

INSIGHT

The Impact of Rising Life Expectancy on Public Finances



Among OECD countries, the Republic of Korea has the highest elderly poverty rate at 45.7% in 2015. Photo credit: Korea Institute of Finance.

Population aging threatens fiscal sustainability unless government takes steps to reduce elderly poverty and manage public spending on pensions and healthcare.

Introduction

In the Republic of Korea, the elderly population is rising sharply and the poverty rate among the elderly is high. The life expectancy among 65-year-olds has risen steeply in the 2000s. If this trend continues, government's fiscal burden to support older people with insufficient retirement funds might grow further. The government needs comprehensive policies to secure a stable income to cover growing expenditure on the elderly population and provide greater support for them.

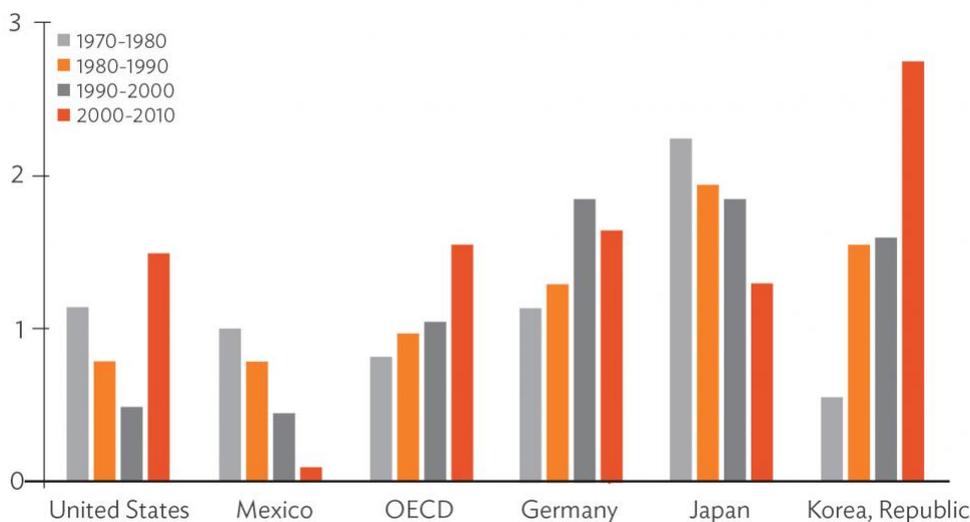
Analysis

According to the Republic of Korea's population and housing census, the ratio of elderly support (the number of people ages 65 and older as a share of the working population, ages 15 to 64) rose from 10.2% in 2000 to 19.7% in 2017. Over the same period, the children dependency ratio (the number of children ages 0 to 14 as a share of the working population) fell from 29.2% to 18.3%.

Meanwhile, the elderly poverty rate—the share of the population ages 65 and over living on an income smaller than half of the median income of all households—was 45.7% in 2015 (compared with 13.8% for all age groups), the highest among OECD countries, raising concerns over poor preparations for post-retirement living. (Note: These figures need to be interpreted carefully since a significant portion of household assets is tied to real estates in the Republic of Korea, which makes it hard to collect accurate income data.)

The sharp increase in life expectancy at old age in recent years can explain the rapid growth of the elderly population and a high elderly poverty rate, as it makes it harder to prepare well for post-retirement living with sufficient savings and pension. In the Republic of Korea, the life expectancy of 65-year-olds increased by merely 0.6 years between 1970 and 1980 but surged by 2.8 years between 2000 and 2010.

Figure 1: Life Expectancy at Age 65



Note: Average for both genders
Source: OECD

Cocco and Gomes (2012) showed the additional financial burden of increased life expectancy on households by simply calculating the current value of the pension. They assumed an interest rate of 2% and estimated the current value of the pension that pays out \$1 every year for 65-year-olds. If the same formula is applied to the Korean population, the life expectancy of 65-year-olds was 16 years in 2000 and 21 years in 2017, and the respective current value of the same pension is \$13.6 and \$17.0. In other words, to maintain the same standard of living, 65-year-olds need to have about 25.3% more assets in

2017 compared with their cohorts in 2000.

Implications

If life expectancy at old age continues to rise sharply, the government needs to formulate comprehensive policies to secure a stable income, expand tax benefits for pension, and provide greater income support for the elderly by, for instance, extending the retirement age or creating jobs for elderly workers. Lastly, it should be noted that even if life expectancy does not increase sharply, a rise in the ratio of elderly support generally leads to higher transfer spending by the government.

Resources

Korea Institute of Finance website.

J. Cocco and F. Gomes. 2012. Longevity Risk, Retirement Savings, and Financial Innovation. *Journal of Financial Economics*. 103 (3), pp. 507-529. March.

C. Shelton. 2008. The Aging Population and the Size of the Welfare State: Is There a Puzzle? *Journal of Public Economics*. 92 (3–4), pp. 647-651. April.



Seok Ki Kim

Research Fellow, Macroeconomic Research Division, Korea Institute of Finance

Seok Ki Kim's research areas are macroeconomics, firm financing and dynamics, SME policies, corporate restructuring, population aging, and household finance. He obtained his bachelor's in Economics from Seoul National University and Ph.D. from the University of Wisconsin-Madison, where he worked as a teaching assistant.

Last updated: April 2019