of the elderly and the willingness of taxpayers to support large, expensive public programs.

## Conclusions

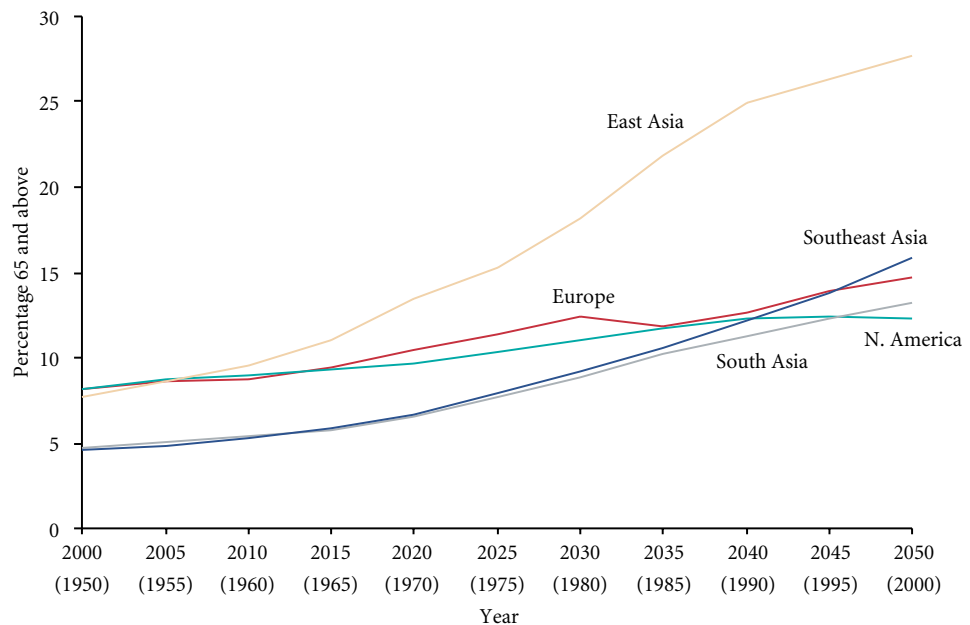
Today, population aging is much more advanced in Japan than in the other countries of Asia. The temptation might be to dismiss aging as an issue that need not be considered until some point in the future. To do so would be a mistake.

Although Asian countries are just beginning to experience population aging, the process is occurring much more rapidly than was the case in Europe or North America (Figure 4). Changes that occurred over 50 years in the West are being compressed into 20 to 30 years in Asia.

Not only will Asian countries have less time to prepare for aging, but most will have to meet the challenges of aging at much lower levels of development than in Japan or the West. The reason is that aging is occurring more rapidly than economic growth.

Figure 5 shows the simple statistical relationship between the old-age dependency ratio and income in 1970, 1999, and 2025. The old-age dependency ratio is calculated as the number of elderly (age 65 and above) in the population for each working-age adult (age 15 to 64), while income is expressed as the per capita gross national product (GNP) in 1995 US dollars. Based on World Bank data for 104 countries, the 1970 and 1999 lines show that higher-income countries had to cope with higher old-age dependency ratios in both years, but the line for 1999 is higher than the line for 1970, indicating a significant shift in the

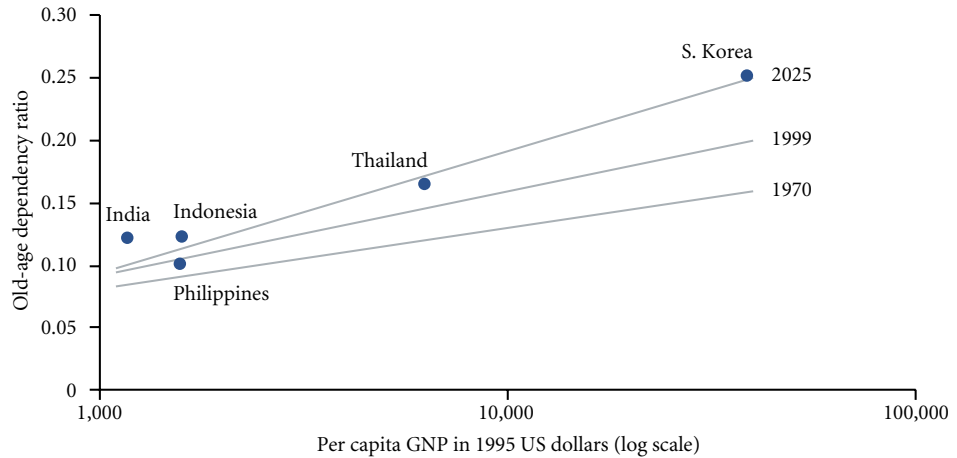
Figure 4. Expected trend in aging in the major regions of Asia in 2000–2050, compared with the experience of Europe and North America in 1950–2000



Source: United Nations (2001).

Notes: The "x" axis for years depicts two scales: from 2000 to 2050 for the subregions of Asia and from 1950 to 2000, in parentheses, for Europe and North America. All data are based on the United Nations medium fertility variant. The analysis includes Taiwan.

Figure 5. Old-age dependency ratio and per capita gross national product (GNP) for 104 countries worldwide in 1970 and 1999 and projected for 15 Asian countries in 2025



Sources: World Bank (2001); United Nations (2001).

Notes: The old-age dependency ratio is the number of elderly (age 65 and above) in the population for each working-age adult (age 15–64). Data points for individual countries are projections for 2025.

relationship between population aging and income. The typical country with an old-age dependency ratio of 0.15 in 1970 had a per capita GNP of US\$26,000, while the typical country with an old-age dependency ratio of 0.15 in 1999 had a per capita GNP of only US\$7,400.

The relationship between population aging and income will likely continue to shift in the same direction. The 2025 line shows the relationship between the old-age dependency ratio and per capita GNP in 15 Asian countries. The figure also shows specific 2025 estimates for five countries. The calculation assumes that per capita income will continue to grow at the same rate as in the 1990s and that the United Nations medium population projections will prove to be accurate. Under these conditions, a typical country with an old-age dependency ratio of 0.15 in 2025 will have a per capita GNP of only US\$3,800.

Many Asian countries may simply not be able to afford a large dependent elderly population. Perhaps even more important, they might not have the necessary institutions and financial systems in place, including efficient and well-managed pension and healthcare programs, capital markets, and accounting and regulatory systems.

In some respects Asia is fortunate because aging is not as advanced (except in Japan) and because Asian public-support programs are not as ambitious—or unsustainable—as in the West. Asia also has the advantage of studying the successes and failures of policies and programs implemented elsewhere in the world. Today, the region is at a critical juncture. Countries such as Indonesia, Thailand, and China will need to establish or extend programs for the elderly very quickly, and they need to think very carefully about how these programs should be structured and managed.