

## The Myth of the Aging Society

By Andrew Scott     Thu, May 31, 2018

*‘The standard chronological measure of age makes less sense than ever,’ writes our guest columnist, a professor at the London School of Economics and co-author of ‘The 100-Year Life: Living and Working in an Age of Longevity.’*



Economic doomsayers have long warned that the aging populations of industrial and post-industrial countries represent a “demographic time bomb.” Societal aging is bad news for the economy, they say, because it means that fewer people work and contribute to economic growth, and more people collect pensions and demand health care.

The argument that aging will weaken these countries’ economies stems from what economists call the old-age dependency ratio (OADR)—the proportion of the population over 64, relative to the working-age population (those aged 15 to 64). If one assumes that old people are unproductive consumers of government benefits, then a rising OADR implies slower economic growth and mounting pressure on public budgets.



Prof. Scott

But what if this assumption is mistaken? The average age of the US population has steadily increased since 1950, but the average mortality rate has trended down. In other words, the average US citizen has become chronologically older but biologically younger. And the same trends can be found in other advanced economies, including the United Kingdom, Sweden, France, and Germany.

As countries industrialize, they undergo a “demographic transition” from higher to lower

birth rates. This shift implies that older cohorts of the population will increase in size, and that average overall mortality will rise, because mortality rates are higher for older people. But over the past few decades, this aging effect has been offset by a “longevity effect.”

Owing to medical advances and other factors (for example, lower rates of smoking), mortality rates at all ages have fallen. In actuarial terms, this means that people are younger for longer. Whereas the aging effect captures changes in the age distribution, the longevity effect addresses how we are aging. And in a country like the US, where the average age has increased while average mortality rates have fallen, it is clear that the longevity effect has more than offset the aging effect.

One consequence of this change is that the standard chronological measure of age makes less sense than ever. The divergence between biological and chronological age points to a familiar problem in economics: the confusion between nominal and real variables. A pint of beer that cost \$0.65 in 1952 costs \$3.99 today. To compare prices accurately across time, [however], one must adjust for inflation. And what one finds is that beer has actually gotten cheaper: The real (inflation-adjusted) price of a pint in 1952 was the equivalent of \$5.93 in today’s money.

A similar problem occurs when one relies wholly on calendar years and a chronological conception of age. In the US, a 75-year-old today has the same mortality rate as a 65-year-old in 1952. Similarly, in Japan, 80 is the “new 65.” As an actuarial matter, then, today’s 75-year-olds are not any older than the 65-year-olds of the 1950s.

As with the price of beer, one can use changes in mortality rates to adjust for “age inflation” and determine an average real mortality age. In doing so, one finds essentially no increase in average “real” (mortality-adjusted) age in the UK, Sweden, or France, and barely any increase in the US.

Mortality-adjusted indicators of aging provide a radically different perspective on what is happening to OADRs in advanced economies. When using chronological age, the OADRs in the US, the UK, France, and Sweden have all been increasing; but in mortality-adjusted terms, they have all actually declined. The exception, once again, is Japan, where the dominance of the aging effect has resulted in a higher real OADR.

From this perspective, one can see the flawed assumptions underlying the conventional “demographic time bomb” narrative, which makes no distinction between aging and longevity effects. If one assumes that there is only an aging effect, a rapidly aging society

bodes ill indeed. But if one recognizes the role of longevity, the picture becomes much brighter.

We must move away from nominal measures of age that treat older people as a problem. It is time to stop worrying about “aging societies” and start focusing on the type of demographic change that really matters. Governments should provide those in a position to reap the benefits of longer, healthier lives with opportunities to do so, while minimizing the number of people who are denied longevity. By investing in a longevity dividend, we can reduce the threat of an aging society.

*A longer version of this article appeared recently in Project-Syndicate.*

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