Session 5: Impact of Aging Populations, Part 2

What If Mortality Was to Diminish Much More than Forecasted? Implications for Financing Social Security

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The changing age structure in industrialized countries is raising concern among policy-makers over the funding of social security programs, especially pensions and healthcare. The aging of the population, i.e. the increased percentage of the elderly, appears at first glance to be the determining factor in the growth of costs. In Canada, the most recent population forecasts suggest that the proportion of people aged 65 and over will reach 25 percent by 2041. For the same year, the Institut de la Statistique du Québec (ISQ) estimates this proportion at 29 percent for the population of Quebec. In addition to these changes in the population age structure, governments are worried about increased public spending on healthcare.

The age effect is evident when comparing various components of per capita public spending. In 2003, public per capita spending on social security in Quebec represented less than CAN$5,000 for people under age 55 (excluding education), and rose sharply to over CAN$25,000 for people aged 85 and over. In the latter group, healthcare and social services costs represented 65 percent of total public spending on social security, compared with 25 percent for the 65 to 69 age group.

Given this context, it is important to examine the consequences of changes in cohort size and lower mortality when financing social security with pay-as-you-go systems, a managing mode favored by governments. Population aging will accelerate in the near future, resulting in a heavier burden on the working population, which has to foot the bill. Accordingly, the implementation of complementary funded plans would appear necessary to lighten the load on future birth cohorts that are proportionally less numerous. With this in mind, the reforms made in the area of pensions could be used by policy-makers as a model for healthcare in its broadest sense.

Our study focuses on the situation in Quebec, the second largest Canadian province in population size. First, we discuss the various factors behind rising healthcare costs resulting from two unchallenged phenomena—variation in cohort size and lower mortality in the elderly. Second, we examine the amplifying effects of a much lower than forecasted mortality on pay-as-you-go systems for healthcare and social services. This second part takes up the challenge of imagining a world where not only survival at age 65 would be quasi-universal, but where survival at age 85 would also be the norm. The data used to present this bold scenario of a much lower mortality is based on population estimates by age and sex from 2001 to 2041, as well as life-table death rates provided by the ISQ for the same period. To simulate lower mortality, we artificially accentuate the drop in mortality by multiplying the coefficient of the decrease in the death rates from one year to the next, at each age and for both sexes, by a specific factor, leading to a scenario where life expectancy at birth would be 100 years for the year 2000 birth cohort. This not only accentuates aging, but also reduces the number of annual deaths of people aged 65 and over for the period in question.

This analysis is meant to be far more than simply a simulation exercise; it is intended as a modest tool for public policy-makers so that they can make informed decisions. Implementing a health fund that conserves social gains and ensures intergenerational fairness is becoming one of the most pressing issues for today's policy-makers in industrialized societies.