

The harmful effects of the aging Asian population on the economy

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Many Asian economies are currently faced with the challenge of rapidly ageing population, which can be harmful to the economy in the long run. The study, conducted by Dr Keisuke Otsu from the University's School of Economics with the results published in *Asian Development Review*, analysed the effects of projected population ageing on potential growth in Asian economies over the period 2015-2050 using quantitative assessment.

The study constructed a representative household model to analyse the effects of demographic transitions on the [growth rate](#) of per capita GDP. The predicted population ageing is harmful for economic growth because it leads to a shrink in the workforce relative to total population. While the predicted decline in total population growth mitigates this effect due to a lower capital dilution, overall, the model predicts a 0.21 percentage point decline in the annual per capita GDP growth rate below its potential purely due to the demographic transition. This is equivalent to a 7.6% drop in the average income level over the 2015-2050 period.

In addition to the direct effect of population ageing through labour market participation, it would also lead to a rise in [social security](#) tax on the workforce as the dependency ratio rises. This reduces the labour force's incentive to work and leads to a gradual decline in hours worked. The study estimates the future increase in labour income tax in Asia given the projected [demographic transition](#) and finds that this would reduce the annual per capita GDP growth rate by 0.41 percentage points below its potential.

Population ageing could also lead to an increase in government consumption due to the rise in the demand for health care. The study estimates the future increase in government expenditure in Asia and finds that the increase in aggregate demand would lead to a 0.05 percentage point increase in annual per capita GDP growth rate above its potential.

However, the increase in government consumption can lead to a decline in aggregate productivity by shifting away economic activity in the more productive private manufacturing sector to the service sector. The study estimates the effect of [population](#) ageing on future productivity growth in Asia and finds that this effect could reduce the annual per capita GDP growth rate by 0.40 percentage points below its potential.

The paper concludes that [population ageing](#) is harmful for economic growth due to the decline in labour participation rate and its negative effect is significantly magnified through the increase in social security tax and the slowdown in productivity growth. This provides quantitative support for arguments for social security reform and innovation policies in ageing economies.

More information: Keisuke Otsu et al, Population Aging and Potential Growth in Asia, *Asian Development Review* (2016). [DOI: 10.1162/ADEV_a_00072](#)

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