

# The Viability of a Voting System That Allocates Parliamentary Seats According to Life Expectancy: An Analysis Using OLG Models<sup>1</sup>

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## **Abstract**

This paper constructs an overlapping generations model to demonstrate how political intervention and interaction in the working and retired generations affect the allocation rate in future-growth-stimulating public investment and the public pension. It also analyzes the possibility of moving to a voting system that allocates parliamentary seats according to life expectancy. The presented results imply the following three main findings. First, the voting system is important when population demographics change. Declining birthrates and an aging population may shorten the temporal perspective for policymaking over time. Any theoretical transition from the current voting system to a voting system that allocates parliamentary seats according to life expectancy would thus lengthen the temporal perspective for policymaking, potentially increasing the public investment rate and improving the utilities of the working and future generations. Second, when age-based voting turnout disparity is high, a shift from the current voting system to one based on either life expectancy and region or life expectancy and age is possible. Third, assuming both transitions are possible, the latter holds greater promise for increasing the utilities of the working and future generations than the former.

**JEL classification codes:** D90, H50, H60, J18, O20

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