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Global Aging: Issues, Answers, and More Questions

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Public policy can influence labor, product, and capital markets at a microeconomic level. The main policy tools to utilize potential labor sources are retirement and education policies that would get younger people into the labor market sooner and keep older workers in longer.

This study provides a review of reforms underway in Germany to address problems that arise from aging. It also reviews several research areas of relevance and identifies topics that merit further research. Understanding the evolution of the labor force in the coming decades is crucial for any analysis of global aging because long-run macroeconomic development is dominated by fundamentals such as the relative scarcity of labor and the relative abundance of capital. The essential macroeconomic effects of population aging are a changing balance between capital and labor, and between labor supply and demand for consumption. An aging society has relatively few workers for the existing capital stock that produces consumption goods for a still relatively large number of consumers.

Labor Supply

Labor supply is determined by demographic factors and labor force participation rates, which is one factor affected by government policy. Most countries have produced projections of labor supply, but these projections depend on different assumptions and there are no good compilations that allow cross-country comparison. Analysis of the impact of global aging would benefit from a more systematic approach to this fundamental input.

Employment also depends on labor demand. Aging economies must maintain an elastic labor supply. Aging creates changes in the types of products demanded and therefore in the labor needed.

Figures for the economic dependency ratio, the number of pensioners relative to workers, are much higher in Europe than in the U.S. For example, in Germany labor force participation will decline dramatically. To compensate for the lack of workers, productivity would have to increase by about 40%, which is unlikely without major efforts. It is important to better understand how public policy can influence labor force participation. Pension reforms and education reforms can have potentially huge effects on GDP growth through their impact on employment, rather than just on their often discussed impact on social budgets.

Policies affecting employment are crucial in minimizing the economic effects of population aging.

Labor Productivity

In addition to size, the structure of the labor force will also change, growing increasingly older over time before flattening out. It is not clear what affect this graying of the workforce will have on productivity. Results based on cognition measures leaving out experience are just as unconvincing as results based on a fixed job ignoring typical career paths. More research on age-specific productivity is clearly needed to better understand whether aging economies will suffer from a productivity decline, exacerbating the effects of a shrinking labor supply. Research of this kind is expensive because it requires firm data, looking at working groups and how they interact. This is an important and open area for further research.

Interactions between Labor, Product, and Capital Markets

Labor supply may have to adapt to changing product demand as consumption behavior changes with age. For example, German data show that spending on transportation and communication falls with age, while health and hygiene account for a growing share of older household budgets.

Changing product demand will create shifts in labor sector demands. Overall increases and decreases in employment amount to a total of 18 percent, suggesting that a sixth of all workers will need to change their jobs due to population aging.

Capital Markets

There are a variety of important research questions that relate to the impact of global aging on capital markets. One set of questions relates to the supply of savings. Do public pension systems, in effect, crowd out private savings, and do retirement savings affect other types of saving, for example, saving for a home?

More generally, does global aging reduce the supply of global capital? The life-cycle hypothesis predicts saving in youth and spending down in old age. This study reviews findings that show relatively flat saving profiles in France, Germany, and Italy. One possible explanation is that the high replacement rates of public pension systems in these countries have made private retirement savings largely unnecessary. And if other savings motives predominate, such as precautionary savings or the desire to leave an inheritance, there is likely to be less dissaving in old age.

Countries that move toward a multi-pillar system may revive private retirement saving motives. To estimate the impact of this type of reform, we conducted a simulation to project aggregate saving in Germany under a fundamental reform plan. This simulation study showed that optimal life-cycle behavior generates additional saving, and that eventually about one-third of retirement income will come from the funded pillar.

Another set of questions relates to international diversification mentioned above. In particular, we do not have reliable models of international capital market flows, so we do not know the extent of friction, such as that caused by "home bias"—the tendency of investors to hold only domestic rather than international equities. It is not yet fully understood why households do not optimally diversify their portfolios across countries.

There is likely to be a decrease in the rate of return, because of international diversification, but the open economy will suffer less severely. If fundamental pension reform were enacted in Germany, the decreased rate of return would be much less in an open economy. Household saving induced by pension reform should be invested internationally, not only for risk diversification, but also for higher returns.

An open area for research is in better understanding portfolio choice behavior, in particular the equity premium puzzle—the larger than predicted rate of return differential between safe and risky assets. As countries move toward more prefunding of pension systems, it will be important to better understand how the rates of return of safe and risky assets are affected by global aging.

Since capital markets will play an important role in global aging, it is also important to understand more about which form of corporate governance will be most likely to offset some of the negative effects of aging. Some evidence which shows that actively managed investments by institutional investors enhances corporate governance, and through this channel increases productivity and growth.

Conclusion

Global aging will affect labor, product, and capital markets in fundamental ways, which will eventually change the wealth of nations. While we understand the basic mechanisms behind these changes, that there is much work to be done to improve our knowledge of feedback effects and to generate more precise quantifications.

Public policy can influence labor, product, and capital markets at a microeconomic level. The main policy tools to utilize potential labor sources are retirement and education policies that would get younger people into the labor market sooner and keep older workers in longer.

Capital markets can diversify the risks generated by labor scarcity and can thus be thought of as strategic. The supply of capital is directly influenced by pension policies that foster savings. However, we do not fully understand the interactions between pension policy and economic growth. Lastly, the international flow of capital is not perfectly smooth. Understanding impediments to the free flow of capital, the sources of instability in global financial markets, and the kind of policies that are appropriate to reduce friction and instability are important and highly policy relevant research areas for global aging.

About the Researcher

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