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## Key Points

- While the best-known dimension of aging relates to fiscal sustainability due to spiraling pension and health care costs, the repercussions of aging are wider. Aging will ultimately constrain economic growth.
- Increased longevity and dramatic falls in fertility rates in the PRC during the last 3 decades prompted the fastest demographic transition in the world and underpinned economic reform by contributing to GDP growth and lifting per capita income.
- Aging is particularly challenging in the PRC for three reasons: the sheer magnitude of the population, the difficulties of aging at a relatively low level of per capita income, and the poor safety net standards.
- Determined policy actions are imperative to address the challenge, including measures to promote economic growth through productivity increases, strengthening safety nets, developing capital markets, and accelerating pension reform.

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# The Socioeconomic Implications of Population Aging in the People's Republic of China

Yolanda Fernandez Lommen
Head, Economics Unit, PRC Resident Mission, Asian Development Bank

## The Hazards of Population Aging

A population is said to be aging when the elderly segment grows faster than the total population, resulting from falling fertility rates and rising longevity. Aging can have adverse effects on economic performance that demand changes in social and economic policies to address the challenge.

While the best-known dimension of aging relates to fiscal sustainability due to spiraling health care and pension costs, the repercussions of aging are wider. The structure of the labor market, the pattern of savings, and migration flows will change in an aging society. More worryingly, aging will ultimately constrain economic growth. This is because in the absence of increases in total factor productivity and/or in the capital stock, labor supply shortages result in lower gross domestic product (GDP) growth.

Aging in developing economies is particularly complex because their populations age fast but at low levels of income. In addition, their labor markets tend to be largely imperfect with a significant share of the labor force in informal jobs under poor working conditions. At the same time, shortages of qualified workers hinder development because the new skills demanded to meet the needs of economic modernization are scarce. Structural constraints—including limited access to financial products and services, a restrictive business environment, and weak safety nets—compound the difficulties of aging at an earlier stage of development. Culture can also influence the impact of aging. While in most developed economies the state plays a pivotal role in caring for the needs of old age, the elderly in Asia have traditionally relied on filial resources and family support. However, extended family networks are weakening, as traditional values change alongside economic reform and modernization, threatening the sustainability and effectiveness of the mechanism.

According to the United Nations definition,[1] the population of the People's Republic of China (PRC) has been aging since 2000. However, the fact that the country is aging

[1] As per the United Nations definition, a population is aging when 10% of the total population is 60 or older, and 7% of the population is 65 or older. In 2007, the PRC's respective percentages stood at 13.6% and 9.3%.

at a relatively low level of per capita income poses an enormous challenge. This brief reviews the main features of aging in the PRC and makes policy recommendations to address the challenge.

## The Case of the PRC: Aging Before Turning Affluent

### *Facts and Figures*

Average life expectancy has improved dramatically since the founding of the PRC, increasing from 35 years in 1949 to 74 in 2009, and in major cities such as Beijing and Shanghai, it is already above 80. At the same time, the fertility rate, underpinned by the one-child policy, has declined sharply from 6 children per woman in 1980 to 1.7 at present. These trends have prompted a rapid demographic transition that has supported development and economic growth. Between 1975 and 2005, the total dependency ratio—defined as the share of children and elderly to the working-age population—fell by almost 50%, the largest drop ever recorded in any country. The benefits of the demographic dividend increased the working-age population from 407 million in 1978 to 786 million in 2004, adding about 2 percentage points a year to GDP.

However, the accelerated path of the demographic transition turned the PRC into an aging society in 2000. Since then, dependency ratios have increased and the demographic dividend is expected to start to decline in 2015, when the working-age population will peak, and labor shortages will start exerting pressure on the labor market.

A higher old-age dependency ratio implies higher health care costs and pensions. In 1975, there were 6 children for every elder, but by 2035 there will be two elderly people for every child. By 2020, aging will add 10 million new elderly persons each year, while the working-age population will decline by 7 million adults a year. By 2050, out of a total population of about 1.4 billion, there will be 440 million people aged 60 and over, 108 million of whom will be aged 80 or older. This means that 31.4% of the population will be above 60 against a world average of 21.9%.

Aging is particularly challenging in the PRC not only because of its sheer magnitude, but because it is happening at a relatively low level of per capita income. Notwithstanding the remarkable achievements in the last 30 years, the PRC's per capita income level only amounts to one-ninth of that of the United States or one-fifth that of the Republic of Korea. Poor safety nets, with most elderly depending on weakening informal family support, magnify the challenge.

Cultural issues in the PRC add additional complexities to aging. A strong preference for male descendants has led to an unbalanced gender ratio. While a natural gender distribution shows 102–103 male births for every 100 females, male births in the PRC stand at 124, an average number masking huge imbalances in some provinces, including Henan and Jiangxi, with about 140 males for every 100 females. At present, there are 33 million more males than females, and while in other countries smaller gender gaps have been addressed through recourse to emigration, the excess in the PRC is too large. Gender imbalances can turn into sources of social unrest and affect economic performance.

## The Challenges Ahead

*Sustaining Inclusive Economic Growth*. An aging population highlights the importance of economic growth while making it harder to achieve. Labor shortfalls will increase labor costs, damaging the PRC's competitiveness in labor-intensive low-value added manufacturing and strengthening the cost advantage of the PRC's competitors in those sectors. For instance, India's demographic dividend will peak in 2040, much later than that of the PRC, adding 240 million to the working-age population. Against this background, it is essential for the PRC to rebalance growth and identify new sources of productivity. In addition, future growth has to be inclusive to avoid social pressures. The strain induced by widening income inequality could escalate to unsustainable levels in a rapidly aging society.

*Improving the Mobility and Quality of the Labor Force*. In the absence of determined actions to increase mobility and upgrade skills, labor shortages will emerge regardless of large surpluses in rural areas. Mobility restrictions—the household registration system (*hukou*) and the non-portability of work-related benefits—discourage transfers from labor-surplus provinces to labor-deficit ones. The restricted geographical mobility is compounded by skill shortages and mismatches that hamper transfers across the three productive sectors. This impedes the PRC's ascent in the value-added chain, which is crucial to the sustainability of growth.

*Developing Capital Markets*. Aging affects the pattern of savings. The elderly tend to save less and make different investment and consumption decisions. Foreign direct investment (FDI) inflows could compensate lost savings in countries with aging populations, but as inflows are uncertain, excessive reliance on FDI entails risks. To sustain growth, it may be necessary to improve the effectiveness of the allocation of savings to investments, which requires developing capital markets and widening access to financial products and services. In addition, a well-functioning financial sector will underpin pension reform, a key challenge directly associated with aging.

*Strengthening Safety Nets*. Safety nets remain weak in spite of recent efforts. Only about 15% of the working-age population in the PRC is covered by any sort of social security net, with most of the beneficiaries located in urban areas. After several rounds of reform, a two-tier pension system has been adopted in urban areas, offering a basic pay-as-you-go (PAYG) pension topped up by fully funded individual accounts. However, the system is far from optimal and presents major challenges. First, expanding the PAYG system toward universal coverage would require large increases in the budget allocations from the current 3% of GDP. Second, the national reserve pension fund appears to be substantially underfunded. Third, the low rate of return of the personal accounts casts doubt about their ability to generate the expected replacement rates. Efforts should be even greater in rural areas, where safety nets and pensions are almost non-existent.

## Policy Directions for the PRC

Labor supply shortfalls lead to diminished returns to capital and, hence, less economic growth. Developed countries were the first to age and approached the problem by shifting from input-driven growth models to productivity-driven ones. This could be achieved through rebalancing the growth pattern, including the development of services, and labor market reforms. Hence, determined policy actions are imperative to address the aging challenge, including measures to promote economic growth through productivity increases and labor market reform, strengthening safety nets, accelerating pension reform, and developing capital markets.

*Increasing Labor Supply.* Drawing on successful experiences in countries with aging populations, some of the following policy actions could be considered:

- **Enhancing labor mobility.** Policy actions conducive to greater labor mobility in the PRC will reinforce employment generation. Existing institutional barriers—*hukou* and restriction on the portability of benefits—hinder natural migration flows and deter urbanization, resulting in an inefficient allocation of labor. Simulations suggest that transferring a larger share of the labor force employed in agriculture into other sectors could add as much as several percentage points to GDP growth.

- **Raising the retirement age.** Improved longevity has lifted life after retirement threefold in most of the countries with aging populations, suggesting that it is appropriate to revise the retirement age upward. The retirement age in the PRC was established in 1950, at 60 for men and at 55 for women, when life expectancy was significantly lower. Under the current average longevity, the retirement age could be increased to 65 for both genders in urban areas, while adopting a more flexible approach in rural areas. The common perception that early retirement eases unemployment is misleading. This is supported by many years of evidence in developed economies, where early retirement has not reduced unemployment levels. Given the improved longevity, early retirement does not usually free up space for new workers, as early retirees continue to work while receiving a pension.

- **Encouraging female participation in the labor market.** Female participation can be promoted through a policy of equal opportunities, supported by improved support for child and elderly care, to encourage married women to remain or join the labor force. In addition, and accounting for the longer average life expectancy of women, the retirement age of female workers should be lifted to match the standard of male workers.

- **Fine-tuning family planning policies.** A relaxation of the one-child policy would ease the burden of only children supporting elderly parents and grandparents in the PRC, the so-called 4-2-1 problem. However, adjustments should be carefully planned, as even small changes could result in large absolute numbers given the large size of the PRC's population.

- Importing labor indirectly through foreign direct investment outflows. Asymmetries in the time path of aging unleash capital flows from societies with aged populations to ones with populations that are aging slower or not at all. FDI generates capital income from foreign production that adds to the growth generated domestically. An adequate regulatory framework is necessary for these benefits to materialize.

- **Importing labor directly though an open policy toward immigration.** Welcoming immigrants from countries with younger populations is the most direct way to increase labor supply. However, this approach requires a comprehensive regulatory framework supporting the participation of foreign workers, including lowering institutional and social barriers to immigration.

*Increasing Productivity Levels*. Deficits in the labor force will erode the competitiveness of low-end, labor-intensive manufacturing in the PRC, which, in turn, will reduce exports and economic growth. The experiences of Hong Kong, China; the Republic of Korea; Singapore; and Taipei,China, or even Japan at an earlier stage, suggest that climbing the value-added chain in manufacturing and services increases productivity and growth. However, substantial investments in research and development (R&D) and human capital development are essential for that purpose. In spite of recent commendable attempts to increase R&D up to 2% of GDP, more efforts are needed to increase the share to at least 3% of GDP.

*Improving the Quality of the Labor Force*. To promote innovation-driven growth, education policies should encourage a shift from rote and exam-based learning toward student-centered education, and strengthen links between education and vocational training and the labor market. In addition, evidence from countries with populations at an advanced state of aging shows that the labor market will be affected by changes in the consumption pattern. Consumption shifts will result in a growing need for jobs for the provision of goods and labor-intensive services to the elderly, which in turn demands specific training or retraining.

*Strengthening Safety Nets in a Sustainable Manner*. Addressing the needs of a growing number of elderly requires large-scale reforms to upgrade existing safety nets. This implies that significantly higher budget resources than the existing ones are needed. It is then advisable to create a program for old-age income and health care support financed by tax revenues. From the point of view of fiscal sustainability, the further liberalization of energy and resource prices, the introduction of environmental taxes, and the transfer of a larger share of dividends from state-owned enterprises (SOEs) into social public spending would provide an additional source of revenue to increase social spending without straining public finances. A revision of the contribution rates is also needed as at present they are too high (28% of the taxable payroll), thus encouraging evasion.

*Accelerating Pension Reform*. The low level of coverage and the structural and financial weaknesses of the current two-tier pension scheme demand further reform. It is recommended that a PAYG system be established for the provision of universal, basic flat rate pensions, including special provisions to support the poor and disadvantaged. The scheme should be funded by taxes and transfers, and supported by the national pension reserve fund, whose resources are at present insufficient but could be increased by injecting state assets into the fund. This will add to earlier government initiatives requiring SOEs to contribute 10% of proceeds from their initial public offering (IPO) to the fund. To complement the basic PAYG system, it is imperative to strengthen the incipient mandatory defined-contribution scheme (funded individual accounts) to the extent that it generates sufficient returns to guarantee the expected replacement rates. It is also recommended to add a third pillar to the current scheme, by fostering the introduction of voluntary private pension funds.

*Developing Capital Markets*. Strengthening the pension system will not be possible without additional financial liberalization. At present, embryonic capital markets constrain adequate investment opportunities. A more sophisticated financial system, including a larger variety of investment options and a less restrictive regulatory framework, would strengthen the individual accounts and lay the foundations for the establishment of private pension funds.

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Asian Development Bank
6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines
Tel +63 2 632 4444
Fax +63 2 636 2444
information@adb.org
www.adb.org/documents/briefs

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