Age Related Pension Expenditure and Fiscal Space: Modelling Techniques and Case Studies from East Asia

Mukul G. Asher and Fauziah Zen (eds)
Routledge, London, 2016, pp. 190 + xiv
ISBN: 978 1 38 82579 6

Age-related pension plans play a vital role in securing the welfare of the older generations. However, provision of adequate and sustainable income protection for the old is a complex issue for many countries as their populations are aging and their longevity is continuously increasing. Old age pension systems already represent a sizable portion of the welfare costs and expenditures in many countries and are expected to exhaust government budgets dramatically in the future. While Defined Contributory pension schemes, in which benefits are often highly dependent on the economic and financial market conditions, are often criticised for not being able to provide adequate income protection, many publically-funded Defined Benefit pension schemes have been found to be unsustainable over the long run.

This problem requires consideration of a more holistic approach towards improving these systems to maintain their adequacy and sustainability in the future. A comprehensive analysis of future pension costs and the fiscal space available is vitally important in order to find effective ways to provide adequate income protection for the aged without jeopardising the economic performance of the country.

The book, *Age Related Pension Expenditure and Fiscal Space*, edited by Asher and Zen, accomplishes this need as it focuses on analysing the age-related pension expenditure of four major economies in Asia, namely India, China, Indonesia, and Japan. The book takes a vital step in exploring the link between age-related pension expenditure and the generation of fiscal space. The authors' expertise in the area has provided readers of this book with a comprehensive analysis of pension systems in these countries, the predominant issues, the fiscal burden due to increasing costs, and how to generate fiscal space to maintain the viability of the pension systems. The four countries covered are of particular interest as they comprise nearly two-fifths of the world's population and the proportion of their older population is projected to increase dramatically. Although they are at different stages in the socioeconomic development processes and demographic cycles, all countries are extremely challenged to meet the growing demand for income protection for the elderly. The book is focused on answering the following important questions:

- What is the East Asian experience in providing social security for the aged?

This is the author manuscript accepted for publication and has undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the Version of Record. Please cite this article as doi: [10.1111/apel.12208](https://doi.org/10.1111/apel.12208)

- How successful are they in providing age-related pension schemes with universal and adequate coverage?
- What are the fiscal implications of those systems?
- Is there any fiscal space for making these systems sustainable?

The analysis, policy discussions, and the conclusions drawn provide useful information for any country facing similar challenges to the funding of their social security systems.

In Chapter 3, Feng and Chen provide a critical analysis of the sustainability of the pension system in China with a focus on providing fiscal policy responses towards improving its quality and the sustainability. China's pension system is crowded, with a different schemes including the major pay as you go (PAYG) Old Age Insurance System (BOAI). BOAI alone, according to Feng and Chen's calculations, is projected to create government expenditure of up to 8 per cent of GDP in 2030 and 9.5 per cent in 2050. Lack of availability of data limits the inclusion of all the pension schemes in their projections of total pension expenditure. The robustness of their projected pension expenditure depends on the validity of the assumed economic parameters, mainly inflation and interest rates. They analyse a few main tools for reforms, including increasing the retirement age and reducing the rate of contribution for pensions. A combined effort of increasing the retirement age by five years (between 2012 and 2030) and a reduction of the contribution rate (from 28 to 20 per cent), according to their calculations dramatically improves the viability of the BOAI scheme as it creates a surplus until 2030. They propose some initial contributions from the government to finance the transaction costs in order to reduce the contribution rates. Financing these subsidies is suggested through fiscal resources, including the national social security fund and dividends from state-owned enterprises, which have been earning significant investment returns over the past few decades. However, wider macroeconomic policies that support the viability of pension funds are needed to prepare China to face the challenges of their aging society.

India, recently described, as an emerging superpower, needs considerable policy changes to keep their pension promises credible, as Asher and Vora report in Chapter 4. India's retirement age population cohort (60 and over), which generally is dominated by lower female labour force participation, is on the rise and will be nearly tripled between 2010 and 2050 (from 93 to 296 million). It is projected that the pension cost in India will be increased to somewhere between 2-4 per cent of GDP by 2030. The country's pension scheme, which is not unified into a national pension system, but rather comprises several programs directed at different groups of people with differing responsibilities for the union government and the individual states, is far from efficient and effective. Therefore, India needs to take steps to reform the current pensions system to

improve its efficiency, while a systematic and integrated approach is needed to generate more fiscal space to ensure the sustainability of the system. Authors' calculations suggest that such an integrated approach could generate an additional 2-4 per cent fiscal space by 2030 to progress toward a pension system that suits a middle-income country. The impact of migration, particularly international migration, on pension expenditure and revenues could also be considered in these projections, as India is one of the major sources of international migration.

The focus of Chapters 5 and 6 of the book is on Indonesia. Indonesia's story of demographic and labour market trends and pension provision, which represent a complex system with low coverage, seems to be very similar to India. As Handra and Dita project, the government's future public pension liability significantly depends on the design and the coverage of their pension system. If the future coverage of the system is improved to incorporate informal sector workers, as well as the retirement age being kept at 55 years, the state expenditure on basic pensions is projected to escalate to 2.6 per cent of GDP in 2030. In addition to increasing the retirement age, generating revenues through increased tax rates and social security contribution rates from formal sector employees and reforming investment of pension funds are recommended to match up the increased pension costs.

Japan's pension system is analysed in Chapter 7. Provision of old age income security is a major challenge for Japan, which has the highest old-age dependency ratio in the world. Japan's well-developed three-pillar pension system comprises a basic (national) pension, a wage proportional employees' pension insurance scheme, and a defined contributory pension scheme. Together, these schemes, according to Takahata's projections, will have an expenditure ratio ranging from 20.4 per cent to 14.8 per cent of GDP in 2040 under different per capita GDP growth rates. Pension expenditure projected by Takahata is considerably higher than the government's pension projections that apply macroeconomic indexation for benefit levels. His investigation of the robustness of the government's pension projections reveals that the validity of the pension indexation used in the government projections holds only when the economy grows at more than 2 per cent. Given the persistently slow economic growth Japan has had for many years, the validity of these projections is questionable.

This book investigates the pension systems and their viability in four major economies. It provides a comprehensive analysis and a great insight into a key area of welfare provision, which is significantly important for many countries around the world. Discussions of the experiences and issues in developing countries and the analysis of the sustainability of these schemes provided in the

book provide vital information and lessons for many emerging economies. A greater understanding of the assumptions the authors used in various calculations and the micro and macroeconomic conditions of each of these countries is needed when interpreting the results of the projections and using the recommendations provided. The validity of the pension expenditures and options for fiscal space provided through various simulation exercises depends on their model specifications and the validity of the assumptions used. Sensitivity analyses for robustness of the assumptions used are recommended to confirm the validity of these estimates. Important socioeconomic factors such as international migration, changes in fertility rates, changes in labour productivity, and female participation in the labour force could have been included in the projections.

In conclusion, this book can be highly recommended for policy makers and researchers. It is a vital addition to the social security and pension literature.

Wasana Karunaratne
University of Melbourne

Minerva Access is the Institutional Repository of The University of Melbourne

Author/s:

Karunaratne, W

Title:

Age Related Pension Expenditure and Fiscal Space: Modelling Techniques and Case Studies from East Asia edited by Mukul G. Asher and Fauziah Zen (eds) Routledge, London, 2016 Pp. 190 + xiv. ISBN 978 1 38 82579 6

Date:

2017-11

Citation:

Karunaratne, W. (2017). Age Related Pension Expenditure and Fiscal Space: Modelling Techniques and Case Studies from East Asia edited by Mukul G. Asher and Fauziah Zen (eds) Routledge, London, 2016 Pp. 190 + xiv. ISBN 978 1 38 82579 6. Asian-Pacific Economic Literature, 31 (2), pp.165-167. <https://doi.org/10.1111/apel.12208>.

Persistent Link:

<http://hdl.handle.net/11343/293800>