The Aging Tax on Potential Growth in Asia

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Abstract

Population aging is becoming a prominent issue in Asia, especially for developing countries where demographic changes have asserted a downward pressure on the rate of growth. This paper refers to such potential unwanted effects as an “aging tax” and analytically examines them from a neoclassical perspective, using a Diamond-type overlapping generations model with endogenous retirement, survival rate, and old worker productivity. Based on this setup, negative impacts exist if too many old workers that are sufficiently unproductive choose to defer retirement under the aging pressure, which drains resources from future generations. Numerical simulations show that an aging tax can reduce the potential per capita growth rate (technology-adjusted) by up to 0.12 percentage points annually for some countries in Asia. Our results highlight that countries with sufficiently large labor shares (due to a high ratio of self-employment or a manual labor-centric production) and inadequate educational attainment are potentially the most sensitive and vulnerable to population aging.

Keywords: Overlapping Generations Model, Population Aging, Old Worker Productivity

JEL Classification Codes: E20, E27, J11, J26

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