## Population Ageing, Pensions and Growth: Intertemporal Trade-offs and Consumption Planning

by John Creedy and Ross Guest Northampton, MA: Edward Elgar, 2009 ISBN 978-1848445314 US\$140.00, 320 pp.

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Before the current economic crisis took hold, demographic ageing was frequently cited in the popular and business media as a major threat to economic growth and the standard of living in wealthy countries. For the past decade or so, demographers and sociologists working in the area have largely re-cast the potential effects of population change as a "challenge" to be addressed through careful policy development, rather than a treasury-bankrupting, economy-shrinking "crisis" (e.g., Gee and Gutman 2000). Despite these more realistic and critical appraisals, some amount of crisis rhetoric will likely re-emerge, perhaps even strengthened by the recent recession. For those determined that population ageing will require a choice between dramatic cuts to government services or significant tax increases, the now higher government deficits can only make these "common-sense" arguments more attractive.

But for the demographers, sociologists, or social gerontologists in the "challenge" camp, some dimensions of that challenge are not exactly clear. Changes in aggregate patterns of work, savings, and consumption resulting from ageing seem likely to have some overall economic impact, but the complex task of estimating this impact mainly lies with economists. For sociologists, some of whom may already be skeptical of the various assumptions that are necessary for macroeconomic models, the projections of economists can seem to emerge from something of a "black box." Fair evaluation of the predicted economic effects of ageing can be impossible without the right disciplinary background, and we may be left with no choice but to accept the various predictions as presented, or to ignore the economic discussion altogether.

This book, written by two Australian economists, deals squarely with the assumptions required for macroeconomic models of the consequences population ageing, and for examining policy alternatives. Creedy and Guest's intended readership is economists and economic policy analysts rather than an interdisciplinary audience, but the book of-

fers some potentially useful insights into how the economic effects of ageing are modelled, as well as some important results regarding the magnitude of these effects.

The first part of the book deals with some of the critical value judgements that are made, implicitly or explicitly, in any attempt to estimate the effects of population ageing or to design policies to address those effects. These include the issue of discounting future consumption, or how we value things in the future relative to today. Policies addressing population ageing, and other future concerns such as environmental degradation, involve trading off current consumption against future well-being, but the specific nature of this trade-off is rarely directly addressed. Creedy and Guest review various approaches to time preference in macroeconomics, as well as a theoretical discussion of the idealized evaluator in these frameworks. In some cases, a self-interested agent, representing an average utility-maximizing individual is assumed, while alternative approaches posit a "social planner" who is concerned with maximizing aggregate social welfare. Creedy and Guest also explore the longer-term issue of sustainability, which they generally define as consumption levels that maximize welfare for current generations, while not reducing that of future generations. As they show, assuming sustainable preferences itself involves a number of important judgements.

Creedy and Guest use this part of the book to point out where some of these value judgements lie in the macroeconomic analysis of ageing, and how they are often not made explicit. They stress repeatedly, though, that it is not the role of economists to assign values to the various trade-offs they identify, such as the social valuation of consumption. Moreover, the "correct" judgement is not obtainable through empirically observed policy decisions, such as tax regimes. There is, as they say, no legitimate path between "is" and "ought," leaving the content of these normative judgements to be determined politically.

The second half of the book is devoted to some specific aspects of ageing-related policy, including taxes and pensions, and to estimating some of the implications of population ageing on economic growth. They examine the theoretical effects of changes in the taxation of private pensions on lifetime labour supply. One of the important elements in their model is an explicit assumption that the elimination of taxation—either on contributions, on income earned within a pension fund, or on withdrawals from the fund after retirement—must be offset by increasing some other form of tax. Their conclusions are that the removal of taxes on superannuation withdrawals, as initiated by Australia in 2006, would theoretically increase lifetime labour supply, but that this effect would be reduced by the labour disincentive effects of the increase in other taxes, such as income tax. In another model, Creedy and Guest examine the implications that "tax smoothing," or increasing current taxes in order to address future challenges, would have for specific age cohorts and for overall social welfare. They find that current workers would be slightly worse off, but that the lifetime utility of future workers would indeed be much improved.

In two later chapters, Creedy and Guest directly address the implications of population ageing for standards of living in OECD countries. Importantly, they note that the effects of population change may not be entirely negative. For one, it could be that the age mix of firms is moving closer to an optimal situation, in which the physical strength and recent training of younger workers is complemented by the experience, reliability, and knowledge of older workers. As well, changes to consumption patterns that result from an older population may lead to shifts in capital investment, and ultimately to higher labour productivity. Combined with the higher human capital of a more educated labour

force, Creedy and Guest suggest that rising productivity could "potentially swamp" any effects of rising dependency ratios.

Applying data to these models, Creedy and Guest find that fears of an ageing crisis are unfounded, and this conclusion is supported by a growing consensus in economics journals. At worst, their simulations predict a slowing of GDP growth across the OECD countries of about 0.3 per cent annually. Using data from the US and Australia, they explore the potential effects of sectoral shifts due to ageing, and find that they could indeed lead to small increases in lifetime labour productivity. These simulations and their sensitivity to the various assumptions are carefully discussed in a separate chapter.

This is a useful book that presents a number of important ideas and results. Creedy and Guest's discussion of the assumptions and value choices required in these models is thoughtful and interesting. Their overall conclusion that population ageing is unlikely to significantly reduce living standards is important for policymakers and the general public, many of whom are still under the sway of "crisis" rhetoric.

For sociologists, demographers, and social gerontologists, this book will shed light on how economists consider population ageing and the complexity of macroeconomic policy analysis. Some from these disciplines may take issue with some of the necessary simplifications and assumptions of these models; the only inequality considered is that between age cohorts or generations, and the economic equation of aggregate consumption with "social welfare" might make some uncomfortable. However, these would be unfair criticisms, as this book is clearly intended for economists and addresses the current literature in that discipline. It is slow-going for anyone not familiar with macroeconomic models and their presentation, as most of the book is devoted to their technical aspects. Mainly adapted from previous papers and articles, the book is somewhat disjointed and sometimes a bit repetitive, as each of the chapters could be a standalone article. The main ideas are not therefore drawn through the book, and this is made worse by the lack of a concluding chapter. This organization and presentation make the book much less accessible to an interdisciplinary audience, for whom a book such as Disney's (1996) *Can We Afford to Grow Older* may be more useful.

It is a shame that some of these ideas are unlikely to make their way to a non-specialist audience. That said, this will likely be a valuable book for economists or economic policy researchers interested in the macroeconomic implications of population ageing. The careful discussion of the models involved will be useful for both graduate students and experienced researchers in this field.

## References

Disney, R. 1996. Can We Afford to Grow Older? A Perspective on the Economics of Aging. Cambridge: MIT Press.

Gee, E.M. and G.M. Gutman (eds.). 2000. The Overselling of Population Aging: Apocalyptic Demography, International Challenges, and Social Policy. Toronto: Oxford University Press.