ECONOMIC FINDING • AUGUST 25, 2021

Demographics, Wealth, and Global Imbalances in the Twenty-First Century

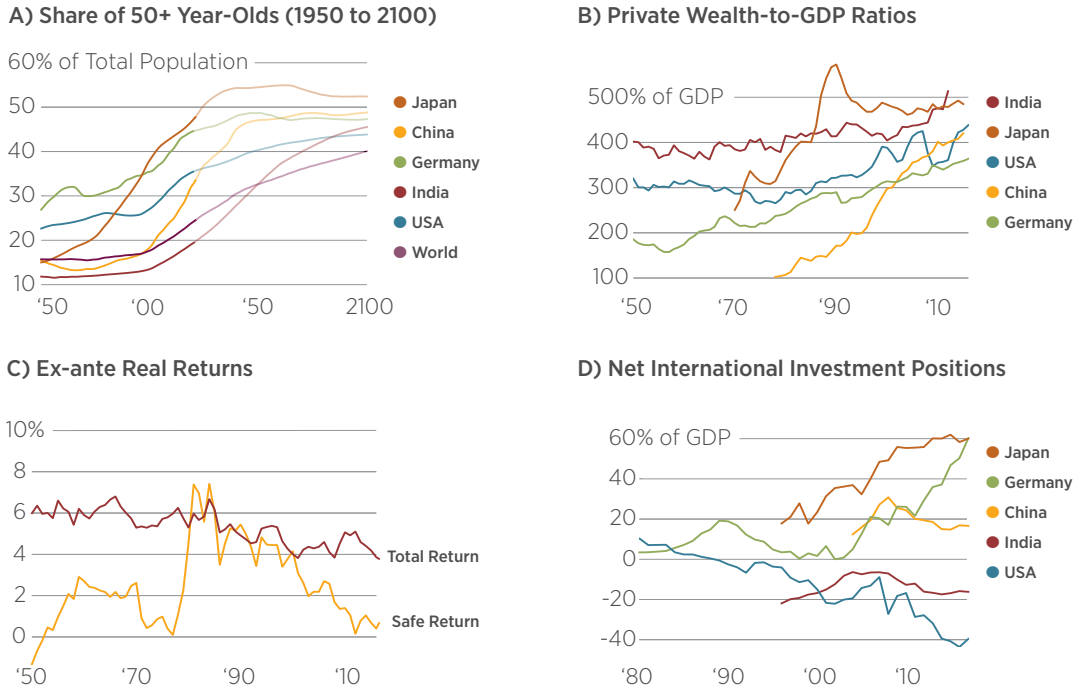
Based on BFI Working Paper 2021-98, "Demographics, Wealth, and Global Imbalances in the Twenty-First Century," by Adrien Auclert, Assistant Professor, Stanford University, and BFI Saieh Family Fellow in Economics; Hannes Malmberg, University of Minnesota; Frederic Martenet, Stanford University; and Matthew Rognlie, Northwestern University

This work challenges existing ideas about the effects of demographic trends and argues that demographics in the future will continue to lead to falling rates of return and rising wealth-to-GDP ratios.

The average share of the world's population above 50 years old has increased from 15% to 25% since the 1950s and is expected to rise to 40% by the end of the twenty-first century (see Panel A of the accompanying Figure). There is consensus that an aging population saves more, helping to explain why wealth-to-GDP ratios have risen and average rates of return have fallen (Panels B and C). Also, insofar as this mechanism is heterogeneous across countries, it can further explain the rise of global imbalances (Panel D).

Beyond this qualitative consensus lies substantial disagreement about magnitudes. For instance, structural estimates of the effect of demographics on interest rates over the 1970–2015 period range from a moderate decline of less than 100 basis points to a large decline

Figure 1 • Demographics, Wealth, Interest Rates and Global Imbalances



Note: Panel A presents the share of 50+ year-olds from 1950 to 2100 as predicted by the 2019 UN World Population Prospects. Panel B presents private wealth-to-GDP ratios from the World Inequality Database (WID). The red line for India shows the national wealth-to-GDP ratio, since the WID does not provide data on private wealth. Panel C presents a measure of the US total return on wealth (orange line) and of the US safe rate of return (red line). Panel D presents net international investment positions normalized by GDP, taken from the IMF. For more information, please refer to the authors' working paper.

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of over 300 basis points. Some structural economic models predict falling interest rates going forward, while an influential hypothesis focused on the dissaving of the elderly argues aging will eventually push savings rates down and interest rates back up. This argument, popular in the 1990s as the "asset market meltdown" hypothesis, was recently revived under the name "great demographic reversal."

This work refutes the great demographic reversal hypothesis and shows that, instead, demographics will continue to push strongly in the same direction, leading to falling rates of return and rising wealth-to-GDP ratios. The authors find that the key force is the compositional effect of an aging population: the direct impact of the changing age distribution on wealth-to-GDP, holding the age profiles of assets and labor income fixed. In the authors' model, this determines the path of wealth-to-GDP in a small open economy, as well as interest rates and global imbalances in a world economy.

The authors project out the compositional effect of aging on the wealth-to-GDP ratio of 25 countries until the end of the twenty-first century. This effect is positive, large, and heterogeneous across countries. According to the authors' model, this will lead to capital deepening everywhere, falling real interest rates, and rising net foreign asset positions in India and China financed by declining asset positions in the United States. This approach, based on stocks (i.e. wealth-to-GDP) rather than flows (i.e. savings), shows why there will be no great demographic reversal.

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NO. 2021-98 · AUGUST 2021

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ABOUT OUR SCHOLARS

Adrien Auclert
Assistant Professor, Stanford University, and BFI Saieh Family Fellow in Economics
aauclert.people.stanford.edu

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