

REVIEW

LEE RONALD D. and MASON ANDREW (eds.) (2011): *Population Aging and the Generational Economy: A Global Perspective*. Edward Elgar, Northampton, US. 598 pages.

Global population aging – caused primarily by fertility decline and increasing survival at older ages – will profoundly change the age structure of societies. Aging is an unprecedented, long-term demographic phenomenon: it has never been experienced before and is unlikely to be reversed in the future (Uhlenberg 2005). There is a rising concern about aging because it implies changes regarding the economic and social well-being of societies. In response numerous policy-oriented research programs on topics related to aging have been initiated over the last twenty years. One of these is the National Transfer Accounts Project (NTA),¹ which is a large-volume joint-research effort by researchers from around the world (Asia, Latin-America, America, Africa and Europe). NTA is an innovative investigation that analyses the economic consequences of the changing population age structure. By examining the age patterns of economic activity and delineating inter-age transfers, it explores the economic relations between generations. How do different age groups acquire and use economic resources and how does this pattern of resource acquisition change with population aging? These are two main questions the project aims to answer.

The two founders and coordinators of NTA – Ronald Lee and Andrew Mason – are the editors of *Population Aging and the Generational Economy: A Global Perspective*,² which presents the first results of the project. They have long been studying the role of age distribution in macroeconomic issues. The volume builds upon their work as well as papers written by authors featured in the book. Since the book's publication in 2011, members of the NTA project published numbers of articles discussing new results, too.

Lee and Mason provide detailed theoretical explanations, conceptual foundations and a description of the key findings in the first section of the book. Section II presents and discusses comparative results, the estimates of economic activities, transfers and reallocations over the life-cycle. The third section of the book contains country specific articles that have been written by national teams of the NTA project. Even though these articles focus on individual countries and are not comparative, some of them go beyond country reports and

¹ The website of the project is www.ntaccounts.org

² The book can be downloaded free-of-charge on the website of International Development Research Centre (IDRC)
<http://www.idrc.ca/EN/Resources/Publications/Pages/IDRCBookDetails.aspx?PublicationID=987>

discuss exploratory ideas related to the core project. Constructing the country accounts is a demanding task for which the coordinators and national teams deserve recognition.

The most important basic activities that determine the economic lifecycle are working, consuming, sharing and saving. NTA measures the age profiles of these economic activities: labour income, consumption, public transfers, private transfers and asset-based reallocations, and shows how they vary across different generations. The aggregate numbers of these age profiles are consistent with the System of National Accounts, which administers flows among institutions (government, households and the corporations). NTA therefore develops a new system of accounts that considers the dimension of age and redefines income streams originally flowing among institutions to flows among generations.

The national income is thus depicted as mainly intergenerational flows from the working-age population to the young and the elderly. Life-cycle deficit (LCD) and life-cycle surplus (LCS) arise from the difference between labour income and consumption. Labour income in NTA is defined as the compensation of employees and labour-related taxes. Consumption consists not only of privately purchased goods and services but publicly provided ones as well, and it includes owner-occupied housing. Whereas all generations use economic resources and their per capita consumption patterns do not vary much with age; earning labour income is concentrated in the working ages while it is minimal or zero in childhood and old age. The working ages tend to consume less than their labour income resulting in a life-cycle surplus. Meanwhile the non-working age population (children and the elderly) consume more than their labour income resulting in a life-cycle deficit.

The difference between consuming and producing is behind the flows from one generation to another. Whenever consumption exceeds production there is a period of dependency that has to be financed through monetary flows: either via (1) public transfer through government (tax payments and benefits), or (2) private or familial transfers mostly within the household or (3) asset-based reallocations (capital income and property income). In childhood and old age the average individual is economically dependent, because his consumption has to be covered by the output produced by the working age population. One of the important goals of the book is to explore how transfers and assets are used to meet lifecycle needs. This goal is well met, giving the reader an understanding of the variety of transfers, “transfer packages” and the transfer system as a whole.

While all societies are characterized by these economic flows, the ways and the channels of such flows and the role of public or private transfers and asset-based reallocations vary widely by region and probably over time. Societies also respond to the recent population aging in diverse ways. One of the greatest

advantages of NTA and the results presented in the book is that it includes both a variety of countries at different stages of economic development and societies with different political and institutional settings. The comparative results presented in the book are especially important. Obviously country differences and differences according to development level are found in the support systems, but regional patterns are also highlighted. Public transfers are principal in Europe and Latin America and least prominent in developing Asia. Familial transfers are primary at younger ages in all societies, while familial transfers at older ages are important in Asia and Latin America and not so important in the US and European societies. The book argues that population aging will be a problem in particular for countries where old-age support is mainly sustained through public transfers.

However, and this needs to be emphasized, neither NTA nor the discussions in the book focus solely on public transfers to the elderly. This would be an oversimplification of the problem. NTA follows a comprehensive approach and includes public and private intergenerational transfers, as well as asset based reallocations. Moreover, each generation – children, working-age population and elderly – is given consideration. Hence, even though it is fairly complex, the transfer system as a whole is taken into account. The book also contains an appendix with comparative tables and a glossary of terminology which is useful for the reader.

NTA distinguishes inflows (receiving a transfer) and outflows (making a transfer) as well as net transfers. Following Willis (1988) and Lee (1994a,b), Lee and Mason investigate the direction of intergenerational transfers by the mean ages of inflows and outflows. In Chapter 4 they show that population aging fundamentally changes the direction of net transfers. The magnitude of downward transfers – those flowing to future generations – decreases and the strength of upward transfers to the elderly increases. Older age structures eventually result in a reversal in the direction of total transfers. “When total transfers are upward from young to old, then the average person will receive more transfers in the future than she will make to others; or equivalently we might say that the future is obligated to make net transfers to those alive today.” (p. 103). The direction of net transfers is an important measure of aging in the different countries. A related NTA summary measure is the support ratio, which incorporates the age variation in productivity and consumption needs (see Chapter 1 and 3). It is calculated by using the NTA age profiles and population data. The extent of dependency is better captured by this indicator than by conventional support ratios relying on fixed age groups.

NTA links population age structure and the macroeconomy. Once age profiles are constructed, future estimations of transfers and the different measures can be made using population projections. The book argues in favour of and demonstrates the advantages of using NTA age profiles for projections. These

projections are essential to understanding the diverse ways in which societies respond to population aging and how policy decisions can possibly influence its effects. The book and its findings are supplemented by the data which are the cross-sectional measures of age profiles. These age profiles are estimated using administrative and survey data and the country National Accounts. They can be downloaded for all the participating countries from the NTA website.

The editors point out the limitations of the first results of the NTA project. Bequests for example are not included in the transfer system, as reliable estimates for these flows are not yet available. Joint research efforts in the NTA network however have already begun incorporating bequests. The results are also rather descriptive, as they rely on cross-sectional data and are not based on causal modelling. Future studies will estimate the economic lifecycle in a longitudinal perspective, and therefore track cohorts. These analyses will eventually result in causal models. Researchers will also consider non-market transfers in the reallocation system and incorporate age profiles of unpaid household labour and consumption into NTA by estimating “time transfers” across ages (the value of household labor carried out for someone else in the household). In fact the chapter by Mathana Phananiramai already presents results on estimating these time transfers for Thailand. The importance of incorporating unpaid household labour can be illustrated by recent studies on women’s labour and caring activities for the elderly and children. Further research will also focus on the changing roles of transfer packages from a historical perspective.

Although in the macro context of population aging we find substantial variation across countries in welfare policies, economic condition, institutional settings, family and kin relations, etc.; harmonized research across countries has the potential to greatly expand our understanding of aging (Uhlenberg 2005). This is precisely what the NTA project aims to achieve. It provides an analytic framework and a tool, as well as data, to explore these wide variations – all freely accessible on the internet. The framework and the first results of the project presented in *Population Aging* have already contributed to our understanding of aging, and the demographic and economic change it brings about. With the richness of its data, the National Transfer Accounts Project clearly has more contributions to make.

REFERENCES

- Lee, R. D. (1994a): The formal demography of population aging, transfers, and the economic life cycle. In: Martin L, Preston S (eds.): *Demography of Aging*. Washington: National Academy Press, 8–49.
- Lee, R. D. (1994b): Population age structure, intergenerational transfers, and wealth: a new approach, with applications to the US. *Journal of Human Resources*, special is-

- sue edited by P. Gertler: *The Family and Intergenerational Relations*, 29(4), 1027–1063.
- Phananiramai, M. (2011): Incorporating time into the National Transfer Accounts: the case of Thailand. In Lee, R. D. and Mason, A. (eds.) (2011): *Population Aging and the Generational Economy: A Global Perspective*. Northampton, US: Edward Elgar, 528–541.
- Uhlenberg, P. (2005): Demography of Aging. In Poston, D. L. and Micklin, M. (eds.): *Handbook of Population*. New York: Kluwer Academic/ Plenum Publishers, 143–167.
- Willis, R. J. (1988): Life cycles, institutions and population growth: a theory of the equilibrium interest rate in an overlapping- generations model. In Lee, R. D.–Arthur, W. B. and Rodgers, G. (eds.): *Economics of Changing Age Distributions in Developed Countries*. Oxford: Oxford University Press, 106–38.

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