

HOW DOES DEMOGRAPHIC CHANGE AFFECT ECONOMIC GROWTH?

A Panel Data Approach in an Endogenous Growth Setting

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As life expectancy increases in the later stages of life there is a concern that this demographic change will place a drag on economic growth. However, theory isn't clear on this issue. Specifically, as life expectancy increases this should increase household savings resulting in more physical capital per worker, which, in turn, is likely to stimulate economic growth. On the other hand, as the share of the population in retirement increases, this will potentially reduce spending on children as more resources are transferred to the elderly. This reduction in spending on children will likely reduce human capital accumulation and place a drag on growth. To capture these behavioral and institutional responses we construct a stylized endogenous growth model that includes both human capital and government transfers to the elderly. We then map this framework into a linear statistical model that allows us to estimate each of these potential responses using panel data for a set of OECD countries during the period 1974-2014. We find evidence that households do in fact increase savings in response to a longer retirement period and this effect is associated with a higher realized rate of growth per worker. However, we also find evidence that an aging population reduces spending on children placing a drag on growth. This suggests that it will be the institutional response that will determine whether an aging population will place a drag on future growth, not population aging itself.

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