



Pension Systems and Old-Age Income Support in East and Southeast Asia

Overview and reform directions

Edited by Donghyun Park



Pension Systems and Old-Age Income Support in East and Southeast Asia

Old-age income support will be one of the biggest social and economic challenges facing Asia in the 21st century. The growing spotlight on old-age income support is largely due to exceptionally rapid population aging which is fundamentally reshaping Asia's demographic profile. A young continent reaping the demographic dividend of a large youthful workforce is giving way to a greying continent where the ratio of retirees to workers is on the rise.

In contrast to industrialized countries, most Asian countries do not yet have mature, well-functioning pension systems. As a result, they are ill prepared to provide economic security for the large number of retirees who loom on the region's horizon. This book takes a close look at the pension systems of eight countries in East and Southeast Asia – namely, People's Republic of China (PRC), Indonesia, Republic of Korea, Malaysia, Philippines, Singapore, Thailand and Viet Nam – which encompass a wide range of income and development levels. The book provides a comprehensive overview of pension systems in the eight countries, including an in-depth diagnosis to identify their major weaknesses and shortcomings.

On the basis of the diagnosis, the book sets forth concrete and specific policy options for reforming Asia's pension systems. Many policy options for reform are country-specific. For example, a top priority in PRC is to extend the pension system to rural areas. At the same time, a number of reforms – such as the need to extend coverage – resonate across the entire region. Appropriate reform will enable the region's pension systems to deliver affordable, adequate and sustainable old-age economic security.

Donghyun Park is currently Principal Economist at the Economics and Research Department of the Asian Development Bank (ADB), which he joined in April 2007. Prior to joining ADB, he was a tenured Associate Professor of Economics at Nanyang Technological University in Singapore. He has a Ph.D. in economics from University of California, Los Angeles, and his main research fields are international finance and trade. His research, which has been published extensively in journals and books, focuses on policy-oriented topics relevant for Asia's long-term development, including Asian sovereign wealth funds and Asian pension reform. He plays a leading role in the production of the *Asian Development Outlook*, ADB's flagship annual publication.

Pension Systems and Old-Age Income Support in East and Southeast Asia

Overview and reform directions

Edited by Donghyun Park



First published 2011
by Routledge
2 Park Square, Milton Park, Abingdon, Oxon, OX14 4RN

Simultaneously published in the USA and Canada
by Routledge
711 Third Avenue, New York, NY 10017

*Routledge is an imprint of the Taylor & Francis Group, an informa
business*

© 2011 Asian Development Bank

All rights reserved. No part of this book may be reprinted or reproduced
or utilised in any form or by any electronic, mechanical, or other means,
now known or hereafter invented, including photocopying and recording,
or in any information storage or retrieval system, without permission in
writing from the publishers.

The views expressed in this book are those of the authors and do not
necessarily reflect the views and policies of the Asian Development Bank
(ADB) or its Board of Governors or the governments they represent.

ADB does not guarantee the accuracy of the data included in this
publication and accepts no responsibility for any consequence of
their use.

By making any designation of or reference to a particular territory or
geographic area, or by using the term "country" in this document, ADB
does not intend to make any judgements as to the legal or other status
of any territory or area.

ADB encourages printing or copying information exclusively for personal
and noncommercial use with proper acknowledgement of ADB. Users are
restricted from reselling, redistributing, or creating derivative works for
commercial purposes without the express, written consent of ADB.

6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines
Tel: +63 2 632 4444
Fax: +63 2 636 2444
www.adb.org

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

Library of Congress Cataloging in Publication Data

A catalog record for this book has been requested

ISBN: 978-0-415-69270-0 (hbk)

ISBN: 978-0-203-15505-9 (ebk)

Typeset in Times New Roman
by Cenveo Publisher Services

Contents

<i>List of tables</i>	vii
<i>List of figures</i>	ix
<i>List of contributors</i>	xi
<i>Foreword</i>	xiv
<i>Abbreviations and acronyms</i>	xvi
1 Introduction: why does Asia need well-functioning pension systems?	1
DONGHYUN PARK AND GEMMA B. ESTRADA	
2 The People’s Republic of China: pension system overview and reform directions	26
STUART H. LECKIE	
3 Indonesia: pension system overview and reform directions	49
YVES GUÉRARD	
4 The Republic of Korea: pension system overview and reform directions	76
SEONG SOOK KIM	
5 Malaysia: pension system overview and reform directions	101
MUKUL G. ASHER	
6 Philippines: pension system overview and reform directions	124
ERNESTO REYES	

vi	<i>Contents</i>	
7	Singapore: pension system overview and reform directions	152
	MUKUL G. ASHER AND AMARENDU NANDY	
8	Thailand: pension system overview and reform directions	176
	ORIN D. BRUSTAD	
9	Viet Nam: pension system overview and reform directions	203
	GIANG THANH LONG	
10	Policy options for reforming developing Asia's pension systems	222
	DONGHYUN PARK	
	Appendix Summary of the OECD's pension modelling exercise	234
	ANDREW REILLY	
	Index	249

Tables

1.1	Demographic indicators of selected Asian countries	5
1.2	Retirement age and basic structure of pension systems, 2007	11
2.1	Current urban pension system in the People's Republic of China	29
2.2	National Social Security Fund asset allocation	35
3.1	Overview of Indonesian social security system (existing)	55
3.2	Summary of pension and savings arrangements	59
3.3	Distribution of civil servants in 2009	60
3.4	Participation to private pension programs	61
3.5	Coverage of JHT, 2008 vs 2007	62
3.6	Old age dependency ratios, 2010–2070	62
3.7	Assessment against social security criteria	66
4.1	Number of beneficiaries of public income security for the elderly (unit: thousand persons, %)	80
4.2	Number of participants (at year-end), selected years (unit: person, firm, %)	81
4.3	Long-term financial projection of the National Pension 2008 (unit: billion won, time, %)	83
4.4	Composition of income sources of the elderly aged 60 and over, 2008 (%)	89
4.5	Pay-as-you-go rate of the national pension (%)	90
4.6	Elderly dependency ratio and aging index projected (unit: %)	93
4.7	Number of participants and the pensioners, projected (unit: thousand persons, %)	94
4.8	Projected proportion of public pensioners aged 65 and over (%)	97
5.1	Malaysia: select macroeconomic indicators	102
5.2	Malaysia, Employees Provident Fund – selected indicators, 2006–2009	106
5.3	Malaysia, Employees Provident Fund: active contributors by saving range, 2009	108
5.4	Malaysia's Employees Provident Fund: real rate of return to members	110
5.5	Indicators of administrative efficiency in social security organizations in Malaysia, Philippines, and Singapore	117
6.1	Philippine population data ('000)	125

6.2	Projected Philippine population distribution, 2010 vs. 2050	125
6.3	The Philippine pension system	127
6.4	Poverty threshold and poverty incidence	128
6.5	2007 coverage of major mandatory Defined Benefit programs ('000)	128
6.6	Social security system coverage ('000) and compliance ratios	129
6.7	Replacement rates of the major mandatory defined benefit systems for various wage levels, based on 12 months pension	135
6.8	Average basic pay of workers (P)	136
6.9	Ratios of present value of benefits to accumulated contribution (12 months pension)	138
6.10	Breakdown of contributions to the mandatory pension programs (%)	139
6.11	Social Security System and Government Service Insurance System pensioners data	139
6.12	Tax treatment of pension funds	140
6.13	Social Security System fund movements	141
6.14	Investment limits under the Social Security System charter	142
6.15	Social security system—portfolio distribution and yield (P million)	142
6.16	Balance sheets of mandatory pension institutions (P billion)	143
6.17	Social Security System and Government Service Insurance System fund life projections	144
6.18	Basic architecture of the proposed Philippine retirement income system	148
7.1	Singapore: key macro economic indicators, selected years	153
7.2	Indicators of aging in Singapore, 2000–2050	155
7.3	Central Provident Fund – Key Indicators as of 30 March 2010	156
7.4	Main schemes under Singapore's Central Provident Fund system	157
7.5	Central Provident Fund contribution rates, 2010 (with effect from 1 January, 2007)	159
7.6	Share of Singapore's Central Provident Fund in Gross National Income and Gross National Savings, 1997–2009	162
7.7	Average performance of Central Provident Fund Investment Scheme funds as at end second quarter 2010 (% in S\$)	165
7.8	Distribution of Central Provident Fund members by wage and age group	169
8.1	Pension features	180
8.2	Projected replacement ratios	186
8.3	Percent of workforce in formal employment sector	192
9.1	Number of participants, 1996–2008	207
9.2	Contribution rates to the pension scheme	209
9.3	Ratio between total expenditure and total revenue, 2000–2007	211
9.4	Estimated pension liabilities, 2000–2050	215
9.5	Vietnamese old age poverty incidence, 2008	218
A1	Gross pension replacement rates by earnings	237
A2	Net pension replacement rates by earnings	239
A3	Gross pension wealth by earnings	241
A4	Net pension wealth by earnings	242
A5	Coverage by mandatory pension schemes	243

Figures

1.1	GDP per capita, 2009, current US\$	2
1.2	Ratio of population aged ≥ 65 to population aged 15–64, 1950–2050	2
1.3	Ratio of population aged ≥ 65 to total population, 1950–2050	3
1.4	Total fertility rates, 1950–2050	4
1.5	Life expectancy at birth (years), 1950–2050	4
1.6	Urban population as share of total population, 1950–2050	6
1.7	Agriculture value added as % of GDP, 1960–2006	6
1.8	Share of informal sector employment in urban employment	7
1.9	Employee, employer and total contribution rates of pension systems, 2007	14
1.10	The ratio of total pension assets to GDP, 2006	16
1.11	Share of labor force covered by pension systems and share of population aged 15–64 covered by pension systems, 2007	18
1.12	Replacement rate – ratio of retirement income to pre-retirement income, 2007	19
2.1	Population pyramids	27
2.2	Demographic changes	28
2.3	Enterprise annuities investment performance, 31 March 2006–31 August 2010	33
2.4	Total assets of the National Social Security Fund	34
2.5	National Social Security Fund’s annual return versus price inflation	36
3.1	Dependency ratios, 1950–2050	57
3.2	Distribution of deaths, 1970–2030	57
3.3	Private pension programs investment portfolio	65
3.4	Funding level of defined benefit pension programs	68
4.1	Old age income security systems in the Republic of Korea	79
4.2	Feasible options for the public pension schemes in future	96
5.1	Employees Provident Fund: asset allocation, 1991–2009	110
7.1	Real rates of return on Central Provident Fund balances (1987–2009)	160
8.1	Population	189

x *Figures*

8.2	Population by age groups	190
8.3	Labor force, employment, and contributors	191
8.4	New old-age pensioners	192
8.5	System dependency ratios	193
8.6	Old age pension revenue and expenditure as percentage of GDP	194
8.7	Surplus/deficit and reserves as percentage of GDP	195
8.8	Poverty incidence, 1986–2008	197
9.1	Structure of the social protection system in Viet Nam	205
9.2	Contributors by economic ownership, 2001–2007	207
9.3	Contributors by gender and age, 2008	208
9.4	Households receiving pension income (%)	209
9.5	Estimated replacement rates: males vs. females and state vs. non-state workers	211
9.6	Dependency ratios: population and pension scheme	213
9.7	Early retirements	214
A1	Old-age support ratios: historical and projected values, OECD, 1950–2050	245
A2	Old-age support ratios: historical and projected values, non-OECD Asian countries, 1950–2050	246

Contributors

Mukul G. ASHER, professor of public policy at the National University of Singapore, was educated in India and the United States. His research focuses on public finance and social security issues in Asia. He has published extensively in national and international journals, and has authored or edited more than ten books. He serves on the editorial board or on the advisory board of several journals including *International Social Security Review*. He has been a consultant to several governments in Asia on tax policy and pension reforms, and to multilateral institutions including the Asian Development Bank (ADB), the World Bank and the World Health Organization (WHO).

Orin BRUSTAD is a pension lawyer in private practice with the firm of Miller Canfield, Paddock and Stone, Michigan, USA. Miller Canfield, which has over 300 lawyers, is the largest law firm in Michigan and one of the leading US firms in its specialty areas. He is currently a senior counsel and has previously held positions of senior principal, partner and associate. He works primarily with public employers and has consulted on pension reform in Kazakhstan, Indonesia, Thailand and Montenegro. From 2002 to 2006, He served as an advisor to Thailand's Ministry of Finance in the review of all private and public pension systems in Thailand. He holds BA and MA degrees from Yale and a JD degree from Harvard.

Gemma B. ESTRADA has been with the ADB since 2001, initially as a local consultant for various research projects. In 2006, she was appointed economics officer at the Macroeconomics and Finance Research Division of the Economics and Research Department, ADB. Prior to her work in ADB, she was head of the monitoring division at the Agricultural Credit Policy Council. At the ADB, she has been involved in various research studies, covering areas such as investment climate, poverty and inequality, labor markets, structural change, economic integration and financial development. She has also been actively involved in the annual publication of the *Asian Development Outlook*.

Yves GUÉRARD is an international expert in pension and social security who has provided consulting services in a number of countries on behalf of multi-lateral international institutions. From 1997 to 2010 he was Secretary General of the International Actuarial Association. Until his retirement in 1999 he was a senior partner in Ernst & Young, management consultants. He became a Fellow of the Society of Actuaries in 1963 and of the Canadian Institute of Actuaries in 1965. He is also an Honorary Fellow of the Institute and Faculty of Actuaries in the United Kingdom and has been granted a PhD in Business Administration (Honoris causa) by the Laurentian University. He is a regular speaker at international conferences and currently serves as a member of the Panel of Senior Advisors to the Auditor General of Canada.

Seong Sook KIM is currently the chief of the Division of Pension Studies at the National Pension Research Institute of the National Pension Service in the Republic of Korea, which she joined in April 1995. She has a doctorate in literature, majoring in social welfare policy at Ewha Woman's University in the Republic of Korea. Her main area of research over the last 15 years has been the National Pension Scheme in the Republic of Korea. She has participated in several government committees related to pension and income security programs, and is now involved in four government committees. She has played a leading role in the Financial Review of the National Pension since this system was introduced in 2003.

Stuart H. LECKIE is based in Hong Kong, China and advises on investments and pensions in Hong Kong, China and PRC. He is the author of the books *Pension Funds in China* and *Investment Funds in China*. He is the founding chairman of the Hong Kong Retirement Schemes Association, acts as a trustee of a number of retirement schemes and is a member of the CFA Institute Advisory Council. He has served as chairman of Watson Wyatt in the Asia-Pacific region and as chairman of Asia-Pacific Fidelity Investments. He has advised the Chinese Government on pension reform and advised the Hong Kong, China authorities on the establishment of the Mandatory Provident Fund.

Giang Thanh LONG is currently vice director of the Institute of Public Policy and Management at the National Economics University, and a research fellow at Indochina Research & Consulting, both in Ha Noi, Viet Nam. He obtained a PhD degree in Public Policy at the National Graduate Institute for Policy Studies in Japan. His research interests include social security pensions, the economics of aging, and micro-simulations of anti-poverty programs for the older persons. His research outcomes have been published and are scheduled to be published in various refereed journals. He is also a consultant for different ministries in Viet Nam as well as international organisations such as ADB, GTZ, HelpAge International, ILO, UNDP, UNFPA, the World Bank and WHO.

Amarendu NANDY is an assistant professor at the Indian Institute of Management, Ranchi. An economist by training, he has a PhD in Public Policy from the Lee Kuan Yew School of Public Policy at the National University of Singapore. He specializes in the field of international migration, and his current research interests include issues of cross-border remittances; inter-linkages between globalization, demographics and migration policies; and social security reforms, with particular reference to India and Southeast Asian countries. He has published several journal articles, book chapters, book reviews, policy briefs and op-ed pieces. He has been a short-term consultant to the World Bank.

Donghyun PARK is currently Principal Economist at the Economics and Research Department of the ADB, which he joined in April 2007. Prior to joining the ADB, he was a tenured Associate Professor of economics at Nanyang Technological University in Singapore. He has a PhD in economics from University of California, Los Angeles, and his main research fields are international finance and trade. His research, which has been published extensively in journals and books, focuses on policy-oriented topics relevant for Asia's long-term development, including Asian pension reform and Asian sovereign wealth funds. He plays a leading role in the production of the *Asian Development Outlook*, ADB's flagship annual publication.

Andrew REILLY is currently the programmer/statistician for the pensions team in the Social Policy Division in the Employment, Labour and Social Affairs Directorate in the OECD, which he joined in May 2007. Prior to this he worked for the Northern Ireland Statistics and Research Agency, mainly covering household surveys and benefit statistics. He is currently primarily responsible for modelling the pension systems within OECD and EU countries as well as those within the Asia-Pacific region. Mr Reilly is co-author of the *OECD Pensions at a Glance* report which is released biennially.

Ernesto REYES holds an MS degree in actuarial mathematics from the University of Michigan as a Government Service Insurance System (GSIS) scholar and is a Fellow of the Actuarial Society of the Philippines. Starting his actuarial career in 1970 with the GSIS, he also provided technical assistance on projects such as the crop insurance program, the land reform program, and viability studies while on detail with other government agencies. Moving into private practice, he was chief actuary of two multinational life insurance companies up to 2000. As an independent consultant, his involvement with pension reform started with his tenure as deputy executive director of the Philippine Retirement Income Commission, followed by World Bank, USAID and ADB funded projects related to pension reform.

Foreword

For the past few decades, Asia's rapid growth has been supported by a large young workforce. A youthful population has enabled Asian economies to reap sizable demographic dividends. However, the region is now in the midst of a rapid demographic transition which will produce a much older population structure in the future. Across the region, the proportion of elderly people in the population is on the rise. Asia's population aging is driven by falling fertility and longer life expectancy. What sets Asia apart from earlier episodes of aging in other parts of the world is the sheer scale and speed of its aging. Indeed, demographic transition is one of Asia's biggest structural shifts in the medium and long term.

A key challenge arising from population aging is to provide adequate old-age income support for Asia's large and growing elderly population. How the region can effectively meet this critical challenge is the central question this book tries to address. Social changes accompanying the region's robust growth have led to weakening of traditional family-based old age support. This suggests that formal pension systems will have to play a bigger role. However, most Asian countries still do not have well established, robust and efficient pension systems. Only a limited segment of the population is covered by pension systems. Nor is the level of benefits adequate in many cases. As a result, many Asians will be unable to achieve old-age economic security from current formal pension systems and are thus at risk of old-age poverty.

It is for these reasons that the Asian Development Bank has embarked on this study to analyze the key structural features and weaknesses of national pension systems in eight Asian countries, namely the People's Republic of China, Indonesia, the Republic of Korea, Malaysia, Philippines, Singapore, Thailand and Viet Nam. On the basis of this analysis, the book sets forth specific and concrete directions for pension reform, both at the country level and for the entire region. Hopefully, those reform directions will help to improve and strengthen Asia's pension systems so they can contribute to inclusive growth which spreads the fruits of growth to the elderly.

While population aging is an Asia-wide trend, we limit the scope of our study to East and Southeast Asia, where population aging is more advanced than in other sub-regions. There is a great deal of heterogeneity even among the eight countries covered in this study. Some of them are relatively young while others are at a

more advanced stage of the demographic transition. Furthermore, they vary widely in income and development levels, as well as in the maturity and strength of their pension systems. Appropriate reforms will therefore necessarily differ across countries, depending on their capacities, needs and circumstances.

While it is important that pension reforms be country-specific, a number of common region-wide lessons for pension reform emerge from the analysis of this book. One common lesson is to strengthen the institutional and administrative capacity of Asian pension systems to enable them to perform their core functions, such as collection of contributions, effectively. A second lesson, which is closely linked to building up institutional capacities, is the need to improve the governance and regulation of Asian pension systems. A third lesson is broadening coverage, as the biggest failure of pension systems is their limited coverage. In light of the need to balance financial capacities with future pension obligations, another important lesson is the need to enhance the financial sustainability of pension systems. This will require bold but necessary adjustments in certain parameters, such as retirement age, contribution rate, and benefits. Related to promoting financial sustainability of pension systems is the need to generate higher returns for pension assets and, in this regard, strengthening domestic financial and capital markets is essential.

Achieving sound and efficient Asian pension systems will require carefully planned strategic measures. Since the road of pension reform is long and difficult, it is crucial that the process of reform be initiated now. We enjoin policymakers, development practitioners, and the general public to make great use of the findings and lessons from this book to enlighten and inform policy discussions about pension reform.

Finally, I would like to take this opportunity to express my heartfelt appreciation to all the Asian Development Bank staff and external experts whose hard work and commitment resulted in this high-quality collective volume which will contribute greatly to discussions of pension reform in developing Asia for years to come. In particular, I would like to thank Joseph E. Zveglic, Jr. who provided strategic support for the research project; Donghyun Park, who originated, conceptualized, supervised, coordinated and led the research project; and Gemma Estrada, who provided excellent administrative support and also made valuable intellectual contributions. This research project has its foundations in the Asian Development Bank's quest for inclusive growth. Growth which fails to spread its fruits to developing Asia's large and growing elderly population cannot be sustainable in the long run. Last but not least, I also wish to thank the external experts – Mukul Asher, Orin Brustad, Yves Guérard, Seong Sook Kim, Stuart Leckie, Giang Thanh Long, Amarendu Nandy and Andrew Reilly and Ernesto Reyes – whose in-depth knowledge of the pension systems of the eight countries contributed a great deal to the success of this project.

Changyong Rhee,
Chief Economist, Asian Development Bank

Abbreviations and acronyms

ADB	Asian Development Bank
AFP-RSBS	Armed Forces of the Philippines Retirement Services Benefit System
AMC	average monthly compensation
AMSC	average monthly salary credit (Philippines)
BFP	Bureau of Fire Protection
BIR	Bureau of Internal Revenue
BKN	Badan Kepegawaian Negara (National Civil Service Agency)
BMP	basic monthly pension
BOAPS	basic old age pension scheme
BSP	Bangko Sentral ng Pilipinas
CP	Contributory pension
CPF	Central Provident Fund
CPF LIFE	CPF Lifelong Income Scheme for the Elderly
CPFIS	Central Provident Fund Investment Scheme
CS	Civil Service
CYS	credit year of MSC
DB	defined benefit
DC	defined contribution
EA	enterprise annuity
EEE	exempt exempt exempt
EET	exemp exempt tax
EET	Exempt-Exempt-Taxable (Indonesia)
EO	executive order
EPF	Employer Pension Fund (Indonesia)
EPF	Employees Provident Fund (Malaysia)
EU	European Union
FIPF	Financial Institution Pension Fund
GDP	Gross Domestic Product
GNI	gross national income
GNS	gross national savings
GPF	Government Pension Fund
GSIS	Government Service Insurance System

GST	goods and services tax
GTZ	German Technical Cooperation
HDB	Housing Development Board
IA	individual account
IC	Insurance Commission
ILO	International Labour Organisation
ILSSA	Institute of Labour Science and Social Affairs
IMF	International Monetary Fund
IP	Investment Panel
JHT	Jaminan Hari Tua (old age savings)
LFPR	labor force participation rate
MC	monthly compensation
MOF/MoF	Ministry of Finance
MoHRSS	Ministry of Human Resources and Social Security
MoLSS	(Former) Ministry of Labor and Social Security
MSC	monthly salary credit
MSS	minimum sum scheme
NACSA	National Assembly Committee for Social Affairs
NAT	National Actuarial Team
NAV	Net Asset Value
NCP	non-contributory pension
NCSSF	National Council for Social Security Fund
NDC	notional defined-contribution
NEM	new economic model
NEP	new economic policy
NHMFC	National Home Mortgage Finance Corporation
NP	national pension
NPF	National Pension Fund (sometimes “National Provident Fund”)
NPRI	National Pension Research Institute
NPS	National Pension Service
NRA	normal retirement age
NSF	National Savings Fund
NSSC	National Social Security Council
NSSF	National Social Security Fund
NTQPP	nontax qualified pension plans
OA	ordinary account
OAP	Old Age Pension
OECD	Organisation for Economic Co-operation and Development
PAG-IBIG	Pagtutulungan sa Kinabukasan: Ikaw, Bangko, Industriya at Gobyerno
PAYG	pay-as-you-go
PD	presidential decree
PE	Private Equity
PERA	Personal Employee Retirement Account

xviii *Abbreviations and acronyms*

PPP	purchasing power parity
PRC	People's Republic of China
PVD	Voluntary Provident Fund
RA	Republic Act (Philippines)
RA	retirement account (Singapore)
RAMC	revalued average monthly compensation
RCPI	Reuter's China Pension Index
RIC	Retirement Income Commission
RMF	Retirement Mutual Fund
SA	special account
SAT	State Administration of Taxation
SAVER	Savings and Employee Retirement Plan
SC	Securities Commission
SEC	Securities and Exchange Commission
SGIC	Singapore Government Investment Corporation
SJSN	Sistem Jaminan Sosial Nasional (National Social Security System)
SMEs	small and medium-sized enterprises
SOCOSO	Social Security Organization
SOE	state-owned enterprise
SRS	Supplementary Retirement System
SSO	Social Security Office
SSS	Social Security System
SWF	sovereign wealth fund
TEE	tax exempt exempt
TFR	total fertility rate
THT	Tunjangan Hari Tua (old Age savings and endowment scheme)
TQPP	tax qualified pension plans
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
US	United States
USAID	United States Agency for International Development
VSS	Viet Nam's Social Security
WHO	World Health Organization

1 Introduction

Why does Asia need well-functioning pension systems?

Donghyun Park and Gemma B. Estrada

1.1 Population aging and old age income support in developing Asia

Old age income support will be one of the biggest social and economic challenges facing developing Asia (henceforth Asia) in the twenty-first century. The growing spotlight on old age income support is largely due to a seismic demographic transition which is fundamentally reshaping Asia's demographic profile. A young continent reaping the demographic dividend of a large youthful workforce is giving way to a greying continent where the ratio of retirees to workers is on the rise. In contrast to industrialized countries, most Asian countries do not yet have mature, well-functioning pension systems. As a result, they are ill prepared to provide economic security for the large number of retirees who loom on the horizon. This chapter takes a brief preliminary look at the pension systems of eight countries in East and Southeast Asia – namely, the People's Republic of China (PRC), Indonesia, the Republic of Korea, Malaysia, Philippines, Singapore, Thailand and Viet Nam – which encompass a wide range of income and development levels. The demographic transition toward older populations is much more advanced in these two sub-regions than in South Asia. The countries are far from homogenous and range from Viet Nam, still a low-income country despite rapid growth in recent years, to Singapore, one of the richest countries in the world (Figure 1.1). They also vary widely in terms of their political systems and financial sector development.

Within the broader region-wide trend of population aging in East and Southeast Asia, there is a great deal of demographic heterogeneity among the eight countries. The eight countries are at very different stages of the demographic transition. In countries such as the Republic of Korea, population aging has already set in whereas countries such as Philippines are still relatively youthful. However, the demographic trends of the eight countries as a whole resoundingly confirm the conventional wisdom of a rapidly aging Asia. All eight countries are experiencing a secular increase in the proportion of the elderly relative to working-age population (Figure 1.2) and total population (Figure 1.3). It is evident that the entire region will have a drastically different, much greyer demographic profile by 2050. As in the industrialized countries, Asia's demographic

2 Donghyun Park and Gemma Estrada

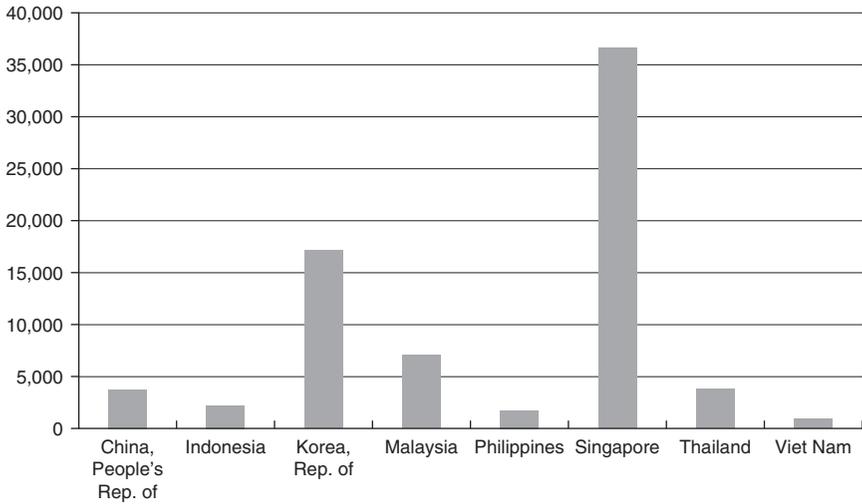


Figure 1.1 GDP per capita, 2009, current US\$.

Source: World Development Indicators 2010, World Bank.

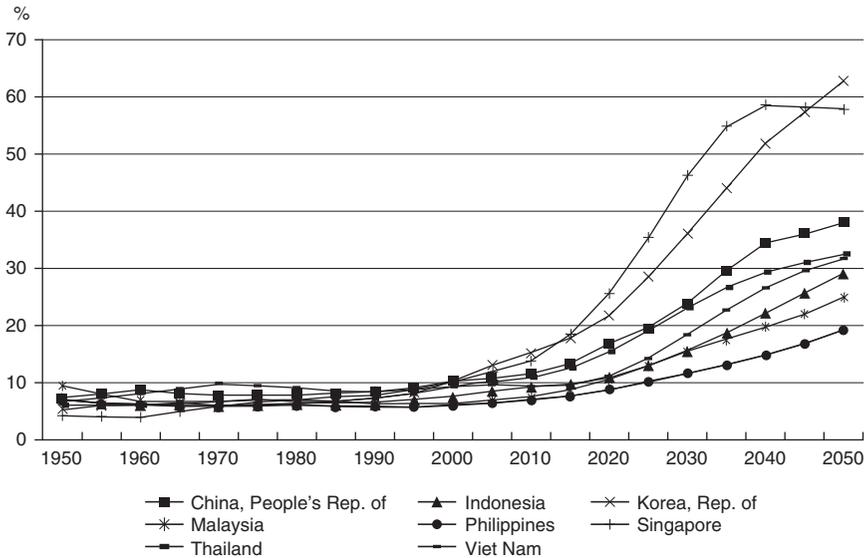


Figure 1.2 Ratio of population aged ≥ 65 to population aged 15–64, 1950–2050.

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision, <http://esa.un.org/unpp>.

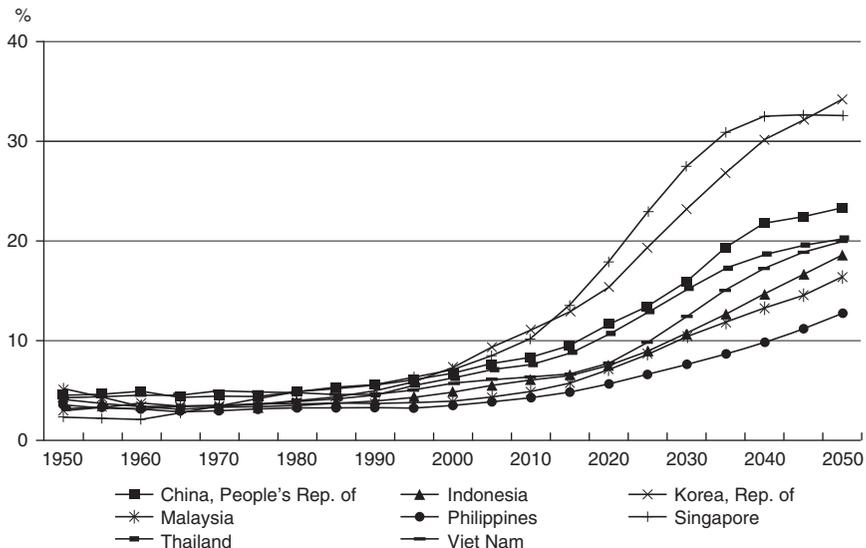


Figure 1.3 Ratio of population aged ≥ 65 to total population, 1950–2050.

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision, <http://esa.un.org/unpp>.

transition is driven by falling fertility (Figure 1.4) and rising life expectancy (Figure 1.5). A constellation of economic and social factors such as fast-rising living standards, improved female education and better medical care is inducing Asians to have fewer children and enabling them to live longer. Other demographic indicators also point unequivocally toward a greying continent (Table 1.1). The median age of all the eight countries except the Philippines will exceed the world average by 2050. Furthermore, life expectancy at 60 is already fairly high and by 2050 fertility rates will fall below levels required for a stable population.

In addition to population aging, a number of other factors also point to an urgent need to strengthen old age support in Asia. In particular, the weakening of informal family-based old age support mechanisms suggests a greater role for formal pension systems throughout the region. Asians have traditionally relied upon their children to take care of their material needs in their old age. The family network was in effect Asia's pension system, especially in rural environments where extended families of three generations often lived together under one roof and younger family members supported older family members. However, the far-reaching social changes that accompanied the region's economic progress have given rise to smaller nuclear families which are less conducive to intra-family support. Such changes include rapid urbanization (Figure 1.6) and declining relative importance of agriculture in the economy (Figure 1.7). In short,

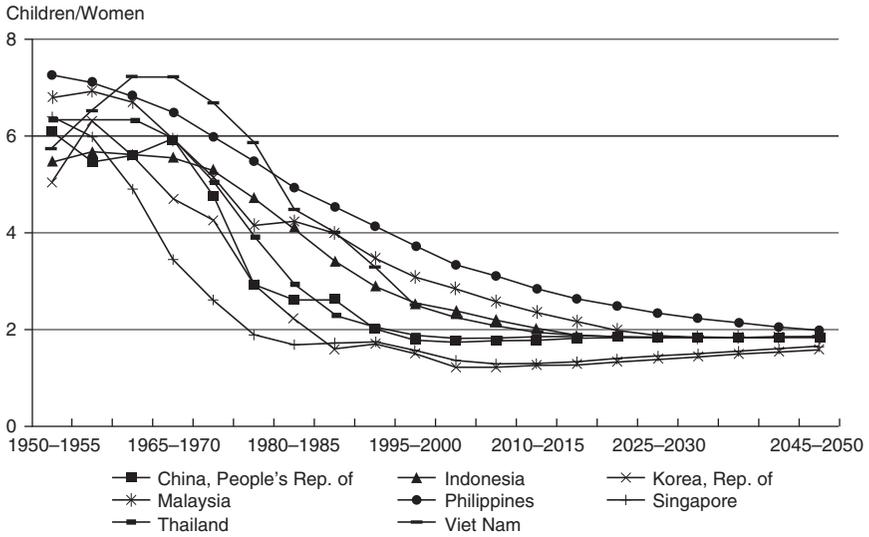


Figure 1.4 Total fertility rates, 1950–2050.

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision, <http://esa.un.org/unpp>.

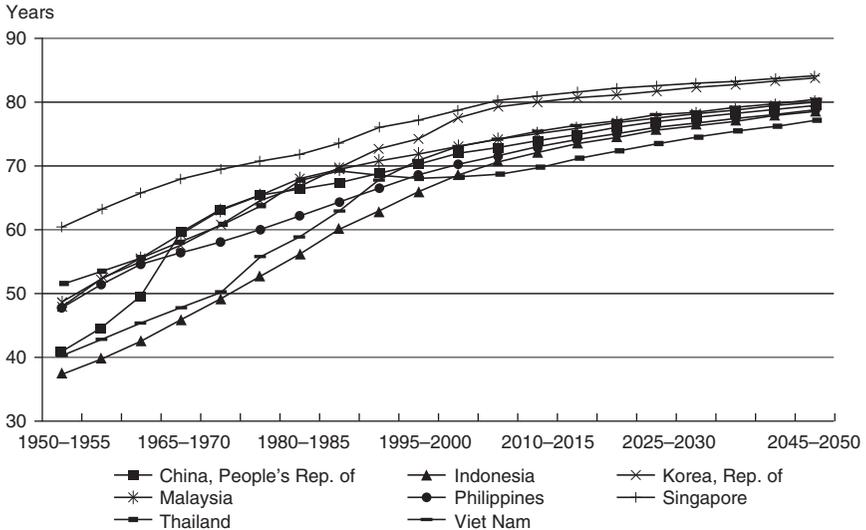


Figure 1.5 Life expectancy at birth (years), 1950–2050.

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision, <http://esa.un.org/unpp>.

Table 1.1 Demographic indicators of selected Asian countries

Country	Total population (millions)		Average annual rate of change of population (%)		Total fertility rate (TFR)			Median age	
	2010	2050	2005–2010	2045–2050	2005–2010	2045–2050	2010	2050	
World	6,908.7	9,150.0	1.18	0.34	2.6	2.0	29.1	38.4	
PRC	1,354.1	1,417.0	0.63	-0.33	1.8	1.9	34.2	45.2	
Indonesia	232.5	288.1	1.18	0.10	2.2	1.9	28.2	41.1	
Korea, Rep. of	48.5	44.1	0.39	-0.77	1.2	1.6	37.9	53.7	
Malaysia	27.9	39.7	1.71	0.41	2.6	1.9	26.3	39.3	
Philippines	93.6	146.2	1.82	0.60	3.1	2.0	23.2	35.0	
Singapore	4.8	5.2	2.51	-0.45	1.3	1.6	40.6	53.5	
Thailand	68.1	73.4	0.65	-0.12	1.8	1.9	33.2	41.4	
Viet Nam	89.0	111.7	1.15	0.09	2.1	1.9	28.5	42.4	

Country	Life expectancy at birth		Life expectancy at 60, 2000–2005		Percentage of population aged 60 and above			Population aged 60 and above (millions)	
	2005–2010	2045–2050	Men	Women	2010	2050	2010	2050	
World	67.6	75.5	NA	NA	11.0	21.9	759.1	2008.2	
PRC	73.0	79.3	18	20	12.3	31.1	166.5	440.4	
Indonesia	70.7	78.6	16	18	8.9	24.8	20.8	71.6	
Korea, Rep. of	79.4	83.8	18	23	15.6	40.8	7.6	18.0	
Malaysia	74.2	80.1	17	20	7.8	22.2	2.2	8.8	
Philippines	71.7	78.7	16	19	6.7	17.9	6.2	26.1	
Singapore	80.3	84.1	20	23	16.0	39.6	0.8	2.1	
Thailand	68.8	77.2	17	22	11.5	26.4	7.9	19.3	
Viet Nam	74.3	80.4	19	20	8.7	26.6	7.8	29.7	

NA = not applicable

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision, <http://esa.un.org/umpp>; United Nations, Gender Info 2010, <http://www.devinfo.info/genderinfo> (both accessed 25 April 2011).

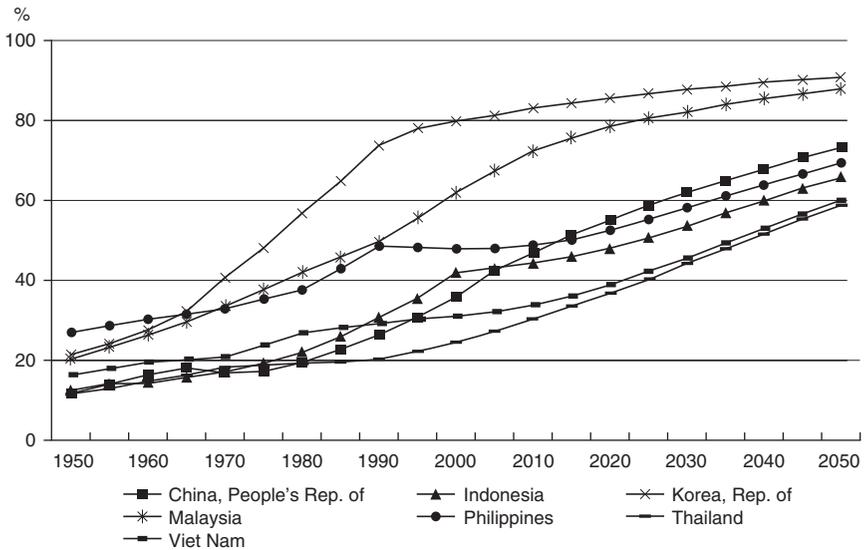


Figure 1.6 Urban population as share of total population, 1950–2050.

Note: Singapore is not included since it does not have rural population.

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision, <http://esa.un.org/wup2009/unup/>

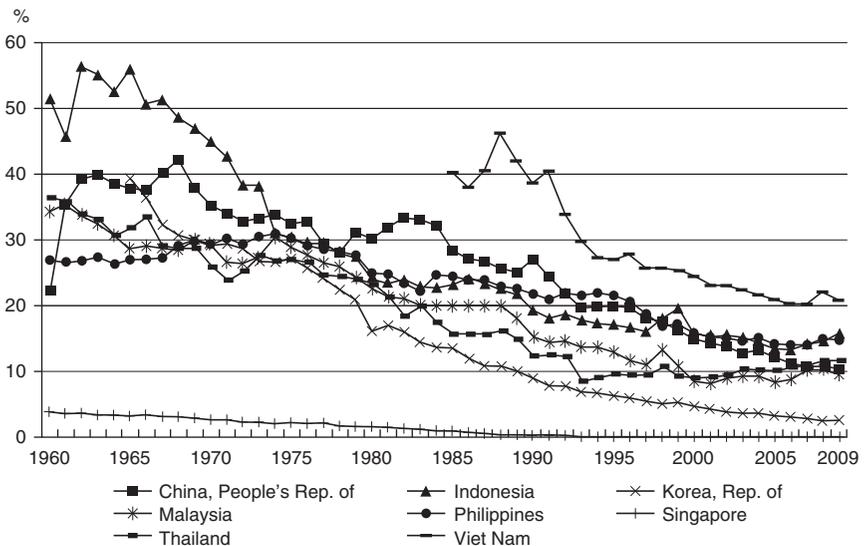


Figure 1.7 Agriculture value added as % of GDP, 1960–2006.

Source: CEIC Data Company; World Bank World Development Indicators online database.

urbanization, industrialization and socio-cultural changes are creating a vacuum in Asia's old age support, a vacuum which must be filled by formal pension systems.

Globalization and globalization-related labor market developments provide further rationale for strengthening Asia's pension systems. While Asia has reaped enormous benefits from globalization, it is not immune from the structural dislocations it wreaks. Globalization produces both winners and losers, and increases the sense of economic and social insecurity. Well-functioning social protection systems, including pension systems, can ease such insecurity and thereby promote public support for globalization. The competitive pressures unleashed by globalization are forcing firms to reduce labor costs. As a result, workers are more likely to lose their jobs at some points in their careers and move from one job to another. In Asia, workers' loss of job security due to globalization is compounded by large numbers of workers in the informal sector (Figure 1.8). Those workers are usually unprotected by labor regulations and lack access to pensions and other social benefits. Asia's growing labor mobility and prevalence of informal employment calls for improving pension coverage and portability in the region.

This chapter is organized as follows. Section 2 'ABCs of Pension Systems', reviews the universal core functions and objectives of pension systems. Section 3 'Brief Overview of Asian Pension Systems' looks at the broad anatomy of the pension systems in the eight countries. Section 4 'Brief Diagnosis of Asian Pension Systems' seeks to identify the main shortcomings of Asia's existing pension systems. Section 5 'The Way Forward for Asian Pension Systems' looks at the main directions for pension reform which emerge from the diagnosis of this chapter.

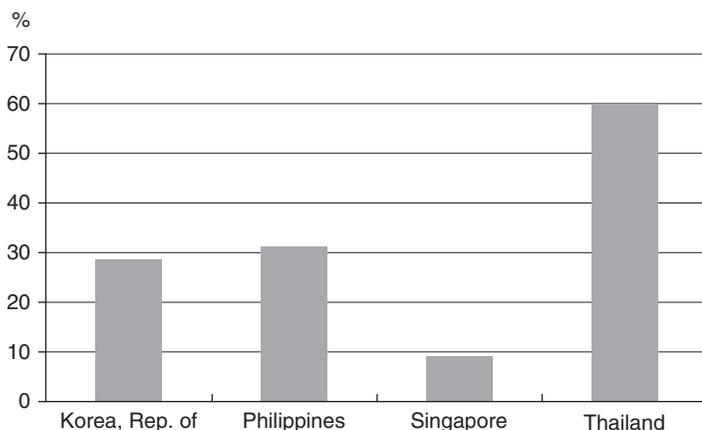


Figure 1.8 Share of informal sector employment in urban employment.

Source: ADB. 2007. *Key Indicators*. Manila.

1.2 ABCs of pension systems

At a broader level, ‘pension’ refers to an annuity or lump sum of cash received by individuals upon their retirement. A narrower definition of a pension refers to an annuity or, more generally, a regular stream of income. While narrowly defined pensions provide a much higher level of old age economic security, throughout this book we will use the broader definition to capture as much of Asia’s old age income support systems as possible. In light of population aging and other trends outlined previously, building well-functioning pension systems capable of protecting older Asians from poverty is no longer a luxury but an absolute necessity. Broadly speaking, an optimal pension system is one which covers as much of the society as possible, delivers adequate yet affordable retirement benefits for its members, and does both on a financially sound basis. For individuals, society and the government, the main objectives of any pension system are to:

- 1 smooth consumption over lifetime;
- 2 provide insurance against longevity risk, inflation risk, investment risk and other risks;
- 3 redistribute income; and
- 4 alleviate poverty.

However, these have to be traded off against economic growth, labor market efficiency and flexibility, and against other needs like health, education and infrastructure. Individual, fiscal and societal affordability should be kept in mind in designing pension systems. Benefits must thus evolve over time as affordability grows.

There are five core functions which any pension system must perform (Ross, 2004). These are:

- 1 reliable collection of contributions, taxes and other receipts, including any loan payments (in some pension schemes, a member is permitted to borrow for housing, education or other purposes but the loan needs to be repaid);
- 2 payment of benefits for each of the schemes in a timely and correct way;
- 3 securing financial management and productive investment of pension assets;
- 4 maintaining an effective communication network, including development of accurate data and record keeping mechanisms to support collection, payment and financial activities; and
- 5 production of financial statements and reports that promote better governance, fiduciary responsibility, transparency and accountability. In developing countries, organizational reforms, which enable a pension system to perform the five tasks more professionally and effectively, are a prerequisite for broader systemic reform.

At the systemic level, a well-designed pension system should have the following properties. Ideally, a pension system should be broad based; that is, *adequate* in terms of both coverage and range of risks covered; *affordable* from individual, business, fiscal and macroeconomic perspectives; actuarially and hence financially sound and *sustainable* over time; *robust* so as to withstand macroeconomic and other shocks; and provide reasonable levels of post-retirement income to form a *safety net* for the elderly poor. The above implies a fairly complex set of functions and objectives for a pension system. The society needs to decide through policymakers on the relative weights given to adequacy, affordability, sustainability, robustness and the level of safety nets. Different societies will make different tradeoffs according to their circumstances; and the same society may opt for different tradeoffs at different stages of its economic development and demographic transition.

More generally, although all pension systems share universal core functions and objectives, there are different kinds of pension systems. Each society will therefore have to decide which kind of pension system best meets its needs. The big strategic choice confronting Asian countries in the context of pension system design is the choice between individual risk bearing and social risk pooling. A good example of individual risk bearing is a defined contribution (DC) pension plan which makes the individual responsible for his own investment and longevity risks. In contrast to individual risk bearing, under social risk pooling, society pools together the risks of all individual members and bears the risks on their behalf. For example, in government-mandated national defined benefit (DB) pension plans, society as a whole shares investment and longevity risks. Related to dichotomy between DB and DC pension schemes is the dichotomy between pay-as-you-go (PAYG) and fully funded pension schemes.

In the real world, pension systems rarely rely exclusively on individual risk bearing or social risk pooling. Instead, pension systems typically incorporate elements of both but differ with respect to the relative importance of each. In fact, the World Bank's multi-pillar model (Box 1.1 on World Bank's Multi-Pillar Model of Old Age Income Support) recommends combining five different pillars of old age income support with varying degrees of social risk pooling. One of the five pillars consists of DB PAYG pension schemes while another pillar consists of mandatory DC pension schemes. The multi-pillar model has greatly influenced current thinking on pension design and reform among policymakers around the world. This has led to a consensus that effective old age income support requires a healthy mix of individual risk bearing and social risk pooling. The multi-pillar model thus provides a useful conceptual framework for thinking about pension design and reform. However, the real challenge for each Asian country is to develop a multi-pillar system which best suits its own needs, preferences and capabilities.

1.3 Brief overview of Asian pension systems

Identifying the directions for pension reform in Asia requires an understanding of the current shortcomings of Asian pension systems. Understanding the

Box 1.1 World Bank's multi-pillar model of old age income support (1994, 2005)

Despite considerable debate and experience in the design and reform of pension systems, no single idea, system or model has emerged among Asian countries. However, from a practical policy point of view, there is a growing recognition in Asia and elsewhere that a multi-pillar system is better able to address the various risks associated with population aging than reliance on a single-pillar system. The World Bank's seminal 1994 report *Averting the Old Age Crisis* laid out a three-pillar model for pension systems. The model has since then become a common point of reference for thinking about pension system design and reform.

The first pillar was pay-as-you-go, DB pension schemes which were publicly managed and financed by either social security contributions or general taxes. These were the traditional pension schemes based on social insurance principles. The second pillar was mandatory DC pension schemes which were funded, privately managed and based on individual accounts. The second pillar was emphasized by the 1994 report, which was pessimistic about the future of the first pillar even in OECD countries. The third pillar of privately managed, voluntary savings was to support and complement the second tier in providing economic security.

In its 2005 report, *Old-Age Income Support in the 21st Century*, the World Bank has added more nuance to its basic three-pillar model. The resulting five-pillar model adds a zero pillar which provides a minimum level of protection as well as a fourth pillar which includes family support. The fourth pillar is of particular importance in Asia, where parents were traditionally supported by their children in their old age. The zero pillar reflects an emerging consensus that the lifetime poor require basic pension or social assistance financed from general budgetary revenues. The lifetime poor may constitute as high as 30% of the total labor force in some developing Asian countries. The World Bank's multi-pillar model provides the intellectual underpinnings of the now widely accepted notion that a mixture of DB and DC schemes, with varying degrees of social risk pooling, is required for a well-functioning pension system.

shortcomings of Asian pension systems, in turn, requires a basic understanding of Asian pension systems themselves. One key characteristic of a pension system is the retirement age, or the age at which retirees begin to receive their benefits. This ranges from 55 in Indonesia, Malaysia and Thailand to 65 in the Republic of Korea and Philippines (Table 1.2). Retirement age is lower for women than men in the PRC and Viet Nam. The difference between life expectancy and

Table 1.2 Retirement age and basic structure of pension systems, 2007

Country	Retirement age (years)	Difference between life expectancy and retirement age (years)	Defined benefit or defined contribution	Element of income redistribution
China, People's Rep. of	60 (55)	13 (18)	Defined benefit, Defined contribution	Yes
Indonesia	55	15.7	Defined contribution	No
Korea, Rep. of	65	13.6	Defined benefit	Yes
Malaysia	55	19.2	Defined contribution	No
Philippines	65	6.7	Defined benefit	Yes
Singapore	62	18	Defined contribution	No
Thailand	55	15.6	Defined benefit	No
Viet Nam	60 (55)	14.2 (19.2)	Defined benefit	No

Notes: The pension age in parentheses refers to the pension age for women, where different from men. Life expectancy refers to life expectancy at birth.

Source: Park (2009).

retirement age is the number of years that a retiree has to depend on pension benefit for old age support. Other things being equal, the larger this difference, the larger the liabilities of the pension system. The life expectancy–retirement age gap ranges from 6.7 years in the Philippines to 19.2 years in Malaysia and for women in Viet Nam. The retirement age is expected to rise throughout Asia in response to rising life expectancy.

In some countries, including Australia, Chile and Hong Kong, China, the pension systems have been set up by the government but are run by the private sector. Individual members can choose from among different private-sector investment funds. In contrast to such countries, the pension systems of all eight countries are managed by the government. However, the basic structure of the pension systems for formal-sector workers is far from uniform in the eight countries. The pension systems of the PRC, Indonesia, Malaysia and Singapore are DC or partly DC while those of the Republic of Korea, Philippines, Thailand and Viet Nam are DB.¹ DC systems are generally *prefunded* while DB systems are not. The structure of the PRC's pension system combines a DB pillar with another pillar consisting of DC account. Among the eight countries, ignoring the broader social safety nets, only the pension systems of three countries explicitly redistribute income. The Philippines has a minimum pension which pays higher benefits to poor retirees. In the PRC, the redistributive element takes the form of a DB basic pension. In both the PRC and the Republic of Korea, pension benefits depend partly on average earnings.

The formula for computing pension benefits varies widely across the four countries with DB pension systems – the Republic of Korea, Philippines, Thailand and Viet Nam (see Box 1.2 on Benefit Rules of Asian Pension Systems). Areas of differences include the earnings measure used to compute benefits, indexation of benefits to wages and prices, and qualifying conditions for pension eligibility. For an individual who enters the labor market at 20, the DB

Box 1.2 Benefit rules of Asian pension systems

People's Republic of China: Both the DC pay a lump sum consisting of accumulated contributions and interest income upon retirement. The redistributive basic pension is a DB pension, and pays 1% of the average of city-wide average earnings and individual earnings for each year of coverage, subject to a minimum of 15 years of service. The earnings basis for benefits is city-wide because pension systems are organized on a municipal basis. The basic pension is indexed to a mix of wages and prices.

Indonesia: The DC pension pays a lump sum consisting of accumulated contributions, net of pre-retirement withdrawals, and interest income upon retirement.

Republic of Korea: For an individual with 40 years of contributions, pension benefits were designed to replace 60% of earnings until 2007. Due to pension reform, the replacement has been reduced to 50% in 2008 and then will be reduced 0.5% every year until making 40% from 2009 to 2028. The earnings measure used for computing benefits is a weighted average of individual lifetime earnings, adjusted for wage growth, and economy-wide earnings over the previous three years, adjusted for price inflation. Pension benefits are indexed to price inflation.

Malaysia: The DC pension pays a lump sum consisting of accumulated contributions, net of pre-retirement withdrawals, and interest income upon retirement.

Philippines: The monthly basic pension which is independent of earnings is 300 pesos. The earnings-related component of the monthly pension is the greater of: (1) 20% of workers' average monthly earnings plus 2% of average monthly earnings for each year of service exceeding 10 years or (2) 40% of the workers' average monthly earnings. The earnings basis is the greater of: (1) average earnings over 5 years prior to pension claim or (2) average earnings for the period in which contributions were made. Benefits are periodically adjusted for price inflation and wage growth on

an ad hoc basis. The minimum pension for those who qualify – that is, minimum of 1,000 peso salary bracket – is 1,200 pesos if they complete at least 10 years of service and 2,400 pesos if they complete at least 20 years of service. For those who are considered the elderly poor and have not been part of any mandatory pension system, the new senior citizens act of 2010 provides for a monthly allowance of 500 pesos.

Singapore: The DC pension pays a lump sum consisting of accumulated contributions, net of pre-retirement withdrawals, and interest income which is over and above a minimum specified sum. From 2013, a member must purchase deferred annuity with the minimum sum.

Thailand: Workers accrue 1% of their earnings each year up to a maximum of 35 years. The base wage used to compute benefits is the average wage over the last 5 years prior to retirement. For example, an individual who worked for 20 years would be entitled to 20% of the base wage. Rules for indexing benefits to wage growth and price inflation are discretionary.

Viet Nam: The monthly pension is the sum of three components: (1) 45% of career average earnings for employees with at least 15 years of service, (2) 2% and 3% of the average earnings for each year of credited service beyond 15 years for males and females, respectively and (3) a lump sum equal to 50% of the 5-year average monthly earnings prior to retirement for those with more than 30 years of contribution. Pension benefits are indexed to changes in the minimum wage.

replaces 85% of income in Viet Nam, 80% in Philippines, 50% in the Republic of Korea and 35% in Thailand. The corresponding figure for the PRC's redistributive basic pension is 40%. Under the DC and notional DC pension systems of the PRC, Indonesia, Malaysia and Singapore, the worker receives a lump sum consisting of accumulated contributions and interest income upon retirement. The contribution rate for employees and employers differs substantially across countries (Figure 1.9). Employee contribution rate ranges from 2% of wages in Indonesia to 20% in Singapore. It should be pointed out that workers also make contributions under DB systems. Total contribution rates are the highest in Singapore and Malaysia and lowest in Indonesia and Thailand.

It was noted earlier that Asian countries face a strategic choice between social risk pooling and individual risk taking in pension system design. The pension systems of Indonesia, Malaysia and Singapore are unique in the region for their heavy tilt toward individual risk taking and relative absence of social risk pooling. Unlike the other countries of the region, the three countries explicitly

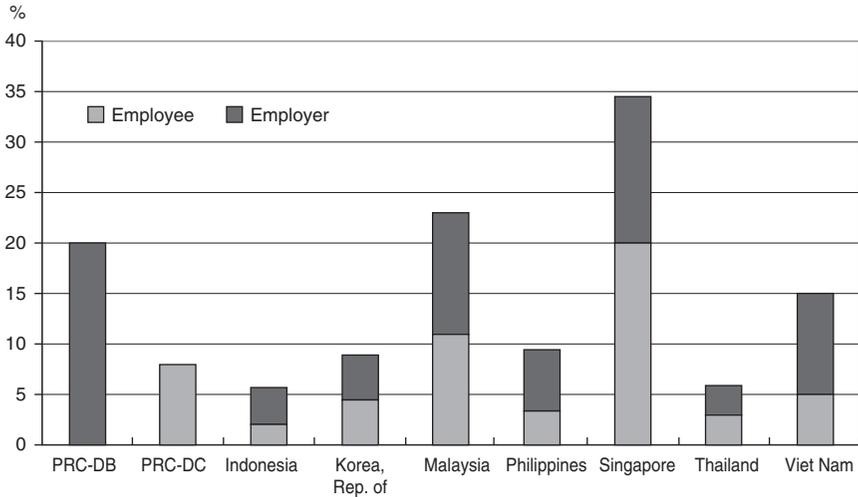


Figure 1.9 Employee, employer and total contribution rates of pension systems, 2007.

Source: Park (2009).

reject the social insurance principle in old age income support. Malaysia and Singapore have national provident funds, which are essentially mandatory savings schemes. Singapore set up its Central Provident Fund (CPF) in 1955 and Malaysia established its Employees Provident Fund (EPF) in 1951. Employers and employees are required to make contributions to the funds, which are managed by government organizations on behalf of employees, each of whom has an individual account. Although the primary purpose of the two funds is to encourage saving for retirement, both CPF and EPF allow their members to use their balances for a variety of purposes. These include housing, pre-retirement investments and tertiary education. Furthermore, members can use part of the balances solely for health expenditures. The mandatory savings nature of the funds has contributed to high national savings rates. In Indonesia, accumulated savings are paid in lump sums at termination of employment, only 8% of which takes place at retirement.

Relative to Indonesia, Malaysia and Singapore, social risk pooling plays a greater role in the pension systems of the other countries. However, these five countries diverge widely in terms of the economic, institutional and technological capacity needed to apply the social insurance principle on the ground. For example, the Korean pension system is a comprehensive social security system comparable to those found in welfare states. At the other end, Indonesia is just beginning to plan the foundations of a new social insurance-based social security system. The main pension systems of the Republic of Korea, Philippines, Thailand and Viet Nam are all DB systems which protect individual members from investment and longevity risks. In the PRC, the DB scheme is a redistributive basic pension.

Indonesia is moving toward a more mixed system with greater social assistance. The DB pension systems of the region are largely PAYG. Only the Republic of Korea's DB system involves significant amount of pre-funding. The benefit payments of the other DB systems depend almost exclusively on the contributions of current workers.

Another noteworthy characteristic of many Asian pension systems is that they are relatively new and very much in a state of flux. The oldest systems are those of Malaysia, Philippines and Singapore but even those are constantly evolving. The relatively advanced Korean system was only created in 1988 and is still undergoing reforms. Indonesia enacted a law designed to establish a comprehensive social security system in 2004, although it has yet to be implemented. Likewise, Thailand and Viet Nam are also in the process of revamping their pension systems to extend coverage and improve benefits. The ongoing evolution of the PRC's pension system reflects the extensive structural transformation of its economy and society. A milestone 1997 decree provides the basic structure of the new two-pillar pension system: (1) PAYG DB basic pension; and (2) funded DC pensions. The PRC is in the middle of a systemic consolidation from a highly fragmented system to the two-pillar state system.

The total size of pension assets in a country is relevant from a macroeconomic viewpoint. For example, the assets of the provident funds of Singapore and Malaysia represent a large part of national savings. Total pension assets also influence the impact that liberalizing pension asset investment has on financial markets. Countries such as the Republic of Korea, Singapore and Malaysia have set up public funds to manage the contributions of funded or partially funded pension systems. The public funds of Thailand and Philippines manage the contributions of pension schemes for civil servants. The PRC established a dedicated reserve fund – the National Social Security Fund – in 2000 to help cover future pension liabilities arising from demographic trends. The assets controlled by Asia's public pension and reserve funds are quite sizable but vary widely across countries. Total pension assets in 2006 ranged from less than US\$1 billion in Indonesia to more than US\$180 billion in the Republic of Korea. The ratio of state pension assets to GDP is the highest in Singapore, Malaysia and the Republic of Korea (Figure 1.10). The overall trend in the investment portfolios of Asia's pension funds is toward greater diversification in terms of both asset classes and rising share of overseas investments.

1.4 Brief diagnosis of Asian pension systems

The brief survey of Asian pension systems indicates a great deal of heterogeneity in design and structure. Pension reform requires a diagnosis of the main weaknesses of the pension systems. Those weaknesses impede the ability of pension systems to fulfill their basic objectives such as enabling consumption smoothing and relieving poverty. A diagnosis is essential for identifying the main areas of pension systems which need to be improved and strengthened, and hence for mapping out the strategic directions of reform. Broadly speaking, Asian pension

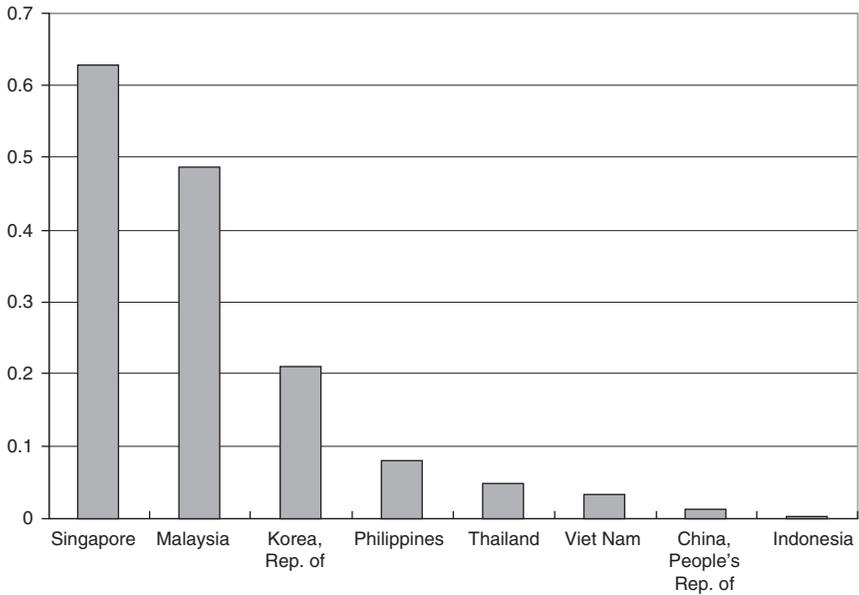


Figure 1.10 The ratio of total pension assets to GDP, 2006.

Notes: PRC's assets refer to those of National Social Security Fund. The assets of Philippines and Thailand refer to those of the pension systems for government workers.

Source: Park (2009).

systems suffer from failures in (1) performing the five core functions of pension systems, as well as (2) fulfilling the ideal properties of pension systems such as adequate coverage. Those failures suggest that Asian pension systems still have some way to go if they are to achieve their main objectives.

1.4.1 Performance of five core functions

There is a fundamental difference between developing and developed countries in the context of pension reform. The institutional capacity of developing countries lags considerably behind that of developed countries. It is thus unproductive to frame pension design and reform issues in Asia in the same terms as in developed countries with more well-established pension systems. With the exception of the Republic of Korea and Singapore, there is significant scope for reducing administrative and other transaction costs. The prevalence of such costs constrains the amount of resources which can be made available to pensioners. More importantly, high administrative and transaction costs impede the ability of pension systems to perform the five core functions to varying degrees in the PRC, Indonesia, Malaysia, Philippines, Thailand and Viet Nam. For example, administrative inefficiency interferes with the collection of contributions from and

payment of benefits to hard-to-reach groups such as rural and informal sector workers. The fact that many Asian pension systems are in a state of flux further adds to their high administrative and transaction costs.

Compliance cost is a specific transaction cost which adversely affects the pension systems of many Asian countries. Compliance cost refers to the cost to the employers and the employees of complying with the provisions of pension systems. For example, employers have to collect contributions from employees and remit them to relevant authorities, in addition to contributing their share. Compliance costs are high when the pensioner does not get benefits on time, and has to make several trips to ensure that benefits are paid. Furthermore, in some countries, the employees have to pay bribes to receive statutory benefits which they have rights to. If compliance costs are too high, employers and employees may choose not to participate in the pension system. Furthermore, if the government has only limited capacity to enforce compliance, employers may evade rather than contribute. Even in countries with superficially comprehensive pension systems, such as the Philippines, widespread non-compliance means a wide gulf between nominal and effective old age income support.²

The lack of institutional capacity can be attributed in large part to the generally weak governance and regulation of Asian pension systems. Effective performance of the five core functions of pension systems requires efficient governance, management and regulation. In pre-funded pension systems, governance and regulation are especially important for the sound financial management and productive investment of pension assets. In well-developed financial markets such as North America and the EU, pension funds are subject to explicit regulatory structures and laws governing pension funds. In contrast, in Asia banks and insurance companies are regulated but there has been a glaring absence of regulatory body for pension funds. Lack of strong governance and regulation also breeds lack of public confidence in pension systems, which, in turn, discourages compliance and participation. Political support for pension systems will remain fragile unless the general public is confident that they will honor their future promises.

1.4.2 Issues in pension system design

At one level, Asian pension systems are failing because they fail to effectively perform the five core functions of pension systems due to high transaction costs and lack of strong governance. At another level, they are failing because to varying degrees they are not well-designed – that is, adequate, affordable, robust, sustainable and equitable – pension systems. At this level, the biggest failure of Asian pension systems is that they cover only a limited part of the total population, and the covered are usually the better-off groups. The percentage of population covered by pension system differs from country to country, but no country has managed to achieve anywhere near universal coverage. The share of the labor force which is covered by pension systems ranges from 13.2% to 58% (Figure 1.11). The coverage rate for working-age population ranges from

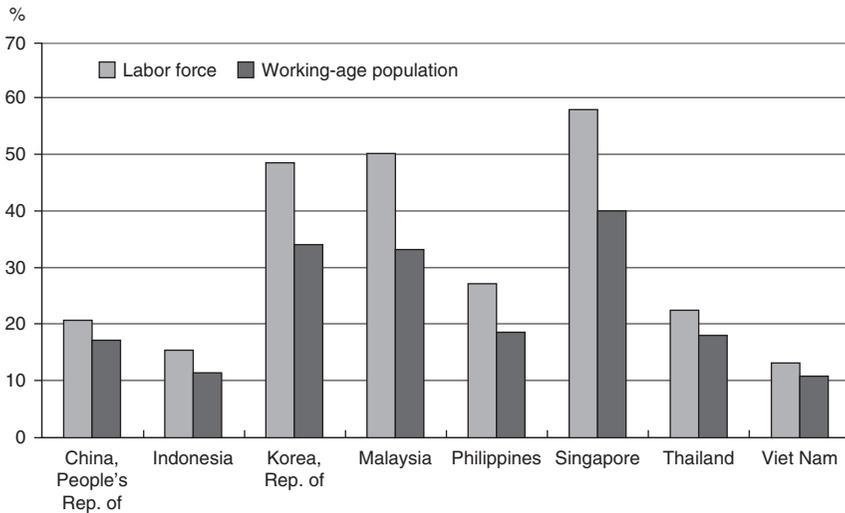


Figure 1.11 Share of labor force covered by pension systems and share of population aged 15–64 covered by pension systems, 2007.

Source: Park (2009).

10.8% to 40%. By way of comparison, in developed countries such as the US, Japan and Germany, pension systems typically cover around 90% of the labor force and between 60% and 75% of the working-age population. Therefore, even in high-income Asian countries such as the Republic of Korea coverage falls well short of developed-country levels.

The coverage of Asian pension systems tends to be skewed toward urban areas and the formal sector. For example, in the PRC it is estimated that less than 10% of rural workers have pension coverage. Low rural coverage, in combination with the large numbers of rural workers, helps to account for the PRC's low overall coverage rate of 20.5% of labor force and 17.2% of working-age population. Massive rural-to-urban migration is adding to the pool of informal-sector workers in the PRC, Viet Nam and other countries. The limited coverage of rural and informal-sector workers reflects the high administrative costs of reaching them and the limited institutional capacity of Asian pension systems. Pension coverage is also higher for government workers, including military forces, than private-sector workers throughout the region. In fact, in many Asian countries, including the Republic of Korea and Viet Nam, pension systems initially covered only government workers. Government workers' better access to pension systems is part and parcel of the privileged position and stronger rights they enjoy relative to private-sector workers. A general lack of portability in Asian pension systems also contributes to the low coverage. For example, Chinese workers migrating from the countryside cannot readily join the urban pension system.

Another key performance indicator where Asian countries perform poorly is the replacement rate, or the ratio of retirement income to pre-retirement income. The replacement rate is a widely used measure of the adequacy of pension benefit as a source of post-retirement income. A higher replacement rate enables the pensioner to achieve a higher standard of living. Pension experts generally recommend a replacement rate of between 60 to 75%, after a working lifetime adjusted for inflation. A pension modeling study completed in 2008 by the Asian Development Bank (ADB) computed the replacement rate for Asian pension systems. According to the ADB study, the replacement rate ranges from 19% in Indonesia to 77% in the Philippines (Figure 1.12). The computed replacement rates are higher in the PRC, the Republic of Korea, the Philippines and Viet Nam than in Indonesia, Malaysia, Singapore and Thailand.³ Among the eight countries, only the Philippines has replacement rates within the recommended range. This implies that by and large Asian pension systems are not providing an adequate retirement income for retirees.⁴

The apparent adequacy of the Philippine pension system brings the issues of sustainability and affordability to the fore. Sizable benefits for a high share of the population are not sustainable in the long run if the country cannot afford such a generous pension system. In this case, the adequacy of the pension system is more apparent than real. A widely used index of sustainability is implicit pension debt, which can be broadly defined as the present value of future pension promises minus pre-funding, if any. As noted earlier, in Asian countries with DB pension systems, pension promises are unfunded or only partly funded. Earlier studies by the World Bank found the implicit pension debt of the Philippines,

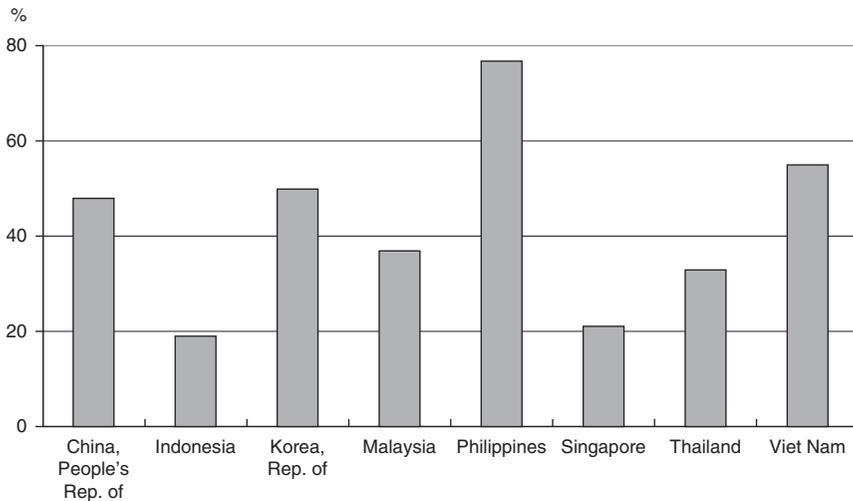


Figure 1.12 Replacement rate – ratio of retirement income to pre-retirement income, 2007.

Source: Park (2009).

the PRC and the Republic of Korea to be substantially larger than the public debt of those countries.⁵ Therefore, relatively healthy fiscal positions should not be allowed to obscure the fiscal risks due to large future pension liabilities. Furthermore, in all three countries the relative size of the implicit pension debt is large enough to raise concerns about the pension system's ability to honor its future promises. In the Republic of Korea, such concerns have spurred a reduction of benefits beginning in 2008. The implicit pension debt is much higher in the PRC and the Philippines than in the Republic of Korea, which suggests that the need for sustainability-enhancing reform is even stronger in those two countries.

Asian pension contribution rates are generally quite low and hence seemingly affordable for both employers and employees. However, widespread non-compliance in many lower income Asian countries suggests that the true pension costs are higher and hence less affordable for individuals. On the other hand, pension costs do not seem to significantly distort the incentives of employees to work and employers to hire, even in countries with the highest contribution rates. Given that many Asian pension systems are still evolving and consolidating, it is too early to tell whether they are robust against macroeconomic and other shocks. However, the more established pension systems of the region have come through the 1997–8 Asian financial crisis and the 2008–09 global financial crisis unscathed.⁶ Finally, it was earlier seen that only the pension systems of the PRC, the Republic of Korea and the Philippines have safety nets designed to protect the elderly poor. However, those safety nets fail to provide enough income for even a minimum standard of living. For example, the basic monthly pension in the Philippines is only 300 pesos or about US\$7, and a recently introduced means-tested benefit for the Korean elderly is only about 5% of average wage. The replacement rate for low-income workers substantially exceeds that of average-income workers in the PRC, the Republic of Korea and the Philippines but not in the other countries.

1.5 The way forward for Asian pension systems

The diagnosis of the current state of Asian pension systems should make it abundantly clear that there is an urgent case for pension reform throughout the region. There is substantial scope for improving the effectiveness of the pension system in performing its five core functions in many Asian countries. Asian countries are also still a long way off from having well-designed pension systems which satisfy ideal systemic properties such as adequacy and sustainability. Since failures in both function performance and system design stand in the way of good performance, addressing both types of failure is essential for pension reform. Asian countries vary greatly in terms of their pension-related needs and capacities. There are thus no one-size-fits-all solutions when it comes to pension reform in Asia. However, a number of common region-wide themes emerge from the diagnosis of Asian pension systems. Those themes will help to set the directions for pension reform throughout the region.

One common area of reform is to strengthen the *institutional and administrative capacity* of Asian pension systems to perform the five core functions of a pension system. Strengthening institutional capacity is the point of departure for pension reform in Asia since building a well-functioning pension system is simply not possible without adequate institutional capacity. The lack of capacity is more pronounced in poorer countries such as the PRC, Indonesia and Viet Nam but affects the other countries as well. The mundane nature of core functions such as developing accurate data and record keeping systems should not detract from their significance for Asian pension reform. In the sequencing of pension reform, the nitty-gritty homework of capacity-enhancing organizational reform should be completed before broader systemic reform.

A second common area of reform, related to the first, is the need to improve the *governance and regulation* of Asian pension systems. Strong governance and regulation are essential for the operational efficiency and transparency of *any* pension system. They are also essential for building up the institutional capacity to perform the five core functions. Examples of specific measures to promote governance include better accounting, more rigorous financial controls, human resource development, computerization and greater disclosure to stakeholders. The current regulatory structures for pensions in Asia are generally weak. There is thus a strong case for a dedicated regulator to ensure professionalism in performing core functions, to develop the pension fund industry, promote financial education, and help to bring about a systematic perspective which integrates the different components of the pension system.

In light of low pension coverage throughout the region, a third area of reform is *expanding coverage*. Even in richer economies such as the Republic of Korea and Malaysia, coverage is far from universal and there remains substantial scope for further widening coverage. Administrative inefficiency hampers the ability of Asian pension systems to cover more than a limited segment of the population. Coverage expansion should first target the formal sector and only later extend into the informal sector. Due to the growing mobility of Asian workers, lack of pension portability is becoming a major deterrent to expanding coverage. One solution is to offer fiscal incentives for DC occupation pension plans based on individual accounts. One major benefit of such plans is their portability. In countries with fragmented pension systems, such as that of the PRC which is organized on the basis of cities, better coordination and possibly consolidation will also enhance portability.

There is a real danger that Asia's pension systems, if left unreformed, will be unable to honor their future pension promises. Therefore, *enhancing financial sustainability* is another area of pension reform, especially in countries with DB pension systems. Painful but necessary reforms which adjust the parameters of the pension system – that is, retirement age, contribution rate, benefits – are required to promote sustainability. Asia's population aging favors a larger role for fully funded DC pension systems, which are less vulnerable to demographic pressures. More generally, pre-funding, which can also occur under DB systems through accumulation of reserves, renders the payment of benefits

less dependent on the willingness and ability of future workers to support the elderly.

At least some pre-funding is desirable in light of Asia's rapid population aging, and Asian countries are already beginning to move in that direction. A prominent example is the PRC's establishment of the National Social Security Fund. With more assets to manage, it is imperative for Asian pension funds to *improve the returns* from the assets they manage. The past experiences of the highly regarded Chilean pension system clearly illustrate that this is possible even for developing countries.⁷ In the past, government interference has channeled much of the funds into low-return domestic assets, often for policy-based investments. However, Asian governments have now begun to deregulate and liberalize pension fund management. For example, the share of foreign assets is growing in the pension funds of the Republic of Korea, Malaysia, the Philippines and Thailand. Maximizing the returns from pension funds requires the deepening and broadening of domestic financial and capital markets. In this sense, financial development is as much a pre-condition as a hoped-for byproduct of pension reform. Higher returns from better asset management allow for more adequate benefits and strengthen financial sustainability.

Given their general failure to provide safety nets, Asian pension systems must strive to do a much better job of *protecting the elderly poor*. Old age poverty is especially relevant for Asia, where large numbers of the lifetime poor will never participate in formal pension systems. Indeed, the lifetime poor may constitute as much as 30% of the labor force in some Asian countries. The best way to provide old age income support for the elderly poor is to establish a universal social pension system which pays a small amount for basic sustenance to the entire population. An alternative to universal coverage is to limit the beneficiaries through means testing. Either way, the basic social pension will be financed from general budgetary revenues rather than contributions. Setting up a separate social pension system with the explicit objective of poverty relief also helps prevent the ad hoc uses of the main pension system's funds.

There is also a case for Asian policymakers to *think outside the box*. There is no reason why the parameters facing the pension system should necessarily be constant. For example, government policies may help reverse or slow down the fall in fertility and encourage longer working lives, which would change the demographic and financial equations facing Asian pension systems. Better health enables people to work longer, and government policy can encourage firms to retain or hire older workers. The Republic of Korea, which has tried to limit population growth for decades, has reversed course and is now offering a wide range of fiscal incentives to encourage larger families. Policymakers may also provide tax breaks for children who support their parents. Filial piety cannot be legislated but it could be influenced by financial incentives. Box-changing policies entail fiscal costs of their own so these will have to be weighed against their benefits.

After decades of growth-oriented policies and rapid economic growth, Asia is finally paying more attention to social protection. This shift is not merely due to

the fact that Asian countries have become richer and can thus afford to devote more resources to protecting their citizens from various risks. It also reflects a growing recognition that the traditional narrow definition of growth is harmful for inclusive growth. In light of Asia's rapid population aging, a particularly important component of social protection is to protect the old from not having adequate income to meet their needs. Economic growth in a society where a large and growing segment of the population is poor and marginalized cannot possibly be inclusive. More fundamentally, Asia's demographic trends mean that the social and political constraints to sustaining high growth may eventually become overwhelming in the absence of well-functioning pension systems. Therefore, the case for urgent pension reform in Asia is as much economic as social.

The eight countries covered in this study are characterized by a great deal of heterogeneity. This is not only true for income and development levels but also in the maturity and strength of their current pension systems. More generally, the eight countries differ a lot in terms of their constraints and preferences with respect to old age income support systems for their large and growing population of the elderly. Given the country-specific nature of the problems they face in building up well-functioning pension systems, the policies and reforms they must put in place will necessarily also be country-specific. The next eight chapters of this book will provide an in-depth diagnosis of the pension systems of the PRC, Indonesia, the Republic of Korea, Malaysia, the Philippines, Singapore, Thailand and Viet Nam. Most importantly, based on the diagnosis, the chapters recommend a number of concrete and specific policies which will help the countries adequately prepare for a greyer future. The country chapters were prepared by highly respected and knowledgeable experts with broad, deep and policy-relevant knowledge of their respective country's pension systems: the PRC – Stuart Leckie; Indonesia – Yves Guerard; the Republic of Korea – Seong Sook Kim; Malaysia and Singapore – Mukul Asher; the Philippines – Ernesto Reyes; Thailand – Orin Brustad; and Viet Nam – Giang Thanh Long. Chapter 10 concludes the book with the key country-specific policy recommendations as well as some common region-wide reform directions which emerge from the country chapters. The Appendix is an executive summary of the main findings of OECD's *Pensions at a Glance Asia-Pacific*. This OECD publication reports and discusses the main results of pension modeling exercises which produce quantitative estimates of key indicators such as replacement rates.

Notes

- 1 In the special case of Indonesia, the main public pension system – Jamsostek – pays a lump sum upon termination of employment, less than 10% of which take place at retirement age. The plans for civil servants, armed forces and a majority of occupational plans are DB.
- 2 Regardless of the form of government, public confidence and trust plays a key role in an effective pension system. A pension is, after all, a promise of benefits in the distant future in exchange for contributions made today.

- 3 In the Republic of Korea, sustainability-enhancing parametric reforms have further reduced the replacement rate to 40% starting in 2028.
- 4 An important caveat to this assessment is that, in principle, the target replacement rate can be achieved by a multi-pillar system even if it cannot be achieved by a public pension system.
- 5 See Holzman *et al.* (2004) and Sin (2005).
- 6 Pension funds have long-term investment objectives, especially if they pay out annuities rather than lump sums, so they are uniquely positioned to ride out short-term volatility in financial markets.
- 7 However, the Chilean system's investment returns have not been as impressive in more recent years, prompting major reforms such as strengthening the zero pillar financed out of the government budget.

References

- Allianz Global Investors (2007) *Asia-Pacific Pensions 2007: Systems and Markets*. Munich: Allianz Global Investors.
- Arenas de Mesa, A. and Mesa-Lago, C. (2006) 'The Structural Pension Reform in Chile: Effects, Comparisons with Other Latin American Reforms, and Lessons', *Oxford Review of Economic Policy* 22(1): 149–167.
- Asher, M. and Nandy, A. (2006) 'Governance and Regulation of Provident and Pension Funds in Asia', in Ramesh, M. and Howlett, M. (eds) *De-regulation and its Discontents: Rewriting the Rules in the Asia Pacific*. Cheltenham: Edward Elgar.
- Asher, M. (2002) 'Southeast Asia's Social Security Systems: Need for a System-wide Perspective and Professionalism', *International Social Security Review* 55: 71–88.
- Asian Development Bank (ADB) (2008) 'Pension Modeling Study for Eight East Asian Countries', unpublished manuscript, ADB, Manila.
- Barr, N. (2002) 'Reforming Pensions: Myths, Truths and Policy Choices', *International Social Security Review* 52(2): 3–36.
- Barr, N. (2006) 'Pensions: Overview of the Issues', *Oxford Review of Economic Policy* 22(1): 15–39.
- Barr, N. and Diamond, P. (2006) 'The Economics of Pensions', *Oxford Review of Economic Policy* 22(1): 15–39.
- Diamond, P. (2004) 'Social Security', *American Economic Review* 94(1): 1–24.
- Diamond, P. (2005) 'Pensions for an Ageing Population', NBER Working Paper No. 11877.
- Felipe, J. and Hasan, R. (2006) 'Labor Market Outcomes in Asia: An Overview', in Felipe, J. and Hasan, R. (eds.) *Labor Markets in Asia: Issues and Perspectives*. London: Palgrave Macmillan.
- Gill, I., Packard, T. and Yermo, J. (2005) *Keeping the Promise of Social Security in Latin America*, Washington DC: World Bank.
- Heller, P. (2006) 'Is Asia Prepared for an Aging Population?', IMF Working Paper WP/06/272. Washington DC: IMF.
- Holzmann, R., MacArthur, I. and Sin, Y. (2000) 'Pension Systems in East Asia and the Pacific: Challenges and Opportunities', Social Protection Discussion Paper Series No. 0403. Washington DC: World Bank.
- Holzmann, R., Palacios, R. and Zvinieni, A. (2001) 'On the Economics and Scope of Implicit Pension Debt: An International Perspective', *Empirica* 28(1): 97–129.

- Holzmann, R., Palacios, R. and Zvinienė, A. (2004) 'Implicit Pension Debt: Issues, Measurement and Scope in International Perspective', Social Protection Discussion Paper Series No. 0403. Washington, DC: World Bank.
- Organisation for Economic Co-operation and Development (OECD) (2005) *Pensions at a Glance: Public Policies Across OECD Countries*. Paris: OECD.
- Organisation for Economic Co-operation and Development (OECD) (2007) *Pensions at a Glance 2007: Public Policies Across OECD Countries*, 2nd edn. Paris: OECD.
- Organisation for Economic Co-operation and Development (OECD) and World Bank (2008). *Pensions at a Glance: Asia/Pacific Edition*. Paris: OECD.
- Park, D. (2009) 'Developing Asia's Pension Systems: Overview and Reform Directions', ADB Economics Working Paper 165, Asian Development Bank, Manila.
- Ramesh, M. (2003) 'Globalisation and Social Security Expansion in East Asia', in Weiss, L. (ed.), *States in the Global Economy: Bringing Domestic Institutions Back In*. Cambridge Studies in International Relations, vol. 86. Cambridge: Cambridge University Press.
- Ross, S. (2004) 'Collection of Social Contributions: Current Practice and Critical Issues', paper presented at the International Conference on Changes in the Structure and Organization of Social Security Administration, Cracow, Poland, 3–4 June 2004.
- Sin, Y. (2005) 'China Pension Liabilities and Reform Options for Old Age Insurance,' Working Paper Series No. 2005-1. Washington DC: World Bank.
- Takayama, N. (ed.) (2005) *Pensions in Asia: Incentives, Compliance and their Role in Retirement*. Hitotsubashi University Institute of Economic Research-Economic Research Series no. 39. Tokyo: Maruzen.
- World Bank (1994) *Averting the Old Age Crisis*. Washington DC: World Bank.
- World Bank (2005) *Old Age Income Support in the 21st Century*. Washington DC: World Bank.

2 The People's Republic of China

Pension system overview and reform directions

Stuart H. Leckie

2.1 The looming pension crisis

The People's Republic of China (PRC), home to over 40% of the Asian population aged 60 and above, faces a looming crisis to provide old age pensions for its 1.33 billion citizens. The one-child policy enforced since the late 1970s followed rapid population growth in the 1950s and 1960s. This, together with much improved life expectancy, will significantly skew the PRC's population pyramid in the future (Figure 2.1).

The one-child policy combined with improved longevity of the populace means that the country is now in a rapid demographic transformation process towards an aging society. The PRC's potential support ratio¹ was 6 in 2005, but will rapidly decline to 2 by 2040 (Figure 2.2).

A 2005 World Bank study estimated that under a baseline scenario with the current pension system, the PRC's implicit pension debt² amounted to approximately 140% of its GDP, with a financing gap³ of as much as 95% of GDP.

The Chinese Government, aiming to build a sustainable nationwide pension system, started to implement reforms in the 1990s with the following objectives:

- 1 to shift the burden of pension provision from the state only to employers and employees together with the state;
- 2 to expand pension coverage to all urban workers;
- 3 to move from pay-as-you-go (PAYG) financing to a combination of PAYG and funded systems; and
- 4 to encourage the development of private-sector voluntary pensions.

2.1.2 Current pension system for urban workers

The reforms in the past couple of decades have focused on building a multi-pillar pension system for the urban workers, broadly in line with the World Bank's five-pillar model⁴. In particular, two important documents issued by the Ministry of Labour and Social Security (MoLSS)⁵ – Document 26 in July 1997 and

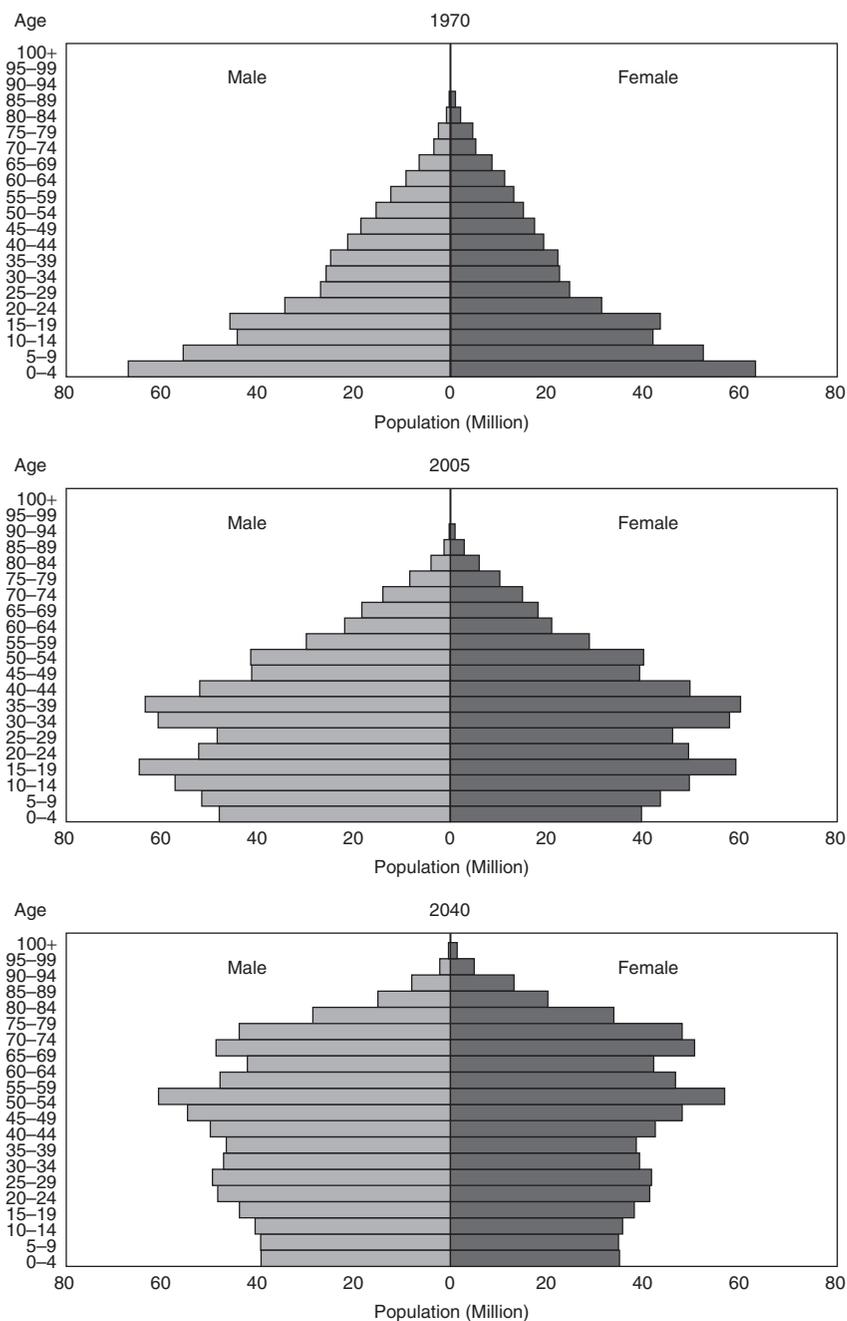


Figure 2.1 Population pyramids.

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision, <http://esa.un.org/unpp>

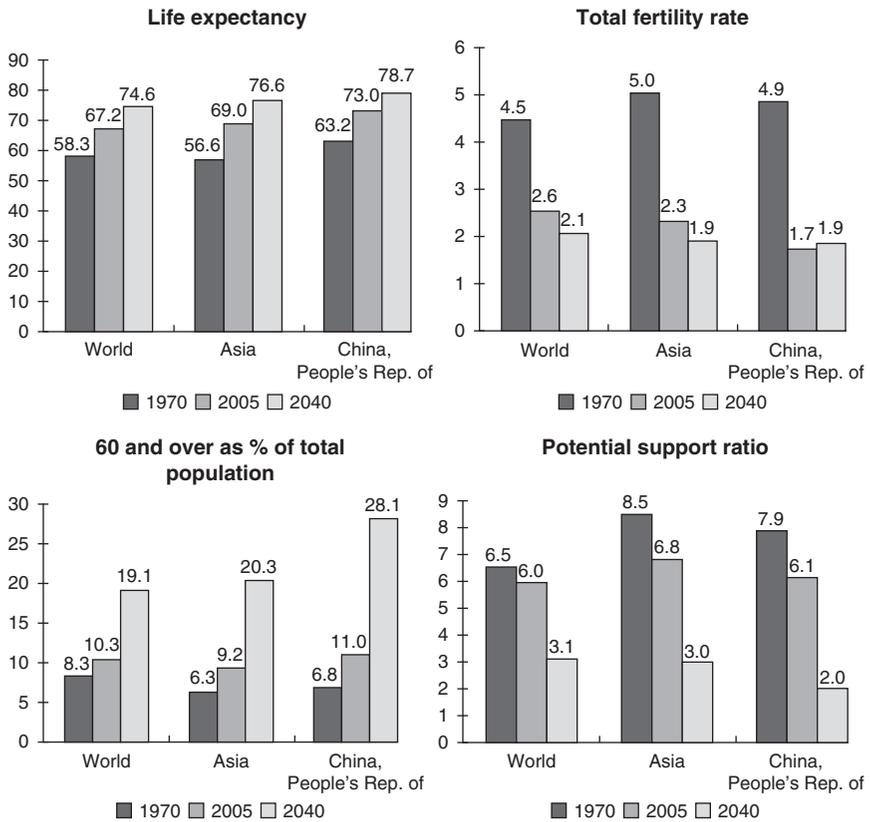


Figure 2.2 Demographic changes.

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision, <http://esa.un.org/unpp>

Document 38 in December 2005 – are widely considered as policy landmarks setting the framework for the urban system.

After a series of regulations, the new pension system (as illustrated in Table 2.1), which applies to the urban sector but not the rural community, comprises:

- Pillar zero** – A *minimum economic support* payment provided for people in extraordinary straitened circumstances to ensure a minimum livelihood, with the target group including: people with no labor capability and no income source; with insufficient income source and where their living standard is lower than the legal minimum standard; and with labor capability, but having temporary interruption of income due to accidents or disasters. No contributions are required to become eligible for this social benefit. Benefit levels vary, mainly depending on the local minimum income level,

Table 2.1 Current urban pension system in the PRC

Pillars (World Bank)		Chinese terminology	Funded status	Funding	Benefits
State	Zero	Zero: Minimum guarantee (Di Bao)	PAYG	n/a	Varies
	I	Ia: Mandatory Social Pool Old Age Pension	PAYG	ER: 20% of salaries	Pension based on average local wage, indexed individual wage and years of employment
	II	Ib: Mandatory Individual Account (IA)	Should be funded	EE: 8% of salary	Monthly pension benefit of 1/139 of IA balance at the time of retirement
Private	III	II: Voluntary Enterprise Annuity	Funded	ER; EE	Lump sum/ annuity benefit
		III: Other Voluntary Pensions, i.e. Group Insurance Plans	Funded	ER; EE	Lump sum/ annuity benefit
Private and State	IV	IV: Family support; subsidized healthcare and housing	PAYG	n/a	Varies

Notes: ER = employer; EE = employee; PAYG = pay-as-you-go.

Source: Stirling Finance Research.

and the daily consumption cost as well as the financial capacity of the local government. Although the PRC's total wealth has increased enormously in the last three decades, many citizens, especially the elderly in rural districts in central and western PRC, still live below the World Bank poverty level of US\$2 per day. The 'di bao' payments cover 30 million people only on a means-tested basis. Enhanced pension benefits should generally eliminate much of the need for 'di bao'. Benefits under Pillar zero are provided from the Ministry of Civil Affairs (not from the Ministry of Human Resources and Social Security (MoHRSS)).

- **Pillar Ia** – A *basic social pool old age pension* provided through mandatory contributions by employers. This pillar operates on a PAYG basis and is administered by the provincial social security bureaus. After a working lifetime, urban retirees will receive a pension of about 30% of the average of their indexed individual wage and the local average wage

assuming at least 15 contributory years have been paid. If workers fail to meet the 15 years' requirement, they will not be entitled to social pool pension benefits. The employer's rate of contribution is stated to be 20% of wages, but varies considerably between different localities, ranging from about 13% to over 30%. Wages for contribution purpose are also capped at 300% of the local average wage, with a minimum contribution based on 60% of the local average wage. There are virtually no assets in the Pillar Ia part of the system, other than short-term monies held between collection and payment.

- **Pillar Ib** – A mandatory *individual account (IA)* system funded by employees contributing 8% (in theory) of their monthly salary, subject to a maximum and minimum level. The amount is accumulated in IAs earning interest linked to the one-year bank deposit rate and cannot be accessed until retirement when the account balance is converted to a monthly pension by dividing the account balance by an annuity factor of 139, for both males and females. The IA assets are managed by the provincial social security bureaus, and are 100% invested in bank deposits or government bonds. Those who fail to make contributions for 15 years will receive the monies accumulated in the IA as a lump sum at the time of retirement. The pension is payable for life, and for those pensioners who live for more than 139 months after retirement, the subsequent pension payments come from the social pool money. Pension increases are given each year. Typically, the amount of increase will be equal to 100% of the cost-of-living increase plus 60% of the local wage increase percentage above the cost-of-living increase. Pension contributions are treated as pre-tax deductions for employers and individuals for Pillars Ia and Ib respectively. As of 2009, monies accumulated under Pillars Ia and Ib have reached CNY1.25 trillion (US\$184 billion)⁶.
- **Pillar II** – Known as 'enterprise annuities' (EAs). These are voluntary, defined contribution (DC), supplementary retirement plans set up by eligible employers. These trust-based plans are operated through unbundled services provided by trustees, administrators, investment managers and custodians licensed by the MoHRSS, the key regulator for EA business. This pillar is described in detail in the later part of this paper.
- **Pillar III** – This comprises various other types of voluntary funded schemes set up by employers which do not conform to the EA format, including group pension insurance contracts, and so on. These insurance contracts can be either savings plans or performance-linked investment plans and are entitled to tax benefits as well. Since the EA regulations came into effect, non-EA retirement plans, which pre-date real EAs and are managed by local social security bureaus or in-house by large employers or by insurance companies, are now being gradually converted into EA format.
- **Pillar IV** – Voluntary informal family care inherent with Chinese Confucian traditions in addition to subsidized healthcare and housing and so on.

Therefore, it can be seen that the system described is a combination of pension types: contributory and non-contributory, defined benefit (DB) and DC, and funded and unfunded, which should prove robust and sustainable.

Last but not least, a national pension fund, named the National Social Security Fund (NSSF), was created by the central government in year 2000 as a ‘fund of last resort’ to help cope with the PRC’s pension liabilities in the future. NSSF has been growing significantly in size, stature and influence during the past 10 years since its inception. Further details about each pillar of the urban pension system are as follows.

2.1.2.1 Basic social pooling

As per the guidelines of Document 26 issued by State Council in 1997, an employer’s total pension contributions in principle should be approximately 20% of its total wage payroll (subject to a cap per employee). At the initial stage, approximately 12 points of this 20% were allocated to pay basic social pool pensions and the rest was directed into the individual accounts together with 3% (initially) from employees. However, for those provinces that had extremely heavy pension payment burdens, they could apply to MoHRSS and Ministry of Finance (MoF) for special approval to require employers to pay extra contributions exceeding the 20% limit. The employees became eligible for a monthly pension after retirement, which was set at 20% of average local wages after 15 years of contribution.

In 2005, based on experience drawn from the Liaoning pilot project, the Chinese central government decided to raise the contribution rate for basic social pool pensions nationwide to 20% of the total wage payroll – paid entirely by employers – while employees assumed full responsibility for individual account contributions.

2.1.2.2 Individual accounts

Of all the pension pillars, Pillar Ib has received particular media attention, due to the problem of ‘empty accounts’. Although regulations were clear that individual accounts should be funded and segregated from Pillar Ia (basic social pool) pension money, in the 1990s and early 2000s, many provinces, facing huge legacy pension costs and insufficient Pillar Ia contributions, decided to conveniently channel Pillar Ib money into paying Pillar Ia benefits, resulting in a high number of so-called ‘empty’ individual accounts. The problem was most severe in the northeast provinces of Liaoning, Jilin and Heilongjiang, where hundreds of thousands of workers were laid off as part of the thrust to downsize inefficient state-owned enterprises (SOEs), and many of those workers were granted full pensions as young as age 40. This served to hide unemployment members but placed an enormous burden on the pension finances. The heavy concentration of unprofitable SOEs meant that provinces had significant difficulties in collecting sufficient Pillar Ia contributions yet had to pay out significant pension benefits.

In those provinces, however, even if an IA was empty, interest was credited to the account each year until retirement.

The Chinese central government, realizing that empty accounts could potentially lead to social discontent, has decided on a series of policies designed to rectify the problem, including using fiscal subsidies to consolidate (backfill) the IAs in many provinces. In addition, the government initiated pilot programs, initially with the three northeast provinces, to fund their IAs. Under the pilot programs, the provinces were allowed to start with a lower personal account contribution rate which would be gradually raised to 8% over time.

Currently, such pilot programs have been extended to cover 13 provinces. There have been some initial successes. As of the end of 2009, a total of CNY157 billion (US\$23 billion) real rather than notional assets have been accumulated in the IA system in these 13 provinces, and the reform is expected to be extended from the pilot provinces throughout the PRC in due course. Coverage of Pillar Ia and Ib has also been significantly expanding from 112 million people in 1997 to 230 million (active participants plus pensioners) currently.

2.1.2.3 Enterprise annuities⁷

‘Enterprise annuity’ is a relatively new addition to the Chinese pension family. However, as both companies and individuals in the PRC are becoming increasingly aware of the importance of having a supplemental pension program in place, the development of the EA system has been progressing quickly in the PRC after regulations governing EA establishment and investment were issued in 2004.

Under the regulations, employers and usually employees make contributions. Employers can contribute up to one-twelfth of the companies’ previous year’s total payroll, while the total sum of employer and employee contributions cannot exceed one-sixth of the previous year’s payroll.

EA plans must be established under trust and managed by a trustee, which will in turn appoint an administrator, a fund manager and a custodian. In fact, EA pension plans are the only major application of the Trust Law in the PRC so far. The governance structure with an effective trustee in place for each EA scheme certainly helps provide protection against the employer’s financial risks and holds the assets for employees’ benefits under proper protection. The four types of service provider all need to be licenced by the MoHRSS, which further enhances the security and governance of the overall business model. To date, 38 financial institutions have been granted 58 licences in total in two batches as providers under the EA regime. Before being licenced by MoHRSS, trustees, fund managers and custodians should first be licenced by their primary regulators, being the China Banking Regulatory Commission, China Insurance Regulatory Commission and China Securities Regulatory Commission as appropriate.

The current investment rules allow EA plans to invest up to 50% in bonds and up to 30% in equities, with at least 20% in cash and cash equivalents, but all investments are restricted to domestic assets only at present. The Reuters

China Pension Index (RCPI) (as demonstrated in Figure 2.3) is a PRC pension index series promoted by Reuters as a performance benchmark for EA investments. The Balanced Index has posted a 54% return to date since its launch on 31 March 2006, based on an asset allocation of cash, bonds and equities at 30%, 50% and 20% respectively, with quarterly re-balancing. Separately, for those EA plans which adopted a more conservative strategy and had equal allocation to cash and bond investments, a 16% return has been achieved during the past four years as indicated by RCPI-2, which is the Conservative Index in the same index family. In 2009, EA funds on average managed to achieve an annual return of 7.8%.

Total EA assets have been accumulating by an average amount of approximately CNY46 billion (US\$6.7 billion) per annum between 2005 and 2009. By the end of 2009, the total size has reached CNY253 billion (US\$37 billion). More than 32,000 companies have set up their own EA plans, covering over 12 million members, or about 4% of the PRC's 300 million urban work force.

Lack of a national unified tax regime for EAs had been a major challenge to the growth of the EA industry until tax rules were finally issued in December 2009. The rules stipulate that EA contributions by both employees and employers are not tax deductible for individual income tax calculation. However, no individual income tax will be applied to EA benefits at the time of retirement, with benefits almost invariably taken as a lump sum.

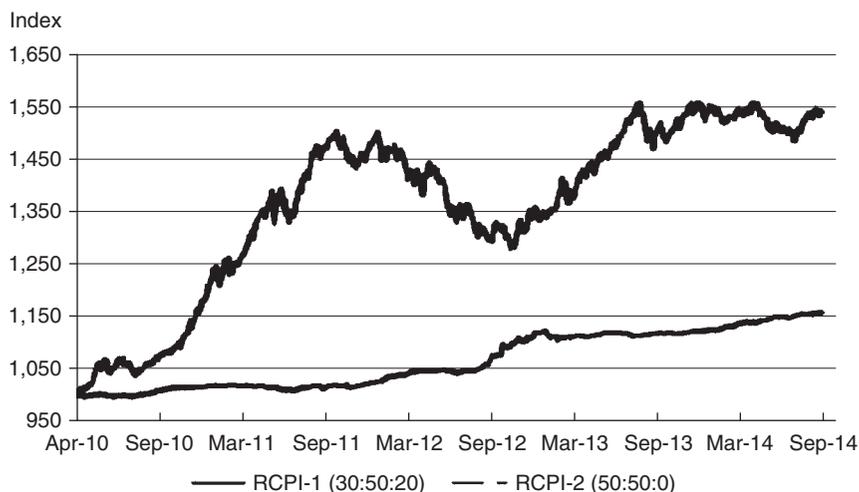


Figure 2.3 Enterprise annuities investment performance, 31 March 2006–31 August 2010.

RCPI = Reuters China Pension Index.

Notes: RCPI-1 is based on an allocation of cash, bonds and equities at 30%, 50% and 20% respectively. RCPI-2 refers to an allocation of 50% cash and 50% bonds.

Source: Thomson Reuters.

2.1.2.4 National Social Security Fund⁸

In late 2000, aware of the alarming pension difficulties at the provincial level and concerned about the emerging national demographics, the Chinese Government established the NSSF as ‘a strategic reserve fund’ and a ‘solution to the problem of aging’ under the supervision of the National Council for Social Security Fund (NCSSF), a ministerial level entity directly reporting to the State Council.

Since its inception in 2000, NSSF has been rapidly expanding in size. With four sources of assets, namely:

- funds allocated from the central government’s budget;
- capital and equity assets derived from state-owned enterprise share sales;
- other means approved by the State Council (in practice lottery licence fees); plus
- investment returns,

the total assets of the Fund have quickly increased (Figure 2.4) from the initial CNY20 billion (US\$2.4 billion) to CNY800 billion (US\$120 billion) by October 2010, making it by far the biggest institutional investor in the PRC’s pension sector.

The investment activities of the NSSF are governed by two sets of rules effective from late 2001 and March 2006 with regard to its domestic investments and its overseas investments, respectively. The NSSF has been closely tracking the dynamics of the entire investment universe in accordance with the principle of ‘achieving value appreciation on the basis of ensuring the safety and liquidity of assets’ regarding its investments. The NCSSF has been carefully building

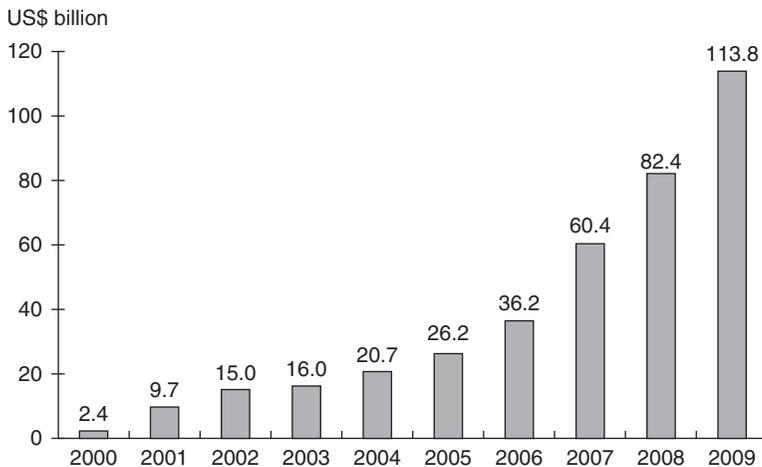


Figure 2.4 Total assets of the National Social Security Fund.

Source: National Social Security Fund, <http://www.ssf.gov.cn>

Table 2.2 National Social Security Fund asset allocation

<i>Geographical allocation</i>	<i>Permitted investments</i>	<i>Cap (%)</i>
Domestic	Bank deposits	≥ 50
	Government bonds	
	Equities	≤ 40
	Fixed income	≤ 10
	PE Funds	≤ 10
International	Equities	≤ 20
	Fixed income	
	PE funds / unlisted firms	

Source: NSSF; Stirling Finance research.

up its investment expertise and its investment portfolios over time, subject to the restrictions for each category of permissible investment as set out in Table 2.2.

According to the rules, the NSSF can only directly manage domestic bank deposits and government bonds in-house. For all other types of investment, the NSSF needs to appoint external fund managers and custodians approved by the MoHRSS.

Currently, 10 domestic fund managers are running domestic equity and bond portfolios for the NSSF and 22 international fund managers are overseeing its overseas equity, bond and cash investments. In general, the NSSF has been very impressive in terms of level of professionalism, sophistication and willingness to learn from international best practices as evidenced particularly in the two rounds of international manager selection.

The returns on the NSSF's investments (as illustrated in Figure 2.5) for the first few years after its inception were modest due to the fact that most of the assets were held in the form of cash and government bonds. By further diversifying into other asset classes including equities as well as private equity funds and other unlisted investments, the NSSF managed to generate a total investment profit of CNY245 billion (US\$36 billion) by the end of 2009, or an average return of approximately 9.8% per annum, which is 7.8% per annum higher than the average price inflation rate during the same period of time. The Fund will continue to expand and its asset size is expected to reach US\$225 billion by the end of 2015.

2.1.3 Rural pension system⁹

Social security for the rural population, which encompasses about 56% of the country's total population, has always been lagging behind as almost all the attention was directed to urban citizens over the past two decades. Hence, despite

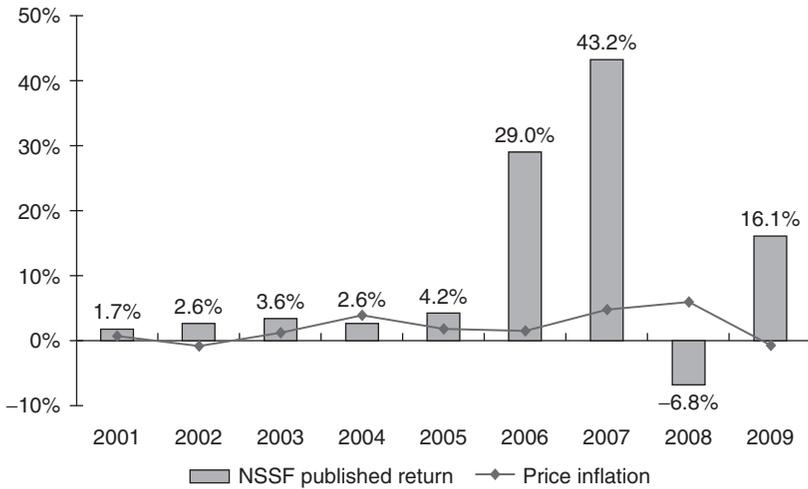


Figure 2.5 National Social Security Fund's annual return versus price inflation.

Source: National Social Security Fund, <http://www.ssf.gov.cn>

some pilot rural pension programs back in the 1990s, without real policy support from the government, progress was severely limited. By the end of 2008, only 56 million of the country's approximately 750 million rural residents had joined voluntary pension programs, with 5.1 million rural residents receiving total pension payments of CNY5.7 billion (US\$840 million) in 2008. This is an average pension of less than CNY100 (US\$15) per month. According to demographic studies, 14.6% of the rural population will be above the age of 65 by 2020 partly because young people from the countryside are moving to the cities seeking jobs.

An effect of the one-child policy is that rural residents cannot really rely on their children to support them in their old age, as they did in the past. Also, if young adults leave the countryside to work in the cities, this may leave their parents vulnerable.

The central government fully understands the necessity of building a successful rural pension system as it is one of the keys to narrowing the gap between urban and rural standards of living and achieving a genuine 'harmonious society'. A grand plan was hence announced by central government, with the target of providing all senior rural citizens in the country with a pension by 2020. The immediate target was to have at least 10% of all counties participating in a new system by the end of 2009. The next target for year-end 2010 is to have at least 23% of rural residents participating in the new system.

Rural residents aged 16 and above, who are neither students nor currently participating in the state pension system for urban workers, are eligible to join the

program on a voluntary basis, with the promise of basic pension payments starting from the age of 60 irrespective of gender.

Similar to the current urban state pension system, the new rural program will consist of a combination of two pillars: *basic social pool pension* and *individual account pension*. Individual accounts will be established for everyone joining the program.

The fiscal budget will provide 100% of basic social pool pension under the new program. Individual account contributions will come from three sources, including:

- individual contributions from participants themselves;
- collective payments donated by village committees, other individuals or charitable organizations; and
- subsidies from local governments.

For individual accounts, participants can opt to make contributions at various levels, ranging from CNY100 to CNY500 per year, with enhancement for each account, either paid by the central government or local governments, of not less than CNY30 (US\$4.4) per year.

During the initial phase of the new program, eligible participants will receive a basic pension of not less than RMB55 (US\$8.1) per month as well as a monthly benefit payment derived from their individual account balance, determined as 1/139 (for both men and women) of the total balance at the time when they reach age 60. The pension age of 60 is independent of the actual age until which the individual works either full time or part time.

Basic social pool pension levels will be adjusted in the future depending on price movements, earnings increases and economic growth of the country, subject to further policy clarification. The government's long-term objective is to increase rural pensions at a faster rate than GDP growth. Individual account balances, which again will be invested in bank deposits and government securities only, will be entitled to interest accumulation at an annual rate equivalent to the one-year bank deposit rate in the PRC.

A special rule may apply to those rural residents who are already above the age of 60 when the new program is introduced and are not entitled to urban pension benefits. Those people will be still eligible for the basic social pool pension (no individual account pension though) even if they have not contributed to the new system themselves, as long as their children who meet the eligibility criteria for joining the program will do so and make contributions.

By the end of 2009, the new rural pension system has been launched in 320 counties, hence the 10% coverage mission was fully completed on the basis that the total number of counties is approximately 2,850 – marking a historic step forward in the development of the PRC's social security system for the rural population.

2.2 Challenges and problems

The purpose and design of the multi-pillar pension systems for urban workers and rural residents in the PRC are both rational and sound. If indeed such systems can be effectively implemented throughout the PRC, the burden of providing old age support will be shared across society, the systemic risks will be reduced and Chinese retirees will have a reasonable level of replacement income when they retire.

However, in implementing the multi-pillar systems, numerous challenges and problems arise. Below are several major challenges associated with the different pension pillars, mainly in the urban system, the progress of which will be crucial for the health of the Chinese pension system.

2.2.1 Improve the transparency and governance of the urban system

Transparency means providing accurate and useful information on the financial and investment position of each pillar of the urban system, including:

- 1 for Pillar Ia, disclosure of membership statistics, income and expenditure statements, actuarial analysis of cost of pension increases, transfers of benefits;
- 2 for Pillar Ib, disclosure of membership data, income and expenditure statement, balance sheet, pension increases, the investment portfolio, investment returns and quantum of empty accounts;
- 3 for Pillar II (EA), disclosure of membership numbers, income and expenditure statements, balance sheets, investment position, investment return, financial reports and audit reports; and
- 4 for Pillar III, disclosure of income and expenditure statements, balance sheets, fees, investment information and determination of investment return.

As regards governance, there have been a number of problems over the years, particularly as regards misuse of pension assets (e.g. the Shanghai scandal). It is imperative that the highest standards of conduct are applied to the whole pension system, otherwise the community could lose faith in the system, with disastrous consequences.

2.2.2 Improve participation in urban system

At present, there are about 180 million urban employees participating in the unified pension system, plus about 50 million current pensioners. There are, however, problems both of participation and of employer contributions being paid on an artificially suppressed payroll. In particular, new industries (e.g. technology or financial services), are generally paying high contributions (~20% of wages) when they have no legacy pensioners. In fact, about half of the

employer's contributions are used to pay pensions of the previous generation. It is still not too late to see if central government can find an alternative way to meet this burden on employers.

Serious efforts should be made to capture the whole of the urban work force in the current system. This would mean converting civil servants and public servants to the new system, and hence to lower pension entitlements. Also, self-employed persons should be encouraged to join the system. A further challenge is for the State-Owned Assets Supervision and Administration Commission companies to transfer their generous SOE-sponsored pension entitlements to the unified system. Only once participation improves dramatically will the Pillar Ia financials begin to stabilize.

2.2.3 Rural pensions

The new rural pension system will be a big step forward in providing old age income security in rural areas. The eventual aim must be the integration of the urban and the rural pension systems. However more improvements are urgently needed in the following areas:

- 1 Insufficient replacement ratio, as a basic social pool pension of CNY660 per annum only equates to 14% of the average rural household income of CNY4,760 in 2008, much lower than the targeted 30%.
- 2 Heavy financing burden for government at various levels. In contrast to urban employers contributing 20% of employees' salaries for the basic social pool pension under the urban system, the basic social pool pension under the rural pension system will come entirely from the fiscal budget – the actual allocation between the central government, provincial government, city government or even county government, however, will vary depending on the financial and economic conditions of the locality.
- 3 Investment restrictions for individual account assets result in a similar problem as with the urban system.

2.2.4 Empty individual accounts

It is understood that perhaps 70% of all the state individual accounts under Pillar Ib are either empty or deficient. The first task must be to prepare accurate statistics on the situation. Each province should then be tasked with preparing a plan such that every account should be fully funded, including interest earnings, over, say, the next 20 years. This process should be done openly so that there is no concern in urban employees' minds that their money has been, or will be, misused.

2.2.5 Investments returns unsatisfactory

Document 38 intends that Pillar Ib is expected to provide 24% of the average employee's final monthly salary after a working lifetime of 35 years, but this

will only be true if the long-term investment returns on the individual accounts (net of fees and costs) equal the employee's salary increase rate over the long run.

Currently in the PRC, approximately CNY35 billion (US\$5 billion) of Pillar Ib monies from the first nine pilot provinces have been entrusted to the NSSF, and therefore appear to be invested according to a more aggressive investment regime as the return on this individual account money is 18.9% per annum on average. Otherwise, investment options for both Pillar Ia and Ib (for Pillar Ia, there is only a very little money 'in the pipeline' at any given time) are limited to bank deposits and government bonds. Whilst this safeguards the assets against capital losses, the returns are modest and offer no protection against inflation. Particularly in the PRC's case, where there exists three different types of inflation, namely price inflation (averaging between 3–4% per annum), wage inflation (averaging between 10–12% per annum) and asset inflation (e.g. between 15–20% per annum for residential property), the average return on investments for individual account assets has been as low as 2% per annum, similar to average price inflation in the past 10 years, but materially lower than average wage increases.

Therefore, unless the government liberalizes the investment scope of Pillar Ib, in the long run individual accounts will not be able to deliver the replacement ratio that was intended. To better enhance the replacement ratio, a good portion of the assets under Pillar Ib should be invested in equities with the objective of achieving much higher investment returns. The major concerns would then be: who should manage the money? Who will assume the responsibility for selecting fund managers? What should the benchmark be? What is the ideal fee structure for managing this volume of money? The reality is that provincial officials are not at all competent to deal with such high-level investment issues.

In considering equity investments for Pillar Ib, an easy option that should be seriously considered is utilization of Exchange Traded Funds (ETFs). ETFs have minimal costs and are a very efficient way to share the growth opportunity of the stock markets in the PRC, while avoiding the need to manage portfolios actively. There is then no need to hire and fire fund managers. Also, exposure to equities through ETFs will remain valid for post-retirement individual accounts. Equally, in the long run, overseas asset allocation should be considered for diversification purposes.

2.2.6 Unitization of contributions

Currently, the assets accumulated in the individual accounts under both urban and rural systems are measured in currency terms (i.e. Yuan). However, the government should consider introducing the concept of unitization, which means within the system new contributions purchase a number of units of assets at the current price. The unit price is simply determined according to the market value of the underlying assets like an investment fund or mutual fund. In other words, each individual account owns a certain number of units, while the unit price increases

with income and capital gains less capital losses and investment management costs. Unitization will be very helpful in coping with declines in asset values, as the number of units does not fall, but simply the price.

In the meantime, participants should be offered various ways to check their individual account balance. The most classic way would be through an account passbook, especially if the state-owned banks can be engaged in helping with contribution collection and pension payment at no charge. Participants should also be able to access their individual accounts via the Internet. Additionally, as in common international practice, annual statements should be sent to participants every year to provide a current snapshot of their account holdings.

2.2.7 Gradually raise retirement age

The PRC's legal retirement age is 60 for men, 55 for white collar women, and 50 for blue collar women, but many employees of SOEs have been allowed to retire in their 50s or even 40s in order to hide unemployment numbers. At the same time, improved nutrition and healthcare have led to a significant rise in life expectancy from about 49 years in 1949 (at the founding of the People's Republic of China) to close to 72 years nowadays (male and female combined).

At present, females retiring at age 50 are treated exceptionally favorably, as they would easily receive their pension for more years than they work. According to gender mortality, women should theoretically have a later retirement age than men, although this is not deemed practical. Women in the PRC are not disadvantaged as in some countries.

However, the combination of an aging population, low fertility rate and an early retirement age has put more and more pressure on the country's pension system. Men and women in fact should have the same retirement age, and there should be reductions in pensions for early retirement plus enhanced pensions for deferred retirement.

Raising the retirement age will be an important step in developing a sustainable pension system in the country. This should be a gradual process, however, to minimize any possible impact on employment conditions; for example, increasing the female retirement age from 55 to 60 could be spread over 20 years.

2.2.8 Expertise

A significant impediment to the success of the unified pension system is the shortage of expertise, in the country as a whole and in government in particular. For example, every province is responsible for preparing actuarial projections for the social security system in that province, both as regards contribution inflow and benefit outgoing. There is a projection model pension factor analysis which was constructed in MoHRSS in Beijing, but without significant actuarial input.

At the same time, each province has a small team of economists, statisticians and IT experts to work on each year's projections, but ideally the whole process

should be conducted under the supervision of a qualified actuary. Independent actuarial departments should also be set up in all provincial social security bureaus with job positions specified and a budget provided, as well as proper and in-depth pre/post training which should be provided on a regular basis. There are of course insufficient numbers of actuaries in the PRC, and government salaries are much lower than private sector compensation.

In order to produce meaningful projections, either in cash flow or present value terms, the following is required:

- 1 sophisticated projection model;
- 2 exact rules of the Pillar Ia and Ib systems, including any local modifications;
- 3 accurate employee and pensioner data;
- 4 valid information on all pension system assets in the province; and
- 5 assumptions for, say, 50 years, both demographic and financial (e.g. wage growth, consumer price index, investment returns, discount rate, mortality, fertility, unemployment and migration).

The reports from each province, and the consolidated report produced in Beijing, should all be prepared in accordance with the International Actuarial Association's 'Guidelines of Actuarial Practice for Social Security Programs'. In particular, the various policy options for reform in this paper should be evaluated individually and in aggregate, to quantify the financial effect on the implicit pension debt and on government financing.

2.2.9 Establish National Actuarial Team within National Social Security Fund

In order to capture a better profile of the country's pension liabilities file as well as producing projections of future contributions and benefits, a possible solution would be to establish a National Actuarial Team (NAT) within the NSSF. This would include individuals from diverse backgrounds as well as actuaries and the NAT could operate under the joint oversight of the MoF and the MoHRSS, one overseeing the country's short-term pension liabilities whilst the other fully in charge of the long-term pension projections.

Ideally, the NAT should operate with considerable independence and few constraints in terms of day-to-day operations and production of actuarial projections. The NAT should be independent from the direct control of any one ministry and hence better able, for example, to make suggestions as to reforming the civil service pension system. The NAT could readily work on asset liability studies for the NSSF in the PRC and for outside purposes (e.g. for OECD and other international agencies).

NAT should engage senior, highly regarded, professional staff – actuaries rather than economists. This should gradually enhance the credibility of the NAT. A higher pay scale should also be adopted to attract, retain and motivate individuals with relevant experience and expertise.

2.2.10 Education and communication

It is believed that very few citizens in the PRC understand the country's pension system and what benefits they will receive from it. This applies in many other countries also, but we suspect the knowledge is particularly weak in the PRC because of the complexity of the system and all the changes made.

Local government should make serious efforts through the media to educate and inform citizens of the requirement to participate in the system and highlight the benefits to be gained from the system. Once a year, each worker should receive a benefit statement setting out his current entitlement to Pillar Ia and Pillar Ib benefits. Equally, there should be an enquiry system so that individuals can check their expected pension at retirement.

Of course, an individual benefit statement should be a requirement each year for EA and other Pillar III participants as well. Education and communication will be major challenges for many years to come.

2.2.11 Migration

The long-term expectation is that migration of rural residents to cities plus accelerating urbanization will cause the rural population to decline from 720 million currently to 300 million in 2050. At that stage, the urban population will be around 77% of the total and rural population about 23%.

The objective must be for the rural pension system to converge with the urban system within, say, four decades. Already the embryonic rural plan is ahead of the urban system in two significant areas: (1) males and females have the same pension age; and (2) the individual accounts will always be fully funded.

2.2.12 Portability needs to be further simplified

As the economy continues to grow, the labor force is becoming increasingly mobile in the country as highlighted in the following patterns:

- 1 migrating workers move from rural to urban areas;
- 2 workers move between different cities or provinces; and
- 3 workers relocate from PRC to Hong Kong, China/Macau/Taipei, China/other countries/regions and vice versa.

To better tackle the first two problems, MoHRSS issued a new regulation effective from 1 January 2010, which stipulates that when urban enterprise workers (including migrant workers) relocate, they should transfer 60% of their accumulated employers' basic social pool pension contributions plus 100% of their individual account balance when they move, thereafter receiving pension benefits according to the income standard in the new location after retirement. This marks a major step forward towards a more equitable pension transfer system in the country as under the previous practice only the individual account

balance could be transferred on relocation and not the social pool pension entitlement.

However, significant challenges still remain to be tackled as follows:

- 1 The central government has pledged to establish a unified national social security information database for systematic management of pension contributions, payments and transfer issues. This will be a difficult task for the government to accomplish given the great diversity in the country with an increasingly mobile population and the existing administration of the pension system being highly fragmented.
- 2 Great efforts are considered necessary as regards the categorization of migrant workers. Some may argue migrant workers should be restricted to the rural pension system as, technically speaking, they are still rural ID holders; however, as their income structure and contribution capacity become more similar to those of urban workers, it appears more appropriate to cover them under the urban system. This becomes more complicated if and when the migrants opt to return to the countryside. Hence, a clear policy with regard to migrants' benefit entitlements is deemed essential.

Cross-border portability is another key issue because of the increasing number of people who work across the border now. The PRC has been in talks with Hong Kong, China; Macau and Taipei, China for possible solutions.

Though no concrete solution is available yet, there have been gradual developments. For example, Shanghai is the first municipality planning to extend coverage of its social security system to expatriates working for city employers; foreigners who have acquired permanent residency in the PRC; Chinese residents who have acquired foreign permanent residency; plus Shanghai residents from Hong Kong, China; Macau and Taipei, China.

2.2.13 The objectives and purposes of the National Social Security Fund remain unclear

According to the NSSF website, 'the NSSF aims to be a solution to the problem of aging and serves as a strategic reserve fund accumulated by central government to support future social security needs'. Beyond this broad intent, however, nothing is known about how exactly the NSSF fits into the PRC's overall pension system. For instance, it is unclear whether the NSSF might cover all aspects of social security (pensions, medical insurance, unemployment insurance, workers' compensation, maternity benefits) or will focus purely on pension needs. Some Western media describe the NSSF as 'PRC's national welfare fund' while most domestic media refer to the NSSF vaguely as 'PRC's national old age pension fund'.

The words 'strategic reserve' seem to imply that the fund will be used only in emergency or critical situations such as bailing-out provincial-level pension system failures when called upon, yet this guarantee function is not clearly specified. Interestingly, when Liaoning, Jilin and Heilongjiang provinces faced

pension difficulties, the central government used fiscal policy, that is reductions of tax obligations by the provinces to the central government, to help tide them over the difficulties. The NSSF funds were not utilized. With some provinces it appears that employees pay reduced contributions of 5%, while an additional 3% is subsidized by central government and transferred to the NSSF to manage. It is still completely unclear under what circumstances will the NSSF funds be applied, either by way of loan, grant or subsidy.

The lack of clearly defined objectives and purposes could certainly generate false expectations among various claimant groups in the future; and could also potentially lead to misuse of the fund due to political interference. For example, from the way NSSF has been investing, it appears that the fund is increasingly acting like a Sovereign Wealth Fund now instead of a pure pension reserve for the nation. Although the NSSF assets appear well diversified with a good proportion in equities, the asset allocation should only be determined once the long-term liabilities are understood and specified. The real point about the NSSF is that there is no clarity about the size of the potential liabilities it may be required to meet. Therefore even if it was purely a pension reserve, it has no way of matching assets to those liabilities it is required to fund. Hence, high quality actuarial projection work is judged necessary in order to underpin this function, albeit that this pension fund has no defined set of members or beneficiaries.

2.2.14 Enterprise annuities tax rules unattractive

The EA industry is deemed to have tremendous growth potential in the future. However, the tax rules effective from December 2009 state that employees EA contributions cannot be deducted from their monthly earnings when calculating individual income tax. Furthermore, the employer's contribution will be treated as a separate income entry on the employees' pay slip for the single month the contribution is paid, aside from their monthly salary, for individual income tax calculation, whether the contribution is made on a quarterly, semi-annual or annual basis, and is not recalculated as a monthly amount.

The new rules are certainly less appealing than what the market widely anticipated in the sense that the new rules seem to offer little tax incentive for the relatively young EA industry. However, the State Administration of Taxation (SAT) claims that the rules can in fact narrow the income gap amongst employees. And more importantly, compared with the method of including the employer's contributions as part of monthly salary for tax purposes, separately treating such a portion as salary will effectively reduce the applicable tax rate for employees, in many cases to nil.

However, bearing in mind that a well-developed supplementary EA system will effectively allow higher aggregate retirement benefits without the need for provision from the state, more incentives should be given as regards:

- 1 tax relief for enterprises' contributions to encourage scheme establishment;
- 2 tax relief for employees who join and contribute to EA schemes;

- 3 tax free accumulation of investment returns; and
- 4 ideally no tax when benefits are paid out.

At the same time, if the government really wished to accelerate switching non-EA Pillar III pension plans into EA format, no tax relief should be given to employees or employers on non-EA contributions, and indeed the employer's contribution should be added to the employee's income for salaries tax purposes.

2.2.15 Set up EA industry pooled funds for small- or medium-sized enterprises

Currently, the existing EA schemes are mostly sponsored by large employers. Small- or medium-sized enterprises (SMEs) are usually reluctant to set up their own EA schemes due to lack of knowledge and the costs involved. A solution to this would be to establish industry pooled funds or master trusts to encourage participation of both employers and employees of the SMEs, so that EA coverage could be further expanded to perhaps 50% of the entire urban labor force ultimately.

2.2.16 Pension growth lagging behind compared to economic growth

As of end 2009, the total assets of the state pension system (Pillars Ia plus Ib) together with EA funds and the NSSF stood at CNY2.25 trillion (US\$331 billion). This, however, equates to only 6.6% of the country's GDP in the same year, much less than a typical figure of 40% plus for developed countries, such as Australia, Canada and Denmark. This ratio is particularly high in countries such as Switzerland, Holland, Iceland and Netherlands, where pension asset size is now equivalent to more than 100% of these countries' respective GDPs.

At the same time, the PRC's pension assets size made up less than 1% of the global figure, while the PRC contributed 7.3% of the world's GDP in 2009. This in fact could and should be considered as a positive indicator for the major growth potential of the PRC's pension market from a long-term perspective given the proven positive relation between pension fund growth and financial sector development.

2.3 Going forward

2.3.1 Perfect pension system

Ideally, a perfect pension system for any country (including the PRC) or any type of society should reflect a number of characteristics as below:

- take an integrated (involving both state pension and private-sector pension) long-term approach to ensure adequate retirement income for every participant of the system;

- recognize changes of employment structure, family patterns and personal interest;
- maximize coverage and participation amongst both males and females in order not to leave anyone out of the system;
- lead to a savings culture by individuals;
- increase national savings and economic growth;
- have widespread support from the community and policymakers;
- have an effective regulatory structure; and
- simple to understand.

In general, the PRC has witnessed remarkable achievements in pension reforms since the 1990s. However, in order to fully reflect the perfect criteria listed above, there is still a long way to go to address the challenges and problems and make all the necessary improvements to the system.

2.3.2 *The future*

In summary, the reforms over the past two decades have established a solid platform for the urban pension system in the PRC. The reforms are proceeding on the right track and are making significant progress, considering the realities and challenges in the country.

However, implementation problems remain, which could threaten the realization of the government's goals during the next 20 years, during which time the PRC will become an aged society. Rules will also need to be refined to encourage the proper development of the pension system. Last but not least, training of competent experts to become fully knowledgeable pension professionals is a must for the system to prosper.

Nonetheless, if all the problems can be effectively resolved going forward, Chinese retirees should have a reasonable minimal level of replacement income when they retire, subject to adequate financing from the provincial authorities, central government, employers and employees, on the basis that a replacement ratio of more than 50% of local average is judged reasonable.

Notes

- 1 Potential support ratio is defined as the number of people aged between 15 and 59 to the number of people aged 60 and above.
- 2 Implicit pension debt is defined as the value of long-term promises of future pension payments by a government as a ratio of the current GDP.
- 3 Financing gap is a measure calculated by summing the net present values of the current balances (i.e. revenues less expenditures, throughout the projection period).
- 4 A more detailed account of the Chinese pension reforms can be found in *Pension Funds in China: a New Look*, by Stuart Leckie and Yasue Pai, ISI Publications, Hong Kong, 2005.
- 5 The Ministry is now named 'Ministry of Human Resources and Social Security', or MoHRSS.
- 6 At the time of writing, the exchange rate is CNY6.8 = US\$1.

- 7 The information and data presented in this section, unless noted otherwise, is obtained from the MoHRSS website: www.mohrss.gov.cn
- 8 The information and data presented in this section, unless noted otherwise, is obtained from the NSSF website: www.ssf.gov.cn
- 9 The information and data presented in this section, unless noted otherwise, is obtained from the MoHRSS website: www.mohrss.gov.cn

References

- AGI (2009) Report on Pension Sustainability Index.
- Barr, N. and Diamond, P. (2008) *Reforming Pensions*. Oxford: Oxford University Press.
- Birmingham, B. and Shaomin, C. (2006) *An Introduction to Pension Schemes in China*. EU-China Social Security Reform Cooperation Project.
- CFA Institute (2009) *Pension Reform in China: An Opportunity to Promote Codes of Conduct and Standards of Best Practice*. Hong Kong: CFA Institute.
- Chen, L. (2010) *Comparison of Pension Reforms between China and Latin America*. Beijing: Ministry of Human Resources and Social Security.
- China Academy of Social Sciences (2010) 'Green Paper on China's Social Security 2010'. Paper No. 2010-4. Beijing: CASS.
- Davis, E. and Hu, Y. (2005) *Is There A Link Between Pension-Fund Assets And Economic Growth? A Cross-country Study*. London: Brunel University and NIESR.
- Lee, H. J. (2010) *Pension Reform in the People's Republic of China*. Manila: ADB.
- Leckie, S. (2009) 'China's Pension System', Presentation at the 15th East Asian Actuarial Conference, Seoul.
- Leckie, S. and Pai, Y. (2005) *Pension Funds in China – a New Look*, ISI Publications.
- OECD and World Bank (2009) *Pension at a Glance – Asia/Pacific Edition*. OECD and World Bank.
- OECD (2009) *Pension Market in Focus*. OECD.
- Sin, Y. (2005) 'Pension Liabilities and Reform Options for Old Age Insurance', Working Paper Series on China, Paper No. 2005-1, World Bank, Washington DC.
- State Council (1997) *The Unified Basic Old-age Insurance System*.
- State Council (2000) *The Pilot Programme for Improving the Urban Social Security System in China*.
- State Council (2004) *Trial Measures on Enterprise Annuities*.
- State Council (2004) *Trial Measures on the Management of Enterprise Annuity Funds*.
- State Council (2009) *Guiding Principles on the Development of the New Rural Pension Pilot*.
- State Council (2010) *Report on the Work of the Government 2010*.
- Towers Watson (2009) *Global Pension Assets Study 2010*.
- UN Population Division (2008) 'World Population Prospects, the 2008 Revision'. Available at: <http://esa.un.org/unpp>

3 Indonesia

Pension system overview and reform directions

Yves Guérard

3.1 Introduction

With 242.4 million citizens in 2010, Indonesia is the fourth largest country by population. The labor force is over 100 million after deducting the unemployed; however, about 65 million are in the informal sector.

Since the fall of President Soeharto in 1998 after 32 years in power, Indonesia has become very quickly a vibrant democracy and significant responsibilities were transferred to local governments in 2000. President Soeharto's successor was the vice-president as per the constitution and all three successive changes since have been constitutional and peaceful. Current President Yudhoyono was re-elected in July 2009 by a direct vote of all citizens with a majority of 60.8% for a five-year term ending in 2014.

During President Yudhoyono's first term, Indonesia achieved good economic progress and did not suffer much from the 2008 global economic crisis. For 2010 the Ministry of Finance (MOF) is projecting a real rate of growth of 5.5% and an expected inflation rate of 5% with a GDP reaching US\$568 billion (Rp 5,981 trillion). The projected deficit is down to 1.3% of GDP from 2.5% in 2009. A good part of the credit is given to Sri Mulyani Indrawati, an economist who was Minister of Finance from 2005 until May 2010 when she accepted a senior appointment at the World Bank.¹ It is expected that the economic team will pursue the same development strategy based essentially on exploiting Indonesia's immense resources in a managed but more open market and attracting foreign direct investment by providing good economic management in a climate of political and monetary stability.

Priorities are modernizing infrastructures, reducing regulatory impediments and trade barriers, improving the rule of law and reducing corruption. It is also a government policy to increase spending on health and education. However, the budget for 2010 allocates 13% of government spending to energy subsidies but only 8% to infrastructure.

Indonesia's recent growth performance has been impressive, but there is no room for complacency according to an Organisation for Economic Co-operation and Development (OECD) Economic Survey.² The dimension of the challenge has been well documented in a recent report published by Harvard Kennedy School Indonesia Program³ which states that 'Indonesia needs more than

moderate growth if the country is to achieve its stated goal of becoming an “advanced and self-reliant nation by 2025”’.

3.1.1 Historical context

In 1949 Indonesia inherited the civil code legal system and a little-used 1926 Dutch Funds Ordinance. Private pension arrangements existed in various forms, self-administered funded or non-funded plans, group endowment policies and *Yayasans*, most offering only lump-sum payments at retirement. The pension program for the Civil Service (CS) was created in 1969 by a special law and provides final-pay defined benefits (DB) life pensions, remaining in force to this day.

At this point there is no real social security system in Indonesia, only a collection of pension arrangements and old age savings programs. Those arrangements are fragmented and cover only a fraction of the population. In this report we distinguish three sets of existing arrangements and the National Social Security System proposed under Law 40 of 2004 but not yet implemented:

3.1.1.1 The CS pension program

Law 11 of 1969: providing for the payment of monthly pensions for life to civil servants and their survivors.

The CS Life and Endowment Insurance parallel program, known as old age savings and endowment scheme (THT), is not included as it is not a pension arrangement since it pays only lump sums at death or termination.

3.1.1.2 The voluntary occupational private programs

Law 11 of 1992: defining the legal framework governing the private pension industry and providing for two types of programs defined by government regulations:

- Regulation #76 regarding Employer Pension Funds (EPF), which can offer either DB or defined contribution (DC) programs to employees of the sponsoring employer or employees of a co-sponsor.
- Regulation #77 regarding Financial Institutions Pension Funds (FIPF) that are DC programs opened to employees and the self-employed who wish to accumulate retirement savings through supervised and regulated tax-sheltered group vehicles offered by a Bank or an Insurance company.

3.1.1.3 The Jamsostek old age savings mandatory public program

Law 3 of 1992: The mandate to provide benefits for private sector employees was originally given to a Foundation (*Yayasan*) under the Ministry of Manpower. Government Regulation No 33 of 1977 transformed the Foundation

into a Perum named ASTEK, which was transformed into a Persero, PT Jamsostek, by Government Regulation No 36 of 1995 on the basis of Law no. 3 of 1992.

Other insurance programs (health, worker compensation, death benefits) administered by PT Jamsostek do not come under the scope of this report.

3.1.1.4 Law 40 of October 2004 and the White Paper of December 2009

In 2008, minister Indrawati directed the preparation of a White Paper entitled *Old Age Saving Program, Pension Program, and Death Benefit Program, National Social Security System*,⁴ on the implementation of Law 40 to create a National Social Security System (SJSN). A draft was published in December 2009 on the website of Bapepam-LK, a division of the MOF. The publication of this White Paper has given a new impetus to the implementation process, which had been relatively dormant since 2004, and it has become the key reference for Government of Indonesia policy about social security.

3.2 Current pension arrangements

3.2.1 The 1990s philosophy: Law 11 of 1992, benefits driven

In the mid-1980s, the Government of Indonesia decided to address the issues of aging and retirement. The policy choice made by Widjojo Nitisastro, special advisor to the President, and Oskar Surjaatmadja, Director of Financial Institutions at the MOF, was a gradual approach to stimulating the development of voluntary contractual savings in the private sector by giving a clear legal and fiscal status to voluntary private pension funds.

The chosen policy meant employers and workers would build income-generating assets to provide sustainable income throughout old age and reduce the future burden on the state. As a bonus addition, these programs would build long-term assets in the financial markets and thus support economic development.

Pension Law no. 11 of 1992 introduced by the MOF was a new undertaking embodying three principles:

- programs should be funded;
- the benefits should be payable as life annuities, not lump sums; and
- freedom to promise, obligation to deliver.

The programs were to be voluntary to avoid reducing the competitiveness of enterprises by payroll taxes and let the market optimize the rate of growth of pension assets but the rights of the participants to the benefits promised had to be secured. The law mandated a new legal, fiscal and prudential framework, including funding requirements and preferential tax treatment, for private voluntary

occupational DB or DC plans and DC personal pension plans, all prescribing life pensions.

There was no expectation of covering a large proportion of the workers since in Indonesia the informal sector represents about two-thirds of the work force and the average business unit in the formal sector is very small. Another dampening factor is that the tax incentives are weaker than in OECD countries. Income tax rates are low in Indonesia and a worker with a spouse and one child has a basic exemption of about Rp18 million, which is slightly above minimum wage. A large proportion of the workers are paid the minimum wage, so there are only a few million for whom contributing to a pension program entails a tax advantage, since over 80% of workers pay no taxes. The first taxable bracket, up to Rp50 million, is taxable only at 5%.

In 1992, it was expected that over a period of five years about 3,000 pension programs would be registered. That would have represented about half of the firms employing more than 100 workers. The target was never achieved but the law did introduce the concept of private pension programs and helped develop local expertise.

3.2.2 Inter-ministerial competition: mandatory lump sums

In the absence of a national retirement policy, less than six months later, the Ministry of Labour and Transmigration came up with a competing mandatory public Old Age Savings program to be administered by a state-owned enterprise (SOE), PT Jamsostek.

Despite strong objections from the MOF, it was also adopted by Parliament. Being mandatory, the Jamsostek program was serious competition for voluntary private programs. Thus neither Jamsostek nor private programs were really successful.

3.2.3 Labor Law 13 of 2003: mandatory termination allowances

The most serious competition to building post-retirement financial security is perceived to be the excessive growth of mandatory termination allowances. No 'program' is stipulated, but the substantial benefits payable as a lump sum upon termination of employment, including retirement, pursuant to Article 167 of the Basic Manpower Act No. 13 of 2003, which revised an earlier law, are similar in nature and timing to those paid under the Jamsostek Old Age Benefits Scheme. Since the severance benefits, including those paid to retiring workers, are only lump sums they do not constitute an effective mechanism to ensure old age income.

The maximum jumped from less than 10 months in 1986 to more than 25 months in 2003. The entitlements to severance pay and long service leave expressed in number of months of salary for economic termination is 25 months after 20 years of service. On a pay-as-you-go (PAYG) basis; that is,

without the benefit of return on investments, this would represent 10.4% of pay. Adding 5.7% payable to the Jamsostek program, it means a combined burden of over 16% on payrolls to provide only lump sums payable mostly before retirement age that result in little or no financial security after retirement.

What makes the competition with real retirement savings more damaging is that these mandatory indemnities are non-contributory, automatically in place without any action by the employer, need not be funded and are paid in a lump sum, just the opposite of the vision of the fathers of Pension Law 11 of 1992.

3.2.4 The post-2000 philosophy, assets driven

While Jamsostek and Law 13 slowed the growth of private pensions, the Monetary Crisis of 1997–1998 (KRISMON) brought them to a standstill. The KRISMON demonstrated the vulnerability of the population but also gave birth to a campaign for the buildup of a large fund, as the existence of such a fund in Malaysia was credited by some in Indonesia with having helped that country avoid having to submit to the International Monetary Fund (IMF) requirements for financial support. The underlying philosophy shifted from social protection to building financial institutions that would accumulate assets.

A task force created by Presidential Decree (Kepres) No. 22/2002 and hosted by the Vice-President's Office was appointed to draft a law. It marked a policy change towards universal coverage as opposed to previous laws targeting limited groups of civil servants or private sector employees. Law 40 mandating a National Social Security System, known also by its Indonesian acronym SJSN, was adopted and promulgated in October 2004 but failed to define benefits (other than health care) or amounts of contributions.

3.2.4.1 Benefits and contributions to be retro-engineered

What is more serious is that there was no real public debate about the vision in terms of costs or benefits that should have inspired Law 40 nor about the road map it was proposing: to entrench an administrative monopoly for collecting contributions and deliver benefits before any program or financing path was agreed upon. The cart was put in front of the horse and the vision was a pile of Rupiahs to manage.

There is no spelling out the reforms or consolidation of existing legislation such as Law 13 on termination benefits; it fails to segregate program assets from the assets of the entities that will administer the programs. Thus more than six years after the law was promulgated it is still not implemented and little progress has been made on creating a consensus about the benefit structure and the financing strategy. Nevertheless Law 40 remains in force and will greatly influence the development of national social security as will be explored in a later section.

3.2.5 Overview of the main current programs

Table 3.1 was first published in December 2002 and thus ‘Existing’ refers to the early 2000s, but it remains a fair description of the system valid for 2010 except for the minor addition of a health care contribution of 2% by the government as employer for the Armed Forces and the CS. This fact indicates that pension arrangements in Indonesia have remained essentially unchanged since 1992 despite the adoption in October 2004 of a law requiring the creation of a national social security system.

The title of the table itself is misleading, as there is not much of a system in this collection of programs that are not linked nor interrelated. The left part of the table in fact only refers to occupational DB programs for the Armed Forces and the civil servants. It leaves out the occupational DB and DC programs registered under Law 11 of 1992 offering post-retirement financial security to private workers and their dependents, which are the real private counterpart to the government employees schemes. The Jamsostek programs shown on the right provide no pension at all and offer very little social dimension besides being mandatory, thus hardly justifying the label ‘social security’.

3.2.6 Lack of transparency

A serious issue of transparency is the lack of comprehensive reporting of the CS and Old Age Savings programs administered respectively by PT Taspen and PT Jamsostek. The audited financial statements and annual reports published by the two state owned enterprises (SOEs) reflect the financial operations of the institutions, paying taxes and dividends on their profits, not their performance as providers of social protection.

3.2.6.1 PT Taspen

PT Taspen is a non-licensed state insurance company that underwrites the savings and endowment program for the civil servants. It is not the appointed administrator of the pension program under the law but provides on a cost plus basis the services that have been outsourced by the MOF. PT Taspen has no financial responsibility for the pension program sponsored and fully guaranteed by the government. Therefore the financial statements reflect its core activities; that is, underwriting the savings and endowment program, while information about the pension activities until recently had to be found in notes. PT Taspen’s total consolidated assets were Rp60.9 trillion at the end of 2009 of which only Rp19.7 trillion (32%) held on deposit, represented accumulated employee pension contributions to the pension program.

3.2.6.2 PT Jamsostek

PT Jamsostek is also a non-licensed state insurance company that administers a program labelled as Old Age Benefits under which private sector employees and

Table 3.1 Overview of Indonesian social security system (existing)

Scheme	GOVERNMENT EMPLOYEES SCHEMES				PRIVATE EMPLOYEES SCHEMES							
	Law No. 8/1974 on government personnel policy				Law No. 14/1969 on basic manpower regulations							
Legal Provision	Armed Forces		Civil Servants		JAMSOSTEK							
Program	Presidential Decree 8/1977	Pension Law	Health Care MOD Decree	Retirement Gov't Reg No. 25/1981	Presidential Decree 8/1997	Pension Law No. 11/1969	Health Care Gov't Reg No. 69/1991	Law No. 3/1992	Work Accident	Old Age	Health Care	Death
Financial Contribution (%)	Employee	3.25	2.00	3.25	4.75	2.00	2.00	2.00	0.24-1.74	3.70	3.0-6.0	0.30τ
Benefits	Gov't/ Employer	Lump sum payment on retirement	Medical expenses, hospitalization, maternity & medical equipment	Lump sum payment on retirement	State Budget	State Budget	+2	Transport, doctors, medicine, hospitalization & disability	Lump sum payment of contribution plus interest			
Institutions	Pt. Asabri Gov't Regulation No. 68/1991	Pt. Asabri	The Armed Forces Hospital/Askes	Pt. Taspen Gov't Regulation No. 26/1981	Pt. Taspen	Pt. Taspen	Pt. Askes, Gov't Regulation No. 6/1992	Pt. Jamsostek, Gov't Regulation No. 36/1995	Jamsostek	Pt. Jamsostek	Jamsostek (optional)	Pt. Jamsostek

Source: International Labour Office (2002) *Social Security and Coverage for All-Restructuring the Social Security Scheme in Indonesia – Issues and Options*. Jakarta: International Labour Office.

employer's accumulated contributions are payable in a lump sum at termination including retirement. PT Jamsostek also administers three other insurance programs for private sector workers (employment accident benefits, death benefits, health care benefits) under the Employees' Social Security Scheme created by Law no. 3 of 1992.

PT Jamsostek is not subject to the Insurance Law for its insurance programs nor to the Pension Law for its Old Age Benefits program but is subject to ad hoc government regulations under the general supervision of the Minister of Manpower. However Government Regulation PP 22 of 2004 (replacing PP 28 issued in 1996) contains expanded regulatory and reporting requirements directly inspired from the insurance regulatory requirements and confirms a wider supervisory role for the MOF but still outside of the regulatory framework of the Pension Law and the Insurance Law.

3.3 Overview of pension and savings arrangements

3.3.1 Key social, financial and demographic indicators

The general context for Indonesia is summarized in Chapter 1. The total population was projected to be 233 million for 2010 but current estimates raise the number to 242 million, although the rate of growth is expected to decrease in the short term due to continuous decreases in fertility that lower the reproductive rate below 1.0.⁵

Life expectancy had jumped from 52.2 in 1980 to 65.4 in 2000 and now stands at 69.8; the increase is assumed to decelerate to 73.6 in 2025. The working age group taken as 15 to 64 comprises 68.6% of the population and should remain relatively stable in the next decades. However, the current retirement age being low, the dependency ratio is 17% and will reach 40% by 2050 if the current policy remains unchanged. Figure 3.1 illustrates the favorable combination that opens a window of opportunity over the next decades, but a combination of lower fertility and higher longevity will hit Indonesia and soon after the older population will overtake the younger, probably around the middle of the century, which points to the need to address the aging issue on a timely basis.

3.3.2 New challenges

Increasing globalization transforming the labor markets and urbanization also means that the current reliance on family support will need to be replaced by more formal arrangements to prevent a large proportion of the population becoming dependent.

However, there is a particular analysis that makes highly visible the dramatic increase in the need for financial security in retirement. Back in the 1970s the challenge was to reduce infant mortality and the small elderly population was easily supported under the extended family approach (Figure 3.2).

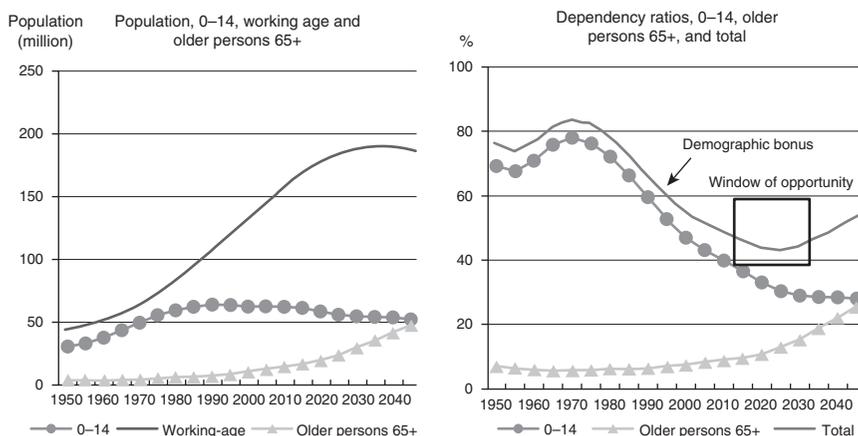


Figure 3.1 Dependency ratios, 1950–2050.

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision, <http://esa.un.org/unpp>

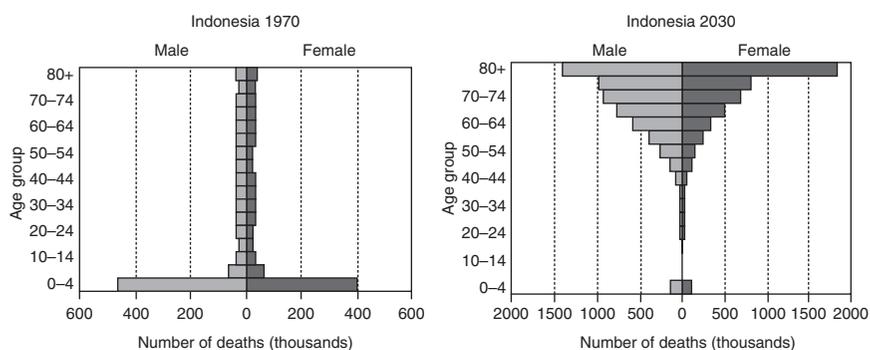


Figure 3.2 Distribution of deaths, 1970–2030.

Source: Rokx, C., et al, 2009. *Health Financing in Indonesia: a reform road map*. Washington, DC: The World Bank Group.

The future is very different as more and more people survive to older ages, which makes financial security in retirement a new challenge. Addressing it will require a paradigm shift in attitudes and policy.

3.3.2.1 Salary and wages

It is important to note that pensionable earnings are generally limited to basic wages excluding a variety of allowances and thus are only a fraction of total remuneration or take-home pay. Thus, replacement ratios are significantly lower

percentages of total compensation or take-home pay and contribution rates lower percentages of total payrolls. The accrual rate shown in Table 3.2 is the percentage of annual pensionable earnings that is credited for the benefit of a participant for each additional year of participation.

For civil servants, pensionable salaries comprise only basic wages plus family allowances thus representing less than half aggregate remuneration on average and much less at retirement when higher earnings levels are reached. As premiums and special allowances tend to increase with seniority and promotion, it is likely that final pensionable pay is less than one-third of total remuneration. Thus a replacement ratio of 75% would become only 25% of take-home pay.

In the private sector the definitions are more variable, but in SOEs the CS model tends to prevail with the result that an apparently generous formula provides only low replacement ratios. Private occupational pension programs that also define a pensionable salary that is generally only a fraction of total wages are thus exposed to similar risks.

The Jamsostek Law stipulates a comprehensive definition of wages, but in practice contributions are based on basic salary excluding allowances, which in the private sector are quite variable. No accurate statistics are available for the private sector but allowances are estimated to be in excess of 25% of wages on average.

3.3.2.2 Summary of main stipulations

The main components of the summary (Table 3.2) are reviewed in subsequent sections. Including the Jamsostek Savings program to obey the prevalent vocabulary entails a risk of misrepresentation even though the heading prudently excludes the words ‘pension’ or ‘retirement savings’ since it is not providing any pension and less than 10% of the payouts are at retirement.

3.3.3 Civil service pay-as-you-go reporting

The percentage of 28.39% shown in Table 3.2 as the employer contribution rate for CS pensions⁶ is for the total amount of pensions paid in the year, since contrary to normal practice for programs financed on a PAYG basis, the employee contributions are not applied to reduce the employer cost.

However, this percentage reflects the ‘perceived’ cost of the program as estimated from the budgets or audited financial statements of the Government of Indonesia rather than the real PAYG cost. It is distorted because the payments include some legacy amounts for veterans and other beneficiaries including former regional civil servants. On the contrary, the reported wages are only for civil servants paid by the central government excluding civil servants paid through transfers to local governments but components that are not pensionable earnings are included. These offsetting errors produce a spurious result that is not reliable management information, although surprisingly close in 2009 to the

Table 3.2 Summary of pension and savings arrangements

<i>Programs</i>	<i>Civil Service Pensions*</i>	<i>Private Pensions (Law 11)</i>	<i>Jamsostek Old Age Savings</i>
Year	2009	2008	2008
<i>CONTRIBUTION (% of pensionable wages)</i>			
Participants	4.75	Maximums DC: 60% of Employer rate; DB: 3 times accrual rate	2.00
Employer	28.39	Maximums DC: 60% of Employer rate; DB: 3 times accrual rate	3.70
Total		to fund up to 120% of liabilities; DC:20%/yr	5.70
<i>PROGRAM FORMULA (% of pensionable wages)</i>			
Accrual rate	2.50	Maximum: DB 2.5%/yr : DC 20%/yr	DC: 5.7
Maximum	75.00	DB:80% DC 20%/yr	NA
<i>Normal Retirement Age</i>	<i>56 or age 50 with 20 year service</i>	<i>Maximum 60</i>	<i>60 or 5 year of contributions</i>
COVERAGE			
Number of participants	4,380,022	2,559,112	8,219,154
% of target	±100	6.54	See below
% of formal labor force	11.06	6.54	20.99
% of labor force	4.05	2.39	7.69
ASSETS			
Total assets Rp trillion	19.65	90.4	56.25
Multiple of annual benefits	0.56	NA	15.02
In % of GDP	0.36	1.82	1.14
Return on invested assets	9.12	-0.69	8.00
EXPENSES (in % of benefits)			
Asset management	0.53	NA	0.44
Administrative	1.31	NA	22.89

NA = Not applicable.

Notes: For year 2008 price inflation was 11.1% and the rate payable on Central Bank Certificates 9.2%.

Source: Author's compilation.

‘normal cost’ on a projected unit credit basis estimated at 26.84% of pensionable earnings for 2009.

3.3.4 Coverage of labor force still very low

In the absence of a national program, coverage is essentially through occupational programs for the formal public and private sectors and thus there is no coverage of the informal sector, which represents about 65% of the labor force.⁷

Foreign workers must contribute to Jamsostek if the expected duration of employment is over six months; in private programs it will vary according to individual contracts. No comprehensive statistics have been found regarding this coverage.

3.3.4.1 Participation to CS pension

PT Taspen’s audited financial statements show no information about the number of active participants or beneficiaries of pension, but an estimate of active participants can be obtained from the website of the National Civil Service Agency (BKN). The number and distribution of civil servants are summarized in Table 3.3).⁸

The distribution is unexpected as it peaks for age group 46–50 rather than 31–35, with a large number at ages 41–45 as well, all approaching the retirement age of 56. Given that reporting is done on a cash rather than accrual basis, it is creating a temporary surge in retirement costs due to the skewed distribution of hiring in previous decades.

Table 3.3 Distribution of civil servants in 2009

<i>Age group</i>	<i>Males</i>	<i>%</i>	<i>Females</i>	<i>%</i>	<i>Total</i>
18–20	1,264	0.1	1,166	0.1	2,430
21–25	71,794	2.9	100,065	4.8	171,859
26–30	202,561	8.3	252,296	12.2	454,857
31–35	251,927	10.3	261,641	12.8	516,468
36–40	343,813	14.0	326,510	15.8	670,323
41–45	491,118	20.0	415,495	20.1	906,613
46–50	544,325	22.2	392,258	19.0	936,583
51–55	438,773	1.9	228,403	11.0	667,176
56–60	105,507	4.3	86,602	4.2	192,109
61–65	3,894	0.2	1,434	0.1	5,328
65+	293	0	66	0	359
Total	2,455,269	100	2,068,936	100	4,524,205

Source: National Civil Service Agency: www.bkn.go.id

Over the last seven years the CS has grown from 3,648,005 to 4,524,205 employees and the majority is shifting to females who enjoy higher longevity but generate lower survivor benefits. The female to male ratio was 68% in 2003 but increased to 84% in 2009. The number of beneficiaries was 2,172,945 in 2009, a ratio of 53% to active participants, and expected to increase by 6.9% in 2010.

3.3.4.2 Participation to employer pension funds

The annual report of the Pension Bureau contains basic information that is supplemented by unpublished data obtained by the author (Table 3.4). There is on average 880 employees per EPF indicating that, as expected, it is larger employers that have created pension funds; by comparison the average number of employees per employer in the Jamsostek program as reported in the next section is only 82.

3.3.4.3 Participation to Jamsostek program

The enforcement of the law, a responsibility of the Ministry of Labour and Transmigration, has been very lax resulting in a very low level of coverage, less than 25% of the formal private sector labor force. Even for registered employees, wages appear underreported. Recently Jamsostek has made attempts to recruit members outside the formal labor force but it has not been significant yet.

Table 3.5 summarizes key indicators of the coverage of Jamsostek's Old Age program identified as old age savings (JHT).

3.3.5 The normal retirement age

Retirement is mandatory at age 56 for the majority of civil servants. However, retirement can be up to 60 or more for some categories and early retirement is permitted at age 50 with 20 years of service, without reduction in the accrued pension.

Table 3.4 Participation to private pension programs

Type	Number of programs	Number of employers	Number of participants	Increase over 2007 (%)
Employer Pension Funds	225	1,568	1,380,113	2.15
Financial Institutions Pension Funds	26	4,516	1,178,999	9.02
Total	281	6,084	2,559,112	5.21

Notes:

1 The number of Employer Pension Funds includes 39 defined contributions programs

2 The number of participants to Financial Institutions Pension Funds includes 429,312 individuals.

Source: Annual Report 2008 Pension Bureau, Bapepam-LK, MOF.

Table 3.5 Coverage of JHT, 2008 vs 2007

<i>Indicator</i>	<i>2008</i>	<i>Growth over 2007 (%)</i>	<i>2007</i>
Number of active employers	100,684	11	90,697
Number of active contributors	8,219,154	4	7,941,017
Average number of contributors per employer	82	-7	88
Assets Rp Bn	56,247.50	15	48,870.17
% of GDP	1.14	-8	1.24
Amount per contributor Rp	6,843,466	11	6,154,145
GDP per capita	21,678,000	24	17,476,000
% GDP per capita	32	-10	35

Source: PT Jamsostek, www.jamsostek.co.id

Pension Law 11 left to the Ministry of Labour the responsibility of stipulating the maximum normal retirement age, a serious limitation on optimizing pension design. Age 55 has been stipulated and the same age applies to the Jamsostek Old Age program.

This is much too low and unsustainable in the long term both for the productivity of the Indonesian economy and for the cost of providing financial security in retirement. In the absence of a policy change, the old age dependency ratio will increase quickly over the next few decades (Table 3.6).

The consequences are well illustrated in the MOF Draft White Paper (2009) which logically recommends a retirement age of 60 initially, increasing to 65 by 2047, by which time longevity will have moved up. Thus further increases should be anticipated to keep in line with longevity.

3.3.6 Pre-retirement withdrawals

Only the Jamsostek program has open withdrawal provisions. As a result, 87% of all payments are for lump sums for termination after five years' membership.

Table 3.6 Old age dependency ratios, 2010–2070

<i>Retirement age</i>	<i>Population dependency ratio (%)</i>			
	<i>2010</i>	<i>2030</i>	<i>2050</i>	<i>2070</i>
60	12.9	25.8	40.6	50.6
65	8.0	16.4	27.9	35.5
70	4.0	9.7	18.2	24.8

Source: Wiener, Mitchell (2009).

Only 8.27% of all payments are received at retirement age; that is, at the last termination!

Private pension programs must lock in the benefits until retirement age, including early retirement, except for amounts below a nominal minimum or refund of contributions in case of termination before vesting. But they must offer the right to commute 20% of the pension (i.e. receive it as a lump-sum). The CS program locks in the full pension benefits with no option to commute.

The trend has been towards more lump sums, but this should be reversed under Law 40, as the Draft White Paper suggests eliminating commutation options in the SJSN pension program since enough lump sums are available through the SJSN old age savings program and Labour Law 13 severance allowances.

3.3.7 Tax treatment of pension funds

The general approach is exempt exempt taxable (EET) during the accumulation phase but with some exceptions as to investments and various practical difficulties in implementing deductibility of contributions since even after 18 years the tax form SPT1770 cannot accommodate the deduction as stipulated in the tax law. This becomes important when the employer payroll department is not equipped to take into account the deductibility of contributions. More importantly, many companies apply the net salary payment system whereby the company is responsible for the salary tax. Deductibility is not visible either for the self-employed that use the normal tax calculation.

In many cases this would result in double taxation since the benefits are taxable even if the contributions were not deductible. It is likely for that reason that in November 2009 the maximum benefit tax has been reduced from 25% to 5%. That reduces the fiscal base but does not create an incentive for current participants since there is no assurance the 5% maximum will still apply when they will retire.

For the CS, the EET approach carries into retirement and pensions are taxable only as received. For private DB programs the same rule applies if the pension is paid out of the pension fund. However, if the pension is purchased from an insurer the premium is taxable and monthly instalments are partially exempt up to the premium paid.

3.3.8 Longevity and inflation risks

CS pensions are based on final pay and the amount payable indexed after retirement on the basis of active civil servants salaries; therefore there is full protection against inflation and longevity. Survivor benefits are payable to the surviving spouse or children.

The same comment applies for most private programs. Since the CS program has been a role model, life annuities are mandatory as well as survivor benefits. For employers other than SOEs, there is more variation as to indexation provisions. However, due to market limitations, annuitization is an issue for

private DC programs and even for DB programs for small employers who would like to mitigate longevity risks. Proposals made by the Pension Bureau to address this issue are discussed further in a later section. In the case of Jamsostek, the full longevity risk remains with the individual participants as there is no social protection provided.

3.3.9 Investment policies and performance

Private pension funds must file their investment policy annually with the Pension Bureau. The prudential framework is very flexible and aims at implementing modern portfolio theory with few quantitative limitations, mainly to enforce diversification and limit investment in the sponsoring entity. The enforcement of the policy is monitored by the Pension Bureau of Bapepam-LK under the MOF. Both PT Jamsostek and PT Taspen are subject to some supervision by the MOF as to solvency including the investments. The investment limits are similar across all programs monitored by the MOF.

Assets for the CS pension program total less than Rp20 trillion and are commingled with larger assets administered by PT Taspen. As PT Jamsostek administers insurance programs beside the Old Age program, investments are commingled and returns apportioned by formula. Therefore, it is difficult to identify specifically investment and performance of the Rp56 trillion JHT assets in the published audited financial statements. We therefore illustrate the distribution of largest pool of assets, over Rp90 trillion, funding private pension plans for which good information is available, as representative of all programs.

The comprehensive reports of investments filed by private pension programs are analyzed by type of program: DB, employer DC and FIPF (DC). Figure 3.3 shows the progression of the portfolios over the last five years.

At the end of 2009, the net assets amounted to Rp90.35 trillion and Rp86.55 trillion or 95.79% were invested. There is no comprehensive information about investment expenses for employer plans but the fees charged to FIPF participants are reported and represent an average of 0.12% of investments.

3.4 Assessment of existing arrangements in Indonesia

As there is neither a real social security system nor even social pensions, the usual criteria of adequacy, equity, efficiency, sustainability and robustness do not really apply collectively but can be used for each type.

A preliminary assessment of the three types of existing programs may be useful to guide the reader throughout the next section (Table 3.7). The scale is from 0 to 5, with 5 being the best.

3.4.1 The CS pension program

As is the case for a large majority of the countries around the world, Indonesia is financing its CS pension scheme on a PAYG basis. Thus, it is not underfinanced

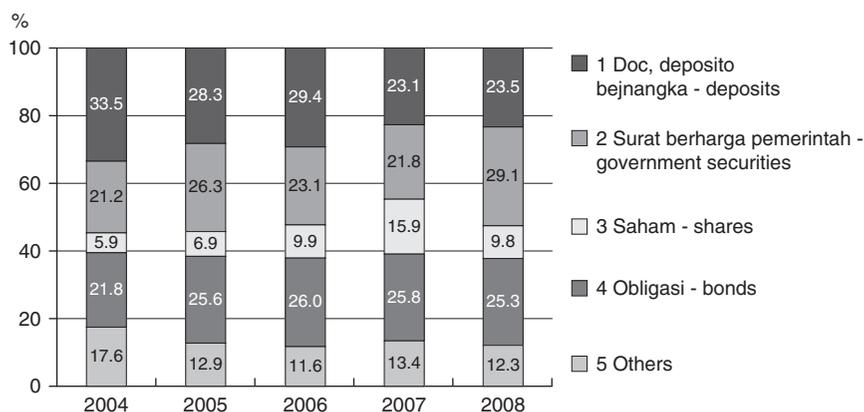


Figure 3.3 Private pension programs investment portfolio.

Notes: Others comprise SBI – Certificate of Central Bank, Penyertaan Langsung + SPU – Direct Investment and Promisory Notes, Reksadana + UPK, Mutual Funds and Pooled Funds, and Tanah & Bangunan – Land and Building.

Source: Annual Report, Pension Bureau, Bapenam-LK. Available at www.bapenamk.depkeu.go.id/dana-pensium

or underfunded and by comparison with other countries it appears very sustainable given that only basic salaries are pensionable, which mitigates the impact of a final pay formula.

3.4.1.1 Accounting and reporting best practices

The current reporting on a cash basis does not meet the accounting requirement of matching expenses with revenues but reflects fluctuations in past hiring patterns that can cause major distortions. Pay-as-you-go contributions will tend to be higher since they include financing costs which should be accounted for as interest charges not as employee compensation.

Best practice would call for reporting on an accrual basis of the costs of pensions earned in the year by civil servants currently active rather than the amounts paid to civil servants that were working decades ago. Percentages based on total wages would be significantly lower and better reflect the real budgetary impact.

To remedy the lack of proper reporting, the audited financial statements should include a consolidated summary of the financial operations of the CS pension program sponsored by the government reconciling the cash and accrual basis to enhance transparency.

Although the unfunded or implicit pension liability in percentage of GDP is a popular piece of information it is a poor indicator of solvency, affordability or sustainability. Pensions are due and payable in periodic amounts so a better measure of the fiscal burden is the annual cost. The consolidated amount of pensions

Table 3.7 Assessment against social security criteria

	<i>Civil Service</i>	<i>Private programs</i>	<i>Jamsostek</i>
Adequate	3: good for poverty alleviation but mixed for income replacement	2: The regulatory regime is adequate but the actual coverage is very limited	1: Only a small fraction of contributions is accumulated, none produce security in retirement
Equitable	2: The definition of pensionable salary creates distortion and the final pay is open to manipulation	3: That varies with each program but on average should be fairer than CS	3: No redistribution but a commercial product that for years made the poor poorer but now returns are closer to being fair
Efficiency	2: Expenses could be reduced by consolidating administrative entities: MOF Treasury, PT Taspen, National Civil Service Agency	3: Eliminating the dual boards, using more outsourcing, improving the quality of professional services and of reporting would improve the value-added	1: Eliminating early withdrawals and ensuring portability would better serve the social objective; organisational improvements and better enforcement would reduce expense ratios
Sustainable	3: Affordable but reporting on accrual basis would enhance sustainability	3: DC are OK but many programs are final pay; index career pay or target plans would be more sustainable	2: It does not serve its purpose so in the long run will lose support unless it is reformed
Robust	2: Bad reporting, lack of leadership and sponsor low commitment, multiple conflicts make it vulnerable	2: Too many plans in deficit and weak actuarial reporting	1: A bad deal that survives only because it is mandatory; participation much too low

Source: Author.

paid in 2009 for Civil Servants, Armed Forces, veterans and other legacy amounts shown in Table VI.17 page VI–67 of the 2010 budget is Rp39.8 trillion for 2009 which represents 0.74% of the GDP estimated at Rp5,400 trillion; the estimate for 2010 is Rp48.9 trillion or 0.91% of the GDP projected to Rp5,981 trillion for 2010.

Low pensionable earnings make the program appear financially affordable but not necessarily politically sustainable. The need for administrative reforms, a push for transparency and sensitive political context could force making a higher

proportion of the whole remuneration pensionable. This would leverage the impact of the final pay formula which entails a high contingent liability and potential for a dramatic increase of the cost.

A proposal in the recent budget to introduce a cut-off date and switch to full funding of the pension accruals for new employees rests on the illusion that the financing method controls the risks whereas it is the design that drives the fiscal burden. Given the current age distribution the timing of the proposed switch could not be worse and will only cause a larger hump in the contributions requirements as the current generation of taxpayers will support the cost of pensions for both current and past civil servants.

3.4.1.2 The decentralization

Through the reform of the year 2000 local administrations have inherited resources and personnel. They are becoming responsible for the administration of their own personnel. There should be a clear agreement as to the sharing of responsibility for the costs as more and more retirees will be regional civil servants that were not on the central government payrolls.

3.4.2 Law 11 of 1992 on private pension programs

The creation of a program under the law is voluntary but any program offering benefits based upon the attainment of a certain age is deemed a pension fund and thus subject to the Pension Law. What was not immediately apparent was that the insertion of the words ‘except if such promised program is based on a separate Law’ in the definition of the scope of the Pension Law to exempt the Jamsostek Old Age savings program would result in greater ambiguities and later exempt the retirement benefits payable under article 167 of Labour Law 13.

Various factors in addition to the 1997–1998 monetary crisis – the mandatory Jamsostek program and Labour Law 13 indemnities – explain why the registration reached only 416 programs and is now reduced to 281. Until the uncertainty created by Law 40 is resolved and the respective role of social security and private programs is clarified no growth can be expected.

Other key factors continue to dampen growth even after the economy recovered:

- 1 cultural factors that favor lump sums over lifetime pensions;
- 2 lack of confidence in the enforceability of the promise;⁹ and
- 3 lack of basic financial education about retirement planning.

3.4.2.1 Private pension funds

The current 281 private pension programs are subject to supervision and on-site examinations by the Pension Bureau. Since May 2008 it applies a risk rating

system to better focus its resources. Actuarial, investments and financial reports need to be filed regularly. The Bureau monitors these reports including compliance with funding requirements and investment regulations. Administrative sanctions were imposed on 38 programs in 2008 for a total of Rp531 million. The Pension Bureau's annual report contains qualitative and quantitative information about a number of aspects of the programs under supervision.

For EPFs offering a DB program, the Funding and Solvency Decree distinguishes three quality levels as to the funding:

- 1 assets equal or exceed ongoing liabilities;
- 2 assets are lower than ongoing liabilities but equal or exceed solvency liabilities; and
- 3 assets are lower than solvency liabilities.

Figure 3.4 summarizes the analysis of the funded status of the registered DB plans in recent years.

3.4.2.2 Financial Institution Pension Funds

The structure of EPF and the Financial Institution Pension Funds (FIPF) is reasonably similar and most of the regulatory set-up can apply *mutatis mutanda* to both types, including locking-in and mandatory annuitization at retirement. The original intention was to cover individuals (employed or self-employed) that did not have access to an EPF and to offer a vehicle to hold and tax shelter deferred vested benefits between the termination of employment and normal retirement age. However, FIPFs have been attracting a fourth category of participants: employers, rather than setting up an EPF, enrol a group of its employees

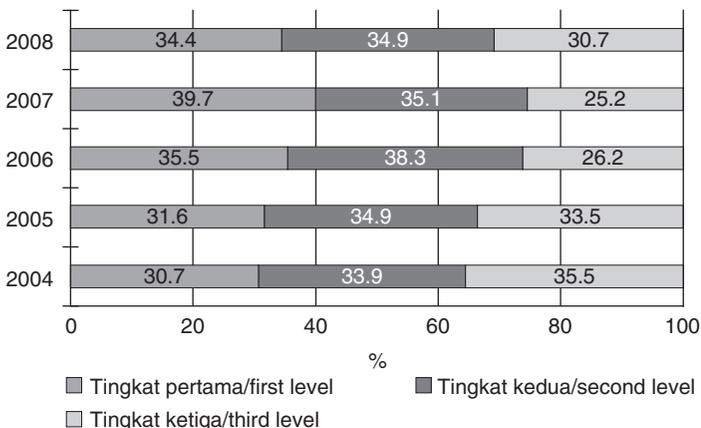


Figure 3.4 Funding level of defined benefit pension programs.

Source: Annual Report, Pension Bureau, Bapepam-LK. Available at www.bapepamlk.depkeu.go.id/dana-pensiun

as individual participants and administratively support their participation in the FIPF through payroll deduction and often by also contributing on behalf of the participants.

As personal incomes increase, more and more individuals will seek to increase their financial security in anticipation of increased longevity. FIPFs, by offering great flexibility to all taxpayers, including those in the informal sector, create a great potential for the future growth of the pension industry whether or not a national program is implemented.

3.4.3 Public occupational plans: Jamsostek

The design of the program does not favor the long term. Contributions are not effectively locked in until retirement. Instead, most of the assets are paid out after five years of participation, well ahead of retirement age. Consequently, contrary to expectations, the system does not promote portability within the labor force since the participation is not cumulative between successive employers. Moreover, the program pays lumps sums only.

3.5 Reform options: the way forward for Indonesia

A key lesson to be learned from the adoption of Law 40 in 2004 is that a law creating high expectations but not supported by a consensus based on sound cost projections exposes the government to financial and political risks. Its 53 articles are mostly a framework to be completed by about 30 President or the Government of Indonesia regulations. Article 3 states: ‘The National Social Security System has the objective to provide assurance of the fulfilment of basic needs of life for members and/or their families.’ There are also unclear expectations created by many generic references to the Constitution and to ‘humanity’, ‘social justice’, ‘decent life’ and basic principles such as redistribution, non-profit, openness, prudence, accountability, and so on.

3.5.1 A framework but no guidance

Going forward, the law does not require the production of cost estimates, feasibility or sustainability studies in support of the proposed regulations, nor prescribe any exposure or public debate on the strategic orientations, the policy options or the priorities. In the absence of clear leadership, there was no obvious champion and over many years the main subject debated has not been the underlying design options but the delivery mechanism even though what is to be delivered is not yet defined.

3.5.1.1 No national retirement strategy

Law 40 does not call for explicit decisions as to the respective contribution of the public social security program and of the private sector, on the proper balance

between redistribution and wealth accumulation, on the relative importance of funded components versus the PAYG or target financing. It does not provide leadership on difficult issues like:

- the integration of Law 13 terminations indemnities;
- the balance between lump sums and pensions; and
- the transition that could be necessary for existing programs.

3.5.1.2 No retirement age policy

More importantly, the key design issue of the retirement age is evaded by transferring that decision outside of the jurisdiction of Law 40 in one sentence of article 39(4): ‘The Pension age shall be stipulated under the prevailing laws and regulations.’

3.5.1.3 Delayed implementation

The council that should coordinate the implementation was appointed only on 24 December 2008. Almost six years after being promulgated, Law 40 is still not implemented and not likely to be fully implemented in the short term.¹⁰ Planning and designing a social security system is a challenging, time-consuming task requiring many decisions to be made. By comparison with traffic it seems that putting too many decisions on the road at the same time has created a traffic jam if not a gridlock!

3.5.2 Shifting the focus to social protection

3.5.2.1 Implementation options

Only in the recent year or so has there been some attention paid to the design, the impact on the ultimate beneficiaries and the real implementation issues. At this point three main scenarios can be envisaged:

- 1 implementation of Law 40 likely with modifications;
- 2 incremental changes outside the constraints of Law 40; and
- 3 adoption of a new Law removing the key hurdles of Law 40.

3.5.3 A prerequisite: unlocking the link to the health program

In Indonesia, the elucidation that accompanies the law also has virtually or almost force of law. In this case an essential condition is stipulated via the elucidation of article 14(1) which reads: ‘The phrase “in stages” in this stipulation means that it considers the criteria for participation and program administration with due regard to the State budgetary capability, such as the early establishment of health security.’

3.5.4 The December 2009 White Paper: A new philosophy

The best indication we have of a policy orientation as to the objectives to be pursued is the Draft White Paper published on the website of Bapepam-LK, a division of the MOF, on 15 December 2009. It fills a major gap by putting forward a credible design essentially compatible with Law 40. The major provisions are as follows regarding the pension arrangements:

- a defined benefit pension equal to 0.5% of final pay per year of contribution resulting in a 20% replacement ratio for a 40-year career;
- a defined contribution savings program accumulating shared contributions of 3% of total wages; and
- initial retirement age of 60 increasing gradually to 65 by 2047.

Stipulating both life pensions and savings lump sum in Law 40 was obviously a concession to the lump sum appetite but can also be traced to a vision of social security through the prism of the dual civil service programs.

The White Paper suggests a maximum salary that would be exceeded by only about 10% of the workers. Under Law 40, savings can be withdrawn partially after ten years of participation; the White Paper proposes to restrict it to prior retirement or dire needs only.

The White Paper justifies reducing from 5.7% to 3% the percentage going to the savings program by the need to favor financial security in retirement, but more importantly avoids adding it to the existing Labour Law 13 termination indemnities. The proposition is to split current indemnities between those service related and payable at retirement which would be offset by Law 40 pension benefits and the remainder that would remain payable upon prior termination of employment as a form of unemployment insurance.

That proposal has a good chance of success since storing the contributions in the social security fund would increase the probability the benefit will be paid and for the employer it switches from a DB to a DC approach under which pre-funding was deemed more acceptable. It also avoids increasing the burden to the payrolls.

3.5.5 Propositions that mitigate difficulties

3.5.5.1 Administration and asset management

Collection of data and contributions is a big challenge which is made worse by the split and the fact a single identification number does not exist yet. The White Paper hints at consolidating these functions in a single entity that could be the Tax Collection Agency of the MOF. That would greatly enhance the enforcement capability.

The White Paper proposes only two administrators: one for short-term programs such as health and one for long-term programs such as pensions

and savings. It also resolves the allocation dilemma by adopting the approach by program rather than by population segments.

The current trend is to separate investment of assets from the benefit administration to better fit the structure of the entities responsible for the nature of the work and the qualifications required. That can be achieved by using separate entities or by outsourcing the management of assets on a competitive basis to qualified professionals.

3.5.5.2 Minimum participation for a pension

Law 40 stipulates that 15 years of participation are required for a pension to become payable. Implementation in 2012 means that no pension will become payable before 2027, which is 23 years after the adoption of the law by the National Assembly. It also means that workers now aged 43 and above will never get a pension but only a return of their contributions plus the lump sum from the savings program.

There is also a large number of older people who even since 2004 have been getting nothing and will keep getting nothing until death. They are the people that have built Indonesia and are most in need of support while future retirees will have benefited from the current higher rate of growth of the economy. Given the favorable demographic balance (only 13 million that is 5.5% of the population is 65 and over) covering the current old age group is not unduly expensive and is a disappearing burden.

Fortunately, the White Paper proposes to recognize periods of work prior to the start of the program and to add a minimum social pension without contributions for people currently above retirement age. It proposes to finance the pension program on a PAYG or level contribution basis thus adding benefits for existing older people increases initial costs while moving up the retirement age decreases longer-term costs. The combination reduces the slope of the curve and the hump of assets that would arise under a level financing approach.

3.5.6 Towards a multi-layer program

The strategy underlying the White Paper clearly leaves room for development of the private sector. National systems should only target the adequacy objective of poverty alleviation, which is a public responsibility, by providing a nominal amount predicated on a percentage of average earnings¹¹ and set below minimum wages, which provides protection against longevity. The objective of ensuring wealth accumulation to achieve a higher replacement rate for other wage earners is not a public good; it can be met by earnings-related private funded programs.

Can a renewal of activity be expected under Law 11 of 1992 that is meant to facilitate the creation of private programs? Drawing on accumulated experience the Pension Bureau itself has prepared proposed amendments to Law 11, which is now over 18 years old. These aim at simplifying and clarifying the

administration and supervision of private programs so the law itself does not become an impediment. It increases the flexibility and extends the scope to Shariah-compliant Pension Programs.

More importantly, it includes proposals to increase the attractiveness of the programs:

- expansion of the scope of FIPFs;
- clarifying the possibility of an offset for the Law 13 indemnities;
- opening alternatives for the annuitization of DC assets; and
- clarifying the implementation of the EET treatment.

3.6 Conclusions

There is no easy answer to the key design question: for a given level of social protection, how much of the risk is pooled through a DB design providing longevity protection and a basic floor to alleviate poverty versus DC or DB components that spread the risks on the participants and reflects their previous contribution to the economy in terms of duration and wage levels?

Multi-pillar, hybrid or combinations have become the popular approach as they allow for risk sharing and balance between equity and subsidization. The propositions of the White Paper and those of the Pension Bureau would dispose of many of the hurdles that have prevented the emergence of a consensus and contain enough flexibility to enable the construction of cost-efficient and socially oriented retirement arrangements that reflect a productive partnership between public and private initiatives. The MOF should be persuaded to align its policies so that the tax treatment does not undermine the retirement policy but favors life pensions over lump sums. The government needs to provide leadership in defining a national retirement policy and unity of direction in its implementation for the benefits of the whole population of Indonesia.

Notes

- 1 In Washington, on 4 May 2010, World Bank President Robert B. Zoellick announced the appointment of Sri Mulyani Indrawati as Managing Director of the World Bank Group. Minister Indrawati's resignation came as a dramatic surprise and the impact on Law 40 implementation process cannot be assessed at this point.
- 2 'To seize this opportunity, the government has to pursue its reform agenda, including better tax collection and more effective government spending would free up funding for infrastructure, education and health care initiatives' (Economic Survey of Indonesia, OECD, 2010).
- 3 'Although Indonesia has posted respectable growth rates during the recent global crisis, from a longer term perspective the country is becoming less competitive. Indonesia is changing, but most of the dynamic economies of East Asia are changing faster. Indonesia is losing ground to PRC, India, Thailand, Malaysia, Viet Nam and the Philippines in foreign direct investment flows, manufacturing, infrastructure and education. Indonesia's social indicators are also lagging behind other middle income countries' (Harvard, 2010).

- 4 The preface indicates the MOF benefitted from the technical assistance of the Asian Development Bank in the preparation of this White Paper written by Mr Mitchell Wiener, an actuary and pensions and social security specialist, following discussions with ministry officials.
- 5 It takes about 2.13 live births per woman to just replace the population which corresponds to a reproductive rate of 1.0. Fewer births translate in a reproductive rate below 1.0 indicating a decrease in the population in the long term.
- 6 The Armed Forces are covered under a program similar but separate from the CS. It is widely expected that the pension reform will leave largely unchanged the coverage of the Armed Forces although some cosmetic changes could be made so that the coverage comes under Law 40 but the implementation delegated to PT Asabri, the SOEs that administers the current programs.
- 7 In theory some self-employed could join a FIPF but no statistics are available and the number is expected to be non significant since there are only about 500,000 participants that have individually joined a FIPF.
- 8 http://www.bkn.go.id/stat_indo/index.php
- 9 Indonesia is regularly rated by Transparency International, the international corruption watchdog, as being highly corrupt and confidence in the rule of law is low.
- 10 As the text is being finalized we note that in recent months drafts of presidential regulations, one for pension, savings and death benefits and one for health services, have circulated within insider circles.
- 11 The draft proposal that is circulating limit the coverage to a maximum of Rp3 million per month which is close to targeting average earnings.

References

- Adioetomo Sri Moertiningsih (2007) *Population Projection, Demographic Bonus and its Impact on Free Basic Education in Indonesia*. Consultant Report. Jakarta: World Bank.
- Asian Development Bank (August 2000) *Pension and Provident Fund Reform Project Report*. TA 3116-INO. ADB.
- Asian Development Bank (2007a) *Governance Assessment of the Social Security Organizations in Indonesia*. TA4024. ADB.
- Asian Development Bank (2007b) *Preparatory Studies on National Social Security System in Indonesia; Financial Governance and Social Security Reform*. ADB.
- Cole, David and Betty Slade (1996) *Building a Modern Financial System: the Indonesian Experience*. Cambridge: Cambridge University Press.
- Guérard, Yves and Martineau Jean-Noël (2005) *Implementing the National Social Security System (SJSN Law No. 40 of 2004) Phase I Report*. FIRST Initiative.
- Guérard, Yves and Martineau Jean-Noël (2007a) *Options For Reforming The Indonesian CS Pension And Savings Schemes Phase I Report, Baseline Actuarial Model of Current Arrangements*. FIRST Initiatives: 59.R461.
- Guérard, Yves and Martineau Jean-Noël (2007b) *Options For Reforming The Indonesian CS Pension And Savings Schemes, Phase 2 Report, Reform Options And Law 40 Harmonization*. FIRST Initiatives: 59.R461.
- Harimurti, P., Rokx, C., Schieber, G., Somanathan, A. and Tandon, A. (2009) *Health Financing in Indonesia: A Reform Road Map*. Washington DC: World Bank.
- Harvard Kennedy School Indonesia Program (2010) *From Reformasi to Institutional Transformation – A Strategic Assessment of Indonesia's Prospects for Growth, Equity and Democratic Governance*. ASH Center for Democratic Governance and Innovation. Available at: www.innovations.harvard.edu

- Heller, Peter S. (2006) *Is Asia Prepared for an Aging Population?* Fiscal Affairs Department. IMF Working Paper WP/06/272.
- Holzmann, Robert, MacArthur Ian W. and Sin Yvonne (2000) *Pension Systems in East Asia and the Pacific: Challenges and Opportunities*. Social Protection Unit. Washington DC: World Bank.
- International Labour Office (2002) *Social Security and Coverage for All-Restructuring the Social Security Scheme in Indonesia - Issues and Options*. Jakarta: International Labour Office.
- Kompas Book Publishing (2007) *Tributes for Widjoyo Nitisastru by Friends from 27 Foreign Countries*. Jakarta: Kompas.
- Pension Fund Bureau (2008) *Pension Funds Annual Report*. Bapepam-LK. Available at: www.bapepamlk.depkeu.go.id/dana-pensiun.
- PT Taspen (Persero) (2010) *Laporan Keuangan Konsolidasi*, Available at: www.taspen.com
- PT Jamsostek (2009) *Annual Report 2008 – Serving with Care*. Available at: www.jamsostek.co.id
- Whitehouse, Edward (2007) *Pension Panorama – Retirement Income Systems in 53 Countries*. Washington DC: World Bank.
- Wiener, Mitchell (2009) ‘Draft White Paper Old Age Saving Program, Pension Program, and Death Benefit Program, National Social Security System’s. Prepared for the Ministry of Finance of The Republic of Indonesia. Asian Development Bank.
- World Bank (2006) *Unlocking Indonesia’s Domestic Financial Resources: The Role of Non-Bank Financial Institutions*. Jakarta: Country Management Unit, World Bank.
- World Bank (2011) *Health Financing in Indonesia: A Reform Roadmap*. EW-P107276. Jakarta: World Bank.
- Zeeb, Matthias, on behalf of Gesellschaft für Technische Zusammenarbeit (GTZ) (2008) ‘Old Age Security in Indonesia: What next in the strategic policy development process?’ A discussion paper presented to the Indonesian State Ministry of National Development Planning/BAPPENAS and other stake holders.

4 The Republic of Korea

Pension system overview and reform directions

Seong Sook Kim

4.1 Introduction

Before the introduction of the National Pension Scheme in 1988, there was only a very minimal social assistance program for the general public in the Republic of Korea – the livelihood protection scheme introduced in 1960. It was composed of some in-kind benefits and a small amount of flat rate cash. There was, however, a pension program introduced in the same year for government employees, from which the military personnel pension was separated in 1963. In 1975, yet another public occupational pension was implemented, this time for private school personnel.

It was 1988 when the National Pension was introduced against the background then of a rapid economic growth and the consequent growth in welfare needs. Modeled after the employees' pension of Japan in the 1970s, the National Pension was close in form to the early German pension before its reform in 1957. Accordingly, the benefit level was quite high: 70% of the earnings replacement rate for a participant with a 40-year contribution period and the life-long average earnings as same as the 'A value' (which means the 3-year-average earnings of the total insured just before the pensioner-to-be is entitled to the pension).

With the hard work of welfare experts and political leaders, the coverage of the National Pension expanded at a rapid pace. When first introduced, the National Pension covered only those working at firms with ten or more employees. In 1992, the coverage was extended to firms with five or more employees, in 1995, to the individually managed participants in rural areas, and in 1999, to those in urban areas. Eventually in 1999, barely 11 years after its inception, the National Pension came to cover the whole workforce.

Soon after the National Pension was introduced, however, the question of its long-term financial sustainability arose as a major issue. And the first ever National Pension reform in 1998 brought, among other things, a reduction of the earnings replacement rate from 70% to 60%, a gradual increase in the pensionable age from 60 in 2013 to 65 in 2033, and a once-in-five-year financial review process. Despite the reform, however, the first financial review in 2003 found that the financial state of the National Pension was still unstable from a long-term

perspective. Accordingly, another round of reform was initiated by the government in the autumn of 2003. However, the main opposition party attacked the low compliance of the National Pension and the poverty of elderly citizens, insisting on the introduction of a tax-financed, universal basic pension. Long debates and negotiations continued over the choice. Finally in 2007, a compromise was reached for the reform, whereby the income replacement rate of the National Pension would be reduced from 60% to 40% over time, and a basic old age pension (a new version of social assistance) would be introduced to cover 70% of the elderly population. However, the 2007 reform was found to be less sufficient than had been expected to ensure the financial sustainability of the National Pension, because, as the second financial review in 2008 revealed, it would delay the exhaustion of the National Pension fund only until 2060. Controversies are ongoing concerning the financial stability of the National Pension, but before determining whether or not the two rounds of reform have been and will prove to be sufficient, much more discussion will have to take place among experts and authorities with a view to reaching an agreed-upon definition of 'financial stability'.

The basic old age pension was stipulated by law to cover 70% of the elderly aged 65 and over, and as a consequence the role of the National Pension as a major source of old age income security became obscure. Although designed to cover 70% of the elderly population, the basic old age pension, with its benefit level set at just 5% of the 'A value' of the National Pension, could not be considered as a dependable source of income after retirement. As the members of the National Assembly were aware of it, they stipulated in the Basic Old Age Pension Law that the restructuring of the National Pension and the basic old age pension should be discussed by a committee established by parliament in 2008. However, such a committee has not yet been established. On the other hand, the livelihood protection as a social assistance program was changed to 'the National Basic Livelihood Security Scheme' in 2000.

After having gone through all these changes, the public old age income security system in the Republic of Korea at present consists of the basic livelihood security, the basic old age pension, the National Pension and three other public occupational pensions. However, the old age income security as a whole is not as systematic as desired and its future is not so clear.

As for private pensions, the Republic of Korea has in place a 'retirement pension' and an individual pension. The retirement pension scheme was introduced in 2005 to replace the severance lump sum program. Introduced in 1953 as a voluntary arrangement, the severance lump sum program was made mandatory in 1961. The coverage of the program gradually extended to firms with five or more employees. However, as the employees received benefits whenever they changed workplace, this program did not function well on old age income security. Therefore, the government introduced the retirement pension scheme. However, the law allowed firms to choose between defined benefit (DB) and defined contribution (DC) types and severance lump sum, because many employees favored a lump sum payment and the trade union strongly argued to keep it.

The retirement pension scheme applies to workplaces with five employees and over now, but the government is preparing to expand the application to workplaces with one employee and over in 2010.

The individual pension was introduced in 1994, just before the National Pension was extended to rural areas. In its early years, the individual pension was quite popular, but soon after the aftermath of the 1997 economic crisis, its growth dropped abruptly and not much recovery has been achieved since then. In short, both private pension schemes in the Republic of Korea – the retirement pension and the individual pension – are still in a developing stage and in need of much more improvement.

The old age income security system in the Republic of Korea is a multi-pillar structure, but it is neither mature nor stable. Competition and conflict are occurring between public schemes, and between public schemes and private schemes, because they are all trying to develop in their own way as quickly as possible with limited resources.

Bearing in mind the situation relative to the income security systems in the Republic of Korea, we could summarize the main issues of the income security programs in the Republic of Korea as:

- 1 improving the coverage of the National Pension Scheme;
- 2 securing adequate public pension benefits;
- 3 restructuring the public income security systems;
- 4 making the public pension schemes more financially stable in the long run; and
- 5 further developing multi pillar systems.

This paper will focus mainly on what seems the most urgent among these: the restructuring of the public pension schemes.

4.2 Current income security system

4.2.1 Income security system as a whole

4.2.1.1 Structure of income security system

As mentioned, the old age income security system in the Republic of Korea is a multi-pillar structure. The zero pillar consists of ‘the national basic livelihood security scheme’ and ‘the basic old age pension scheme’. The former is the last-resort safety net, while the characteristics and role of the latter is a bit obscure. In the event of further restructuring of the public pensions, the basic old age pension can become either universal or more selective.

In the first pillar, the National Pension is definitely the main scheme. The retirement pension, as part of the second pillar, covers only employees. In the future it is expected to extend to cover the self-employed as well. The public occupational pensions span across the first and second pillars, covering public

sector workers. In the third pillar, most Koreans currently prefer individual savings to the individual pension scheme (Figure 4.1).

4.2.1.2 Coverage

THE INSURED

Currently, about 93% of the working population aged between 18 and 59 is covered by the public pensions (86% by the National Pension and 7% by the other three schemes.) However, the share of those contributing to the public pension schemes is no more than 60% of the workforce. The low compliance rate is due mainly to the low compliance with the National Pension. Meanwhile, the number of those with the retirement pension was 2.48 million as of December 2009, accounting for 32.5% of workers at firms with five or more employees.

BENEFICIARIES

As of December 2008, those in receipt of benefits from public pension schemes accounted for 82% of the elderly aged 65 and over (Table 4.1). Meanwhile, the share of those in the same age group who were in receipt of national basic livelihood security benefits was 7.5%. They are all overlapped with the number of the basic old age pensioners.

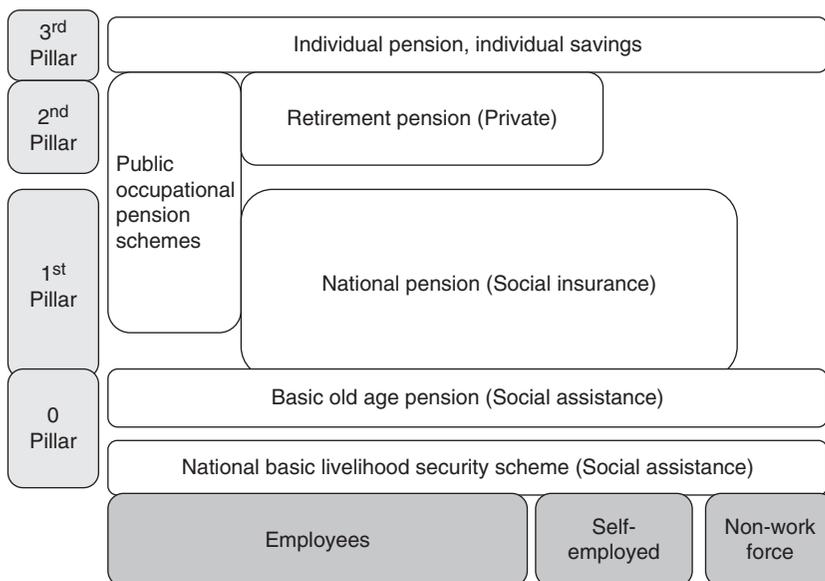


Figure 4.1 Old age income security systems in the Republic of Korea.

Source: Author

Table 4.1 Number of beneficiaries of public income security for the elderly (unit: thousand persons, %)

<i>Total population aged 65 and over</i>	<i>Basic Old Age Pension (BOAP) recipients</i>	<i>Recipients of National Pension (NP) and/or Public Occupational Pensions (POP)</i>	<i>Non-beneficiaries</i>
5,268 (100.0%)	3,610 (68.5%)	1,429 (27.1%) (NP 1,246+POP183)	946 (18.0%)
	Only BOAP 2,893 (54.9%), NP+BOAP 717 (13.6%), Only NP or POPs 712 (13.5%) <Total=4,322, 82.0% >		

Source: National Pension and Basic Old Age Pension Data Base (as of the end of 2009); Government employees Pension Scheme (Dec. 2008); Private School Pension Scheme (June 2008), Military Personnel Pension Scheme (Dec. 2006).

4.2.2 Public income security

4.2.2.1 National Pension Scheme

APPLIED POPULATION AND COVERAGE

The National Pension covers the entire workforce aged between 18 and 59. As a result of the rapid expansion of the scheme, the number of National Pension participants has increased more than fourfold since the year that the scheme started (Table 4.2).

BENEFITS

The National Pension is a defined benefit plan. When it was introduced, its earnings replacement rate was set at 70%, but since then reduced to 60% in the end of 1998. With the second round of reform in 2007, the National Pension's earnings replacement rate will further be reduced in a stepwise fashion – 50% in 2008 and then each year by 0.5% reduction from 2009 to 40% in 2028.

The benefits that are provided by National Pension consist of old age pension, survivor pension, disability pension, lump sum refund, disability lump sum compensation, and death grant. The tax treatment on the National Pension was changed from the previous tax exempt exempt (TEE) to an exempt exempt tax (EET) approach in 2001.

FINANCING

The main financial source of the National Pension is contributions from participants, which occupy about two-thirds of the total accumulated fund. Also, nearly one-third comes from returns by the fund operation. The national subsidy,

Table 4.2 Number of participants (at year-end), selected years (unit: person, firm, %)

Year	Employment-based			Residence-based				No. of Continuing voluntary participants
	Total no. of participants	No. of firms	No. of participants	Sub-total	No. of participants in rural areas	No. of participants in urban areas	No. of voluntary participants	
1988	4,432,695	58,583	4,431,039	—	—	—	1,370	286
1992	5,021,159	120,374	4,977,441	—	—	—	32,238	11,480
1995	7,496,623	152,463	5,541,966	1,890,187	1,890,187	—	48,710	15,760
1999	16,261,889 (100.0)	186,106	5,238,149 (32.2)	10,822,302 (66.6)	2,083,150	8,739,152	32,868 (1.2)	168,570
2007	18,266,742	856,178	9,149,209	9,063,143	1,976,585	7,086,558	27,242	27,148
2008	18,335,409	921,597	9,493,444	8,781,483	1,940,510	6,840,973	27,614	32,868
2009	18,623,845 (100.0)	979,861	9,866,681 (53.0)	8,679,861 (46.6)	1,925,023	6,725,023	36,368 (0.4)	40,935

Notes: Voluntary participants are those who, excluded from the mandatory coverage of the National Pension, are contributing to the scheme on a voluntary basis. Continuing voluntary participants are those who are not required to pay contributions because they are 60 and over but who voluntarily contribute continuously to increase their contributory years.

Source: Internal data, National Pension Service, Republic of Korea.

being subsequently reduced in recent years, goes mostly to subsidize the operation cost of the National Pension Service. Some of it is used to subsidize a portion of the contributions that farmers and fishermen pay.

Most of the National Pension expenditure is used for benefit payments. As the National Pension is still young, its operation costs, although on the decline, occupy a relatively high portion in the expenditure.

The contribution rate is 9%. The contribution was imposed to earnings ranging between W220 thousand to W3,600 from 1995 to 2009. However from 2010, the threshold and ceiling of earnings that the contribution is imposed on will be raised every year according to the change of the 'A value' of the National Pension. For the period between April 2010 and March 2011, the threshold and ceiling of earnings are set at W230 thousand and W3,680 thousand, respectively.

PENSION REFORMS AND FINANCIAL STATUS OF THE NATIONAL PENSION SCHEME

As the contribution rate was set at a relatively high level at the inception of the National Pension, the pension fund has been accumulated rapidly and will be further accumulated in the next several decades toward maturity. According to the long-term financial projection of the second financial review in 2008 the volume of the National Pension will reach its highest in 2043 and then decrease rapidly to deplete in 2060 (Table 4.3). The ratio of assets to expenditure is 27.6 times as of the end of 2010, but it is forecast to decrease continually.

4.2.2.2 *Basic old age pension scheme*

COVERAGE AND BENEFIT

The basic old age pension scheme was introduced after a long process of political debates and conflicts. Originally, the government tried to extend only to a slight extent the existing residual old age allowance,¹ which then had been covering only 14% of the elderly. However, in the face of the political conflicts over the reform of the National Pension, the previous government needed to make some compromise with the opposition parties, who were calling for the introduction of a universal basic pension. Consequently, the coverage of the tax-based basic old age pension was decided to be considerably large.

As a universal pension required a huge amount of expenditure, especially in a rapidly aging society like the Republic of Korea, it was not easy for the government to accept the idea. However, although the idea of a universal pension was not fully accepted, in the face of the strong demand of political parties and elderly groups, the coverage of the basic old age pension was set by law at 60% of the elderly in 2008, and 70% in 2009. In December 2009, the number of those in receipt of basic old age pension was 3,610 million, or 68.5% of the population aged 65 and over. Of these pensioners, 19.9% were in receipt of benefits from the National Pension as well.

Table 4.3 Long-term financial projection of the National Pension 2008 (unit: billion won, time, %)

Year	Assets(A)		Revenue		Contributions		Returns		Expenditure		Balance	Assets/ expenditure (A/B)[1]	Contribution rate	Assets (2005 constant price)
	Total		Total		Total(B)		Total(B)		Total(B)	Benefits				
2008	248,133	41,374	23,808	17,566	6,792	6,373	34,582	31.4	9.00	228,854				
2010	325,294	50,851	27,629	23,222	10,328	9,852	40,523	27.6	9.00	282,798				
2020	923,985	109,949	53,421	56,528	31,818	31,364	78,131	26.6	9.00	624,472				
2030	1,738,946	176,064	87,150	88,913	86,287	85,525	89,777	19.1	9.00	964,123				
2040	2,413,567	240,844	127,764	113,080	198,670	197,440	42,174	11.9	9.00	1,097,752				
2043	2,464,507	252,055	140,901	111,154	244,861	243,454	7,194	10.0	9.00	1,056,269				
2044	2,459,151	257,173	145,974	111,198	262,529	261,057	-5,356	9.4	9.00	1,033,307				
2050	2,110,154	278,988	181,417	97,571	377,879	375,952	-98,891	5.8	9.00	787,331				
2060	-214,225	231,684	231,684	0	596,793	593,799	-365,108	0.3	9.00	-65,571				
2070	-	308,703	308,703	0	843,119	838,471	-534,416	-	9.00	-				
2078	-	387,432	387,432	0	1,044,438	1,037,827	-657,006	-	9.00	-				

Notes: [1] The assets are as of the end of the previous year and the expenditure, as of the end of the year.

Source: The 2nd Financial Review Report (2008), the National Pension Financial Review Committee.

As the Basic Old Age Pension Act has not stipulated on the coverage of the scheme after 2009, the future of this scheme should be decided by social consensus. The coverage is likely to remain at the present level until a new consensus is made.

The basic old age pension is a means-tested plan that provides flat rate benefits. The benefit rate is 5% of the 'A value' of the National Pension for a single person, and 4% each for a couple. The benefit can be reduced according to the deemed income² of both the beneficiary and his/her spouse. The benefit rate is stipulated by law to increase to 10% by 2028. However, no decision has been made on how the benefit rate should be increased or how to finance the required fund. It is expected that the committee established in the National Assembly will determine matters concerning these issues.

FINANCING AND ADMINISTRATION

The costs of the basic old age pension are shared between central and local governments. The central government subsidizes 60–90% of the total costs for each local government. The more aged and the less financially independent a locality is, the more it gets subsidized by the central government. The central government covered 72.2% of total expenditure on the basic old age pension in 2009. As the number of beneficiaries increases due mainly to the increase in the number of elderly, it is getting more difficult for both central and local governments to finance the budgets for the program.

The Ministry of Health and Welfare is in charge of this program and responsible for relevant policies. The administration of the program, which involves reviewing eligibility and determining beneficiaries, is a responsibility of local governments.

4.2.2.3 *Public occupational pension schemes*

As mentioned earlier, there are three public occupational pension schemes, whose introduction predated the National Pension. Because the military personnel pension was separated from the government employee pension and the private school personnel pension had to be equitable to that of the public school personnel, the models of three of them have been nearly the same in terms of contribution rates, benefit level, qualification condition for benefits, and so on. Also, the period of contribution to the three schemes had long been totalized. On the other hand, totalizing participation period between the National Pension Scheme and the three public occupational pension schemes has been possible since 2009.

COVERAGE

Those participating in any of the three public occupational pension schemes account for about 7% of the workforce aged between 18 and 59. More than two-thirds of them are with the government employee pension scheme.

The number of participants in the government employee pension, which had been on the increase, took a downward trend from 1998 with the International Monetary Fund (IMF) bailout onward until 2000 before bouncing back. Meanwhile, the pensioners of this scheme increased sharply during the time of the financial crisis. The abrupt increase in the number of retirees was due largely to the fact that participants with a 20-year contribution history could become eligible for retirement pension without any age restriction. The pension dependency ratio of the government employee pension scheme has gone beyond 20% in recent years and will keep increasing over time commensurate with increases in the number of pensioners.

CONTRIBUTION AND BENEFIT

Until 2009, the contribution rate had been kept the same for all three public occupational pension schemes at 17% of monthly basic salary (excluding bonus and extra allowances). According to the revised law of 2009, however, it will be lowered over the three years between 2010 and 2012 to 14% of taxable income. The previous contribution rate is equivalent to 11% of total taxable income. The change in the law therefore means an increase in contribution payment of 3% of taxable income in real term. The maximum contribution period has been kept to 33 years from the beginning of the schemes. The minimum contribution period required for all three pensions is 20 years.

Before the revision of the Government Employee Pension Act in 2009, the pension amount one was promised after 20 contribution years was 50% of the average salary over the last 3 years before retirement and after 20 years of contribution, the additional annual accrual rate was 2%. As the maximum number of contribution years is 33, the maximum pension amount was 76% of three-year-average salary ($50\% + 2.0\% \times 13$ years). However, the benefit was reduced by the 2009 reform. The accrual rate is changed to 1.9% for any one-year participation, and the average income is based on total working years instead of three years before retirement. The vested benefit rights of the existing affiliated are protected. The change in benefit level by the 2009 revised law is not applicable to the military personnel pension scheme.

There was no specific pensionable age before 1996. Any retiree with a 20-year contribution history could claim pension benefits upon retirement. The pensionable age was introduced in 1996 and over time raised to 60. However, it will further increase to 65 for newly employed officials after the enforcement of the revised law in 2009. No specific pensionable age is yet applied to the military personnel pension. The index of benefit was either consumer price index (CPI) or income, within $\pm 2\%$ difference between two, but will change to CPI only from 2015.

FINANCIAL STATE

The government employee pension is financed through contributions, returns from its fund operation and government subsidy. The other two public occupational

pension schemes are financed in a similar way. In the case of the military personnel pension, because its fund was exhausted in 1973, government subsidy has gradually increased. The financial status of the private school personnel pension scheme is much better than that of the other two because it started much later, in 1975.

The government employee pension began running deficits in 1993, and since then its financial imbalance has been getting worse. In particular, with a rapid increase in the number of pensioners in 1998 and 1999, deficits also increased abruptly. In 2001, the government started to subsidize the scheme, and the size of subsidy to prevent the occurrence of fund deficit has been getting bigger.

Although the financial status of the private school personnel pension is relatively better than that of the other two pension schemes, all three have been financially unsustainable, and thus the reform was essential to strengthen the financial stability of the schemes. As a result, the 2009 reform for the government employee pension and private school personnel pension was performed through a near ten-year process of controversies. However, it is found as much insufficient to establish the long-term financial stability of the schemes.

4.2.3 Private income security systems

4.2.3.1 Retirement pension

The Retirement Pension Act was passed in the end of 2005. It is applied to firms with five or more employees. Since then, the Ministry of Labor, which is in charge of this program, has striven to extend its coverage, but has not been quite successful. As of December 2009, 32.5% of all workers at firms with five or more employees have been covered.

Most of the affiliated favor a DB type program. Nearly 80% of the total affiliated have joined a DB program. Because the severance lump sum scheme is still popular even after the introduction of the retirement pension scheme, it will take some considerable time before the retirement pension scheme can be applied to more people.

The retirement pension benefit can be paid, irrelevant of program types, to those aged 55 or older with a contribution history of ten years or longer. The benefit levels of severance lump sum and DB type benefit are the same.

The retirement pension schemes allow totalizing the retirement fund of workers when they leave the company, while such portability is not allowed in the severance lump sum scheme. As the history of the retirement pension scheme is short and has not reached maturity, no such pensioner has appeared yet. The assets of the DB type program currently occupy the highest proportion, 65.8%, of all of the retirement programs.

4.2.3.2 Individual pension

The individual pension scheme was introduced in 1994. Its contributions can be exempted from earnings at the year-end tax adjustment. The maximum exempted amount is W3 million per year since 2001. Taxation on the benefit has been changed from EET to TEE since 2001, the same as the public pension schemes. However, if the participants keep the pension less than 10 years, they should repay most of the amount that has been exempted.

When the individual pension was introduced, it was quite popular, but throughout and after the 1997 economic crisis, its popularity has withered. Before the IMF bailout, the market interest rate was quite high, generally more than 5%, but it has been sharply reduced, sometimes to less than 3%. Accordingly, the incentive to keep or newly buy pension commodities has fallen. However, the assets have been continuously increasing, although the degree of increase has recently slowed down.

4.3 Assessment of pension arrangements

4.3.1 Coverage

4.3.1.1 The insured of the National Pension Scheme

As discussed earlier in this chapter, the coverage of the National Pension is quite broad. However, about 25–27% of all participants have been exempted from contribution payment.³ Although each participant's socioeconomic conditions have changed over time, the number of those exempted from contribution payment has been kept more or less constant. Furthermore, a considerable number of residence-based participants have not paid their contribution in time, and the average earnings of the residence-participants is only about 60% of the average earnings of all participants. Major reasons for the low compliance of residence-based participants are that they are often unemployed, or are employed irregularly; the difficulties of assessing their actual earnings; and their mistrust in the National Pension.

The rate of self-employment in the Republic of Korea is quite high and the labor market is more or less rigid. Most regular workers are covered by the National Pension. However, among temporary or atypical workers, only 20–45% are found to have been covered by the same scheme. One possible solution is to change the status of residence-based participants to 'employment-based' participants. When a residence-based participant becomes an employment-based participant, the payment of contributions can be shared with the employers and the National Pension Service (NPS) can collect their contributions more easily. Therefore, the NPS has done its best to change participants' status since 2003 when the employees of firms with less than five workers, who previously had been residence-based participants, came to fall under the category of 'employment-based' participants.

On the other hand, since the National Pension has been managed on a computerized basis from the start, the administration of the NPS has in general been efficient. However, an exception is the assessment of the earnings of residence-based participants and the collection of their contributions. The National Tax Office is trying to assess most earnings from earnings activities but this has been insufficient. Therefore, it is difficult to collect social insurance contributions based on such deficient earnings data. However, as the government has tried to develop the infrastructure for assessing earnings through measures such as the introduction of a more transparent financial transaction system and stricter punishment of tax evasion, management of the pension contributions of residence-based participants has gradually improved.

Through the rapid expansion in its coverage and the reforms undertaken, the National Pension has grown and has become more stable. However, the radical changes have also increased people's dissatisfaction. This is shown, for example, in the satisfaction survey that the National Pension Research Institute (NPRI) carried out among residence-based participants in 2008, in which 64.2% answered that they were dissatisfied with the National Pension. The level of public trust in the National Pension is very different between participants and pensioners. According to a survey conducted by the NPRI in 2007, only 9.6% of the former responded that they trusted the scheme, while 58.8% of the latter did. This provides some hope that as the number of pensioners grows, the level of trust in the scheme will increase.

4.3.1.2 Effects of basic old age pension to the public pension coverage gap

Before the introduction of the basic old age pension in 2008, the coverage of public pension was narrow. As of 2005, the share of pensioners in public pension schemes was only 31% among the entire elderly. At the time, the pensioners with social insurance pension programs constituted 16.8% of the elderly aged 65 and over. Also, there was a special allowance for the aged, whose beneficiaries accounted for 14.2% of the elderly. However, it was a social assistance type with low benefits and narrow coverage, though to some extent it has played a role as a prelude to the introduction of the basic old age pension.

With the introduction of the basic old age pension scheme, the share of beneficiaries of public pension schemes increased to 82.0%, as shown in Table 4.1. However, because this scheme's characteristics and role are not clear and it is necessary to clarify its relationship with the National Pension, it seems inevitable that it should be restructured in the near future.

4.3.2 Adequacy

The earnings replacement rate of the National Pension was considerably reduced and accordingly in the long run, it will be difficult to live solely on the National Pension. Although the earnings replacement rate was quite high during

the first 20 years of the scheme, the real average pension is small. As of December 2009, it was about 14% of the ‘A value’ of the National Pension. The reason that the average pension amount is very small is mainly because of the short history of the National Pension. Most old age pensioners are receiving the special old age pension, designed for participants during the initial period of the scheme, which can be received after only five qualifying years.⁴

Since most National Pension beneficiaries received low pensions while most of the elderly could not even receive them, the basic old age pension scheme was introduced. However, as the benefit level of the basic old age pension is low, its effect on poverty alleviation is found to be very low (Ministry of Health and Welfare, 2009). On the other hand, the average pension amount of the government employee pension is much higher: 113% of the ‘A value’ as of 2008.

As a whole, the proportion of the public pensions in the composition of income sources is still low. As shown in Table 4.4, the biggest income source for the elderly aged 60 and over as of 2008 was private transfer, which accounted for 44.7% of their overall income. Public pensions accounted for just 10.5%. Although the proportion of the public pensions was found to be small in the 2008 survey, it has become much larger than it had been in the past. Its proportion was 2.5% in 1990, and 5.9% in 2000, even though the data source is different (Ministry of Home Affairs, Japan). It says the proportion of public pension is becoming larger. Meanwhile, private transfer is on the decline.

4.3.3 Equity

This section discusses the equity issue by examining the inter-generational and intra redistributive effects of the National Pension. Additionally, the equity between the National Pension and public occupational pension schemes will be reviewed briefly.

4.3.3.1 Inter-generational equity of the National Pension

The contribution rate of the National Pension has been 9% since its introduction, but it was designed to increase gradually from 3% to 9% during its early period. Since 2005, the contribution rate of 9% has been applied to all participants.

Table 4.4 Composition of income sources of the elderly aged 60 and over, 2008 (%)

	<i>Wage</i>	<i>Business</i>	<i>Financial</i>	<i>Individual</i>	<i>Real</i>	<i>Private</i>	<i>Public</i>	<i>Other</i>
		<i>income</i>	<i>income</i>	<i>pension</i>	<i>estate</i>	<i>transfer</i>	<i>pension</i>	<i>public</i>
					<i>income</i>			<i>transfer</i>
Total	9.6	13.0	2.7	0.3	4.2	44.7	10.5	15.0

Source: Ministry of Health and Welfare (2008: 258).

On the other hand, as the benefit level was 70% at its initial period, those participating in the very early period benefited most due to the low contribution rate and higher benefit level.

According to the NPRI, all pensioners from various income groups have a benefit/cost ratio of over 1. This means that the financial burdens imposed on future generations will increase. If the contribution rate is adjusted upward, the future generation can have a lower benefit/cost ratio, and in particular, those in higher income groups can have a benefit/cost ratio of less than 1.

According to the result of the 2008 financial projection by the financial review committee, the PAYG rate is gradually increasing and in the long term it will be incredibly high. The PAYG rate means the total benefit amount to the total earnings imposing contributions in the current year. In the early years of the pension scheme, as participants far outnumbered pensioners, its rate was low. However, the National Pension has applied a relatively high contribution rate. Accordingly, the inter-generational equity of the National Pension is relatively fair in comparison with that of PAYG pension systems introduced in other countries earlier. Considering the PAYG rate, the present contribution rate of the National Pension, 9%, will be higher than that rate until around 2030 (Table 4.5).

4.3.3.2 *Intra-redistribution of the National Pension*

The earnings used to compute the National Pension benefit are the average of the ‘A value’ and ‘B value’ (the participant’s life-long average earnings). Accordingly, a person whose earned income is less than the ‘A value’ can get more benefits and therefore for him the redistributive effect can be significant.

However, although this is true in theory, the real figure can sometimes be distorted, because of the difficulty of assessing the earnings of residence-based participants. Generally speaking, as residence-based participants are relatively poor and are included in vulnerable population groups such as the unemployed, informal sector workers, and low paid workers working at small firms, etc. it is natural that their average earnings are lower than those of employment-based participants. However, it is also true that some of them, especially the self-employed with high earnings, underreport their earnings. This used to be a major problem raised by the trade unions. Recently, as people recognize that most residence-based participants are really poor, the difference of average earnings

Table 4.5 Pay-as-you-go rate of the national pension (%)

2010	2020	2030	2040	2050	2060	2070	2078
3.0	4.9	8.2	13.1	17.7	21.9	23.2	22.9

Source: Committee on the National Pension Financial Review (2008). *Report of the 2nd National Pension Financial Review.*

between employment-based participants and residence-based participants is not a big issue, but it still remains a source of controversy.

4.3.3.3 Equity between the National Pension and public occupational pensions

Though the public occupational pension schemes were reformed in 2009, they are still more generous than the National Pension in terms of accrual rate and pensionable age. The benefits of the public occupational pension schemes can be defined as a mix of pension and severance allowance. Accordingly, it may be improper to directly compare its benefit level with that of the National Pension, but the relatively higher benefit level of the public pensions and their insufficient funds have been criticized by many of those who have to pay more tax to support them.

One of the solutions is to separate the benefits of the public occupational pension schemes into two parts; one corresponding to the National Pension and the other to an occupational retirement pension. However, those participating in such pension schemes will certainly resist such a reform. If the universal basic pension is introduced in the Republic of Korea, the structural reform of all of the public occupational pension schemes can be reviewed. Nevertheless, since they were reformed in 2009, another reform is unlikely, at least in the foreseeable future.

4.3.4 Efficiency

4.3.4.1 Economic efficiency

Korea's income security system as we know it is established without a grand blueprint. Accordingly, it is a patchwork on a grand scale. The benefits of some public income security schemes are duplicated, and the roles of each scheme are not clear. Despite the introduction of the basic old age pension scheme, the poorest elderly who would be beneficiaries of the basic livelihood security program cannot add their benefits. The elderly who benefit most from the introduction of the basic old age pension may not be the poorest. That is to say, the basic old age pension is not well targeted. Furthermore, as the coverage of the basic old age pension is set by law, it is difficult to reduce its cost. Considering its coverage, it seems reasonable that the central government bears the responsibility for the whole expenditure. However, because the central government cannot afford it all by itself, the budgetary responsibilities for the program must be shared between central and local governments. Those factors can result in waste of budget and inefficient management.

On the other hand, the basic old age pension can disrupt the development of the National Pension because the person who has more benefit amount of the National Pension can be excluded from being a beneficiary of the basic old age

pension, and accordingly, it can work as a disincentive to paying contributions of the National Pension.

4.3.4.2 Administrative efficiency

The National Pension was introduced at a time when the use of computers was becoming popular and the Internet was expanding. Accordingly, the National Pension Service was able to adopt computerization and the use of the Internet from the initial administration of the program. Meanwhile, the resident registration number system is another strong point. It was introduced in November 1968 for the purpose of national security. Although it can be controversial in that it can violate privacy, the system is useful for managing participants and beneficiaries. Through computerization and the introduction of the resident registration number, the National Pension has been relatively well administered.

On the other hand, there are some weak points in the administration of the National Pension Scheme. The equitable imposition of tax and contribution is important but the infrastructure for assessing earnings accurately has not yet been well developed. As the NPS cannot know the actual earnings of residence-based participants, it admits the earnings which residence-based participants declare at their will and imposes the contribution based on it.

Meanwhile, the corporate sector has called for a consolidated collection of contributions for all social insurance programs since the late 1990s. After a long effort, the various collection systems for the social insurance programs took a consolidated form at the end of 2008. The integrated collection of contributions for four social insurance programs – the National Pension, National Health Insurance, Employment Insurance and Industrial Accident Compensation Insurance – will be enforced by the Health Insurance Corporation from January 2011. From 2011, the National Health Insurance Corporation will send the contribution payment notification, collect contributions and manage arrearage in lump sums for four social insurance programs. The consolidated collection of contributions can be expected to save some administrative costs. However, even though the management of collection of contributions is to be consolidated, the difficulty of managing residence participants will likely to remain. It is true that the consolidation of collection is efficient for employment-based participants but not for residence-based participants because it will still be difficult to assess their earnings accurately.

The public income security programs are administered by separate bodies. The National Pension is managed by the NPS. The basic old age pension and the basic livelihood security scheme are managed by local governments. The financial resources of the latter two come from both the central and local governments. Most experts suggest that the basic old age pension is administered centrally. However, since the part of financial resources comes from local governments, some local governments, especially wealthy ones, are against the idea.

Meanwhile, the Ministry of Health and Welfare has established the integrated social welfare information network and completed it in January 2010.

This system includes all information on new applicants and existent beneficiaries of the welfare and insurance benefits. Accordingly, in the future, this computerized system on individual information will make the welfare administration on the whole more efficient.

4.3.5 Sustainability

The National Pension reserves are projected by the 2008 financial review to run out 2060. In comparison with the PAYG type public pension schemes of other countries, the financial state of the National Pension is quite healthy. However, the Republic of Korea is one of the most rapidly aging countries in the world. Its total fertility rate for the past few years is among the lowest in the world, between 1.1 and 1.3. It is also forecast to be less than 1.3 in the long run. The proportion of the elderly aged 65 and over is 11.0% in 2010 but is projected to increase to nearly 40% in 2050. The elderly dependency ratio (population of 65 and over/population of 15–64) was 12.6% in 2005 but is forecast to be 72.0% in 2050, and the aging index (population of 65 and over/population of 0–14) was 47.3% in 2005 but it is projected to be 429.3% in 2050 (Table 4.6). Such a change in the population structure seems to pose a serious challenge.

As the National Pension is a long-term social insurance program, the future population structure can influence much of the trends in benefit expenditures and financing. As the working-age population decreases and that of pensioners and their pensionable years increase, the financial state of the National Pension will deteriorate more rapidly. According to a long-term financial projection, the National Pension dependency ratio will reach as high as 119.7% in 2065 (Table 4.7).

The expenditure on National Pension benefits as a share of GDP is about 1%, but the figure will increase rapidly to as high as over 7% by 2070.

If the contribution rate remains at the present level of 9% until 2060, the year when the fund is projected to deplete, the PAYG rate at that time is forecast to be 21.9%. Therefore, another new reform is necessary to make the National Pension Scheme financially more stable, even if not immediately. Because the benefit level of the National Pension was reduced from 70% to 40% over the first 20 years of its introduction, a further reduction seems a difficult task, and thus

Table 4.6 Elderly dependency ratio and aging index projected (unit: %)

	1970	1980	1990	2000	2005	2010	2020	2030	2050
Elderly dependency ratio	5.7	6.1	7.4	10.1	12.6	15.0	21.7	37.7	72.0
Aging index	7.2	11.2	20.0	34.3	47.3	67.7	125.9	213.8	429.3

Source: National Statistical Office (2007); 2006 Long term population projection, Republic of Korea.

Table 4.7 Number of participants and the pensioners, projected (unit: thousand persons, %)

<i>Year</i>	<i>Number of participants (A)</i>	<i>Number of pensioners</i>			<i>Pension dependency ratio (B/A)</i>
		<i>Old age (B)</i>	<i>Disability</i>	<i>Survivors</i>	
2008	18,373	1,888	84	367	10.3
2009	18,508	1,966	94	418	10.6
2010	18,629	2,060	103	472	11.1
2020	18,574	3,394	199	1,101	18.3
2030	16,605	5,720	265	1,817	34.4
2040	14,041	8,653	287	2,421	61.6
2050	12,029	10,833	273	2,806	90.1
2060	9,846	11,120	235	2,736	112.9
2065	9,077	10,863	212	2,579	119.7
2070	8,441	10,072	193	2,396	119.3
2078	7,496	8,653	169	2,134	115.4

Source: The Financial Review Committee (2008), the 2nd National Pension Financial Review Report.

the main target of change in the next pension reform will be to increase the contribution rate. However, the resistance to increase the contribution rate is quite strong. In particular, as employers have to bear both one-half of all social insurance contributions and the whole contribution for retirement pension, which are normally 8.3% of payroll a month, they have a strong objection to raising the contribution rate of the National Pension. Also residence-based participants will try to avoid additional burden of contribution. If the contribution rate goes up, their compliance to the scheme is likely to go down. However, this issue seems surely to be raised in the third financial review in 2013.

On the other hand, as for the other public occupational pension schemes, their financial states were forecast to become much better in the long run owing to the reform undertaken in 2009, with the exception of the military personnel pension which participated only in the change of contribution rate. As for the government employee pension scheme, the government subsidy rate was projected to become much lower in the long run by the reform. However, in spite of the 2009 reform, the public occupational pension schemes are still financially unstable.

4.4 Reform options for the income security system

The public insurance pension schemes in Republic of Korea have recently undergone reforms. Although the reforms are insufficient to sustain the schemes financially in the long term, it seems unlikely that a new round of reform will

be pursued any time soon. Meanwhile, the most urgent reform issue pertinent to the pension schemes in the Republic of Korea would be the restructuring of public pension schemes, especially of the National Pension and the basic old age pension. Accordingly, the discussion concerning the reform of the income security systems here will be focused on the restructuring the National Pension Scheme and the basic old age pension scheme. Then, the measures suggested here will be evaluated by six factors: sufficiency of coverage, adequacy, equity, efficiency, social and economical affordability, and financial and social sustainability.

4.4.1 Feasible options for restructuring pension schemes

Each of the income security schemes in the Republic of Korea has been introduced and developed respectively. Accordingly, they are not harmonious but conflicting with one another. However, the roles of the public income security systems and the private income security systems are gradually expected to be well established as the systems develop. Meanwhile, the restructuring of the relationship between the National Pension and the public occupational pension schemes is not an urgent issue, although it might be necessary to consider it in the longer term. Under these circumstances, the most important and urgent issue with the income security systems in Republic of Korea may be the restructuring of the National Pension and the basic old age pension.

With the sudden introduction of the basic old age pension scheme, whose characteristics are rather obscure, the role and function of the National Pension became obscure. At present, the National Pension still seems to be the primary source of old age income security, but the coverage of the basic old age pension is much larger. However, the effect of the basic old age pension on poverty reduction is low due to its low level of benefit.

Regardless of the time that the restructure of public pension schemes is established, the directions for restructuring them are largely being discussed in two options. The first option can be to maintain the National Pension as it is, while the basic old age pension reduces its coverage and increases its benefit level. The second option is to leave alone the earnings-related part of the National Pension Scheme and remove its solidarity benefit part, and to replace the basic old age pension to the universal flat-rate basic pension. The two options of public pension restructuring are shown in Figure 4.2.

Each of the future reform options 1 and 2 can take a number of different combinations. For example, in the future reform option 1, a variety of assumptions can be made on the coverage and benefit of the basic old age pension. The cash benefit of the basic livelihood security can remain or be abolished. On the other hand, in the future reform option 2, the benefit level of the National Pension can be adjusted down in many ways. The redistributive component of the benefit can be reduced or abolished according to the benefit level of the universal basic pension.

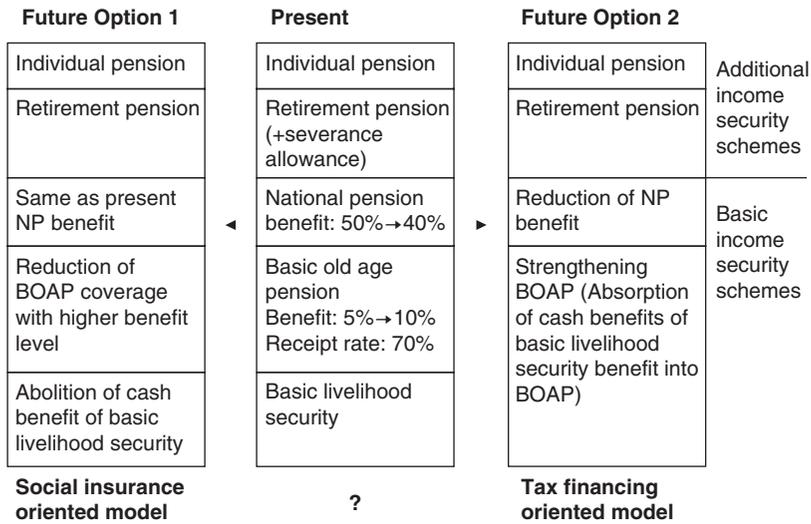


Figure 4.2 Feasible options for the public pension schemes in future.
BOAP = basic old age pension; NP = national pension

Source: Author.

In order to assess the results of the future reform options by restructuring the National Pension Scheme and the basic old age pension scheme, here are two proposals suggested: Minimum benefit level of public pension schemes is assumed to be 40% altogether. However, in proposal 1, it is assumed the benefit level of the National Pension keeps 40% and the basic old age pension gives an additional benefit as social assistance.

4.4.2 Evaluation of each option

4.4.2.1 Coverage

In proposal 1, as the coverage of the basic old age pension is reduced from 2013 to 2028 gradually while the number of pensioners in the National Pension Scheme increases gradually, it is difficult before 2050 for all the elderly to receive benefits from any public pension scheme. On the other hand, in proposal 2, as the basic old age pension scheme covers 100% from 2013, the total benefit coverage of the public pension schemes can be 100% from then on (Table 4.8).

4.4.2.2 Equity

As for the equity between generations, proposal 1 would be better if the contribution rate of the National Pension is raised soon, because the total expenditure of proposal 1 would be less and the future generation can burden less.

Table 4.8 Projected proportion of public pensioners aged 65 and over (%)

	NP				Proposal 1		Proposal 2	
	Old age	Disability	Survivors	Total (A)	BOAP (B)	Total (A+B)	BOAP (B')	Total (A+B')
2010	22.7	0.2	2.9	25.8	68.4	82.2	68.4	82.2
2015	27.7	0.3	5.1	33.1	60.5	81.6	100.0	100.0
2020	29.7	0.5	7.4	37.6	52.6	78.2	100.0	100.0
2025	34.1	0.6	8.8	43.5	44.7	76.2	100.0	100.0
2030	39.7	0.7	10.3	50.7	40.0	78.7	100.0	100.0
2035	45.7	0.7	11.6	58.0	40.0	83.5	100.0	100.0
2040	52.1	0.8	12.7	65.6	40.0	88.6	100.0	100.0
2045	58.3	0.8	14.0	73.1	40.0	93.6	100.0	100.0
2050	63.1	0.7	15.0	78.8	40.0	100.0	100.0	100.0

BOAP = Basic Old Age Pension; NP = National Pension.

Notes: total coverage = coverage of national pension + coverage of basic old age pension – duplicated coverage from two schemes (constantly applied 12%).

Source: National Pension Research Institute, Internal forecast.

As for the equity between income strata, proposal 2 would be better because the basic old age pension gives everyone the flat rate benefit. In proposal 2, the part of public occupation schemes is more likely to be integrated into the universal basic pension scheme. Accordingly, the equity between the public insurance pension schemes can be improved.

4.4.2.3 Efficiency

While in proposal 2 the total expenditure is larger, the effect to alleviate poverty can be better. Proposal 2 is also more understandable to the people because it is simpler. The universal pension scheme can be more efficiently managed than the means-tested pension. Proposal 2 would be generally better for administration.

4.4.2.4 Adequacy

The total benefit level seems better in proposal 1 than in proposal 2. However, the average pension amount of the National Pension would not be adequate if the qualifying years of participants is not improved even in the long run. As a result, the more generous universal pension with a flat rate can make better the income security of the elderly. In both proposal 1 and 2, the total benefit level is insufficient to live solely on the benefits of the public income security schemes. In any case, the roles of the private pension schemes will be important in the future.

4.4.2.5 Affordability

The sudden change of the existing schemes can cause confusion to both people and the managing organizations. As people have already experienced two reforms of the National Pension, the rapid structural change of the National Pension Scheme can result in greater mistrust of it. Furthermore, another reduction of benefit level in the National Pension can cause strong avoidance of the scheme itself from the participants.

In general, financing through tax can be more difficult than through contribution. Accordingly, it is unclear if tax financing for the universal pension can be successful. With these points of view in mind, proposal 2 would seem to be less affordable if selected.

4.4.2.6 Sustainability

Proposal 1 is found to be less costly than proposal 2. In proposal 2, the basic old age pension is larger in coverage with higher benefit. By some financial projections conducted by the National Pension Research Institute, in proposal 1 the total expenditure to GDP is estimated to be 7.1% in 2050, while in proposal 2, it will be 10.9% in the same year. At the current pace of population aging, the number of elderly will increase to a great extent, and thus the universal pension will require huge expenditures in the long term. Therefore, the financial sustainability would be better in proposal 1.

Public pension expenditure per GDP of 10% does not seem exceedingly high compared with developed countries. Some developed countries' public pension expenditures have already gone beyond 10% of GDP. In the future, with rapid aging, the proportion of public pension expenditure to GDP could easily surpass 10% in many countries. However, many countries are trying to reduce the level of expenditure in the long run. As the Republic of Korea is anticipated to be one of the most rapid aging nations, it is necessary to be cautious of establishing the public pension schemes which need much more public expenditure.

4.4.3 Main tasks for restructuring

The main issues for restructuring the public pension schemes in the Republic of Korea can be summarized as (1) financing the costs of the public pension schemes; (2) securing adequacy of benefits; and (3) making consensus between various interests groups.

4.4.3.1 Financing public pension schemes

With both proposals 1 and 2, it is necessary to get more financial resources than the amount needed in the present systems, but even at present it is difficult to make the budget for the present public schemes, especially for the basic old age pension. In this case, it is difficult to adopt the restructuring proposal requiring

more budgets. However, considering that the policies are adopted by a political decision process, nobody knows which option will be chosen.

4.4.3.2 *Securing adequacy of benefits*

Due to the difficulty of financing public pension schemes, it is difficult to secure the adequacy of benefit level. As for the National Pension, as many of the participants cannot pay their contribution in time, their future pension amount will be insufficient for their old age income security. Within the limits of financial resources it is difficult to secure adequacy of benefits both in the short and the long term.

4.4.3.3 *Making consensus between various interests groups*

For the successful restructuring of the public pension schemes, it is necessary to reconcile varied interest groups, including elderly groups, trade unions, employers groups, political parties, and academes. To do this, the proposal for restructuring should be more refined and go through the procedures to achieve a social consensus. Those procedures are expected to start in the near future.

Notes

- 1 This allowance had been introduced in July 1998, before the National Pension was extended to urban areas, as a kind of compensatory benefit for the elderly who had no opportunity to contribute to the National Pension Scheme owing to their old age.
- 2 Deemed income is the sum of assessed earnings and the income converted from assets. The income converted from assets is the annual interest rate of 5% on the combined total assets of the applicants and their spouses.
- 3 When the regionally insured with no earnings report that they are economically inactive and the NPS approves it, they can be exempted from paying contributions.
- 4 The number of qualifying years for the old age pension now is ten years.

References

- Baek, Hwa-Jong and Woo, Hae-Bong (2009) An Analysis on Correlation between Understanding and Trust of the National Pension Scheme, *Journal of Social Security Society*, 51.
- Financial Review Committee (2003) *The 1st National Pension Financial Review Report*. Republic of Korea.
- Financial Review Committee (2008) *The 2nd National Pension Financial Review Report*. Republic of Korea.
- Government Employee Pension Service (2009) *Government Employee Pension Annual Statistics 2008*. Seoul: Republic of Korea.
- Lee, Soon-Jae and Kim, Heun-soo (2009) 'Current State of the Individual Pension Scheme and Ways to Promote it', Spring Seminar of Social Security Academics, Seoul.
- Kim, Jae-Kyung (2010) *Financial Effect of 2010 Pension Reform, Government Employee Pension Service*. Seoul: Government Employee Pension Service.

- Kim, Seong Sook and Moon, Hyung-pyo (2009) 'Administrating Better the Vulnerable Groups in the National Pension — Korea Case', *Proceedings of the International Seminar on Priority Challenges in Pension Administration*, MHLW/ISSA/PIE, Tokyo, 20–22 January 2010.
- Kwon, Huck-ju (2009) *The Reform of the Civil Service Pension Program in Korea: Changes and Continuity*. The UNRISD Project on Financing Social Policy: Pension Funds and Economic Development. UNRISD.
- Ministry of Defense (2007) *Military Personnel Pension Annual Statistics 2006*. Seoul: Ministry of Defense.
- Ministry of Health and Welfare and University of Kyemyong (2009) *2008 Survey on The Living States and Welfare Needs of the Elderly*. Seoul.
- Ministry of Health and Welfare and Korea Institute for Health and Social Affairs (2009) *Evaluation Report on Social and Economic Effects of Introduction of Basic Old Age Pension*. Seoul.
- Ministry of Home Affairs (2002) *Living Condition and Consciousness of the Elderly – the 5th Report of International Comparison Survey*. Japan.
- Ministry of Labor (2007) *Direction for the Development of Retirement Pension Scheme*. Seoul: Ministry of Labor.
- Ministry of Labor (2009) *Statistics on Retirement Pension*. Seoul: Ministry of Labor.
- National Pension Service (n.d.) National Pension Statistics, internal database.
- National Pension Service (2010) An internal material on retirement pension and individual pension. National Pension Research Institute, Seoul.
- National Pension Service (2009) *National Pension Statistics Yearbooks*. Seoul: National Pension Service.
- National Pension Service (2007) *National Pension Survey on Pension Trust*. Survey conducted by National Pension Research Institute. Seoul: National Pension Service.
- National Statistical Office (2007) *2006 Long Term Population Projection*. Seoul: National Statistical Office.
- Private School Personnel Pension Scheme (2008) *Annual Statistics*. Seoul: Private School Personnel Pension Scheme.

5 Malaysia

Pension system overview and reform directions

Mukul G. Asher

5.1 Introduction

Malaysia, a southeast Asian country, gained independence from the United Kingdom in 1957. In 1963, Singapore and the East Malaysian states of Sabah and Sarawak joined the Malay Federation. Singapore, however, became an independent republic in 1965. Since then, Malaysia has established itself as a federal state, with a constitutional monarchy and a parliamentary system of government.

Malaysia has been governed by the same coalition, Barisan Nasional (National Front), comprising all the major ethnic groups in the country – Malay, Chinese, and Indian – for several decades. In 1970, Malaysia initiated a strong affirmative action program under its New Economic Policy (NEP) to improve the economic status of the Malays who are termed Bumiputra ('sons of the soil'), and to substantially increase their share of the country's corporate sector. The NEP has been controversial. It was, however, applied relatively less rigidly than was feared. It formally ended in 1990, but several of the features, particularly preferences for Bumiputra, remained in most parts of the country.

Malaysia is among relatively few countries that have exhibited sustained high growth over a prolonged period. Thus, its per capita income, valued in nominal exchange rates, increased from US\$790 in 1967 to US\$4,400 in 1997 (World Bank, 2010). In spite of the interrupted growth during the Asian financial crisis of 1997–1998, by 2008 it had firmly established itself as an upper middle income country, with a total GDP of US\$222 billion (US\$384 billion in purchasing power parity (PPP) terms), and per capita income of US\$8,209 (Table 5.1).

Malaysia's outward-orientation and integration with the global economy in trade, investments, technology, and manpower have been among the factors contributing to its economic success (World Bank, 2010). Its policymakers recognized in the early stages of industrialization during the late 1960s that its population (27 million in 2008) is too small to support a domestic demand-based economy. In 2010, Malaysia was ranked as the tenth most competitive economy by the IMD Business School, a considerable improvement from its 18th ranking in 2009 (Ministry of Finance, 2010).

Table 5.1 Malaysia: select macroeconomic indicators

<i>Indicators</i>	<i>1991</i>	<i>2000</i>	<i>2008</i>
GDP (billion, current US\$)	49.1	93.8	221.8
GDP growth (annual %)	9.5	8.9	4.6
GDP per capita (current US\$)	2,642.0	4,029.9	8,209.4
Gross capital formation (% of GDP)	37.8	26.9	21.9
Gross domestic savings (% of GDP)	34.1	46.1	42.2
Inflation, consumer prices (annual %)	4.4	1.5	5.4
Stock market capitalization (USD Billion)	56.7	113.2	189.0
(% of GDP)	115.5	120.7	85.2
Foreign Exchange Reserves (USD billion, 2009)	96.69		
(% of GDP)	41.93		

Source: Author's calculations based on data from World Bank (2010); World Federation of Stock Exchanges (2010).

Malaysia exhibits several characteristics of a successful growth-oriented economy. These include high domestic saving and investment rates, and moderate inflation (Table 5.1).

Malaysia's government has exhibited moderately high fiscal deficits in recent years. Thus, its overall deficit as percentage of GDP was 4.8% in 2008, 7.0% in 2009 as a result of fiscal stimulation measures, and is projected to be 5.4% in 2010 (Ministry of Finance, 2010). Its overall debt level is also moderately high. Its net debt to GDP ratio was 51.4% as at end March 2010, with 97% of the debt held domestically (Ministry of Finance, 2010). This suggests that pension reforms will need to consider Malaysia's relatively constrained fiscal conditions.

While Malaysia has justifiably been regarded as an economically successful country, the policymakers recognize that improving its status to that of a developed country by 2020 as envisaged, will require substantive changes in its economic, social, and education policies. Malaysia therefore announced a New Economic Model (NEM) on 30 March 2010, with the aim of doubling per capita income by 2020, to around US\$15,000; and initiate structural reforms in many areas of the economy.

The NEP also envisages a shift towards productivity driven growth, greater reliance on domestic demand, and making labor markets more flexible and less based on ethnic identities. The manufacturing sector will also undergo restructuring as its labor intensity declines, and focus shifts to quality and productivity driven growth, rather than quantity driven growth.

This paper provides an assessment of Malaysia's current pension system, and discusses possible reform directions. The rest of the chapter is organized as follows. Demographic and labor market trends and their implications are

discussed in Section 5.2. Current pension arrangements in Malaysia are analyzed in Section 5.3. Implicit in the discussion in this section are the limitations of the schemes, and measures to improve them. A more formal assessment of the pension system and a discussion of the reform directions are provided in Section 5.4.

5.2 Demographic and labor market trends

Demographic trends in Malaysia portend population aging but still provide space to institute policies to address the challenges arising from it. It is projected that it will not be till 2045 when the number of aged (over 60) will exceed those under 15. The number of aged (60 years plus) increased from 0.75 million in 1980 (5.7% of the total population), to 1.5 million in 2000 (6.6% of the total population), and is projected to increase to 3.1 million by 2020 (9.9% of the population) (Ong and Hamid, 2010). Kinsella and Wan (2009) estimate that the share of the elderly will rise to 18.3% in 2040; and to 22.2% in 2050. In every decade since 1970, the growth rate of the aged population has exceeded the growth rate of the total population.

The total fertility rate (TFR) in Malaysia has been relatively high, though it is declining. The TFR declined from 4.9 in 1970 to 2.4 in 2005 and this trend is expected to continue (Ong and Hamid, 2010). The overall TFR however conceals wide variation among the ethnic groups. Thus, in 2005, the TFR was 2.8 for the Malays, the majority population; 2.0 for Indians, 1.9 for Chinese, the second largest group, and 1.3 for other ethnic groups. This suggests that, if the TFR of the Malay group declines by more than projected, then Malaysia could experience even more rapid aging.

A major contributor to rapid aging in Malaysia is increasing life expectancy. Between 1970 and 2005, the life expectancy at birth increased by ten years for both males and females (Malaysia Department of Statistics, 2010).

In 2005, the life expectancy at age 60, which is the relevant age for pension analysis, was 17.2 years for males, and 19.6 for females (Ong and Hamid, 2010). They report that the averages conceal wide variations in relevant life expectancy among ethnic groups with the Chinese having the highest life expectancy. By 2050, life expectancy at birth is expected to exceed these figures, with projected years of 78 for males, and 83 years for females (Ng, 2010).

Malaysia's demographic trends suggest that it will exhibit feminization of aging. The number of aged females exceeding that of males has been evident since 1980, but the differential is expected to widen (Malaysia Department of Statistics, 2010).

Moreover, advances in life expectancy at age 60 will increase the proportion of the aged who are above 75 years of age, usually referred to as 'old aged'. Not only will healthcare expenditure needs increase disproportionately for the old aged, but internal and external labor migration, urbanization, and changing social norms will increasingly lead to greater importance of institutionalized care. This analysis suggests that Malaysia will need to devote a greater share of GDP to its

elderly, an aspect which must be addressed in restructuring Malaysia's pension system.

5.2.1 Labor market trends

Malaysia's total labor force in 2008 was 11 million, with a labor force participation rate (LFPR) of 79.0% for males and 45.7% for females. Relatively low LFPR for females suggests that as a group, they are unlikely to accumulate sufficient retirement savings from their labor income, the LFPR for those females between 60 and 64 years was 36.7% in 2008, as compared to 62.6% for the total labor force.

Malaysia's rapid economic growth has necessitated substantial reliance on foreign workers. The official estimates are that by mid 2010, Malaysia had about 1.9 million foreign workers equivalent to nearly 18% of the labor force. More than half of the foreign workers are from neighboring Indonesia (Sani, 2010). Malaysia introduced an annual levy on foreign workers in 1992, and it varies by sectors with construction and manufacturing attracting much higher levies than plantation sector and domestic workers. The levy is not applicable to foreign professionals employed in Malaysia.

The foreign workers are not required to contribute to the Employees Provident Fund (EPF).¹ They are however included under the Workman Compensation Scheme of Social Security Organization (SOCSO). Malaysia has not entered into any totalization agreements involving treatment of social security related taxes or contributions with other countries. As Malaysia aims to develop higher value-added economic activities, more professionals from abroad will be located in Malaysia. A totalization agreement with key source countries would enhance Malaysia's attractiveness for foreign professionals. At the lower end of the labor market, agreements with key source countries on improving working conditions could provide more conducive policy environment for economic restructuring.

5.3 Current pension arrangements

Malaysia's pension system lacks a unified structure applicable to both public and private sector workers. Instead, there are several schemes with different designs, each targeted at a specific group of workers. There are some overlaps, but they do not lead to a well-integrated system of pension provision which is drawn from different tiers or pillars. Instead, the schemes operate essentially independently of each other.

The EPF, which covers non-government sector workers, is the dominant pension scheme. There are separate schemes for civil servants, armed forces, private sector workers, a workman compensation scheme (which also includes pensions for the relatively low wage earners in the private sector), and the social assistance and social pension programs administered by the Department of Social Welfare and other schemes. For Muslims, assistance is also available from Zakat,

an Islamic welfare institution. But its scope is limited, particularly for the elderly. There were 2.7 million self-employed in Malaysia in 2009, and while there are no specific schemes targeted for them, they may join the EPF voluntarily. There were 5.5 million housewives in 2009, dependent on their spouses' pension benefits (Othman, 2010).

5.3.1 Employees Provident Fund

The EPF is a trust fund established under the EPF Ordinance, 1952, later amended to the EPF Act 1991. It is among the oldest national provident funds globally. It is a defined contribution (DC), mandatory plan, based on a prescribed rate of contributions by employees and employers, accumulated as savings in a personal account. A member may withdraw a proportion of accumulated balances at age 50, and the remaining at 55. The age of permissible withdrawal does not coincide with the retirement age. As the withdrawals are lump sum, though limited flexibility exists to continue to withdraw balances in phases, longevity, inflation and survivor's risks are not currently addressed adequately in the payout phase.

The EPF has been providing limited death and incapacitation benefits without requiring contributions. In 2008, the total amount spent on these two benefits was RM39.2 million,² only 0.1% of the contributions. Even these limited benefits are being further curtailed to minimize their financial impact. They partly duplicate the benefits under SOCSO due to common membership.

5.3.2 Contribution rate

The standard contribution rate was 10% of the wage, with no ceiling (5% each from the employer and the employee) between 1952 and 1975. In a series of steps, it reached 23% of wages (12% by the employer and 11% by employees) by January 1996. Since then it has fluctuated in a narrow range.

To provide relief during the recession the employee's contribution rate was reduced to 8%, while that of the employer remained unchanged between January 2009 and December 2010. As at March 2009, 2.8 million members (50% of active members) opted to maintain their contribution rate at 11%. There are provisions for family members to voluntarily contribute additional amounts on behalf of other family members.

Effective from February 2008, the liability period for mandatory contributions to the EPF for both the employers and employees has been extended from age 55 to 75. The contribution rate has been halved to 5.5% for employees and 6% for employers, for a total of 11.5%. There is flexibility to contribute more than the prescribed rate. The rationale is to lower the cost of hiring older workers.

5.3.3 Membership, contributions, and withdrawals

The total membership as at end 2009 was 12.37 million, of which 5.8 million (46.1% of total members; 49.9% of the labor force) were actual contributors (Table 5.2).

Table 5.2 Malaysia, Employees Provident Fund – selected indicators, 2006–2009

<i>Indicators</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>
Total Members (million)	11.6	11.69	12.05	12.37
Number of active members (million)	5.29	5.4	5.71	5.79
% change in active members	0.6	2.1	5.7	1.4
As % of labor force	45.8	47.3	49.2	49.9
Number of employers	416,928	428,319	441,820	453,716
Annual Contributions (million, RM)	26,191	28,926	34,543	33,468
As % of GDP	4.6	4.5	4.7	4.2
Annual withdrawals (million, RM)	15,052	21,309	21,741	24,711
Net contribution as % of GDP	1.9	1.2	1.8	1.1
Withdrawals as a % of contributions	57.5	73.7	62.9	73.8
EPF balances (billion, RM)	290.2	318.3	344.6	375.5
As % of GDP	50.6	49.6	48.1	47.5
Per member(RM)	25017	27228	28598	30356
Per member balance/per capita GDP	1.2	1.2	1.1	1.3
Change in EPF balances (billion, RM)	29.3	28.1	26.3	30.9
As % of GDP	5.6	4.4	3.7	3.9
As % of gross national savings	13.7	11.8	9.7	14.9

EPF = Employees Provident Fund.

Source: Author's calculations based on data from (EPF, various years); and (Bank Negara Annual Report, various years).

The number of employers covered was approaching 0.5 million in 2009. Those employers with even one employee are required to contribute to the EPF.

While the gross contributions to GDP ratio averaged 4.5% between 2006 and 2009, due to high levels of pre-retirement withdrawals, the net contribution (gross contributions minus withdrawals) to GDP ratio averaged only 1.5% (Table 5.2). The net contributions however do not reflect dividend income earned on the EPF balances. If this income was included, reflected by changes in EPF member balances, the contribution of mandatory savings through the EPF to gross national savings was 12.5%, (4.4% of GDP) during the 2006–2009 period. The average balance per member remains low, averaging 1.2 times the per capita income (Table 5.2).

The contributors to labor force ratio has hovered around 50% in recent years. However, as nearly 20% of the labor force are foreign workers, and another 11% are civil servants, the coverage rate may be regarded as approaching universal level. The 2.7 million self-employed may voluntarily join the EPF, but only about 50,000 had done so by the end of 2008.³

Recognizing the need to extend coverage to the self-employed who are traditionally not covered by formal retirement schemes, the 1 Malaysia Retirement Savings Scheme was initiated in January 2010. Unlike the conventional EPF savings scheme, the amount contributed to this scheme is voluntary. A minimum contribution of RM50 and a maximum of RM5,000 per month is permitted under this scheme. Returns under this scheme are same as those received by EPF members. In addition, a 5% contribution from the government, subject to a maximum of RM60 per year will be made during the 2010–2014 period. The expectation is that such subsidies will increase voluntary retirement savings, though its quantitative impact has not been provided. It appears to be essentially a political signal that instead of the ethnic-based policies of the NEP, the NEM regards contributions of all ethnic groups as vital to achieving its goals.

The gross contributions are channeled into two accounts. Account I is for retirement and can only be withdrawn when a member reaches 55 years. This permits full compounding during working years. Before reaching 55 years of age, members can use part of their savings in Account I to invest in approved investments. At end 2009, 0.43 million members (7.4% of active contributors) had participated in an investment scheme, withdrawing RM3.3 billion (Employees Provident Fund, 2009).

Savings in Account II can be used for housing, tertiary investments, education,⁴ health needs, and for withdrawal at age 50. Of the total contributions, 70% are credited to Account I, 30% to Account II. The largest withdrawal, after retirement, has been for housing.

5.3.4 Balances of members

The members of EPF may be divided into active (i.e. those currently contributing), and inactive (i.e. those currently not contributing). Even for the active members, 87% of men and 90% of women had balances of less than RM100,000 in 2009 (Table 5.3). At the other end, 2.29% of men and 1.0% of women had balances above RM300,000 (Table 5.3). The total savings were unequally distributed. While 73.2% of the total active contributors had balances of less than RM50,000, these constituted less than a quarter of the total savings. In contrast, 11.75% of the active contributors accounted for 53.16% of total savings in 2009 (Table 5.3).

Othman (2010) has estimated that the median balances of members retiring at age 54 in 2009 were about RM50,000, less than two times the per capita income. Those below the median balances will have even less resources for retirement. The average balances of those retiring in 2010 are however higher, RM160,000 for males, and RM100,000 for females. This is a reflection of skewed wage patterns, and differing pre-retirement withdrawal patterns.

The above is a reflection of large wage inequalities, and greater propensity of low wage groups to resort to pre-retirement withdrawal in relation to their balances. The balances of those who are inactive are substantially lower. Thus, in

Table 5.3 Malaysia, Employees Provident Fund: active contributors by saving range, 2009

Balances	Male (million)	% of total male	Female (million)	% of total female	Active contributors (million)	% of total active contributors	Total Savings (billion RM)	% of total savings
<50,000	2.29	70.84	1.95	76.17	4.24	73.2	66.85	24.4
50,000 < 100,000	5.1	15.77	0.36	14.16	0.87	15.05	61.48	22.44
100,000 < 300,000	0.36	11.11	0.22	8.67	0.58	10.03	91.27	33.31
>300,000	0.07	2.29	0.03	1	0.1	1.72	52.39	19.85

EPF = Employees Provident Fund.

Source: Author's calculation based on data from EPF (2009).

2009, the average balance at age 54 of inactive members was RM22,708, less than the per capita income (Employees Provident Fund, 2009).

5.3.5 Investment policies and performance

The overseeing of investment function of the EPF is separated from the EPF Board. It is the Investment Panel (IP) that oversees this function. It comprises a member each from the Ministry of Finance and Bank Negara, the Central Bank, three professional members, usually from the banking and finance sector, and the Chairman of EPF and its CEO as ex-officio members. All the members are appointed by the Minister of Finance, and the IP reports directly to the Ministry of Finance. There is therefore a divided responsibility, with the IP overseeing the investment function, and the EPF Board, also appointed by the Minister of Finance, for the other activities. As the IP usually considers matters brought before it by the EPF management, there have been instances when insufficient oversight has been exercised by the IP in areas where the EPF has a substantial or a controlling interest (Thillainathan, 2005).

The balances with the EPF have been growing rapidly as Malaysia continues to exhibit robust GDP, employment, and wage growth, and due to the moderately high investment returns. The EPF balances grew from RM9.1 billion (17.1% of GDP) in 1980; to RM180.8 billion in 2000 (57.9% of GDP); and to RM375.5 billion in 2009 (47.5% of GDP) (Employees Provident Fund, various years).

The EPF balances in 2009 were equivalent to 38% of Malaysia's stock market capitalization of RM990.3 billion as at end December 2009. Even if only the 2009 allocation of EPF assets to equities of 27.1% were considered, that would be 10.3% of market capitalization accounted for by one entity. As under the current statutory provisions, nearly all the EPF funds must be invested domestically, the size of the EPF has become a concern as its portfolio of equity could impact on market prices. The market power of the EPF is expected to grow as its balances increase, both absolutely and relative to GDP.⁵ As there are other government agencies also investing in the market, including SOCSO, the concentration of savings in the hands of government agencies constitute a potentially large political risk.

Figure 5.1 provides allocation of EPF funds among different asset classes for the 1991–2009 period. There is a noticeable shift in asset allocation away from Malaysian government securities and from money market funds, towards debentures and loans and equities. The estimates by the author suggest that the historical real rates of return credited by EPF in its members' accounts have been moderately high, averaging 3.28% per year for the 1961–2009 period. The real rate of return has fluctuated between 2.56% (1961–1980 period), to 4.42% (1980–1996 period). For the most recent period (i.e. 1999–2009), the real rate of return is 2.77% (Table 5.4). This is lower than average return for the 1961–2009 period.

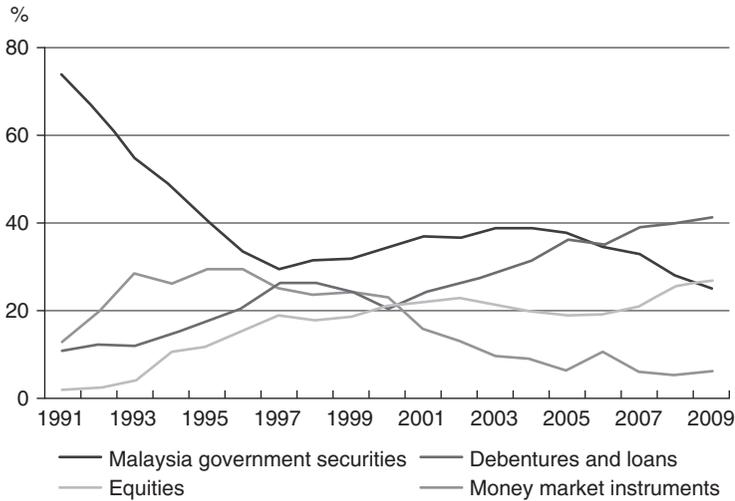


Figure 5.1 Employees Provident Fund: asset allocation, 1991–2009.

Source: Authors' calculations from Employees Provident Fund (2009).

Table 5.4 Malaysia's Employees Provident Fund: real rate of return to members (%)

Year	Nominal dividend rate	Inflation rate (CPI)	Real rate of dividend
1961–2009	6.51	3.23	3.28
1961–1980	5.94	3.38	2.56
1980–1996	8.10	3.68	4.42
1997–1999 (1)	6.75	3.59	3.15
1999–2009	5.22	2.45	2.77

CPI = consumer price index

1 This period includes the 1997–1998 Asian Financial Crisis.

Notes: The Average Annual Compound Growth Rate is calculated using the formula: $r = ((1+rA)^{(1/t)} - 1)$ where, rA = aggregate return over t years, (Annual rates are aggregated by taking their products for t years).

Source: Author's estimate based on data from EPF (various years).

The complexity of the EPF's task of generating high investment returns is expected to increase as it is now a dominant player in the domestic financial and capital markets, and as global investment environment becomes more challenging. Therefore, attaining the long-term average return will not be an easy task. This could adversely impact accumulation of member balances, and to the extent real earnings growth exceeds real rate of return, lower the replacement rate.⁶

There are indications that since 2005, the EPF's investments in additional asset classes such as private equity and real estate are growing, though they still

constitute a relatively small proportion. It has set up a separate entity called EPF Ventures to undertake such activities. The EPF also appears to have shed its inhibitions concerning not getting involved in management of the companies and assets it owns.⁷

Thillainathan (2005) has argued that the emphasis on paying annual dividends and the absence of mark-to-market valuation of the portfolio could distort investment choices, with lower quality assets being held for a longer than warranted period, and vice versa for higher quality assets. There has, however, been no study that has rigorously analyzed this hypothesis.

5.3.6 Civil Service Pension Scheme

The civil servants are members of a defined benefit (DB) pension scheme financed from the annual government budget. In 2008, there were 1.24 million civil servants in Malaysia, equivalent to 11% of the labor force, and 4% of the total population (Ong and Hamid, 2010). They report that the total number of pensioners in 2008, including those receiving survivors pensions, was 0.51 million, equivalent to 41.1% of civil servants; and pension costs were RM8.4 billion, equivalent to 1.2% of 2008 gross national income (GNI).

The current retirement age is 58 years, clearly too low for the life expectancy at 60, which, as noted in Section II, was 17.2 years for males, and 19.6 years for females in 2005. The demographic profile and life expectancy of civil servants may differ from the population averages, and this will need to be considered in design and in assessing financial and fiscal sustainability of civil service pension schemes.

A minimum of ten years of service is required to be eligible. The pension benefit levels vary between 20 and 60% of last drawn basic pay (which excludes allowances), depending on the length of service. There is provision for a survivors' pension, and for those who get injured or meet death during service. The pension benefits are not indexed to prices, but are revised periodically when salary revision of existing civil servants is undertaken. Civil servants are currently not required to contribute for their pension benefits.

In addition to pensions, civil servants are also eligible for gratuity payment, whose amount varies with the number of years of service. Some government agencies give, in addition, an additional lump sum payment known as a 'golden hand shake'. The civil servants are also entitled to cash payment in lieu of leave, for a maximum of 150 days. So there is considerable lump-sum payment made available to retiring civil servants, in addition to pensions.

Until 1991, annual allocation from the budget was provided for the pension expenditure of civil servants. This practice was modified when the Pension Trust Fund Act 1991 was introduced. An initial allocation of RM500 million was made by the federal government. In 2007, this Act was replaced by the Retirement Fund Act of 2007 (Act 662 of 2007).

There are three main sources of income for this fund. First, the federal government provides 5% of its annual emolument budget to finance pensions of

its employees. The lower levels of government contribute 17.5% of the salaries of their pensionable employees to this fund. The accumulated funds are currently invested within Malaysia in a diversified portfolio comprising equities, Malaysian government securities, and corporate debt (Ong and Hamid, 2010). The third source, therefore, is the investment income generated from the accumulated balances in the Retirement Fund. These amounted to RM60 billion as of 30 September 2009, equivalent to about 9% of 2009 GDP. Actuarial studies however have not been made available to ascertain whether the contributions plus investment income are sufficient to meet future pension liabilities. The extent to which current civil service pensions and other retirement benefits will impact on fiscal consolidation (fiscal policy consistency with macroeconomic sustainability) and fiscal flexibility (ability to reallocate budgetary resources towards growth and equity enhancing directions) also cannot be ascertained.

5.3.7 Armed forces fund

The armed forces fund was established in August 1972 by an Act of Parliament. It is mandatory for military personnel below commissioned officers. It is a DC scheme, with a contribution rate of 10% of monthly salary by employees, and 15% by the government as employer. It has disability and survivors' benefit features if the events occur during service. The full withdrawal age is 50 years. Those who are entitled to pensions can withdraw only their contributions; the rest, the entire amount. There is also provision of housing purchase once during service. The details of membership are not available, but as at end 2008, the accumulated balances were RM7.2 billion, equivalent to 1.0% of GDP.

5.3.8 Social Security Organization

The Employees Social Security Act of 1969 and, unlike the EPF, is based on social insurance principles. It was established under the Ministry of Public Works, but is administered by the central government agency SOCSO, set up in 1971. It operates the Employment Injury Insurance Scheme and the Invalidity Pension Scheme. Under the first scheme, medical, disability, death, and rehabilitation benefits are provided. The Invalidity Insurance Scheme provides coverage against invalidity or death due to any cause. SOCSO provides a spouse's pension if death occurs while the individual is in service prior to reaching the age of 55.

It covers workers earning less than RM3,000 a month, and is financed by contributions from both employees and employers. Once employees are covered, they are covered even if their salaries have exceeded the limit of RM3,000. The rate of contribution for the Employment Injury Scheme is 1%, to be contributed by the employer and employee at 0.5% each. For the Invalidity Pension Scheme, the contribution comes solely from the employer at 1.75%. As at 31 December 2008, total investments of SOCSO were RM8.3 billion, equivalent to 1.3% of GDP (Ong and Hamid, 2010).

As noted, since April 1993, foreign workers have been excluded from coverage under SOCSO, but they are covered under Workman Compensation scheme, set up under the Workers' Compensation Act of 1972. An employer is required to purchase the insurance for manual workers earning less than RM500 per month. Those covered by SOCSO are not covered under the Workman Compensation Scheme.

Membership of SOCSO has been increasing since its inception in 1975; in 2008 about 11.8 million members were covered. The active contributors are, however, likely to be much less. The number of beneficiaries has increased from only 14,000 in 1980, to 116,000 by 1990, and to 278,000 in 2008; while amount per beneficiary has increased from RM286 in 1975 to RM2,063 in 2008.

5.3.9 Social pensions

Malaysia's Department of Social Welfare provides social pensions to those above 60 years of age who are destitute, not able bodied, and have no next of kin. The legislated monthly pension is RM300 per month. In 2009, there were less than 40,000 recipients, with each recipient receiving only RM1900 per year, much less than the legislated amount; which in turn is much lower than the poverty line in 2009 of RM720 per month (Othman, 2010). Severe restrictions on eligibility currently restricts its coverage, with urban areas having better access (Ong and Hamid, 2010).

5.3.10 Tax treatment

The tax treatment of pension schemes in Malaysia is complex. For the employers, for tax deductibility there is an overall ceiling of 19% of payroll, for both contributions to mandatory EPF, and to its corporate schemes. In 2009, Malaysia had a two-step company rate of 20 and 25%.

The employees can deduct up to RM6000 per year from their income for contributions to provident fund and life insurance premiums combined. This limits the extent of the implicit excise subsidy as those with higher wage income that exceeds the ceiling are not eligible for tax benefits. The implicit subsidy varies positively with the marginal income tax rate. The personal income tax rates in Malaysia for the year of assessment 2010 range from 1% to 26%. When tax-advantaged EPF contributions are withdrawn in a relatively short period, the effectiveness of subsidies for retirement savings diminishes. For the bottom half of the wage income earners, income tax is not payable in any case at the contribution stage as the number of income taxpayers is relatively small in relation to the labor force.

There is, however, no income tax levied on the investment returns (or dividends by the EPF) from the accumulated balance. There is also no personal income tax levied, when funds are withdrawn from the EPF at age 50, at age 55 or subsequently. There is, however, scope in the pay-out phase to provide less uneven tax treatment among providers of pension type products, including life

insurance companies; and among pension products, for example, EPF withdrawals which are lump-sum, different type of annuities or phased withdrawal programs, and individuals investing on their own in mutual funds and other instruments for retirement.

5.4 The current pension system: an assessment

Various schemes constituting Malaysia's pension system were discussed in the previous section. The schemes have essentially operated in isolation, without explicit linkages in terms of managing different types of risks at different stages of the life cycle, and without differentiating among those with steady employment throughout their working careers, and those who have intermittent jobs, which are not necessarily covered by the EPF or other schemes. Malaysia's approach also leads to attempting to secure a substantial proportion of retirement income needs from each scheme, rather than diversifying sources of retirement income for the same individual or family unit, which is among the major rationale for a multi-tiered system suggested by the World Bank (Holzmann *et al.*, 2005).

This section provides an assessment of Malaysia's current pension system from the perspective of coverage, adequacy, equity, administrative efficiency, and management and governance structures.

5.4.1 Coverage

In terms of the proportion of the labor force, 80% of which constitutes Malaysian citizens, the coverage of the pension system is approaching near universal levels, if the criteria are that a citizen is a member of at least one scheme.

The EPF scheme covers around half of the labor force, nearly all of whom are citizens. This represents a significant increase from 35% in 1986 (Asher, 1994). Malaysia has thus been relatively successful in ensuring that higher formal sector employment is translated into higher coverage of the EPF.

The civil service and armed forces combined are likely to cover about 12% of the labor force. There is likely to be a minor overlap between membership of EPF and civil servants. There is, however, substantial overlap between the membership of the EPF and SOCSO. There are some occupational schemes, including in state enterprises, and state financial institutions such as Bank Negara, but in terms of membership, the quantitative importance is likely to be small. This leaves about 15 to 18% of the citizen labor force (20% of the labor force is foreign) not formally covered by any pension scheme. Some of them, however, may be participating in the financial and capital markets for financing retirement.

The policymakers are attempting to address the self-employed citizens which are currently not required to contribute. This is one of the objectives of 1 Malaysia Retirement Saving Scheme. Empirical studies which enable disaggregation of those not covered by the EPF, and by the current social

pensions could assist in devising more effective measures to extend coverage to this group.

A more sophisticated approach would be not just to take coverage at a point in time, but to measure density of contributions over working life. Thus, a person joining the labor force at 25 years of age, and withdrawing balances from the EPF at age 55, has 360 months (12×30) of potential contributions. As the EPF is applicable only when there is formal employer–employee relationship, sustained high employment is essential to have a high density of contributions. This underscores the need to sustain high growth in Malaysia. The EPF does not provide data on wage levels of contributors, and the density of contributions currently, but should consider doing so.

5.4.2 Adequacy

The issue of adequacy is usually analyzed in terms of replacement rates (ratio of pre-retirement income, suitably defined, to retirement income) throughout the retirement period. A nominal pension amount at the time of retirement, if not indexed, diminishes in real value over time if inflation rate is positive. Moreover, the retirement income should be accessible till death to address longevity risk. In countries with low labor force participation rate for women, as in Malaysia, survivors' benefit is also a part of adequacy. The standard replacement rate from all sources of retirement income, including support from children and conversion of housing equity into retirement consumption, considered adequate is between 66 and 75%. With increased life expectancy, mechanisms to address health care needs, especially after age 75, are also increasingly considered as a part of adequacy analysis.

When assessed according to the earlier requirements of adequacy, the EPF scheme does not provide a high level of adequacy for most of the members. In the previous section, it was indicated that median balances of those active members retiring at age 54 in 2009 were about RM50,000, less than two years of per capita income (Othman, 2010), when in 2005, life expectancy at age 60 was 17.2 years for men, and 19.6 years for women. Moreover, the accumulated balances are used up quickly during retirement. It is estimated that about 70% of retirees use up EPF lump sum withdrawals within ten years of retirement (Othman, 2010).

As a DC scheme, with lump sum withdrawal at age 55, the EPF is not designed to address longevity, inflation, and survivors' benefit risks. Moreover, there are no other complementary schemes, such as social pensions, which can help in sustaining even modest replacement rates of the elderly in Malaysia. It is strongly suggested that the EPF consider regular publication of the replacement rates at the time of retirement and during the retirement period of its active contributors based on actual balances and other data. This would facilitate better retirement planning by its members, and improve pension financial and economics literacy among the stakeholders.

Among the various groups, the civil servants and the armed forces are likely to fare better in terms of adequacy than private sector workers. Given the very restrictive nature of social pensions currently, those poor not covered by any pension scheme are likely to have grossly inadequate retirement income from formal pension schemes, including from non-contributory social pensions. Broadening the eligibility for receiving social pensions and increasing the monthly payment could improve adequacy for the low-income elderly. Othman (2010) estimates that if all poor senior citizens were paid RM720 per month, the official poverty line, the gross budgetary cost would be RM1.6 billion, equivalent to 2.3% of 2009 GDP. The poverty-line-level assistance may be approached gradually, reducing the costs within affordable fiscal capacity. To improve the adequacy of pension arrangements, particularly for those not in the civil service, therefore represents a major challenge for Malaysia's pension system.

5.4.3 Equity

There are three equity issues which deserve consideration. First, any measure which permits deduction from the income tax base structures subsidy according to the marginal income tax rates. Those with no income tax liability receive no tax benefit, and therefore no subsidy. In the case of the EPF, this is addressed by an overall ceiling in nominal terms for personal income tax deduction of provident and pension fund contributions, and for life insurance for the individual. This limits the cost of subsidy for the EPF contributions by the employees. For the employer, the overall ceiling in terms of percentage of total payroll for both mandatory contributions such as the EPF and voluntary pensions is levied. The ceiling does leave room for limited initiatives for private pensions by the corporations as employer contributions are tax deductible up to a maximum of 7% of salary.

Second, the uneven tax arrangements among providers of pension-like products, and among products, may need to be examined. Thus, tax approved funded occupational schemes, under Section 150, are not taxed but subjected to investment restrictions. However, Section 150 tax approved insurance schemes are treated differently. The Life Insurance Fund is taxed at 8%, and is subject to capital charge under the risk based capital framework (Othman, 2010).

Third, the proposed Goods and Services Tax (GST), replacing current separate sales tax on goods, and tax on various services, could burden the elderly. This is because, if international experience holds, it is likely to increase the cost of living on a one-time basis by the differential in the current effective rates sales tax rates and the GST. This will reduce the real value of balances with the EPF. As relatively lower-income individuals are likely to hold a larger share of their financial wealth in the EPF, they may be disproportionately impacted. Moreover, the real value of social pensions will also decline. The traditional method of addressing this adverse equity impact is to provide a package of benefits aimed at low- and

middle-income groups when the GST is introduced. The mitigation of the real value of provident fund balances, however, is usually not undertaken.

5.4.4 Administrative efficiency

The EPF, the largest pension scheme in Malaysia, has been administered with a fair degree of professionalism. There is receptivity on the part of the policy-makers and the management of EPF to introduce modern technology and management information systems. The issues surrounding the arrangements for undertaking the investment function, and those concerning transparency and accountability, are discussed later in the management and governance structure subsection.

In 2009, the EPF’s operating costs to gross contributions ratio was 2.30%; to gross income, 3.57%; and to accumulated assets, 0.21% (Table 5.5). These compare favorably with the Philippines, where the corresponding ratios were 9.72%, 6.84%, and 2.87%, respectively (Table 5.5). The corresponding ratios for Singapore are lower, but its city-state status, higher wages and contribution rates,

Table 5.5 Indicators of administrative efficiency in social security organizations in Malaysia, Philippines, and Singapore

<i>Variable</i>	<i>Employees Provident Fund (EPF), Malaysia (2009)</i>	<i>Social Security System (SSS) Philippines 2008</i>	<i>Central Provident Fund (CPF) Singapore 2009</i>
Operating expenses as % of gross income	3.57	6.84	2.48
Operating cost as % of funds under management	0.21	2.87	0.09
Operating cost as % of gross contributions	2.3	9.72	0.77
Number of employers registered per social security organization employee	85	199	85
Number of members registered per social security organization employee	2317	6638	2436
Number of active contributors per social security organization employee	1087	N.A	1217

Notes: Operating Expenses include investment expenditure for the EPF. In the 2009 Annual Report, Operating Expenses as % of Gross Income is 2.97%, which does not include investment income. The CPF balances are predominantly invested in non-marketable government securities (essentially an accounting entry), and thus its investment management cost cannot be compared with that of Malaysia and Philippines. The total number of CPF Employees in 2009 is estimated to be 1351 (p.34, Annual Report).

Source: Author’s calculations based on official reports.

and the absence of investment management function make the ratios not directly comparable with physically large Malaysia and the Philippines.

In Malaysia and Singapore, the ratio of members registered to each employee is substantially larger than the ratio of active contributors to each employee. This suggests that one of the avenues for making further gains in administrative efficiency would be to reduce the share of inactive members who do not contribute, but the organization nevertheless must bear the costs of maintaining their accounts. A similar ratio is not available for the Philippines.

It may be useful for the EPF and SOCSO to consider commissioning independent surveys of satisfaction levels regarding various areas of their operations among the stakeholders. The compliance costs of the organizations and of members with the EPF and SOCSO regulations and procedures are relevant in assessing overall economic costs they impose on the society. Such studies, however, have not been undertaken. The EPF and SOCSO may also consider measures to ascertain whether the wages reported to them by the employers fully reflects the statutory wages specified in the relevant laws.

In view of the substantial overlapping of membership, would there be resource savings if the EPF and SOCSO were merged into a single agency? This requires a detailed study. The philosophy of the provident fund of the EPF, and of the social insurance of SOCSO, are very different however. This has resulted in different organizational cultures. A merger would therefore raise major organizational challenges.

5.4.5 Management and governance structures

The current management and governance structure are based on the use of EPF, and other pension funds as serving development purposes, rather than to primarily benefit the members. For a rapidly growing economy, with the need for patient long-term investment capital in the context of relatively less developed financial and capital markets, such an emphasis is understandable. In Malaysia, the state has traditionally played a large role, particularly in increasing the share of national income and wealth accruing to the Bumiputra community. The Ministry of Finance had played a key role in appointing the EPF Board and the Investment Committee. The other schemes, such as SOCSO and the civil servant scheme, are also controlled by the government. The private pension sector has been relatively weak, while the annuities market, the preserve of life insurance companies, is also very limited.

The implications of specific management practices and governance arrangements, such as the provision of death and incapacitation benefits by the EPF without pricing them or requiring contributions, and the emphasis on annual realized gains and absence of mark-to market valuation of investment portfolios have been indicated earlier. The comments here concern other issues of management and governance of provident and pension funds.

The EPF management has been almost solely preoccupied with the accumulation phase when members contribute and receive annual dividends. The pay-out

phase involving how the accumulated balances will be distributed over a period which reflects post-retirement life expectancy and needs has not received deserved recognition.

The EPF, for example, has not published any estimates of realistic replacement rates (i.e. ratio of pre- to post-retirement income during the period of retirement) for its active members, based on actual cash balances and their specific demographic characteristics, under a variety of plausible scenarios. While the EPF is an administrative not a policy making organization, such discussion has also not been forthcoming from the Ministry of Finance. The payout phase remains the weakest link in the EPF, but in spite of recognition to reconstruct the pension system, serious policy research and dialogue have not taken place. Similarly, actuarial studies of the civil service pension schemes are also not publicly available.

The separation of investment committee reporting to the Ministry of Finance, and other functions being reported to the EPF Board, has worked well during the early phases. However, given the increasing size of the EPF in relation to financial and capital markets, and its tendency to take perhaps overly risky initiatives to generate returns, suggests less political and more accountable and transparent investment policies and their reporting are needed. International diversification of EPF and other pension merits serious consideration, but without institutional and governance reforms, such diversification may lead to unanticipated challenges in realizing objectives of such an approach.

There is a larger issue of crucial importance regarding the extent of trust generated by the EPF management, and by the Ministry of Finance which oversees it, among the EPF members and among the general public. As no systematic surveys concerning stakeholder satisfaction with EPF services and governance are available, definitive assessment is not feasible. However, in many discussions with the industry players, and other government agencies, the issue of trust in the EPF as an institution is advanced as a major constraint on desirable reform directions. As noted earlier, it is estimated that about 70% of retirees use up EPF lump sum withdrawals within ten years of retirement (Othman, 2010).

The current EPF withdrawal age of 55 is too low given the longevity trends in Malaysia. A drastic restructuring of the EPF payout phase is needed, but the membership is reluctant to accede to increasing the age at which full withdrawals may be permitted from 55 years to 60 or 65 years, or to agree to periodic withdrawals arrangements through phased withdrawals or annuities. Attempts to introduce deferred annuities have not succeeded for familiar reasons of limitations of financial and capital markets to balance long-term assets and liabilities; and uncertainties in longevity (Ng, 2010).

5.5 Reform directions

This section focuses on four broader reform directions for Malaysia's pension system. The analysis in the previous sections suggests that the primary objective

of pension reforms in Malaysia should be to progress towards an integrated system which facilitates risk management by households at various stages in the life cycle, and a system which is managed professionally, with a high degree of transparency, accountability, and trust. The system should also not permit overconcentration of pension assets in one agency such as the EPF, and should permit greater scope for investment patterns suited to different risk appetites, albeit within overall prudential regulation.

The first broad reform direction is to construct an explicit linkage between the formal pension schemes, particularly the EPF, on the one hand, and the social pensions/social assistance on the other. This will require restructuring of the pay out phase of the EPF involving periodic withdrawals. These could be in terms of limited options for different phased withdrawal plans which do not involve risk pooling through insurance, or facilitating development of the annuity markets. Expansion of social pensions in terms of coverage, particularly to rural areas could help address the longevity risk. As noted earlier, Malaysia has the fiscal capacity to cover all elderly poor under social pensions, particularly if the monthly pension is kept modest. If combined with greater labor market flexibility for the elderly to participate in some income-earning activities, a better replacement rate, drawn from variety of sources, could be attained.

From technical and fiscal perspectives, the above reform direction is feasible, but it will require a shift in traditional thinking of the policymakers away from family-based old age support system; from minimum welfare orientation rather than need-orientation of social pensions; and from regarding the EPF as primarily an instrument for national development. The proposal to initiate unemployment insurance, which was resisted in the past, as part of NEM suggests possibilities for such rethinking.

The second broad direction of reform would be to reduce the overconcentration of pension assets managed by the EPF. As noted in Section 5.3, EPF investments in relation to market capitalization are large enough to impact the stock prices. The investment policy of the EPF, to (until recently) only invest domestically limits its ability to diversify the portfolio and balance risk-return decisions. The 2011 Budget Speech, delivered on 15 October 2010, proposes to permit up to 20% of the assets to be invested internationally. This is a step in the right direction.

The current contribution rate of 20% applies to the full wage without a ceiling. This reduces the incentive for the corporations and others to initiate private pension plans. There is therefore, a strong case for establishing a wage ceiling for mandatory contributions to the EPF.⁸ This will have several advantages. First, it will significantly reduce the growth of EPF assets, reducing its relative dominance of the pension assets. Second, it will facilitate establishment of private pension plans by corporations and other institutions that can better match risk-return preferences of its members.

Third, as the number of private pension plans increases, this will provide contestability in the pension market as EPF investment policies and performance can then be compared, albeit in a nuanced manner, with those of the other pension

plans. As a result, financial innovation and development of human resources in the pension sector will be encouraged. Development of the private pension industry could also assist in addressing the political risk arising from over-concentration of pension assets in government agencies.

However, as the number of private pension plans grows, there will be a need for prudential regulation. The current practice (as of September 2010) is that the employer-sponsored private pension schemes are approved by the Inland Revenue Board of Malaysia under Section 150 of the Income Tax Act 1967. The Inland Revenue Board does not subsequently supervise them. The Securities Commission (SC) of Malaysia is the sole regulator of the unit trust and fund management industry.⁹ Many of the unit trusts regulated by the SC have been approved by the EPF for investments by its members. There is therefore a regulatory gap for private pensions which needs to be filled. There is a strong case for the SC to be a regulator of private pension plans. The SC will, however, need to coordinate with the insurance regulator, Bank Negara, as the payout phase of private pension is likely to involve annuity products provided by insurance companies.

Malaysia's 2011 budget speech indicated that the government will launch a Private Pensions Fund in 2011. It will be aimed at private sector employees and the self-employed. The existing personal income tax relief of RM6,000 per year will apply to the members, and businesses will be given tax deduction on contributions on behalf of the employees. The larger question of reforming the design of the EPF and details of design of the Private Pensions Fund, both having a major impact on its effectiveness, have not been announced however.

The third broad reform direction concerns civil service pension reform. The current arrangements have led to large differences in philosophy between civil servants who do not contribute to their pensions (which utilize the DB method), with longevity and survivors' risk fully addressed, and inflation risk addressed in a limited manner. In contrast, the non-civil servants belonging to the EPF mandatorily contribute to a DC scheme, with lump-sum benefit. It is individuals therefore who bear the longevity, inflation, and survivors' benefit risks. A moderate reform of civil service reforms will require the newly appointed officials (from a specified date) to contribute towards their pensions, along with the government. The funds would be set aside and transparently managed, but the government will bear the contingent liability.

A bolder reform will unify the pension arrangements between civil servants and others by requiring newly appointed officials (at a specified date) to be members of the EPF. If a wage ceiling is implemented for the EPF contributions, the government may, as an employer, set up a supplementary pension scheme for its civil servants. As with the EPF members, longevity and survivor's risks will need to be addressed. Arrangements for inflation protections will also need to be considered.

The fourth broad direction of reform will need to address two characteristics of aging in Malaysia, increasing feminization, and growing proportion of the old-old. As health care expenditure rises disproportionately with age, health care

financing will need to be integrated with pension financing. There have been small steps by the EPF, such as permitting health care insurance payments to be made from the EPF balances, but a more systemic approach will be needed. In particular, the issue of long-term care will need to be more formally addressed. Consistent with high-income countries, issues of work–life balance, gender equality and others, less amenable to public policies, will also become more important in Malaysia.

The analysis in this chapter suggests that the reconstruction of Malaysia's pension system would require a mixture of parametric and systemic reforms of individual schemes, and explicitly linking social pensions with formal pension schemes, particularly the EPF. Such reforms will be facilitated by complementary reforms in labor markets, fiscal systems, and in governance and management of pension schemes. There is a strong case for a shift in mindset of the policymakers in Malaysia from welfare orientation to professionalism and to system-wide perspective in reconstructing the pension system; and in permitting fiduciary responsibility to members of provident and pension funds to play a greater role.

Notes

- 1 There was a brief period during the 1997–1998 crises, when an attempt was made to require foreign workers to join the EPF system.
- 2 US\$/RM exchange rate as of February 2011: US\$1=RM3.04.
- 3 More information available at www.kwsp.gov.my
- 4 Financing education for self (since January 2001) and for children (since 1 April 2000 for university education and from 17 January 2006 for diploma education). Amount withdrawn is limited to tuition fees or Account II savings balance, whichever is the lower.
- 5 To slow the growth of EPF balances, the EPF has permitted those with balances above RM1 million to withdraw balances before retirement. But in 2009, only 940 members did so, withdrawing RM323 million (Employees Provident Fund 2009). Stronger measures such as subjecting EPF contributions to a wage ceiling may be needed as discussed in Section 5.5.
- 6 The net pension replacement rates for Malaysia's EPF, assuming no pre-retirement withdrawals, has been estimated as 34.9% for a median male earner and 31.1% for a median female earner in a simulation study by OECD (2010). This is far short of the two-thirds replacement rate which is the international benchmark. The actual replacement rate is even lower due to high pre-retirement withdrawals which have not been included in the OECD's estimates.
- 7 This is exemplified by the 57.3% share in RHB Capital Bhd., a private sector financial conglomerate controlled by Malaysia's Employees Provident Fund. Such unusual investment choices could generate higher returns, but also involve substantial risks.
- 8 The level of ceiling can be established relative to a median wage (e.g. three times the median wage) in real terms after an empirical analysis of the wage patterns and the impact of different levels of ceiling on the accumulation of EPF assets over time.
- 9 As at end-2009, the assets of domestic private pension funds licensed by the SC were only RM1.3 billion, and of foreign private pension funds were RM1.1 billion. (The two combined were 0.8% of funds under supervision of the SC.) More information is

available at <http://www.sc.com.my/main.asp?pageid=303&menuid=255&newsid=&linkid=&type=>. This understates the true size of the total private pension funds. No aggregate data for them are however available. In sharp contrast, the EPF assets as at end-2009 were RM375.5 billion.

References

- Asher, M. G. (1994) *Social Security in Malaysia and Singapore: Practices, Issues and Reform Directions*. Kuala Lumpur: Institute for Strategic and International Studies.
- Bank Negara (2009) *Annual Report*. Kuala Lumpur: Bank Negara.
- Employees Provident Fund (EPF) (various years) *Annual Report*. Kuala Lumpur: EPF.
- Holzmann, R, Hinz, R. P., Von Gersdorff, H., Gill, I. and Impavido, G. (2005) *Old-Age Income Support in the 21st Century: The World Bank's Perspective on Pension Systems And Reform*. Washington, DC: World Bank.
- Kinsella, K. and Wan, H. (2009) *An Ageing World*. US Census Bureau, International Population Reports, P95/09-1. Washington DC: US Government Printing Office.
- Malaysia Department of Statistics (2010) *Social Statistics Bulletin*. Putrajaya: Malaysia.
- Ministry of Finance (2010) *Malaysian Economy, First Quarter*. Kuala Lumpur: Ministry of Finance.
- Ng, Lian Lu (2010) Annuity And Longevity – The Role of Insurance And Recommendations. Presented at the International Social Security Seminar, July 13–14, 2010, Kuala Lumpur.
- OECD (2010) *Pensions at a Glance: Asia Pacific Edition*. OECD.
- Ong, F. S. and Hamid, T. A. (2010) Social Protection in Malaysia – Current State and Challenges. Paper prepared for the Economic Research Institute for ASEAN and East Asia (ERIA) Project on Social Protection.
- Othman, Syed Hamadah (2010) Malaysia's Pension System From Multi-Pillar Perspective. Presented at the International Social Security Seminar, July 13–14, 2010, Kuala Lumpur.
- Sani, A. H. A. (2010) Foreign Worker Levy Hike in 2011. *The Malaysian Insider*, July 27.
- Thillainathan, R. (2005) Malaysia: Pension and Financial Market Reforms and Key Issues in Governance, in N Takayama (ed.), *Pensions in Asia: Incentives, Compliance, and their Role in Retirement*. Tokyo: Maruzen, pp. 163–201.
- World Bank (2008) *The Growth Report: Strategies for Sustained Growth and Inclusive Development*. Available at: <http://cgd.s3.amazonaws.com/GrowthReportComplete.pdf>
- World Bank (2010) *World Development Indicators*. CD-ROM.
- World Federation of Stock Exchanges (2010) *Statistics*. Available at: <http://www.world-exchanges.org/statistics/ytd-monthly>

6 Philippines

Pension system overview and reform directions

Ernesto Reyes

6.1 Introduction

As the Philippines slowly moves toward industrialization from a basically agricultural economy, it experiences the weakening of the family system that traditionally serves as the support mechanism for the elderly. Increasing urbanization and migration resulting from movement of individuals and families, both within and overseas in search for better job opportunities, have further contributed to this development. As of 2008 the urban population is estimated at 65% of the total population with an annual rate of urbanization at 3% (2005–2010 estimates). In 2009, the estimated net migration rate is around 1.34 migrants per 1,000 population¹ with a large part coming from the deployment of Overseas Filipino Workers abroad. The traditional concept of having more children to ensure one's support in old age is no longer applicable, as changing economic conditions and population increase reduce the share of each individual in the resources available in the country.

The population of the Philippines is still young (median age 22) (Table 6.1) compared with its Asian neighbors, but is clearly aging, as shown in Table 6.2. The ratio of elderly Filipinos aged over 60 to the working age group (15–59) will increase about three times from 11% in 2010 to 29% in 2050, reflecting the increasing burden towards the support of the elderly.

Mandatory pension programs have been legislated in the Philippines as early as 1937, starting with the Government Service Insurance System (GSIS) for public sector employees followed later by programs covering private sector employees and the military. The philosophy behind their creation is reflected in Section 2 of Republic Act (RA) 8282, the 1997 amendment to the Social Security System (SSS) Law.

6.1.1 SSS Statement of Policy

“It is the policy of the Republic of the Philippines to establish, develop, promote and perfect a sound and viable tax-exempt social security service suitable to the needs of the people throughout the Philippines which shall

promote social justice and provide meaningful protection to members and their beneficiaries against the hazards of disability, sickness, maternity, old age, death, and other contingencies resulting in loss of income or financial burden. Towards this end, the State shall endeavor to extend social security protection to workers and their beneficiaries.”

Table 6.1 Philippine population data ('000)

<i>Indicator</i>	<i>2008</i>			<i>2009</i>		
	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>
Total population			88,706			92,207
Household population (15+)	28,784	29,064	57,848	29,464	29,773	59,237
Labor force	22,673	14,132	36,805	23,172	14,720	37,892
Employed	20,959	13,130	34,089	21,402	13,659	35,061
Unemployed	1,714	1,002	2,716	1,770	1,062	2,832
Labor participation rate (%)	78.80	48.60	63.60	78.60	49.40	64.00
Employment rate (%)	92.40	92.90	92.60	92.40	92.80	92.50
Unemployment rate (%)	7.56	7.09	7.38	7.64	7.21	7.47
Median age, years [a]			22.5	22	23	22.5
Life Expectancy at birth, years [a]	67.32	73.24	70.21	68.17	74.15	71.09
Life Expectancy at 60, years [a]				17	19	

[a] Figures as of July for both 2008 and 2009.

Source: Bureau of Labor Employment Statistics World Factbook (2008 and 2009 updates).

Table 6.2 Projected Philippine population distribution, 2010 vs. 2050

<i>Age</i>	<i>2010</i>				<i>2050</i>				
	<i>Female</i>	<i>Male</i>	<i>Total</i>	<i>% Dist</i>	<i>Age</i>	<i>Female</i>	<i>Male</i>	<i>Total</i>	<i>% Dist</i>
0–14	15,304	16,026	31,330	33.47	0–14	14,941	15,834	30,775	21.06
15–59	27,823	28,221	56,044	59.87	15–59	43,607	45,662	89,270	61.08
60–64	1,130	1,089	2,219	2.37	60–64	3,796	3,773	7,569	5.18
65+	2,210	1,812	4,023	4.30	65+	10,224	8,319	18,543	12.69
Total	46,467	47,148	93,616	100.00	Total	72,568	73,588	146,157	100.00
15–59	27,823	28,221	56,044	59.87	15–59	43,607	45,662	89,270	61.08
60 +	3,340	2,901	6,242	6.67	60 +	14,020	12,092	26,112	17.87
Elderly dependency ratio				11.14	Elderly dependency ratio				29.25
Child dependency ratio				55.90	Child dependency ratio				34.47

Source: United Nations Population Division (2008).

This chapter will discuss social protection as it relates to the retirement needs of the elderly population with a focus on old age benefits, although disability, unemployment, and sickness benefits may also be part of the existing programs.

From one point of view, the Philippine pension system may be considered successful in that it provides pensions to millions of the elderly population, participates in capital market development through investment of contributions from millions of workers, achieves in most cases the redistribution objective to lower income workers, are financially stable in the short term, and has built a number of relatively efficient and complex administrative structures. However, there exist a number of weaknesses which reduce the effectiveness of the system in general, and threaten the long-term sustainability of the defined benefit (DB) programs, in particular. The Philippine government guarantees these programs, but may not have the resources when called upon to discharge its obligation.

The establishment of voluntary defined contribution (DC) programs, such as Personal Employee Retirement Account (PERA), and the expansion of the existing mandatory DC components provide alternatives for relieving the government's exposure associated with these guarantees, ultimately reducing its implicit public debt and enhancing its international credit rating.

6.2 Current pension arrangements in the Philippines

The Philippine Pension System has evolved into a four pillar structure (Table 6.3).

6.2.1 First pillar: social assistance programs

One of the challenges faced by the government is how to address the needs of the elderly poor who have not been covered by the contribution and tenure based programs. The existing ad-hoc social assistance programs could not possibly reach the bulk of this sector, thus the need for more systematic approaches.

The Senior Citizens Act of 2010, which includes a provision for a monthly allowance of Php500² on a regular basis to the elderly poor as identified by the DSWD, could be a step towards this direction. This allowance, however, is still lower than the 2006 food threshold of about Php835 per month (Table 6.4). Other sources of support are still needed to satisfy even just the basic requirements.

Assuming that 20%³ of the 6.2 million senior citizens in 2010 are below the poverty line, about 1.2 million elderly poor would require an estimated P7 to P8 billion financing from general revenues.

6.2.2 Second pillar: mandatory defined benefit programs

6.2.2.1 Coverage

The mandatory DB programs of the SSS, the GSIS, and the Armed Forces of the Philippines Retirement Service Benefit System (AFP-RSBS) covered only

Table 6.3 The Philippine pension system

<i>Classification</i>	<i>First pillar</i>	<i>Second pillar</i>	<i>Third pillar</i>	<i>Fourth pillar</i>
Type of pension program	Ad-hoc Assistance Programs, Senior Citizens Act of 2010	Mandatory defined benefit programs	Mandatory defined contribution programs	Voluntary programs
Covered population	Elderly poor	Private sector workers	Public sector workers-military	General population
Institutions implementing pension programs	DSWD, DOH, LGU's, charitable institutions, informal support systems	Social Security System	Government Service Insurance System-AFP-RSBS	PERA, life insurance, trust arrangements, tax qualified & non-tax qualified pension plans, other savings medium
Retirement goals	Alleviation	Minimum pensions, replacement ratio	Replacement ratio	Supplementary retirement income
Underlying principles	Redistribution, social assistance	Redistribution, social insurance	Equity, insurance	Equity, insurance

DSWD: Department of Social Welfare and Development; DOH: Department of Health; LGU: Local Government Unit.

Source: Author's compilation and update on Reyes (2002).

Table 6.4 Poverty threshold and poverty incidence

<i>Indicator</i>	<i>2003</i>	<i>2006</i>
Annual Poverty Threshold (P)	12,309	15,057
Poverty Incidence, % of population	30.00	32.90
Annual Food Threshold (P)	8,149	10,025

Notes: Poverty threshold is the annual per capita income required or the amount to be spent to satisfy the nutritional requirements (2,000 calories) and other basic needs.

Source: Bureau of Labor Employment Statistics.

about 79% of the 36,213 million labor force in 2007 (Table 6.5). The AFP-RSBS is focused on the military which is just part the about 500,000 uniformed services (members of the Philippine National Police, Bureau of Fire Protection and Bureau of Jail Management and Penology are not covered).⁴ Assuming that 6% of the 89.5 million Filipinos in 2007 are age 60 and above, pensioners comprise only 28% of the elderly population. SSS alone covered 75% of the 2007 labor force and 23% of the elderly pensioners. Its compliance rate, however, is a low 31% (Table 6.6).

SOCIAL SECURITY SYSTEM

The SSS was created pursuant to the Social Security Act of 1954 (RA 1161). It currently provides retirement and sickness benefits to private sector employees, including self-employed and Overseas Filipino Workers. It also administers the Employee Compensation program for private employees.

The SSS is directed by a Social Security Commission, composed of nine members – the Secretary of Labor and Employment, the President of SSS, three representing workers, three representing employers, and one representing the public. The President of the Philippines appoints the public representative and designates the Chairman of the Commission.

Table 6.5 2007 coverage of major mandatory Defined Benefit programs ('000)

	<i>SSS</i>	<i>GSIS</i>	<i>AFP-RSBS</i>	<i>Total</i>	<i>Labor force</i>	<i>Ratio (%)</i>
I. Covered Workers	27,241	1,356	115	28,712	36,213	79
II. Pensioners	1,249	152	102	1,503	Elderly-Age 60+ 5,370	Ratio 28

AFP-RSBS = Armed Forces of the Philippines Retirement Service Benefit System, GSIS = Government Service Insurance System, SSS = Social Security System

Source: SSS Actuarial Department, Bureau of Labor Employment Statistics, 2008 Annual Reports.

Table 6.6 Social security system coverage ('000) and compliance ratios

<i>Year</i>	<i>Labor force</i>	<i>Covered workers</i>	<i>Contributing members</i>	<i>Coverage ratio (%)</i>	<i>Compliance ratio (%)</i>
	(1)	(2)	(3)	(2)/(1)	(3)/(2)
2007	36,213	27,241	8,323	75	31
2008	36,805	27,760	8,573	75	31
2009	38,432	28,218	8,880	73	31

Notes: Contributing members are those with at least one contribution in the given year.

Source: Social Security System 2008 Annual Report, SSS website, Bureau of Labor Employment Statistics, SSS Actuarial Department.

Coverage is compulsory for all private sector employers and their employees who are not over 60 years old, including domestic helpers earning at least P1,000 a month. It also covers self-employed persons, including farmers and fishermen earning at least P1,500.

Coverage is voluntary for: (1) Filipinos recruited by foreign-based employers for work abroad; (2) members separated from employment or ceased to be self-employed but would like to continue paying contributions; and (3) non-working spouses of SSS members. This is also open to locals serving in foreign governments or international organizations in the Philippines, through administrative arrangements.

A member is eligible for optional retirement upon reaching 60 years of age, or is separated from employment or has ceased to be self-employed, and has paid at least 120 monthly contributions prior to the semester⁵ of retirement. A pension is suspended if he becomes gainfully re-employed or resumes self-employment, and mandatory coverage is continued until reaching compulsory retirement age 65. If not eligible for pension upon reaching retirement age, his total contribution is refunded with interest.

The Basic Monthly Pension (BMP) is the highest of

- 1 P300 plus 20% of the average monthly salary credit (AMSC) plus 2% of the AMSC for each credited year of service (CYS)⁶ in excess of 10 years;
- 2 40% of the AMSC;
- 3 P1,200 for those whose CYS exceed 10 years but less than 20 years, and P2,400 for those exceeding 20 CYS.

The AMSC is equal to the sum of monthly salary credits (MSC) over the 60-month period immediately preceding the semester of contingency divided by 60, or of all MSC over the full membership period divided by the number of calendar months of coverage up to the semester of contingency, whichever is higher.

Each child below age 21, not exceeding 5, is entitled to a monthly pension equal to 10% of BMP (minimum of P250) until he reaches 21 years of age, marries, obtains employment and earns at least P300 a month, or dies. Physically incapacitated children are entitled to pension for life. Upon the retiree's death, his primary beneficiaries are entitled to 100% of the monthly pension. Pensioners also receive a thirteenth month pension, a practice that has continued since its introduction in 1988. The MSC ceiling is P15,000.

GOVERNMENT SERVICE INSURANCE SYSTEM

The GSIS was created by Commonwealth Act No. 186 (14 November 1936). It currently provides retirement benefits, compulsory life insurance, optional life insurance, disability benefits for work-related contingencies and death benefits to government employees. Other laws allowed it to administer the General Insurance Fund covering government assets and properties, the separate retirement plan for the judiciary, and the Barrio Officials Insurance Fund. The governing and policy-making body of the GSIS is the Board of Trustees whose members are appointed by the President of the Philippines.

Retirement benefits vary depending on the applicable legislation at the date of entry of the member. The most recent 1977 amendment, RA 8291, provides the following benefits:

- A member at least 60 years of age and with at least 15 years of service is eligible for retirement. He must not be a permanent total disability pensioner.
- The BMP is computed as: (a) 37.5% of the Revalued Average Monthly Compensation (RAMC); (b) plus 2.5% of RAMC for each year of service in excess of 15 years, where (i) RAMC is equal to the Average Monthly Compensation (AMC) + P700; and (ii) AMC is equal to total compensation received prior to retirement/death/disability/separation divided by (i) the number of months member received such compensation, for service of less than 36 months or, (ii) divided by 36, for service of 36 months or more.
- The retiree may opt for: (a) a lump sum equivalent to 60 months of the BMP payable at the time of retirement, and monthly pension for life if he outlives the five-year guaranteed period or (b) a lump sum equivalent to 18 times the BMP plus BMP for life payable immediately but with no five-year guarantee.
- When a member or pensioner dies, the beneficiaries shall be entitled to survivorship benefits consisting of (1) the basic survivorship pension which is 50% of the BMP and (2) the dependent children's pension not exceeding 50% of the BMP as long as they are qualified.
- If a member dies while in service with at least three years of service, the survivorship benefit is given to his beneficiaries plus a lump sum payment equal to 100% of the AMC for each year the member has paid

contributions but not less than Php12,000. The same benefit is given, except the lump sum, if (a) the member dies while in service with less than three years of service, or (b) if the member was separated from service but has rendered at least three years of service at the time of his death and has paid 36 monthly contributions within the five-year period immediately preceding his death; or has paid a total of at least 180 monthly contributions prior to his death.

- In the absence of primary beneficiaries, the secondary beneficiaries receive a lump-sum payment. In their absence, the legal heirs shall receive the benefit.
- If an old age or disability pensioner dies after the five-year guaranteed period, only his primary beneficiaries receive the survivorship pension for as long as they are qualified. If death occurs within the guaranteed period, his primary beneficiaries receive either the remaining BMP of the guaranteed period, or its converted lump sum. Thereafter, they receive the basic survivorship pension for as long as they are qualified.
- A retiree aged 60 years, who has not rendered 15 years of service but has at least three years of service, will be given a lump-sum equal to 100% of AMC for every year of service.

The monthly compensation (MC) ceiling of P16,000 was lifted effective 1 January 2003.

ARMED FORCES OF THE PHILIPPINES RETIREMENT SERVICE BENEFIT SYSTEM

The AFP-RSBS was established by Presidential Decree (PD) 361 in 1973. It was authorized under PD 1656 (21 December 1979) to manage the military pensioners' fund, which was intended to grow to a point of self-sufficiency, and eventually take over from the government the responsibility of providing the military retirement and separation benefits. Markedly successful for the first 20 years of operation, its assets dropped steadily as the program became burdened by bad investment policies. It was declared bankrupt and ordered closed on December 2006. The government has assumed pension payments due to soldiers until a new pension system has been set up by law. The program provides retirement and separation benefits to members of the Armed Forces, covering almost 120,000 contributors and roughly 97,000 recipients.

Retirement is compulsory upon reaching 56 years of age or completion of 30 years of service, whichever comes later, but receipt may not be postponed beyond age 60. At least 20 years of active military service is required to qualify for retirement, death and disability benefits.

The old age benefit is a gratuity payable either in: (a) one-time lump sum equal to one month of base and longevity pay of the next grade higher than the permanent grade last held by the military personnel multiplied by the number of service years; or (b) monthly income equal to 2.5% of monthly base and longevity pay of next higher grade for each year of active service, limited to 85% of the

compensation. At least one-month contribution is required to be eligible for separation benefits.

The member's 5% contribution to the Provident Fund is refunded with interest upon retirement/separation. This interest rate credit/'grant' is dictated by a 'policy' of the Board of Trustees. Set at 4% per year from 1992 to 1995, interest rate from 1996 to the present is 6% per year.

In case of death of a military officer of enlisted personnel, his spouse will receive survivorship benefits equal to 75% of his monthly retirement income. Upon the death or remarriage of the spouse, this passes on to dependent children at 50% of the pension.

6.2.2.2 Portability of benefits

Portability arrangements for long-term benefits (retirement, disability and death) exist between the Philippines and countries which it had forged social security bilateral agreements, which include Austria, Belgium, Canada (including Quebec), France, Spain, Switzerland and the United Kingdom.

The Limited Portability Law (RA 7699, enacted May 1994) provides for the totalization of workers' creditable services or contributions of the SSS and GSIS for members who do not qualify for pension benefits under the laws of at least one of the programs. Payment is in proportion to contributions paid to each of these programs, with overlapping periods of coverage credited only once.

6.2.3 Third pillar: mandatory defined contribution programs

6.2.3.1 Pag-IBIG fund

The Home Development Mutual Fund was established by PD 1530 (11 June 1978) to provide for a voluntary provident fund primarily for savings generation and mobilization as well as for financing decent and affordable housing to Filipino workers. These funds were transferred from the GSIS and SSS to the National Home Mortgage Finance Corporation National Home Mortgage Finance Corporation and merged through Executive Order 538 under what is now known as the Pag-IBIG fund. Pag-IBIG became a corporation independent of National Home Mortgage Finance Corporation by virtue of PD 1752 (14 December 1980) that made membership in the fund compulsory. Made voluntary again in 1987, it finally became mandatory effective 1 January 1995 by virtue of the Pag-IBIG Universal Coverage Law (RA 7742).

Membership is mandatory upon all employees covered by the SSS and GSIS with monthly earnings of at least P4,000 and voluntary upon those earning less than P4,000 and non-earning spouses of members. Membership is also voluntary under the Pag-IBIG Overseas Program to overseas Filipino workers, resident immigrants and naturalized citizens.

Pag-IBIG benefits consist of the accumulated contributions (employee and employer shares) during the member's working lifetime plus tax-free annual

dividends depending on the income of the fund. These are guaranteed by the government.

A member is qualified to receive benefits upon:

- Membership maturity: optional upon completion of 20 years of active membership for members registered under PD 1752. On those under RA 7742, partial withdrawal of savings is allowed after 10 or 15 years of continuous membership, provided there is no outstanding housing loan with the Pag-IBIG fund.
- Old age: mandatory for members upon reaching age 65. Optional at age 45 when retired from a separate employer provident or retirement plan, otherwise at age 60.
- Withdrawal of savings: Allowed prior to the required maturity period or retirement age, on account of member's permanent departure from the country, permanent total physical disability, insanity, termination from service by reason of health, or death.

Members contribute 1% of their MC if earning less than P1,500 a month, and 2% if earning P1,500 or more. Employers contribute an additional 2% of the MC of each covered employee in both categories. The MC ceiling is P5,000. The benefits are portable. As of December 2009 Pag-IBIG covered 7,470 million members.

6.2.3.2 Republic Act 7641

Also known as the Retirement Pay Law amending Article 287 of PD 442 Labor Code of the Philippines, RA 7641 (9 December 1992) mandates private employers to provide a lump sum retirement pay equivalent to at least one-half month salary for every year of service for employees who have served at least five years upon reaching retirement age 60 to 65, in the absence of any retirement plan in the establishment that could give superior benefits than provided for in the Act. The fraction of at least six months is considered as one whole year.

The term 'one-half month salary' means 15 days plus one-twelfth of the thirteenth month pay and the cash equivalent of not more than 5 days of service incentive leaves. The benefit is not portable. Payment becomes the responsibility of the last employer of the retiring worker.

6.2.4 Fourth pillar – voluntary programs

6.2.4.1 Personal Employee Retirement Accounts (approved 22 August 2008)

PERA provides for individual retirement accounts entitled to 5% tax credit for a maximum annual contribution of P100,000 for individuals and P200,000 for foreign workers. Tax-sheltered employer contributions may also be allowed to fill up this maximum allowable contribution. These are withdrawable without penalty upon reaching at least age 55 with at least 5 years of contribution (except

in the event of death); otherwise the tax credits previously given will be withheld from the proceeds.

The fund may be placed in PERA-approved products offered by accredited financial institutions that include banks, pre-need, mutual funds, and insurance companies. The individual may place his contribution in up to five accounts but within the same institution. These are supervised by the respective regulators of these financial institutions, namely the Bangko Sentral ng Pilipinas (BSP), the Securities and Exchange Commission (SEC) and the Insurance Commission (IC).

6.2.4.2 Tax qualified and non-tax qualified occupational pension plans

Occupational pension plans set up by employers for their employees may also be used as sufficient compliance to RA 7641. Under RA 4917, plans qualified by the Bureau of Internal Revenue (BIR) as reasonable retirement plans are given preferential tax treatment on accrued benefits, namely (1) exemption from imposition of all taxes and (2) not subject to attachment, garnishment, levy, or seizure by or under any legal or equitable process.

Among the requirements for qualification are the presence of written program that covers at least 70% of all officials and employees, non-discriminatory in terms of benefits, and the contribution of the employer, or official and employees, or both to a trust fund. To be entitled to the benefits, the retiring official or employee shall have been employed by the same employer for at least 10 years and is not less than 50 years of age at the time of retirement, except in cases of involuntarily termination due to death, sickness or disability or other valid cause beyond his control.

6.2.4.3 Supplementary pension plans

Other means of accumulating supplementary retirement funds are available through products offered by life insurance and pre-need companies, mutual fund, banks, and other financial institutions.

6.3 Assessment of the Philippine pension system

The predominantly mandatory DB pension system in the Philippines will be assessed in this report on the basis of adequacy, equity, efficiency, and sustainability of the programs.

6.3.1 Adequacy

The key parameter used in evaluating the adequacy of the pension benefits is the replacement rate – the average pension of a group of pensioners as a proportion of the average wage of the group. Table 6.7 shows the ratio of the worker's pension to: (a) actual wages immediately prior to retirement; (b) covered wages, subject to prescribed ceiling; and (c) average nationwide

wages. These were estimated by the author using methodology and assumptions patterned after the Organisation for Economic Co-operation and Development (OECD) model.

Table 6.8 shows the average wage of various categories of workers in relation to the nationwide average.

6.3.1.1 Assessments

- The replacement rates are too high in relation to ‘best practice’ which usually targets 40 to 50% of the average full-career worker’s lifetime.

Table 6.7 Replacement rates of the major mandatory defined benefit systems for various wage levels, based on 12 months pension

Monthly wage levels (P)	1,993	3,986	7,972 (Average)	15,944	23,916	
As % of average wage	25.00	50.00	100.00	200.00	300.00	
Benefit ratios for various wage levels						Ceiling on Wages (P)
SSS						15,000
Actual	120.42	79.34	78.07	72.89	48.59	As % of Ave.
Covered	120.42	79.34	78.07	77.48	77.48	188.16
Relative	30.11	39.67	78.07	145.78	145.78	
GSIS						16,000
Actual	NA	88.20	88.20	88.20	59.01	As % of Ave:
Covered	NA	88.20	88.20	88.20	88.20	200.70
Relative	NA	44.10	88.20	176.40	177.02	
GSIS						No Ceiling
Actual	NA	88.20	88.20	88.20	88.20	After 2003
Covered	NA	88.20	88.20	88.20	88.20	
Relative	NA	44.10	88.20	176.40	264.60	
RSBS						No Ceiling
Actual	NA	85.00	85.00	85.00	85.00	
Covered	NA	85.00	85.00	85.00	85.00	
Relative	NA	42.50	85.00	170.00	255.00	

GSIS = Government Service Insurance System, RSBS = Retirement Services Benefit System, SSS = Social Security System

NA: Not applicable for GSIS and AFP-RSBS as wages are assumed to follow strictly the minimum wage law. GSIS replacement rates are shown before and after the lifting of its last ceiling of P16,000.

Source: Results of author's own model patterned after procedures and assumptions of the Organisation for Economic Co-operation and Development.

Table 6.8 Average basic pay of workers (P)

	2008		2009	
	<i>Daily</i>	<i>Monthly</i>	<i>Daily</i>	<i>Monthly</i>
All Wage and Salary Workers	278.93	6,973.25	287.52	7,188.00
Employed in				
Private Households	123.30	3,082.50	127.20	3,180.00
Private Establishments	269.47	6,736.75	275.89	6,897.25
Government/Government Corp	448.10	11,202.50	460.75	11,518.75
Family Operated Activities	209.40	5,235.00	248.46	6,211.50

Notes: Monthly pay refers to daily basic pay multiplied by 25 days.

Source: Bureau of Labor Employment Statistics.

Average salary (adjusted for wage growth). These appear to be in conflict with the key objectives of the pension system such as ameliorating old age poverty, and constraints, such as the need to ensure long-term fiscal sustainability.

- The absence of ceilings in both the GSIS and RSBS programs results in even higher replacement rates for high wage earners, especially relative to the national average, compared with those of the SSS. This involves government counterpart contribution extending up to the actual salary basis. The same arrangement could not be readily imposed on private sector enterprises, which are expected to generate acceptable rate of returns to the owners. The additional cost of using Philippine workers could even lead to out-migration of jobs to other countries with less costly benefit programs.
- A replacement rate over 100% of actual salary is abnormal in a contributory system, as this would mean that the worker even gets more at retirement than at work. The SSS is already engaged in a social assistance program for a class of workers, who may already be below the poverty line.
- The effective replacement rates for private sector workers could still increase if benefits under RA 7641 are tightly implemented. Because of job mobility and lack of portability, however, the service credits under this benefit could range from his entire work tenure to only five years as only service with the last employer prior to retirement counts. In the absence of a funding requirement on the part of the employer, the worker may not even be able to get the benefit in case of insolvency of his last employer. For example, the additional replacement rate for an average worker with only five years of credited service is estimated at 3%.

- The existing P15,000 ceiling under the SSS program may be considered adequate in relation to the following parameters.
 - The ceiling is about 12 times the 2006 monthly poverty threshold of P1,255 (Table 6.4).
 - The ceiling is also about twice the average nationwide monthly basic pay (Table 6.8). On a sectoral basis, only the average basic pay of government workers exceeds the nationwide average, indicating that a large number of covered private sector workers still earn below average wages.

The ceiling would still need periodic adjustment to keep in pace with economic conditions.

- Both the SSS and GSIS granted ad-hoc pension increases in the past that were even higher than inflation. These increases were frozen by the SSS in 2002 but resumed in September 2006 as implemented reform measures improved the situation.

The GSIS also implemented a policy of fixed 2% annual increases in pensions. Pensioners as of December 2006 are entitled to the increase based on their 2005 monthly pension. Member retirees are excluded from the annual increases and the Christmas cash gift until they have received at least 60% of the regular monthly pension.⁷

Based on the concept of ‘once a soldier, always a soldier’, military pensions are adjusted with any increase in the wages of those in active duty. This is subsidized by the government. As a policy, pension increases should be linked with inflation. Ad-hoc increases not supported by additional revenues endanger the life of the funds.

6.3.2 Equity

Equity may be assessed in terms of value of the benefits received compared to accumulated contributions made on behalf of the workers, as well as in the manner by which the various covered classes are treated relative to each other. The objective of the pension program has to be considered, as in the case of a redistributive DB program where the benefit to contribution ratios are expected to decrease as wage levels increase. The DC program, on the other hand, is expected to result in a one-to-one relationship between benefit and contribution.

Estimated ratios of the present value of benefits at retirement (also known as ‘pension wealth’ in OECD terminology) to the accumulated contributions for the DB programs are shown in Table 6.9. The thirteenth month pension increases the 12 month pension by 8%.⁸ These values will further increase if the survivors’ benefits and the longer life expectancy of the increasing proportion of females are considered.

Table 6.9 Ratios of present value of benefits to accumulated contribution (12 months pension)

Monthly wage levels (P)	1,993	3,986	7,972 (Average)	15,944	23,916	
As % of average wage	25.0	50.0	100.0	200.0	300.0	Ceiling
SSS						15,000
Benefits/contribution	2.4	1.58	1.56	1.55	1.55	
PV benefits/actual wage	14.4	9.49	9.33	8.72	5.81	
GSIS						16,000
Benefits/contribution	NA	0.87	0.87	0.87	0.87	
PV benefits/actual wage	NA	10.55	10.55	10.55	7.06	
GSIS						None after 2003
Benefits/contribution	NA	0.87	0.87	0.87	0.87	
PV Benefits/actual wage	NA	10.55	10.55	10.55	10.55	
RSBS						None
Benefits/contribution	NA	NA	NA	NA	NA	
PV benefits/actual wage	NA	10.16	10.16	10.16	10.16	

NA: Not applicable; PV: present value.

Notes: Multiply by 1.08 for 13 months pension. RSBS is fully subsidized by the government.

Source: Results of author's own model patterned after procedures and assumptions of the Organisation for Economic Co-operation and Development.

6.3.2.1 Assessments

- The GSIS program appears to gravitate more towards equity rather than redistribution. It exhibits equal ratios of benefits to contribution at various wage levels, in contrast to the decreasing ratios under the SSS program.
- The GSIS contribution rate of 21% (9% from employees, 12% from employers) contribution rate is more aligned to benefits, as shown by the 87% benefit to contribution ratio (Table 6.10). On the other hand, there is a big gap between the 10.4% (7.07% from employers, 3.33% from employees) contribution rate and benefits for the SSS, resulting in consistently higher than 100% ratio all wage classes. This contributes to the shorter fund life of the SSS, which would result in a greater burden to future contributors.
- The release of ceilings under the GSIS program favored with additional benefits only those earning beyond the original P16,000 ceiling. It also widened the gap between the public and private sector pension programs. If the GSIS ceiling were restored, the recovered government counterpart contribution could even be used for social assistance programs.

Table 6.10 Breakdown of contributions to the mandatory pension programs (%)

	<i>Private sector firms</i>			<i>Public sector entities</i>		
	<i>Employer</i>	<i>Employee</i>	<i>Total</i>	<i>Employer</i>	<i>Employee</i>	<i>Total</i>
Social insurance contribution	7.07	3.33	10.4	12.0	9.0	21.0
RA 7641 (estimate)	6.00	–	6.0	–	–	–
Employee compensation	1.0	–	1.0	1.0	–	1.0
PAG-IBIG	2.0	2.0	4.0	2.0	2.0	4.0
Total	16.07	5.33	21.4	15.0	11.0	26.0

Notes: Social insurance contribution refers to SSS and GSIS contributions. For RA 7641, previous estimate of 2.5% effective contribution rate was updated to around 6%.

Source: Services Group. 2007. Structural and Governance Reform of the Philippine Pension System. Unpublished report submitted to World Bank.

Members could always channel their extra income to supplementary programs.

- The increasing gap between the pension levels of the SSS and GSIS is noticeable in Table 6.11. Since 2000, the GSIS pension fund has increased its monthly pension benefit by as much as 84%.⁹
- The current use of three or five years average instead of career average in computing pension benefits results in perverse redistribution in favor of the high income group, who usually have steeper salary increases near retirement. For programs without ceilings, near retirement promotions and the use of the monthly base and longevity pay of the next higher grade as the wage base in the case of the AFP-RSBS, could be subject to abuse.
- The granting of various concessionary member loans at below market rates (such as low-cost housing loans, salary loans, etc.) benefits the

Table 6.11 Social Security System and Government Service Insurance System pensioners data

<i>Year</i>	<i>SSS: Pensioners and ave. pension</i>			<i>GSIS ave. pension</i>	
	<i>Male</i>	<i>Female</i>	<i>Total number</i>	<i>Ave. monthly pension (P)</i>	<i>Ave. monthly pension (P)</i>
2007	534,806	714,385	1,249,191	2,962	7,200
2008	572,246	757,977	1,330,223	3,109	7,800
2009	610,872	803,201	1,414,073	3,080	NA

GSIS = Government Service Insurance System, SSS = Social Security System

Source: SSS Actuarial Department; GSIS Annual Reports.

borrowing members, while depressing the rate of return for the non-borrowers. This is the case for Pag-IBIG due to its focus on housing finance, and the GSIS due to its policy of investing a minimum of 40% of its funds in member loans.

- Differences in regulations and taxation of supplementary pension products offered by private financial institutions could result in arbitrage, affecting the competitiveness and growth of similar products offered by different financial institutions. Currently these institutions are regulated by the BSP for bank products, IC for insurance products, Bureau of Internal Revenue for tax-qualification of pension plans, and Department of Labor and Employment for the implementation of RA 7641. For better coordination and consistency of regulation, the idea of a product-based rather than institution-based regulatory environment under an umbrella regulator was brought up by the short-lived Philippine Retirement Income Commission (RIC).

Ideally, the pension system should be taxed at least once. The EEE taxation on the existing Philippine DB system can thus be considered generous compared to the usual TEE and EET options (Table 6.12).

Some developments along this area are the transfer of pre-need industry regulation from SEC to the IC on 4 December 2009 (RA 9829) and the reduction of tax on life insurance, RA 10001 signed into law on 23 February 2010.

6.3.3 Efficiency and governance

Pension institutions may be assessed on how efficiently the programs are administered in accordance with the objectives of the pension programs.

Table 6.12 Tax treatment of pension funds

<i>Institution</i>	<i>Employer's contribution</i>	<i>Employee's contribution</i>
SSS	EEE	EEE
GSIS	EEE	EEE
Pag-IBIG	ETE	ETE
TQPP	ETE	TTE
NTQPP	TTE	TTE
Pre-need Pensions	TTE	TTE
PERA	–	EEE

E = exempt; T = taxed; EEE = exempt contribution, exempt investment income, and exempt pension benefit; GSIS = Government Service Insurance System; NTQPP = non-tax qualified pension plans; Pag-IBIG = Pagtutulungan sa Kinabukasan: Ikaw, Bangko, Industriya at Gobyerno; SSS = Social Security System; TQPP = tax-qualified pension plans.

Notes: PERA taxation added. PAG-IBIG contributions are tax exempt under Section 2.78(B) (12) of Revenue Regulations No. 2-98.

Source: Services Group, 2007. Structural and Governance Reform of the Philippine Pension System. Unpublished report submitted to World Bank.

6.3.3.1 Collection and claims administration

The SSS and GSIS have instituted procedures to improve collection efficiencies and prevent leakages and fraud through the proper claim processing. The low compliance and evasion issues under the SSS need to be addressed, but are less of a problem for the GSIS.

Utilizing various electronic technologies, these pension institutions have significantly improved the quality of services to members and options for remittance of contributions. Automatic debit arrangements with banks facilitated monthly reporting and payments. Electronic services offered by the GSIS to individual members and to employers are ahead of those of the SSS, although it has experienced a slowdown in processing due to some defects in its adopted database system, highlighting the need for contingency planning.

More stringent measures are taken on employers who evade payment or who do not remit the contributions of their members. The SSS required the Annual Confirmation of Pensioners to prevent continued payment to non-existent pensioners while the GSIS required pensioners to appear in person to renew identification cards on an annual basis in order to eliminate ‘ghost’ members. The GSIS also linked creditable years of service only to actual premiums remitted to the GSIS on behalf of the member and conditioned renewal of loans on payment of previous loan balances. While enforcing remittance by government offices, some retiring members whose offices failed to remit their past contributions or loan payments to the GSIS experienced difficulties in claiming benefits.

6.3.3.2 Expense control

The SSS is limited by its charter to an annual operating budget equivalent to 12% of contributions plus 3% of other revenues. As a percentage of contribution, actual expenses were 11.03% for 2007, 9.79% for 2008 and 9.74% for 2009 (Table 6.13). The notes to the 2008 Commission on Audit Report stated that the 2008 administrative of GSIS loading is 6.97%, which is well below the allowable 12% maximum. The allocation of costs to other funds administered by SSS and GSIS could be further analyzed to avoid cross-subsidization.

Table 6.13 Social Security System fund movements

<i>Year</i>	<i>Total contributions</i>	<i>Total benefit payments</i>	<i>Total admin expenses</i>	<i>Reserves</i>	<i>Total investments and other income</i>
2007	61,829.08	60,746.59	6,819.26	243,016.66	17,869.98
2008	68,879.27	67,917.36	6,745.63	225,602.94	29,089.05
2009	72,350.89	72,049.96	7,046.24	265,799.05	23,426.50

Source: Social Security System Actuarial Department.

Holzmann et al. (2000) found that the administrative cost of running the SSS and GSIS is high relative to that of social security systems in other countries. For instance, the operating expense of the pension fund in Malaysia is 2% of total contributions while that of the pension fund in Singapore is 0.5% of total contributions.

6.3.3.3 *Investment performance and governance*

The pension systems invest their funds in accordance with their charters and upon the direction of their respective Boards.

SOCIAL SECURITY SYSTEM

Investment of SSS funds are subject to the following guidelines (Table 6.14). The nominal rate of 7.6% used by SSS in its 2003 valuation aligns with its actual yields shown in Table 6.15.

Table 6.14 Investment limits under the SSS charter

<i>Investment options</i>	<i>Legislated maximum limit (% of investment reserve fund)</i>
Private securities	40
Housing	35
Real-estate related investments	30
Short- and medium-term member loans	10
Government financial institutions and corporations	30
Infrastructure projects	30
Any particular industry	15
Foreign-currency denominated investments	7.5

Source: Actuarial Society of the Philippines Study Notes.

Table 6.15 Social security system—portfolio distribution and yield (P million)

<i>Year</i>	<i>Stocks and equities</i>	<i>Government bonds</i>	<i>Private securities</i>	<i>Real estate and housing</i>	<i>Member loans</i>	<i>Foreign currency loans</i>	<i>Total</i>	<i>ROI (%)</i>
2007	81,032.81	73,999.48	5,321.42	37,348.52	36,550.37	0.00	234,252.60	7.95
2008	41,923.62	91,900.44	7,822.80	36,201.14	40,630.13	0.00	218,478.14	13.82
2009	74,809.95	90,293.00	14,576.11	33,804.80	44,865.05	0.00	258,348.90	9.92

ROI = return on investment

Source: Social Security System Actuarial Department.

GSIS

Except for the minimum requirement of 40% as loans to members the GSIS funds which are not needed to meet current obligations are invested in accordance with rules and regulations prescribed by the GSIS Board of Trustees.

Within certain limits, the GSIS Charter allows investments in: interest-bearing bonds and securities of the national government, domestic banks in the Philippines designated as a depository by the BSP, educational or medical institutions; common and preferred stocks of solvent corporations with a minimum three-year track record of profitability; domestic and foreign mutual funds; real estate properties; short- and medium-term loans to members; and foreign currency-deposits and denominated debts.

PAGTUTULUNGAN SA KINABUKASAN: IKAW, BANGKO, INDUSTRIYA AT GOBYERNO

As a primarily housing finance institution, the bulk of investment of Pag-IBIG is in the housing loans of members. All investible funds after satisfying loan demands are parked in government securities. In 2007 and 2008, the assets of the SSS, GSIS, and Pag-IBIG amounted to 12.95% and 12.30% of GDP at constant prices (Table 6.16).

The huge amount of funds held by the pension institutions could even influence the market. It also requires the availability of suitable investment instruments that meet the safety, liquidity, and yield requirements of the pension funds. A rationale for GSIS in allocating at least 40% of its investible funds in member loans is that these are safer and easier to collect compared with some alternative investment choices like equities. Local stock market investments are also volatile. The drop in stock market prices and the financial crisis took its toll on the returns of the two funds. As a result, the SSS and the GSIS were allowed to invest a portion of their reserve funds overseas in 2007. In early 2008, the GSIS allotted \$1 billion for its Global Investment Program since returns from its investments in local capital markets were not enough.

Table 6.16 Balance sheets of mandatory pension institutions (P billion)

	<i>Social Security System</i>		<i>GSIS Social Insurance Fund</i>		<i>Pag-IBIG</i>		<i>Total</i>	
	2007	2008	2007	2008	2007	2008	2007	2008
Assets	247.737	233.122	410.502	452.440	202.631	227.421	860.870	912.983
Liabilities	4.720	7.519	6.716	8.447	37.743	41.051	49.179	57.017
Reserves	243.017	225.603	403.786	443.993	164.888	186.37	811.691	855.966
Total	247.737	233.122	410.502	452.440	202.631	227.421	860.870	912.983
GDP at Constant Prices							6,647.30	7,423.20
Percentage Share of GDP (%)							12.95	12.30

GSIS = Government Service Insurance System, Pag-IBIG = Pagtutulungan sa Kinabukasan: Ikaw, Bangko, Industriya at Gobyerno

Sources: Commission on Audit Reports, Bureau of Labor Employment Statistics.

The manner of selection and appointment of the members of the boards of government-run pension institutions exposes the institution to political interference, especially in the investment area. Without clear legal fiduciary accountabilities, conflicts between self-interest of the pension administrators and those of the members could arise. One example is the practice of appointing members of the board/officers of the pension system to sit in the boards of business enterprises where funds of the system are invested. Benefits extended by these enterprises in connection with the representation could be misappropriated for personal use and may influence investment decisions.

6.3.4 Sustainability

The sustainability of the pension programs is measured by their actuarially projected fund life. Computed using future fund flows, fund life is affected by economic and demographic factors.

The Philippine mandatory DB systems have been designed initially to be self-sustaining (GSIS contribution rates computed to support projected benefits, SSS fund life expected to last for perpetuity), but are currently partially funded. The impact on sustainability of administrative decisions, such as granting of increases in benefits not supported by contributions, cannot be readily felt in the absence of a transparent link between contribution and benefits. The presence of reserve funds have often been interpreted as a measure of sufficiency, not realizing their long-term purpose. The mechanism of inter-generational subsidy being used to shift to the current members the burden of funding the benefits of past generations of workers could ultimately reach the tolerance limit of members.

Concerns over the sustainability of the DB systems in the Philippines were heightened with the 1999 World Bank report which showed the approaching negative flow of the SSS and GSIS funds and the consequent fund depletion (Table 6.17). The implicit public debt was also estimated at P1.8 trillion in 1999, or about 55% of the GDP. This prompted the adoption of administrative reforms by the pension institutions that resulted in a further extension of the life of their funds.

Table 6.17 Social Security System and Government Service Insurance System fund life projections

	<i>Before reforms</i>	<i>Fund depletion</i>	
	<i>Negative flow</i>	<i>Before reforms</i>	<i>After reforms</i>
SSS	2008	2023	2031
GSIS	2025	2041	2055

GSIS = Government Service Insurance System, SSS = Social Security System
Source: World Bank (1999); Commission on Audit Reports (2008).

In its latest valuation report which considered the effects of its more recent initiatives, the SSS reported another improvement in its fund life from 2031 to 2036.¹⁰ The 2008 GSIS Actuarial Assessment Report also suggested that, if the investment yield of the GSIS can be pegged at 10.70%, its actuarial life would extend beyond 2100.¹¹

6.4 Reform options: the way forward for the Philippine pension systems

The fundamental intent of recent pension reforms in many countries across the world is to provide for income security in old age. Requisite to this goal are (1) savings for old age, (2) affordable retirement schemes, and (3) financially healthy institutions entrusted with these resources. Given a country's savings level, current reform initiatives are directed towards linking contributions more closely to benefits, distinguishing contributory social insurance from social assistance, and strengthening the regulatory framework to protect the interests of all stakeholders. The overriding message is to prevent, if not reverse, the financial deterioration of pension systems and ensure their fiscal soundness instead of waiting for these to fail. The trend in many countries has been to shift to the DC system, or to minimize the DB component.

6.4.1 Some options for pension reform in the Philippines

The following options have been considered for reforming the Philippine pension system:

6.4.1.1 Option 1: Continue with the predominantly DB system but address identified deficiencies

The following initiatives could still be undertaken:

- (a) Harmonize existing mandatory systems, and align benefit structures to result in more equitable treatment of all classes of both public and private sector workers. One option involves the merging of the SSS and GSIS.
- (b) Improve governance by establishing clear legal fiduciary responsibilities and accountabilities on the administrators of the pension programs, improve existing systems for collection and claims administration, and implement stricter internal controls.
- (c) Modify existing benefit formulas to result in lower replacement rates to, say 50% to 60%, relative to actual salary for an average worker (one earning 100% of the average nationwide wage). Undertake periodic reviews of ceilings on contribution and benefits to keep in pace with inflation.
- (d) Change the basis of benefits from the current five-year and three-year average to lifetime average earnings.

- (e) Increase retirement ages; for example, optional from 60 to 65 and mandatory from 65 to 70 to lengthen contribution paying period and shorten the benefit paying period.
- (f) Correct the contribution/benefit imbalance in the SSS and align the GSIS benefits to the same level by restoring the caps on contribution and benefits. This could release to other uses the excess contribution of the government institutions in behalf of the high-income groups, such as additional support for social assistance programs.
- (g) Transform Pag-IBIG into a fully funded DC program. Strengthen the implementation of RA 7641 by requiring funding from employers and adding portability provisions. Ultimately consolidate all DC like programs.
- (h) Continue adjustment of retirees' pensions under a more systematic manner linked to changing economic parameters rather than done on an ad-hoc basis.
- (i) Review extra benefits such as thirteenth month pensions such that these could be linked to performance indices, or easily reduced if needed to strengthen the pension fund.
- (j) Utilize investment professionals rather than depend entirely on in-house staff. Options are to have a separate investment board or to pass on the investment function to a separate independent and professional investment institution.
- (k) Continue the initiatives to bring about a level playing field for various forms of pension products through a product-based rather than institution-based regulatory outlook. An independent pension regulatory body is recommended as an umbrella regulator.
- (l) Establish a unified database among various pension institutions.

The major challenge in aligning the existing DB programs arises from the fact that these operate independently of each other and require legislation on any change affecting their charters.

6.4.1.2 Option 2: Shift totally to a mandatory DC system, based on either the Chile model or the Singapore model

This structural change will pass on more of the risk to the individual members under a more equitable form of pension system. It could empower members to have choices in investing their funds according to their risk appetite.

With its limited experience on small and fragmented DC-like systems, the Philippines still has to develop the necessary infrastructures needed to successfully run an exclusive mandatory DC system – either through the use of private fund managers as in the case of Chile, or through the government as in the case of Singapore. Another consideration is the maturity of the investment markets and the availability of suitable investment instruments that will ensure the desired buildup of the pension fund while minimizing risk to its members.

Coordination among the various regulatory authorities responsible for the different accredited providers of pension products will ensure consistency in the handling of these identified funds. Ideally, these should be under an independent umbrella regulator. A common/unified database to facilitate administration and tracking of these portable, tax-advantaged funds is also needed.

At the moment, the PERA voluntary system could be viewed as a means to provide this learning experience on a limited scale. Ultimately, a redefined Pag-IBIG and other existing DC-like programs could be consolidated into an expanded mandatory DC program. As government has other priorities that could affect investment decisions in a government run DC program, it may be advisable to use private fund managers.

A drastic shift to this system is expected to face a lot of hurdles for a democratic country like the Philippines which is already accustomed to DB programs, especially with the existence of organized labor groups. The government will also have to recognize its implicit public debt on the accrued rights of the members, which has not been as transparent under the current DB system. Recognizing this is full or in part through either a notional DC mechanism or outright transfer of funds to the new DC system could result in a visible strain in the country's fiscal position. Means of converting lump benefits into pensions are also needed.

6.4.1.3 Option 3: Adopt a hybrid system, with the targeted replacement rate provided by a reduced mandatory DB component that only meets the basic pension requirements and an enlarged mandatory DC program that fills the difference

Unlike in Option 2, the guarantees under the DB programs (modified under Option 1) still continue in reduced form. A combined replacement rate just enough to meet the 'needs' of the retiree under the mandatory programs leaves room for supplementary programs to provide his 'wants'.

The target replacement rate may be set by the policymakers by adopting both a floor and ceiling for the benefits that may be related to parameters such as minimum wage or nationwide average wage. The DB component could be targeted to provide the very basic requirements of the retiree, while the DC contributions could be initially set such that even under a conservative investment yield assumption this would still meet the targeted combined replacement rate, subject to future adjustments. Any excess amounts released from employees' current contribution could be channeled to supplementary programs while savings from the reduced subsidy of the government could revert to general revenues that may be used to support programs for the elderly poor.

The hybrid program is the more favored option in a previous initiative towards reforming the Philippine pension system under the short-lived Presidential Retirement Income Commission (RIC) created under Executive Order No. 91 (6 April 1999). A basic architecture (Table 6.18) was agreed to serve as a guide for aligning the short-term reform initiatives and prevent their divergence from the long-term goals. Because of changes in government and the subsequent lack

Table 6.18 Basic architecture of the proposed Philippine retirement income system

<i>Some issues to be addressed</i>	
<p><i>Pillar</i></p> <p>Pillar 1 – Subsistence w/means test for aged poor, out of budget</p>	<ul style="list-style-type: none"> • Design of means tested program • Affordability on sustained/continuous basis • Delivery infrastructure
<p>Pillar 2 – A universal basic defined benefit system for public (including civil service, military, judiciary), and private employees guaranteed by government under one institution with either:</p> <ul style="list-style-type: none"> • relatively risk free(i.e. primarily government securities) portfolio, primarily managed in-house; • a more diversified portfolio (government securities, blue chips, and prime asset backed securities), with out-sourced competitively chosen private institutional fund managers. 	<ul style="list-style-type: none"> • Insurance function of the GSIS • Off loading of minimum pension guarantee • Target replacement rate and division between Pillars 2 and 3 • Transition cost of shifting from current structure (SSS and GSIS) to merged institution, implementing strategy for convergence • Alignment of contribution rates and benefits • Integrating RSBS, judiciary system with this merged institution • Defining investment guidelines: prudent man rules OR direct portfolio regulation
<p>Pillar 3 – A mandatory defined contribution system, with centralized collection but allowing contributors to select (with option to change) fund manager and portfolio mix among accredited and regulated fund managers (which may include pension products to be offered by existing institutions like banks, insurance companies mutual funds, pre-need, etc.) with safeguard mechanisms</p>	<ul style="list-style-type: none"> • Absorb Pag-IBIG into the third pillar merged institution • Absorb RA 7641 • Portability • Develop viable housing finance system including a secondary mortgage institution

EET = exempt exempt tax, GSIS = Government Service Insurance System, Pag-IBIG = Pagtutulungan sa Kinabukasan: Ikaw, Bangko, Industriya at Gobyerno, RSBS = Retirement Service Benefit System, SSS = Social Security System, TEE = tax exempt exempt

Source: Presidential Retirement Commission (RIC) unpublished reports.

of funding, however, the work of the RIC eventually lost the continuity needed for reforms.

The hybrid program was intended to offer a ‘hedged’ product that reduced the risk of fiscal sustainability, preserve the certainty of benefits under the smaller DB program, and provide an expanded DC program that allows the individual to choose his preferred risk/reward characteristics of his investments, thus reducing non-compliance and encouraging higher participation.

6.4.2 Options on coverage of the aged poor

Possible options for systematically covering the elderly poor are (1) minimum pension, (2) means-tested benefit, and (3) uniform (flat) benefit for all.

The problems with each option are:

- A minimum pension discourages contributions if reduced for retirees with contributory benefits.
- Means-tested benefits for those with low incomes are hard to administer (expensive, targeting issues, bribery). This also discourages work and saving even if such opportunities exist.
- Flat benefits for all are expensive but can be made cheaper by keeping a high eligibility age (>70), and clawing back from the rich through income tax.

Residence-based non-contributory ‘social’ or ‘universal’ pensions funded from general revenues may be considered as an alternative or as a complement to contribution-based pensions. This should be evaluated as this may not be feasible or affordable unless carefully targeted. The newly approved Senior Citizens Act of 2010 could be a modest start towards this end.

6.4.3 Current state of debate

- With the short-term problems of the country still to be addressed, the current focus on reforming the system is more on the governance side. The recent investigations on questionable handling of funds involving government owned and controlled corporations highlight the need for accountabilities to safeguard the financial viability of pension institutions. The current initiatives on pension reform may be viewed as ‘putting the existing pension house in order’. Reform efforts involving structural changes and needing legislation are still to be undertaken.
- Having operated independently of each other for a long time, the gap between the public and private sector programs has widened. Integration of the GSIS and SSS has been suggested.
- The creation of an independent umbrella pension regulator has also been considered to oversee the operations of the various pension funds and level the playing field for pension institutions. Existing models like the Australian

Prudential Regulation Authority or the Pension Regulators in UK may be modified to suit local conditions.

Pension reform almost always involves painful and unpopular options, such as decreases in benefits or increases in contributions. Strong advocacy and political will on the part of government are thus required to push any reform process.

Notes

- 1 Paderanga (2010).
- 2 Average Exchange Rates. 2007: US\$1 = P46.1484, 2008: US\$1 = P44.4746, 2009: US\$1 = P47.6372. BLES - Current Labor Statistics.
- 3 National Statistical Coordination Board.
- 4 The Services Group (TSG, 2007).
- 5 Semester: a period of two consecutive quarters ending in the quarter of contingency.
- 6 Prior to 2002, at least 6 months of service was considered one CYS but subsequently redefined as proportionate to the actual number of monthly contributions.
- 7 GSIS 2008 Annual Report.
- 8 The mandatory thirteenth month pay to workers is not subject to tax or contribution to the pension systems, and could not thus offset the effect of the thirteenth month pension of the retiree.
- 9 GSIS 2008 Annual Report.
- 10 Commission on Audit Report (2008).
- 11 GSIS 2008 Annual Report.

References

- Actuarial Society of the Philippines Study Notes (2010) 'Chapter 3: Provisions of the Social Security Program', pp. 21–61.
- Asian Development Bank (2009) *Pension at a Glance 2009*.
- Bernardo, Corazon de la Paz (2009) Ensuring Transparency and Good Governance: The SSS Experience. Speech delivered at the Forum of AIM, November, Manila.
- Bernardo, Romeo L. (2000) Concept Paper on a Reformed Mandatory Retirement Program. Presented at the CSTF meeting, December 8, 2000, Manila.
- Bureau of Labor Employment Statistics (2009) Current Labor Statistics. Available at: <http://www.bles.dole.gov.ph>.
- GSIS (2008) Annual Reports.
- GSIS (2007–2008) Audit Report.
- GSIS (2008) Financial Statements.
- Holzmann, Robert, Ian McArthur and Yvonne Sin (2000) Pensions Systems in East Asia Challenges and Opportunities. *Social Protection Discussion Papers Series 0004*. Washington DC: World Bank.
- Manasan, Rosario (2009) Social Insurance in the Philippines: Responding to the Global Financial Crisis and Beyond. *Discussion Paper Series No. 2009–23*. Philippine Institute for Development Studies.
- National Economic Development Authority (NEDA) 'Medium Term Philippine Development Plan 2004–2010'.
- National Statistical Coordination Board (2010) Poverty Estimates for the Basic Sectors. Available at: <http://www.nscb.gov.ph/poverty>

- OECD Korea Policy Centre (2009) *Society at a Glance – Asia/Pacific Edition*.
- Organisation for Economic Co-operation and Development (2008) *Pensions at a Glance. Public Policies across OECD Countries*. OECD.
- Paderanga, Cayetano (2010) Philippine Urbanization in the Medium Term.
- PAG-IBIG (2008) Annual Report.
- PAG-IBIG (2008) Audit Report.
- PAG-IBIG (2008) Financial Statement.
- Presidential Retirement Income Commission (2002) Towards a Blueprint for Reform of the Philippine Retirement. Unpublished report, archived at the Department of Finance.
- Presidential Retirement Income Commission (2000) Concept Paper on a Reformed Mandatory Retirement Program. Unpublished report, archived at the Department of Finance.
- Reyes, Ernesto (2002) The Philippine Retirement Income System – An Overview of Its Development, Emerging Problems and Issues, and Ideas on Reforms. Presented at ADB Briefing, January, Manila.
- Services Group (2007) Structural and Governance Reform of the Philippine Pension System. Unpublished report submitted to World Bank.
- SSS Actuarial Department (2010) Data on Social Security System. Courtesy of Mr Rizaldy Capulong.
- SSS (2008) Annual Report.
- SSS (1999, 2007–2008) Audit Report.
- SSS (2008) Financial Statement.
- Terada-Hagiwara (2009) Explaining Filipino Households' Declining Savings Rate. *ADB Economics Working Paper Series No. 178*.
- United Nations Population Division (2008) World Population Prospects, the 2008 Revision Population Database. Available at: <http://esa.un.org/unpp>
- Verceles, Natalie and Ofreneo Rosalinda (2009) The Social Security System, Compliance and Accountability Issues. Policy brief on social security, May.
- Virola, Romulo (2006) 2006 Official Poverty Statistics in the Philippines. Presscon presentation.
- World Bank (1994) *Averting the Old Age Crisis: Policies to Protect the Old and Promote Growth*. New York: Oxford University Press.
- World Bank (1995) *Philippines: an Agenda for the Reform of the Social Security Institutions*. Report 13400-PH. Washington DC: World Bank.
- World Bank (1999) *The Retirement Income System: Strengths, Weaknesses, and Direction for Reform in the Philippines*. Washington DC: World Bank.
- World Bank (2008) *Philippines at a Glance 2008*. Washington DC: World Bank.
- World Fact Book* (2008, 2009) Available at: <https://www.cia.gov/library/publications/the-world-factbook>.

7 Singapore

Pension system overview and reform directions

Mukul G. Asher and Amarendu Nandy

7.1 Introduction

In the city state of Singapore's evolution from a low middle-income country when it became a republic in 1965 to an affluent country by the first decade of the 21st century,¹ a consistent characteristic has been its business location strategy. It has pursued this strategy skilfully to benefit from global trade, technology, investments, and manpower flows. In the process, it has developed significant economic partnerships with key economies and regions around the world. The main elements of the location strategy pursued by Singapore may be characterized as follows.

Keeping wage goods (including housing) affordable for the average worker; constant upgrading of infrastructure and human resources; low transaction and hassle costs; nimbleness and focus in taking advantage of new opportunities and thwarting possible economic challenges from neighbours and competitors; considerable churning of activities and people; high degree of labour market flexibility; managing the economy essentially as a corporation; tight political control, with promise of continuous improvements in living standards as the primary legitimizing tool; acceptance of inequalities and relative poverty;² and the use of socio-economic and political information as a strategic resource, and not as a public good.

Table 7.1 provides the main macroeconomic indicators of Singapore. Singapore has experienced rapid economic growth, with gross domestic savings exceeding gross capital formation by a substantial margin, resulting in net outflows of around 5% of GDP. It also has been one of the largest recipients of net inward foreign direct investment (12.5% of GDP in 2008). Its exports and imports of goods and services were equivalent to around 450% of GDP, among the highest in the world.

Singapore has a fairly well-diversified economy with manufacturing accounting for 18.4% of GDP in 2009. Aided by fiscal and regulatory regimes, it is also emerging as an important financial centre, particularly in wealth management and foreign exchange trading. The share of labour income in Singapore is lower than the share of capital income. This outcome is due to conscious policy choices.

Table 7.1 Singapore: key macro economic indicators, selected years

	1991	2000	2008
GDP (current US\$ billion)	43.2	92.7	182.0
GDP growth (annual %)	6.6	10.1	1.1
GDP per capita (current US\$)	13,768.2	23,018.7	37,597.3
Gross capital formation (% of GDP)	35.2	33.3	30.9
Gross domestic savings (% of GDP)	45.8	46.9	50.0
Foreign direct investment, net inflows (% of GDP)	11.3	17.8	12.5
Foreign direct investment, net outflows (% of GDP)	1.2	6.4	4.9
Inflation, consumer prices (annual %)	3.4	1.4	6.5
Exports of Goods and Services (bn), 2008	421.1 (231.5% of GDP)		
Imports of Goods and Services (bn), 2008	398.6 (219.1% of GDP)		
Sectoral Share in GDP, 2009			
Goods Producing Industries	26.1		
Manufacturing	18.4		
Construction	6.2		
Utilities	1.5		
Services Producing Industries	69.3		
Budget Surplus, 2003–2007 average, % of GDP	21.4		
Share of Labour Income in GDP, 2008	44.90%		
Share of Capital Income in GDP, 2008	46.40%		

Source: Authors' calculations; World Bank (2010); World Trade Organization (2010).

In a recent report, Singapore's Economic Strategies Committee stressed the need to focus on productivity-driven growth, and recognized that that will require major new investments in the skills, expertise and innovative capabilities of its population and businesses over the next decade.³

The business location strategy has had a major influence on Singapore's social policies, particularly the extensive role of public housing; minimal social safety nets, including absence of social insurance; and a fairly low proportion (between a quarter and a third) of national health expenditure from budgetary sources (Asher and Nandy, 2009).

This chapter focuses on key features, issues and reform options of Singapore's pension system. The mandatory savings scheme, administered by the Central Provident Fund (CPF), is the primary public policy instrument for providing retirement financing. The paper argues that Singapore's insistence on almost solely using the mandatory savings tier to finance retirement is not sustainable since both the effective rate of return and the effective rate of contributions dedicated to retirement is too low, and is further depressed by early withdrawals.

Multi-tiered arrangements will need to be developed to provide retirement income protection commensurate with the expectations of its affluent and rapidly aging society.

The rest of the chapter is organized as follows. The next section (Section 7.2) discusses the demographic and labour market trends. This is followed by an overview of the current pension arrangements in Singapore, including coverage, contribution rates, investment policies and performance in Section 7.3. As the CPF system has over the years become exceedingly complex, a detailed understanding of various schemes is needed to assess its impact. This section also provides a brief overview of the civil service and military pensions. Section 7.4 provides an assessment of the pension system with particular reference to issues of adequacy, equity, efficiency, coverage, and sustainability. Section 7.5 outlines broad pension reform options.

7.2 Demographic and labour market trends

7.2.1 Demographic trends

During Singapore's rise from a low-middle income country to an affluent society, it experienced relatively favorable demographic trends. Singapore's total fertility rate (TFR), defined as the number of children born per woman during her full reproductive period, peaked at six in 1957. Thereafter, it declined steadily to reach a replacement level of 2.15 in 1975. It has been below the replacement level since then. The TFR in 2010 was 1.16 (Singapore Department of Statistics, 2009).

The reasons for low TFR include increasing age at marriage for both sexes; delayed start of families – the median age of citizen mothers at first birth in 2008 was 29.4 – (Singapore Department of Statistics, 2009); societal organization leading to higher proportion of single women (in 2008, 29.4% of citizen females in the age group 30–34 were single), particularly those with tertiary education, and draconian population control measures during the 1960s to the 1980s (Asher and Nandy, 2006).

In recent years, there have been measures designed to induce women to have more children. However, these have been primarily aimed at increasing fertility rates of tertiary educated Chinese women, who are a more challenging target group due to their career motivations.

Singapore's rapid aging will be particularly evident after 2010 (Table 7.2). Thus, the population aged above 65 years, as projected by the United Nations, will increase from about 0.46 million in 2010 to 1.41 million in 2030, an increase of 207% in just two decades (Table 7.2). Life expectancy at age 65, currently at 17.4 years for men, and 20.8 years for women (ROS, Singapore Department of Statistics, 2009) is also expected to rise, thereby posing even greater challenges in managing an aging society. The working-age persons to elderly ratio will decline from 7.7 in 2010 to 2.2 in 2030 and further to 1.8 in 2050. The median age of the resident population in 2009 was 36.9 years, and this

Table 7.2 Indicators of aging in Singapore, 2000–2050

Year	Population aged 65+ medium variant		Population aged 80+ medium variant		Dependency ratio (medium variant)			Working-age/elderly
	(thousands)	(%)	(thousands)	(%)	(Total)	(Child)	(Old-age)	
2000	287	7.2	48	1.2	41	31	10	10
2010	461	10	88	1.9	35	21	13	7.7
2020	871	17.5	153	3.1	43	18	25	4
2030	1411	26.8	291	5.5	69	24	45	2.2
2050	1632	31.3	730	14	78	23	56	1.8

Source: United Nations (2009).

is expected to increase to 53.7 by 2050 (Singapore Department of Statistics, 2009; UN, 2009).

7.2.2 Labour market trends

Singapore's rapid economic growth, and reliance on foreign sources of manpower, has had significant impact on its labour force characteristics. Singapore has relied on foreign manpower at relatively unskilled and semi-skilled end of the labour market. It has set up an elaborate system of classifying different types of labour from abroad, including a foreign worker levy at the lower end of the labour market. It has also mandated ratios of foreign to local workers; and has varied the quota of foreign workers from different countries and in different occupations according to economic conditions. It has varied granting of permanent residency and citizenship flows to maintain a relatively constant ethnic balance in its population.⁴

In 2010, Singapore's total population was 5.1 million, of which 63.4% were citizens, 10.6% were permanent residents, and 25.6% were non-residents; while in 2008, 180,000 Singaporeans, about 5.7% of citizens, were living abroad (Singapore Department of Statistics, various years).

Policymakers have favoured pursuing higher growth, and adjusted foreign manpower flows accordingly. As the work permits and the employment passes are renewable only for limited periods, Singapore is relying on a rotating number of foreign workers who must rely on their home country for their old age. The policymakers appear to have recently become more conscious of the social and political limits to absorption of foreign workers (Chia, 2010).

7.3 Current pension arrangements

The Central Provident Fund (CPF) falls within the purview of the Ministry of Manpower. There is a system of social assistance, but is confined to the indigent.

In 2008, there were 2,890 public assistance cases (Singapore, Ministry of Community Development, Youth and Sports, 2009). The assistance is deliberately kept extremely low.⁵ The government does encourage semi-official welfare organizations to provide social assistance to the destitute.

7.3.1 The Central Provident Fund system

Singapore's CPF system was set up under the British colonial government in 1955. The CPF system is quite complex, due to its multiple roles. It is, for example, the primary mortgage financing institution in the country. The CPF scheme does not contain any social risk-pooling element.

As of 31 March 2010, the total membership of the CPF was 3.31 million, but only 1.66 million or 50.2% were active members (Table 7.3). Active CPF member refers to a person who has at least one contribution paid for him for the current or any of the preceding three months. The active members constituted 55% of the total labour force, but 84% of the resident labour force (Table 7.3). Given that about a quarter of Singapore's labour force is non-resident (i.e. not citizens or permanent residents), the labour force coverage of the CPF may be regarded as nearly universal.⁶ The total number of active employers was 116,000 as at 31 March 2010 (Table 7.3).

Table 7.3 Central Provident Fund – Key Indicators as of 30 March 2010

<i>Indicator</i>	<i>Status (%)</i>
Total number of CPF members	3.31 million (100.0)
Total number of active CPF members	1.66 million (50.2)
Labour Force (2008): total/resident	2.94 million/1.93 million
Active members/total labour force	54.8%; 83.9% (residents)
Active employers	115,708
Total population	4.98 million (100)
Resident population (citizens + PR)	3.73 million (74.8)
Total members balance	\$172.0 billion (100.0) (66.8)
Ordinary account	\$72.8 billion (42.3)
Special account	\$37.2 billion (21.6)
Medisave account	\$47.0 billion (27.3)
Retirement account and others	\$15.1 billion (8.8)

CPF = Central Provident Fund, PR = permanent resident

Notes: At age 55, the Minimum Sum (\$123,000 as of 1 July 2010) is required to be set aside from the Ordinary and Special Accounts of the member in the Retirement Account. If this amount cannot be set aside in cash due to insufficient balances, member's property will be automatically pledged for up to half the Minimum Sum. The Retirement Account thus becomes operative when a member reaches the age of 55.

Source: Calculated from CPF (2009), DOS (2009) <http://mycpf.cpf.gov.sg/Members/home.htm>.

Total balances of members as of 31 March 2010 were \$172 billion,⁷ 66.8% of the 2009 GDP. This indicates a high level of gross retirement savings in relation to GDP. In 2009, the average balance per member was \$52,000, equivalent to per capita income. This is quite inadequate, as an average member will require financing for at least two decades during retirement. The increase in the age at which a member can withdraw the minimum sum in monthly instalments, from 62 to 65 years, will not make additional resources available during retirement.⁸

Although the CPF system was established in 1955, it has only been since 1968 that a variety of pre-retirement asset-accumulation schemes have been introduced (Table 7.4). The schemes have been introduced over time in response to various ad-hoc policy objectives, and have been frequently revised and fine-tuned. The level and changes in contribution rate structure has also been altered accordingly. Traditionally, the CPF contribution rates and their allocation to different accounts have been adjusted in response to the introduction of asset acquisition and other schemes (such as medical savings), and in response to macro-economic stabilization needs.

Table 7.4 Main schemes under Singapore's Central Provident Fund system

<i>Type</i>	<i>Scheme</i>	<i>Year introduced</i>
Home ownership	Approved Housing Scheme	1968
	Approved Residential Property Scheme	1981
Investment	Singapore Bus Services (1978) Ltd Share Scheme	1978
	Approved Investment Scheme (AIS)	1986
	CPF Investment Scheme replacing AIS	1997
	Approved Non-residential Properties Scheme	1986
	Share-ownership Top-up Scheme	1993
Insurance	Home Protection Insurance Scheme	1982
	Dependents' Protection Insurance Scheme	1989
	Medishield Scheme	1990
	Eldershield Scheme	2002
	CPF Life	2009
Others	Company's Welfarism through Employers' Contribution Scheme	1984
	Medisave Scheme	1984
	Minimum Sum Scheme	1987
	Topping-up of the Minimum Sum Scheme	1987
	Loans for Tertiary Education in Singapore	1989
	CPF Top-up Scheme	1995

CPF = Central Provident Fund, PR = permanent resident

Source: CPF (various years).

Table 7.4 provides an overview of the main schemes under the CPF system. Thus, in 1968, when the CPF balances were permitted to be used for public housing for the first time, the rate of contribution was increased from 10% to 13%. When Singapore was growing rapidly during the 1970s and the early 1980s, the contribution rate was raised in a series of steps to 50%. However, during recessions and when the need to increase cost competitiveness of businesses acquires urgency, the rates have been adjusted downwards.

The current contribution rates to the CPF vary with age, and are subject to a wage ceiling (Table 7.5). The proportion of the contributions allocated to a member's different accounts also varies by age. It is noteworthy that the rates decline with age, though the share explicitly allocated for retirement purposes increases moderately till age 55. This suggests that policymakers assign low priority to accumulation of cash balances for retirement. Implicitly, they appear to rely on asset accumulation, particularly on housing, to finance retirement. The CPF contributions (subject to a wage ceiling), income, and withdrawals are free of tax, thus receiving exempt-exempt-exempt tax treatment.

Effective from 1 July 2007, the CPF contribution rate of the employers was raised by 1.5% points to 14.5% for employers, while the rate for employees remained unchanged at 20%, for a total of 34.5% (Table 7.5). There was, however, no increase in the wage ceiling of \$4500 per month.⁹ If such a ceiling remains fixed in nominal terms over a long period, it implies a decrease in the wage ceiling in real terms. This in turn will further adversely impact the replacement rate. The government has proposed to increase the wage ceiling to \$5000 per month effective from September 2011. This is a step in the right direction.

The CPF contributions are channelled to three accounts. Two-thirds are channelled to the Ordinary Account (OA), which can be used for housing and investment schemes. 19% is channelled to the Medisave Account, which can be used for hospitalization expenses and catastrophic health insurance. The remaining 14.5% is channelled into Special Account (SA), which can be used for retirement and other purposes (Table 7.5).

The CPF members are credited with an administered rate of interest. Until 2007, the OA interest rate was calculated based on a weightage of 80% on the 12-month fixed deposit rates and 20% on the savings rates of the major local banks. It is reviewed quarterly to keep up with prevailing market interest rates.

Since 1 January 2008, returns on balances in the Special, Medisave, and Retirement Accounts have been pegged to the 12-month average yield of the 10-year Singapore Government Security plus 1%. To help CPF members adjust to the floating Special, Medisave, and Retirement Accounts rate, the government has announced that it will maintain a 4% floor rate on their retirement account savings for the whole of 2010. Savings in the Special and Medisave Accounts will also earn 4% interest for the first three months of 2010. The 2.5% floor rate legislated in the CPF Act will continue to apply for all CPF accounts from 2011 onwards.

Table 7.5 Central Provident Fund contribution rates, 2010 (with effect from 1 January, 2007)

<i>For private sector, non-pensionable civil servants, statutory board personnel, and permanent residents</i>						
<i>Employee age</i> <i>(years)</i>	<i>Contribution by employer</i>	<i>Contribution by employee</i>	<i>Total contribution</i>	<i>Credited into</i>		
	<i>(% of wage)</i>	<i>(% of wage)</i>	<i>(% of wage)</i>	<i>Ordinary account</i> <i>(Housing and others)</i>	<i>Special account</i> <i>(Retirement)</i>	<i>Medisave Account</i> <i>(Health)</i>
	<i>Up to wage ceiling of S\$4,500</i>	<i>Up to wage ceiling of S\$4,500</i>	<i>Up to wage ceiling of S\$4,500</i>	<i>Share of contribution (%)</i>	<i>Share of contribution (%)</i>	<i>Share of contribution (%)</i>
35 & below	14.5	20	34.5	67	14	19
35–45	14.5	20	34.5	61	17	22
45–50	14.5	20	34.5	55	20	25
50–55	10.5	18	28.5	46	25	30
55–60	7.5	12.5	20	58	0	43
60–65	5	7.5	12.5	28	0	72
Above 65	5	5	10	10	0	90
<i>For pensionable civil servants</i>						
	<i>Up to wage ceiling of S\$6,000</i>	<i>Up to wage ceiling of S\$6,000</i>	<i>Up to wage ceiling of S\$6,000</i>	<i>Share of contribution (%)</i>	<i>Share of contribution (%)</i>	<i>Share of contribution (%)</i>
35 & below	11.3	15	26.3	66	14	20
35 – 45	11.3	15	26.3	60	17	23
45 – 50	11.3	15	26.3	54	20	26
50 – 55	8.3	13.5	21.8	45	24	31
55 – 60	6	9.3	15.3	56	0	44
60 – 65	4.13	5.6	9.8	31	0	69
Above 65	4.13	3.8	7.9	10	0	90

Notes: The information in the above Table applies to employees with monthly wages above S\$750. The above contribution rates are for Singapore Permanent Resident employees after their 3rd year of residence in Singapore.

In 2010 Singapore Budget, The Government announced that the employer CPF contribution rate will increase by 1.0%. This will be implemented in two stages. The first 0.5% increase will be implemented on 1 September 2010, and will be made into the Medisave Account. The remaining 0.5% increase will be affected 6 months later on 1 March 2011, and will be made to the Special Account.

Source: CPF, 2009. Available at <http://mycpf.cpf.gov.sg/Members/home.htm>

The asset side of the CPF balance sheet comprises non-marketable government securities, interest on which is determined *ex-post* as the rate credited to the CPF members (Asher, 2004). These securities constitute the internal debt of Singapore. In 2010, the Singapore's public debt stood at US\$185.1 billion (112% of GDP), implying public debt per capita of US\$37,950.¹⁰ The proceeds from the securities are in effect widely believed to be invested by the Singapore Government Investment Corporation (SGIC). As a Sovereign Wealth Fund, it invests to further Singapore's strategic and commercial interests.

7.3.2 Disclosure and transparency

Statutory provisions are in place so that the operations and investment performance of SGIC (and Temasek, another government holding company) do not need to be disclosed, even to the president of the country or to parliament. In substantive terms, the CPF system therefore lacks transparency and accountability.

Figure 7.1 shows the real rate of return on CPF balances and compares them with the growth rate of GDP and the wage rate. The annual real rates of returns credited to CPF members on their balances (as estimated by the authors from the data provided in the annual reports of the CPF Board) during the 1987–2009 period, averaged only 1.3% (Figure 7.1). The SGIC has publicly announced that it earned annual returns (in Singapore dollars) of 8.2% for the 25-year period

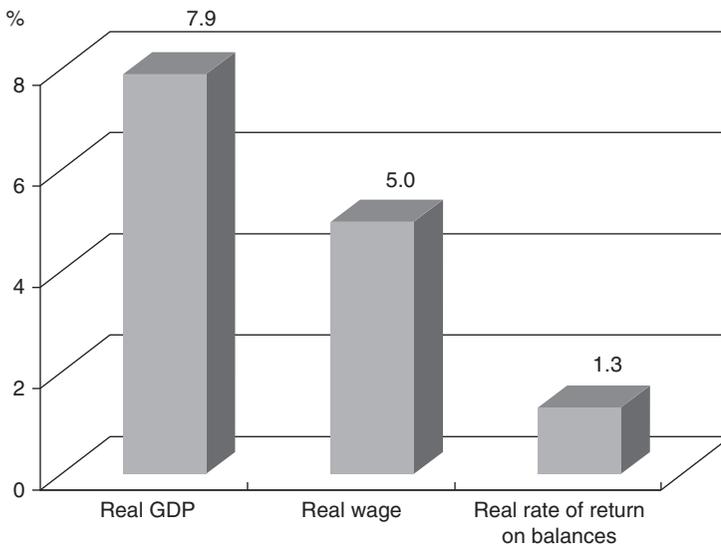


Figure 7.1 Real rates of return on Central Provident Fund balances (1987–2009).

Notes: The Average Annual Compound Growth Rate is calculated using the formula: $r = ((1+rA)^{(1/t)} - 1)$ where, rA = aggregate return over t years (Annual rates are aggregated by taking their product for t years).

Source: Authors' estimates.

ending in March 2006; the inflation adjusted return was 5.3% per annum. The difference between what SGIC has earned and what the CPF members receive is a recurrent annual tax on CPF wealth. It is both large and regressive.

The return on insurance funds that are contracted out to private fund managers was more than twice as high at 2.8%. Both these returns are, however, substantially below what was earned by the SGIC and by international pension funds. Thus, gross real returns on pension funds for the 1994–2002 period in Latin America ranged from a low of 6.6% per annum in Peru to a high of 15% per annum in Uruguay (Gill, Packard, and Yermo, 2005).

It should also be stressed that the returns to CPF members are substantially below the real annual rate of growth of GDP (8.3% per annum) and real annual growth of wages (5.2% per annum) for the corresponding period (Figure 7.1). As the replacement rate reflects the ratio of retirement income to pre-retirement income, higher rate of wage growth compared to returns on balances adversely impacts on the replacement rate.

The large number of pre-retirement withdrawal schemes, enumerated in Table 7.4, has resulted in a substantial proportion of contributions being withdrawn during the same year. During the 1997–2009 period, gross withdrawals to gross contributions ratio was 81.2% implying that the net contribution averaged only 18.8%, equivalent to 1.7% of gross national income (GNI), and 3.9% of gross national savings (GNS) (Table 7.6). If changes in CPF balances are regarded as contribution to national savings, their share as percentage of GNI and GNS averaged 3.8% and 8.1%, respectively (Table 7.6). Thus Singapore's high savings rate (Table 7.1) cannot be explained by the mandatory savings through the CPF system. As indicated in Table 7.1, it is the budgetary surplus which has been the major contributor to Singapore's high saving rates.

Because of the certain characteristics of Singapore's economy, such as lack of common law or constitutional rights to own land, and existence of a monopoly state supplier of housing, the CPF system has dominated residential mortgage financing in Singapore (Asher and Nandy, 2006). As at 31 December 2009, 1.3 million members had withdrawn a net amount of \$91 billion for public housing scheme; the corresponding values for Residential Property Scheme was 0.24 million (members) and \$48.4 billion respectively.¹¹

7.3.3 Main schemes under the Central Provident Fund system

7.3.3.1 Housing schemes

The intimate link between the publicly managed CPF and public housing, a responsibility of another state monopoly, the Housing Development Board (HDB), is quite unique to Singapore. The HDB receives budgetary loans at subsidized rates for construction of public housing and for providing mortgage finance.

Table 7.6 Share of Singapore's Central Provident Fund in Gross National Income and Gross National Savings, 1997–2009

Year	Gross contributions			Withdrawals			Net Contributions			Change in CPF balances		
	Amount	% of GNI	% of GNS	Amount	Withdrawals	% of GNS	% of GNI	% of GNS	Amount	% of GNI	% of GNS	
	(Mn \$)			(Mn \$)			(Mn \$)					
1997	15,873.80	10.8	20.4	11456.5	72.2	3	5.7	7090.8	4.8	9.1		
1998	15,999.80	11.3	21.2	13609.8	85.1	1.7	3.2	5619.4	4	7.5		
1999	12,826.70	9	18.2	12788.6	99.7	0	0.1	3120.1	2.2	4.4		
2000	14,092.80	8.9	19	14555.9	103.3	-0.3	-0.6	1901.4	1.2	2.6		
2001	18,322.30	11.8	27.3	18860.4	102.9	-0.3	-0.8	1922.9	1.2	2.9		
2002	16,165.70	10.2	24	14821.4	91.7	0.9	2	4201.4	2.7	6.2		
2003	15,870.00	10.1	22.6	11816.5	74.5	2.6	5.8	7117	4.5	10.1		
2004	15,320.10	8.7	19.1	10310.3	67.3	2.8	6.2	8334.2	4.7	10.4		
2005	16,105.10	8.8	20.9	11776.1	73.1	2.4	5.7	7913.7	4.3	10.2		
2006	16,547.10	8.1	18.2	14350.5	86.7	1.1	2.4	6016.3	2.9	6.6		
2007	18,185.00	7.7	15.9	11776.1	64.7	2.7	5.7	10783.1	4.6	9.4		
2008	20293.6	8.1	17.2	10966	54.0	3.7	7.9	14721	5.8	12.5		
2009	20186.2	7.8	16.9	10719.1	53	3.6	7.9	15497	6	13		
Average (1997–2009)	16,599.09	9.33	20.07	12,908.25	81.18	1.68	3.94	7,249.10	3.76	8.07		

CPF = Central Provident Fund, GNI = gross national income, GNS = gross national savings

Source: CPF (various years); DOS (various years).

A CPF member may use the CPF balance in the OA to pay the downpayment on public housing (since 1968), and on private properties (since 1981), and on non-residential properties (since 1981), subject to approval of the CPF board (Table 7.4). A member may use future CPF contributions to pay the mortgage payments as they fall due. The CPF board retains a lien on the flat until the mortgage is paid. There is a compulsory mortgage reducing insurance scheme, called the Home Protection Scheme, to protect the families of members in the event of death or permanent incapacity of the main earner while the mortgage is being financed.

As at 30 June 2010, 1.32 million members had withdrawn a net amount of \$93.0 billion for public housing (\$70,450 per member); while the corresponding figure for private residential properties were 0.24 million members and \$48.8 billion (\$203,000 per member) respectively (Central Provident Fund Board, 2010). In 2009, 77% of the 1.2 million dwelling in Singapore were HDB flats, while 16% were private flats (Singapore Department of Statistics, 2009). In 2009, 82% of the population lived in public housing. These figures illustrate the vital role of the CPF (and its intimate link with the HDB) in acting as a dominant mortgage financing institution. This link has contributed to high home ownership;¹² it has also concentrated wealth of CPF members in housing, leaving relatively less for retirement purposes (Asher, 2004; Chia and Tsui, 2009).

7.3.3.2 The Central Provident Fund Investment Scheme

The Central Provident Fund Investment Scheme (CPFIS) introduced in 1986 permits members to structure individually managed investment funds from their OA and from their Special Account (SA). The potential advantages of the CPFIS are that it permits members' choices concerning asset classes, geographical location, and fund managers (whether self or professional managers) in investing their CPF balances. The members exercising the choice thus do not need to rely solely on the administered returns provided by the CPF board, while benefiting from the prudential supervision of the CPFIS by the CPF board. The expectation is that the participation in the CPFIS could potentially result in higher returns to the members while diversifying risk.

There has been substantial liberalization of the CPFIS scheme over the years. As at June 2010, there were 334 funds included as part of the CPFIS, comprising 156 unit trusts and 178 investment-linked insurance products (see <http://www.fundsingapore.com/document/QUR/20100630003.pdf>). Members can currently exercise the option for international diversification, but risks and transactions costs of this option as presently structured remain high. This is due to the relatively low level of financial literacy, and the limited scale and scope of financial and capital markets. The realized profits must be redeposited into the CPF account and therefore cannot be withdrawn. This may give rise to the lock-in effect; that is, individuals may hold on to a particular stock for longer than the optimum time period.

As at 30 June 2010 0.894 million members (27% of the total members) had an investment account¹³ under the CPFIS-OA; while the corresponding number for CPFIS-SA was 0.510 million (15% of the total members). Individual members are permitted to have both types of accounts, so the two numbers cannot be added.

As at June 2010, the total amount invested under the CPF-OA was \$25.8 billion, 36% of the total amount potentially available (\$29,000 per participating member); the corresponding figures for CPFIS-SA being \$7.4 billion, and 37% (\$14,500 per participating member). These figures suggest that only around a third of the CPF members have opened a CPFIS account; and that nearly two-thirds of the balances eligible for the CPFIS have been left unutilized.

Non-transparency of the CPF balances managed by the CPF board (\$172 billion as of March 2010) is in sharp contrast to the wide range of options available under the CPFIS scheme. Given over 330 funds available under the CPFIS, it is difficult to obtain accurate, consistent and comparable data on their expense ratios; that is, management fees, net returns and others. The wide choice of funds is also inconsistent with the insights from the behavioural finance literature that the member participation declines with the number of choices offered. Thus, Sethi-Iyengar *et al.* (2005) found that other things being equal, every ten mutual funds added to 401K plans in the United States in 2001 was associated with a 1.5 to 2.0% drop in the participation rate of the employees; with plans offering less than ten options having significantly higher employee participation rates.

Most of the CPFIS funds are in medium-to-high or higher risk categories, with 82% either pure equity or balanced funds (Koh, Mitchell, and Fong, 2008). Their sales load is around 5% *versus* the 2.1% for income and 0.1% for money market funds (Koh, Mitchell, and Fong, 2008). They estimate the average management fee for sample funds to be 1.3%; and average expense ratio reported by the fund managers to be 1.9. In each case, there are wide variations around the mean. Koh, Mitchell, and Fong (2008) conclude that the CPFIS members 'pay rather high transaction costs for the privilege of accessing the capital market directly'.

Table 7.7 provides average performance of CPFIS funds in Singapore dollar terms. The data suggests that over a three year period ending June 2010, the average performance was 17.68% for all the funds, with Insurance Linked Products (ILPs) performing slightly better than the unit trusts.

Koh, Mitchell, and Fong (2010) report that between 2004 and 2007, 22% of the CPFIS-OA members made net realized annual profits in excess of the guaranteed OA interest of 2.5%; 32% made profits, but of less than 2.5%; while 47% made losses. These are only realized profits and losses. They attribute such poor performance to high investment fees and expenses, limited stock selection and market timing skills. They also found that a high percentage of funds failed to beat the benchmarks. On the positive side, they found that the CPFIS unit trusts have brought about substantial diversification benefits, and during the ten-year

Table 7.7 Average performance of Central Provident Fund Investment Scheme funds as at end second quarter 2010 (% in S\$)

<i>Time period</i>	<i>All CPFIS funds</i>	<i>Unit funds in CPFIS</i>	<i>ILPs in CPFIS</i>
31-03-2010 to 30-06-2010 (three months)	-6.55	-7.27	-5.89
Range (%)	NA	(+ 5.76 to -16.99)	(+3.03 to -22.63)
30-06-2009 to 30-06-2010 (one year)	10.12	10.63	9.66
Range (%)	NA	(+57.13 to -2.47)	(+36.28 to -5.40)
30-06-2007 to 30-06-2010 (three years)	-17.68	-18.28	17.04
Range (%)	NA	(+46.30 to -47.33)	(+10.92 to -55.21)

CPFIS = Central Provident Fund Investment Scheme, ILP = Investment-linked Insurance Product, NA = not available.

Notes: Average performance is calculated by a summation of all returns of funds in the group divided by the number of funds. The performance is therefore not weighted by the proportion of CPFIS balances actually managed by each fund.

Source: Authors' calculations based on data from Lipper (2010).

period ending December 2007, provided average returns which were higher than CPF guaranteed rate of 2.5%.

None of the studies, however, have analysed the actual investment portfolio and performance of the CPFIS members, even on a sample basis. The wide range found in returns obtained by the CPFIS funds (Table 7.7) makes it essential to analyse such member portfolio performance for more robust conclusions. Nevertheless following broad observations on the CPFIS scheme may be made.

First, the average performance of the CPFIS Unit Trust is highly correlated with the stock market results. Second, insurance-linked products have been the preferred vehicle for CPFIS members, perhaps reflecting their strong marketing network. Third, the CPFIS scheme has struggled to contain costs and development consistent and comparable reporting indicators by fund manager. Fourth, the CPFIS has had a limited positive impact in improving retirement income security of the participating CPF members. Fifth, the range of investment returns among the unit trusts and among the investment-linked insurance products has been quite high (Table 7.7). Regular publication of returns obtained under the CPFIS, weighted by the proportion of the amount managed by each approved fund, merits serious consideration of the CPF board.

7.3.3.3 Central Provident Fund: Lifelong Income Scheme for the Elderly

Introduced in September 2009,¹⁴ CPF Lifelong Income Scheme For the Elderly (CPF LIFE) is a deferred annuity scheme, with individuals bearing the cost of

purchasing the annuity.¹⁵ The annuity premiums vary by gender and age, while the monthly payout may be adjusted every year to take into account factors such as CPF interest rate and mortality experience; and hence the lifetime returns are subject to prevailing macroeconomic conditions. The new scheme is similar to the Minimum Sum Scheme (MSS), which provides monthly income during retirement.¹⁶ However, while MSS lasts for only 20 years, the CPF LIFE has been designed to provide returns until death.

Upon a member's enrolment into CPF LIFE (between the age of 55 and 80¹⁷), a portion of the cash savings in his Retirement Account (RA) is set aside as the premium for an annuity. Combined with the remaining cash savings, the member will get a lifelong monthly income from his Draw Down Age, set at age 65. For refundable plans,¹⁸ depending on the member's age when he passes away, his beneficiaries would be able to receive a bequest amount; that is, the remainder of his CPF savings and unused LIFE premium, minus payouts already made. There are various options for the payout phase. For obtaining higher payout during retirement, a member is allowed to make cash and/or CPF top-ups into his RA up to the prevailing MS (currently \$117,000). The payouts are not indexed however. The CPF LIFE is merely rearranging the existing accumulated savings in the RA of the CPF, and even these are reduced due to the cost of arranging annuities, and hence the resources going to the elderly will not increase.

7.3.3.4 Supplementary Retirement System

This was introduced as a voluntary tax-advantaged savings scheme in 2001 for employees only. Since October 2009, employers can also contribute and get tax benefits.

Supplementary Retirement System (SRS) contributions are subject to an annual cap of \$11,475 for Singapore citizens and permanent residents and \$26,775 for foreigners. Contributions are tax-deductible but half of the benefits in retirement are potentially taxable. This can be mitigated by spacing out withdrawals over ten years. The estimates are that about one-third of Singapore's 750,000 individual income taxpayers can potentially benefit, but only around 40,000 have opted for Supplementary Retirement System.

7.3.3.5 Civil service and armed forces pension arrangements¹⁹

Prior to 1986, eligible civil servants were covered under the Pension Scheme²⁰ financed by the government. In 1973, the civil servants were given an option to transfer from the Pension Scheme to the CPF, but relatively few chose to do so. The attempt in 1986 to transfer civil servants to the CPF was effective as it was combined with the discontinuation of the Pension Scheme for most civil servants. A relatively small number of civil servants were permitted to be on the Pension Scheme.

Most civil servants employed after 1986 are covered by the CPF.²¹ Non-pensionable civil servants have the same contribution rates and wage ceiling

as Singaporean citizens and permanent residents employed in the private sector. Pensionable civil servants, however, have lower contribution rates, but a higher wage ceiling of \$6,000 is applied to their contributions. These rates for both pensionable and non-pensionable civil servants are provided in Table 7.5.

Pensionable civil servants on reaching retirement can choose between: (a) a full pension calculated at $1/600 \times \text{annual pensionable salary} \times \text{completed months of service}$; (b) a lump sum payment based on full annual pension $\times 14.2$; or (c) a combination of a lump sum payment and reduced pension for 12.5 years, after which the monthly pension is restored to the full pension. The Pension Fund Act stipulates that the maximum replacement rate should not exceed two-thirds of the highest pensionable emoluments paid to the civil servant. Under option (a) after completing 30 years of service the pension would be 60%; the two-thirds maximum is attained after 33.3 years of service. Effectively civil servants, although nominally participating in the CPF DC scheme as other workers, are being guaranteed a high DB floor, the best of two formulas!

As on 31 March 2005 (the latest year for which data are available) the Pension Fund had assets of \$11.41 billion. The scheme is well funded with pension assets matching estimated actuarial liabilities of \$11.40 billion. The Pension Fund is funded by income earned from its investments, occasional lump sum transfers from the Consolidated Revenue Account of the government, and from monthly transfers. These are not necessarily related to civil service pension deficits. During 2004–2005, the fund earned \$438.8 million (or 4.0%) from its investments. The GDP Deflator was 1.2 in 2005, thus the real rate of return on the pension fund was 2.8%. Data for a more detailed analysis of civil service pension scheme are not available.

Pension arrangements for Armed Forces personnel are governed by the Saver Plan,²² a defined contribution scheme, established in 1998. The value of the accumulated pension benefits at the time of introduction was estimated and transferred into members' accounts. The Saver Fund is also funded by transfers from the Consolidated Revenue Account of the Government, contributions from personnel, and income earned from its investments. The contribution rate for the first six years of service is 13%, after which it is increased to 15%. Members have three options to invest their accumulated balances. The first option is *Stable* (50% in cash and 50% in bonds); the second option *Balanced* (10% in cash, 50% in bonds, and 40% in equities); and the third option is *Dynamic* (10% in cash, 20% in bonds, and 70% in equities). The default option is the *Balanced* plan.

As of 31 March 2005, the Saver Fund had balances of \$1.79 billion, and earned \$42.5 million on the average balances between 2004 and 2005. After taking into account the investment adjustment of \$42.91 million, the Saver Fund investments earned an implicit real return of 4.0% (5.2 in nominal terms). This is in contrast to the real rate earned on CPF balances of 2.0%, and 2.8% on balances in the Pension Fund during the same time period.

7.4 Assessment of pension arrangements

In the previous sections, the coverage of the labour force and the equity aspects have been addressed. The coverage of the CPF approaches universal levels if only the citizens and permanent residents are included. This section therefore focuses on the adequacy of Singapore's pension system, particularly the CPF system, to provide retirement benefits and address longevity, inflation, and survivor risks; and on its impact on equity.

7.4.1 Adequacy

Conventionally, *adequacy* of retirement financing is measured by the combined replacement ratio obtained from all tiers. This ratio may be defined as the value of an annuity during retirement as a percentage of pre-retirement income. The replacement rate at retirement, however, will not be sustained unless the annuity amount is indexed for inflation; that is, unless the inflation risk is addressed.

The longevity risk also needs to be addressed. Accumulated balances at the time of retirement may either be spent too quickly or too slowly during retirement. It is the former that has significance for public policy because if a person is left with too few resources in old age due to longer life, society may need to take the responsibility for provision of adequate income. As women live longer than men on average, but usually have lower exposure to the labour force and earn less than men on the average, gender equity also needs to be addressed.

The CPF does not address any of the three aspects (inflation and longevity risk, and survivors' benefit provision). It does, however, permit members to top-up for their parents and for spouses. These provisions have been made more liberal in recent years. Singapore's reliance on a single-tier of publicly managed mandatory savings to finance retirement ignores the accumulated evidence over the last two decades that such instruments cannot by itself adequately provide for retirement.

Table 7.8 provides the distribution of CPF members by wage and age-group. The following observations may be made from Table 7.8:

- (i) More than 45% of the active members had wage levels below \$2,000; while only one-quarter had wage levels above \$4,000.
- (ii) In the group nearest to retirement (i.e. 45–55 age group), 46% earned below \$2,000, constituting 22% of the contributors.
- (iii) However, as 41.4% of the contributors are in the 30–45 age group, the CPF system is likely to face large withdrawal requirements within a decade. Medium-term cashflow projections are not available however.

A simulation study by McCarthy, Mitchell, and Piggott (2002) suggests that for a base case involving a member joining the CPF in year 2000 under then-prevailing rules, the replacement rate was 28% of the final earnings provided the

Table 7.8 Distribution of Central Provident Fund members by wage and age group

Monthly wage (\$)	Age group				Total
	Up to 30	30–45	45–55	>55	
<999	75,059	60,561	64,832	76,231	276,683
% of total	27.1	21.9	23.4	27.6	17.9
1000–1999	104,950	123,584	88,092	53,809	370,435
% of total	28.3	33.4	23.8	14.5	24
2000–3999	137,655	236,344	101,587	40,573	516,159
% of total	26.7	45.8	19.7	7.9	33.4
>4000	35,390	219,459	94,391	32,333	381,573
% of total	9.3	57.5	24.7	8.5	24.7
All groups	353,054	639,948	348,902	202,946	1,544,850
% of total	22.9	41.4	22.6	13.1	100

Notes: Details may not add up to the total as unspecified category is omitted.

Source: Authors' calculations based on data from CPF Annual Report (2009), Annex J.

withdrawal age were increased from 55 to 62 years. The analysis suggested that lowering of the contribution rates from 40% to 30% will reduce the base case replacement rate to 14%; and if the CPF contribution wage-ceiling is held at \$6,000 per month without any adjustment for inflation, the replacement rate will fall to 17%.

The low replacement rate is a result of design and governance structure of the CPF system which permits substantial pre-retirement withdrawals for asset accumulation and other purposes, and levies high implicit tax on CPF wealth. Chia and Tsui (2003) estimated that CPF mandatory savings is inadequate to meet retirement needs because of late-life medical costs and inflation.

The simulation results by McCarthy, Mitchell, and Piggott (2002), based on favorable assumptions concerning property prices, wage and employment growth, indicate that even if the real rate of return on CPF balances is increased to 5% per annum (thereby removing implicit tax on CPF wealth as a factor), the baseline replacement rate will only increase from 28% to 34%.

Singapore has experimented with converting housing equity into retirement income streams. The main instruments for this purpose are reverse mortgage, sub-letting, downsizing, and a lease buy-back scheme²³. Among these options, due to meagre response, reverse mortgage schemes have been discontinued since 2008 (Chia, 2010).

Singapore has taken several initiatives to encourage labour force participation of elderly workers such as lower CPF contribution rates for the elderly; and proposed introduction of the Reemployment Act in 2012 to facilitate renegotiations between the employer and the employee about the terms and conditions of employment after the formal retirement age of 62 years. The details

of the proposals, including monetary and other assistance by the government for reemploying formally retired persons, are still being considered.

The number of civil service pensioners is relatively small, and declining. It is also well funded and therefore civil service pensions are fiscally sustainable. The Savings and Employee Retirement Plan (SAVER) scheme is well designed. It provides the members with only three portfolio options with different risk profiles; and the investment management is undertaken under the supervision of the Armed Forces Council by professional fund managers on a collective basis. Unlike the CPFIS, the members of the SAVER scheme are not provided with an option to individually structure investment portfolios and extensive choices. As noted in the next section, these design and governance structures merit serious consideration by the CPF board.

7.4.2 Equity

As CPF contributions by the employees are tax exempt, the rate of subsidy varies with the marginal rate of income tax. The individual income tax rates in 2008 ranged from 3.5% to 20.0%; while total number of taxpayers was 28.3% of the labour force.²⁴ Since the labour force includes many high-income expatriates, the share of income taxpayers among citizens and permanent residents is likely to be lower. The implicit tax subsidy therefore is regressive, with the vast majority of CPF members not benefiting from the income tax deduction.

The regressivity is compounded by the implicit tax on CPF wealth which falls disproportionately on the bottom half of the income group. The officially reported annualized rolling 20-year (1981–2009) rate of return in Singapore dollar terms on Singapore Government Investment Corporation's (SGIC) portfolio was 4.4% in nominal and 2.6% in real terms. Assuming that the CPF balances are being managed by the SGIC, the implicit tax on CPF wealth is the difference between what the SGIC has announced as its returns and what is credited to the accounts of CPF members.

Applying the difference between 2.6% and 1.2% real return obtained by the CPF members on balances of \$172 billion as of March 2010, provides a crude measure of the implicit tax on CPF wealth of \$2.4 billion ($2.6 - 1.2 = 1.4\% \times \172 billion). This is equivalent to 25.8% of net contributions in 2008, and 43.6% of interest credited to CPF members.²⁵ This tax is annual and therefore recurrent. As the bottom half of the population is likely to have a disproportionately larger proportion of the wealth in CPF balances than the upper half, the tax is also regressive. In estimating Singapore's household tax burden, this implicit tax should be included.

7.5 Reform directions

Singapore is unique among high-income countries to rely on a single-tier of mandatory savings to finance retirement. Its demographic trends suggest rapid

population aging, particularly after 2010. Aggressive in-migration policies, even if continued, are unlikely to significantly impact aging trends in Singapore. Indeed, as immigrants are already in prime working age, the aging process may speed up if they acquire citizenship in significant numbers.

The CPF system has multiple goals, with the provision of housing and health care finance being most prominent. With rapid aging, retirement financing however must receive high priority. As discussed in the previous section, equity and risk-pooling issues also require reforms.

It is suggested that the focus of pension reform in Singapore should be on improving the adequacy of the retirement benefits; requiring systemic reform of the governance structure of the CPF system; greater willingness to regard socio-economic information, including the relevant data concerning the CPF, as a public rather than a strategic resource; and improving the equity of the pension arrangements.

The following reforms merit serious consideration. First, there is a strong case for policymakers to give higher priority to the retirement objective in the CPF system. The proposed increase in the employer CPF contribution rate directed at Medisave and Special Account is in the right direction; and so is the proposed increase in wage ceiling from \$4,500 to \$5,000 per month effective from September 2011. However, both the contribution rate and the wage ceiling remain below the 2001 levels, at a juncture when the pace of aging is accelerating. Further increases in the contribution rates and the wage ceiling will be needed.

Second, the implicit tax on CPF wealth should be gradually ended. This could be accomplished in several ways. The SGIC, if indeed it is managing the CPF balances, could explicitly acknowledge that indeed it does manage the CPF balances. It could then allocate its annual returns attributable to CPF balances for distribution to members. Alternatively, assuming that the SGIC is managing the CPF balances, it can over a period of five years return the CPF balances to the CPF board. The board could then manage these funds through professional mandates, in the process giving limited choices to members for asset allocation. The life cycle investing could be incorporated in the choices included in the default option. As the SAVER Scheme designed for the Armed Forces which incorporates limited choices to members, and transparent management of investment funds by the Armed Forces Council has already been in operation, the principle of the reform suggested here for the CPF is already well established and tested. This would, however, require much greater independence, professionalism, and transparency on the part of the CPF board and thus a major change in its governance structure. Unless the political leadership accedes to such an arrangement, the CPF will continue to be an inadequate instrument for retirement income security.²⁶

Third, the CPF board should consider providing on a regular basis the status of actual cash balances of CPF members of different socio-economic/demographic characteristics; indicate potential replacement ratios for different groups of members; and make more detailed information available on actual investment

behaviour and outcomes of the members under the CPFIS. At a national level, high-quality policy debates need to be encouraged concerning the different sources from which adequate and sustainable retirement income will be obtained by different cohorts of the elderly.

Fourth, the Medishield, the Eldercare schemes, and the CPF Life, should have social risk pooling arrangements, with benefits provided for life; and at least a limited indexation for inflation. These would be a major change in the current design and philosophy, but would help improve adequacy and equity of these schemes. A nominal sum of benefits, if not indexed, implies continuously reducing real benefits, provided inflation rate is positive.

Fifth, the mandatory savings tier simply can never provide adequate income security in old age for majority of the population. For the lifetime poor, as well as for those who may fall into poverty due to ill health or longer than anticipated life expectancy, social pension financed from budgetary sources is essential. Other high-income countries in Asia such as Australia, Japan, and the Republic of Korea have such social pension schemes. Given Singapore's healthy fiscal balances, social pensions are affordable. The 2011–2012 budget has provided a one-off contribution averaging \$390 to the Medisave account in the CPF to those above 45 years of age, with income up to \$30,000. The budget also marginally increases public assistance schemes. These, however, are not a substitute for a formal institutionalized social pension system.

The constraints in pension reforms in Singapore are not institutional capacity, or fiscal resources, but arise from the mindset of the current policymakers who continue to believe that any significant departure from mandatory savings as almost the only instrument to finance old age will weaken the states' socio-economic and political control, and will make it more difficult to pursue the business location strategy of growth.

There is nevertheless a strong case for greater pension policy contestability in Singapore. Empirical-evidence-based informed debate on better addressing retirement risks is needed. The reform directions outlined above, refined by greater data availability and analysis could provide a sound basis for such a debate.

Notes

- 1 In 2009, Singapore had a total population of 4.98 million; total GDP was US\$182 billion; and per capita GDP of US\$37,597 (World Bank, 2010).
- 2 Based on 2009 Central Provident Fund (CPF) data, Mukhopadhyaya and Venaik (2010) estimate Singapore's Gini coefficient at 0.49. Since their estimates are based only on wage income derived from CPF data, the value of income-Gini will be higher, as capital income disproportionately accrues to higher income groups.
- 3 The full report of the Economic Strategies Committee is available online at <http://www.esc.gov.sg/press/01Feb2010.html>
- 4 As of June 2008, Singapore ethnic composition was as follows: Chinese 74.7%, Malay 14.3%, Indian 8.8%, other communities 2.6%.

- 5 Cash relief is distributed on a per household basis. Its rate varies from \$200 to a maximum of \$570 per month per household (Singapore, Ministry of Community, Youth and Sports, 2006). Thus, the annual amounts per household will vary from \$2,400 to \$6,840. In contrast in 2007–2008 the average household monthly income was \$7,440, or \$89,280 annually (<http://www.singstat.gov.sg/stats/themes/people/hes.pdf>).
- 6 Non-residents cannot participate in the CPF system. There are some exceptions for participation of permanent residents, though most are able to participate.
- 7 Unless otherwise stated all dollars in this chapter refer to Singapore dollars (on 16 February 2011, US\$1 = S\$1.28).
- 8 The minimum sum is the amount people must keep in their retirement accounts after withdrawing their CPF at age 55. Currently, a member may withdraw the minimum sum (as of 1 July 2009 this was \$104,000 in 2003 dollars; \$117,000 after inflation adjustment) at age 65 in monthly installments over a roughly 20-year period.
- 9 The total CPF contribution rate was 36% in 2001, with a wage ceiling of \$6,000, with the employer and employee contributions at 16% and 20%, respectively. The employer contribution was reduced to 13%, for a total of 33% in 2003. The rate and the wage ceiling changes have been undertaken in response to macroeconomic conditions and the perceived need to sustain Singapore's business competitiveness. But these changes reduced resources from the CPF for retirement at the time when the need for more resources is urgent due to demographic trends. Subsequent measures have increased the contribution rates, and wage ceiling, but these remain below the 2001 level.
- 10 Data obtained from <http://buttonwood.economist.com/content/gdc?source=hptextfeature>
- 11 Data obtained from http://mycpf.cpf.gov.sg/CPF/About-Us/CPF-Stats/CPF_Stats_2009q4.htm
- 12 The ownership right however is truncated as there is neither constitutional nor a common law right to own land in Singapore.
- 13 The number of investment accounts which are active (i.e. where investment has been made) is not provided by the CPF Board.
- 14 In February 2008, the Government of Singapore accepted the recommendations of the National Longevity Insurance Committee for the National Lifelong Income Scheme, which was subsequently named 'CPF LIFE'.
- 15 The CPF LIFE scheme is mandatory for CPF members born after 1957 who have at least \$40,000 in their Retirement Account, but is optional for members born before 1957.
- 16 The Minimum Sum Scheme was introduced in 1987 to ensure retirement adequacy. Under the MSS, members are not allowed to withdraw the entire amount of savings at age 55, but are required to set aside a decreed sum to support a basic standard of living during retirement. There are two options to decumulate the minimum sum. It can be deposited with CPF or a bank which pays a regular retirement income from age 62 for 20 years or till the sum is exhausted. The current retirement age is 62, and is expected to progressively increase to 65 in 2012, and then to 67 over several years. Alternatively, the minimum sum is used to buy a deferred life annuity (Chia and Tsui, 2009). With effect 1 January 2009, members ages 55 and above who sell properties brought from the CPF have been required to return the sale proceeds to make up for the Minimum Sum.
- 17 Between September 2009 and December 2010, CPF LIFE is also available for those aged 80 and above.
- 18 There are four LIFE plans, providing different combinations of trade-off between monthly payment and bequest.
- 19 Data on balances, and rate of returns for Pension Fund and Saver Fund were calculated based on the Account General's Financial Statements for the Financial Year 2004–2005, Government of Singapore.

- 20 The Pension Scheme's Fund is governed by The Pension Fund Act (Cap. 224A, 1996 Revised Edition) and is administered by the Ministry of Finance.
- 21 The Pension Act stipulates that no civil servant employed after 1 April 1986, will be covered by the Pension Act except officers who are appointed to such schemes of service designated by the President.
- 22 Renamed as the Saver Premium Fund in 2000.
- 23 See Chia and Tsui (2009) for analysis of these schemes.
- 24 Calculated from <http://www.iras.gov.sg/irasHome/page04.aspx?id=1190>, and [http://www.iras.gov.sg/irasHome/uploadedFiles/About_IRAS/Annual_report/IRAS% 20AR% 20appendices.pdf](http://www.iras.gov.sg/irasHome/uploadedFiles/About_IRAS/Annual_report/IRAS%20AR%20appendices.pdf)
- 25 Calculated from Central Provident Fund Board (2009).
- 26 A simulation study by the Organisation for Economic Co-operation and Development (OECD) estimates that the retirement component of CPF, assuming no pre-retirement withdrawals, and based on OECD's standard assumptions about rate of return, earnings growth etc., would provide net replacement (ratio of pension benefits to individual earnings, net of taxes and contributions paid on earnings and on retirement incomes) of 16% for a median income earner who is male and 14% for females. As international pension benchmark replacement rate is around 66%, this leaves a wide adequacy gap (OECD, 2011).

References

- Asher, M. G. (2004). Retirement financing dilemmas: experience of Singapore. *Economic and Political Weekly*, XXXIX(21): 2114–2120.
- Asher, Mukul G. and Nandy, Amarendu (2006). Health financing in Singapore: a case for systemic reforms. *International Social Security Review*, 59(1): 75–92.
- Asher, Mukul G. and Nandy, Amarendu (2009). Managing prolonged low fertility: the case of Singapore. *Journal of Asian Public Policy*, 2(1): 4–16.
- Central Provident Fund Board (various years). *Annual Report*. Available at: http://mycpf.cpf.gov.sg/CPF/About-Us/Ann-Rpt/Ann_Report
- Chia, Ngee-Choon (2010). 'Asset Based Social Security in Singapore', presented at the 2nd Workshop on Social Security in Singapore at the Economic Research Institute for ASEAN and East Asia.
- Chia, Ngee-Choon and Tsui, Albert (2003). Life annuities of compulsory savings and income adequacy of the elderly in Singapore. *Journal of Pension Economics and Finance*, March: 41–65.
- Chia, Ngee-Choon and Tsui, Albert K. C. (2009). Monetizing housing equity to generate retirement incomes. *SCAPE Working Papers, 2009/01*. Available at: <http://www.fas.nus.edu.sg/ecs/pub/wp-scape/0901.pdf>
- Gill, I., Packard, T. and Yermo, J. (2005). *Keeping the Promise of Social Security in Latin America*. Washington DC: World Bank.
- Koh, Benedict S.K., Mitchell, Olivia S., and Fong, J. (2010). Collective investments for pension saving: Lessons from Singapore's Central Provident Fund scheme. *Pension Research Council Working Paper PRC WP 2010–01*. Philadelphia: Wharton School, University of Pennsylvania.
- Koh, Benedict S.K., Mitchell, Olivia S., and Fong, J. (2008). Cost structures in defined contribution systems: the case of Singapore's Central Provident Fund. *Pensions*, 13(1–2): 7–14.
- Lipper (2010) Second Quarter 2010 Performance and Risk Monitoring Report (for CPFIS-Included Unit Trusts and Investment-Linked Insurance Products). Available at: http://www.lia.org.sg/files/document_holder/CPFIS_Fund_Performance/CPFIS_Q209.pdf

- McCarthy, D., Mitchell, O.S., and Piggott, J. (2002). Asset rich and cash poor: Retirement provision and housing policy in Singapore. *Journal of Pension Economics and Finance*, 1(3).
- Mukhopadhyaya, P. and Venaik, S. (2010). Poverty in Plenty: Old age income security. *Processed*.
- OECD (2011). *Pensions at a Glance 2010: Asia Pacific Edition*. OECD.
- Sethi-Iyengar, Sheena, Gur Huberman, and Wei Jiang (2005). 'How Much Choice Is Too Much? Contributions to 401(K) Retirement Plans', in Olivia S. Mitchell and Stephen P. Utkus (eds) *Pension Design and Structure, New Lessons from Behavioral Finance*. Oxford Scholarship Online. Available at: <http://www.oxfordscholarship.com/pdfs/C638AC175A491BD3860098C3738E4CC11/9780199273393-chapter-5.pdf>
- Singapore Economic Strategies Committee (2010). *Report of the Economic Strategies Committee*. Available at: <http://www.esc.gov.sg/press/01Feb2010.html>
- Singapore Department of Statistics (various years). *Yearbook of Statistics Singapore*. National Printers.
- Singapore Ministry of Community Development, Youth and Sports (1995). The National Survey of Senior Citizens in Singapore 1995. Available at: www.mcys.gov.sg
- Singapore, Ministry of Community Development, Youth and Sports (1999). Inter-Ministerial Committee (IMC) Report on the Ageing Population 1999. Available at: www.mcys.gov.sg
- Singapore, Ministry of Community Development, Youth and Sports (various years). *The National Survey of Senior Citizens in Singapore*. Singapore: MCYS
- Singapore, Ministry of Finance, Budget Statements (various years). Available at: <http://www.singaporebudget.gov.sg/>
- United Nations (2009). *World Population Prospects: The 2008 Revision*. Available at: <http://esa.un.org/unpp>
- World Bank (2010). *World Development Indicators*. CD ROM.
- World Trade Organization (WTO) (2010). Country Profile: Singapore. Available at: <http://stat.wto.org/CountryProfile/WSDBCountryPFView.aspx?Country=SG&Language=E>

8 Thailand

Pension system overview and reform directions

Orin D. Brustad

8.1 Introduction

The spring of 2010 found Bangkok facing the second month of disruptive protests in which different visions of Thailand's future clashed, in a contest with no discernible rules. To an outside observer, it seemed that those groups who were so recently contending in the streets have been at odds for many years in regard to the allocation of political and economic power in the country.

The point of the opening paragraph is to remind us that one who makes observations and suggestions about a society and its legal and economic structures must continuously acknowledge that changes in those structures are only likely to result from a process of accommodation and compromise within the society itself. Reform of pension laws faces particular difficulties in that it often involves disrupting peoples' long-time expectations for their own future (e.g. increasing retirement age).

If one starts with the general goals of national pension systems (to prevent poverty among the elderly and facilitate an adequate post-retirement living standards), most would agree that Thailand's current pension system provides:

- adequate benefits for long-service government workers (who comprise about 3% of the working population);
- some (but inadequate) benefits for formal sector workers (who comprise almost 34% of the working population); and
- seriously inadequate benefits for informal sector workers (who comprise about 63% of the population).

While certain changes to the existing system have recently been proposed – and would begin to address the inadequacies experienced by workers in the non-governmental sectors – the costs of those changes would likely be borne directly or indirectly by employers and employees who face a great variety of other economic pressures. (Directly refers to costs that arise out of the employment relationship while indirectly refers to costs borne by the government but paid by

employers and employees in their capacities as taxpayers.) Competing claims for the economic resources of Thailand are exacerbated by the extent of Thailand's 'shadow economy'.

Widespread inadequacy of pension benefits will become more critical as Thailand's population ages, as it evidently will in the relatively near future:

- Thailand's aging dependency ratio (those 60+ years of age ÷ total population) has increased from 10.7% in 1994, to 14.3% in 2002 and to 16.0% in 2007.
- Its potential support ratio (i.e. those in the labor force who support at least one elderly person), has decreased from 9.3 in 1994 to 6.3 in 2007.
- The percentage of Thailand's elderly population is expected to increase gradually and to exceed 20% in 2023, while the potential support ratio will drop to 2.52 in 2030.
- Thai society is also facing a fertility decline, so in the future there will be some families without any children to provide support.
- Between 1994 and 2002, the proportion of the elderly population who live alone increased from 3.6% to 6.3%. In the most recent 2007 survey (7.02 million elderly persons), the elderly population living alone increased to 7.7%.
- Among all Thai elderly, 31.3% do not have savings or any financial assets, and 34.1% have an annual income of less than B20,000.¹ The 2007 poverty line in Thailand was B1,443 per head per month, or B17,316 per year.
- The main income source for 52.3% of the elderly in 2007 is financial support from children, followed by income from working (28.9%), financial support from spouses (6.1%), pension or savings (4.4%), and income from savings or property (2.9%).
- Among employed persons, 39% do not save, 26% have balanced earning and expenditure, 9% need to borrow in order to make ends meet and 3% have the capability to save but do not (Suwanrada, 2009).

A description and analysis of the principal features of the Thai pension system will be the major focus of this chapter. Thailand's system is not unique in having inadequacies that are easy to identify but cannot all be fixed using available resources. Thus Thailand should establish reform priorities that acknowledge the limitations of the national economy, the need to share costs between regions and generations, the relative responsibility of employers and employees and the other facets of a system that is equitable and just. Several key priority issues are suggested below, but the real challenges in setting priorities are to determine whether A comes before B, and whether A should be accomplished before commencing B?

- Should benefits for both the formal and informal sectors be improved so everyone receives a benefit at least equal to the poverty level and so

benefits for all workers with 30 or more years of working in and contributing to the system are at least equal to 40% of their pay prior to retirement?

- To address the near-term risk of poverty, should a minimum benefit at least equal to the poverty level be financed from the existing national social security system or the national budget?
- To address projected inadequacy of social security benefits, should the current B15,000 wage cap be indexed?
- Should employer and/or employer contributions be increased immediately or should such increases be implemented gradually? (The true cost of the current social security exceeds 11% yet the current contribution rate is 6%, about half that amount.)
- Should there be a freeze on pensions of government employees until private and informal workers have been provided assured means of adequate retirement income?

8.2 Current structure of Thailand's pension system

The statutory law of Thailand provides for a variety of retirement programs aimed at financial support of elderly individuals (primarily those who have discontinued active work). In describing those programs, it is convenient to classify them into the following.

- Programs for those in the 'formal' sector. These individuals work for an employer and receive an agreed wage and also enjoy various social protections such as severance and unemployment benefits.
- Programs for those in the 'informal' sector. These workers are self-employed, have a small family business, are a micro-enterprise or are a casual worker. There is no employer–employee relationship; they are not receiving a wage from a regular employer. Informal sector workers are subject to tax based on their net income, but in the vast majority of cases, that tax is zero. Compensation is frequently paid in cash.

The overall efficacy of the current system is best understood in the context of the following basic population and employment statistics²:

- (a) Thailand had a population of 67.8 million in 2009 of which 14.7 million persons (21.7% of the population) were under the age of 15 while 7.6 million (11.2% of the population) are older than 60.
- (b) Average life expectancy at birth is estimated at 69.9 years for the period 2005–2010 (men 65.7 years; women 72.0 years).
- (c) The number of employed persons in 2007 was 36.9 million, of which 62.7% were in the informal sector.

Programs currently maintained for the formal sector are:

- Old age (or social security) pension (OAP)
- Government Pension Fund (GPF)
- Voluntary Provident Fund (PVD)
- Retirement Mutual Fund (RMF)

Programs currently maintained or proposed for the informal sector are:

- Old Age Act, B500 program;
- Social Security Act, Article 40 (SSO) – does not provide significant benefits;
- RMF – not extensively used by informal workers;
- (Proposed) National Savings Fund (NSF).

8.2.1 Formal sector programs

8.2.1.1 Old Age (Social Security) Pension

The Old Age Pension (sometimes referred to as Social Security) is a mandatory and contributory social insurance system which requires participation by all formal sector employees of businesses which employ one or more employees. Contribution and pension features of the OAP are shown in Table 8.1.

There were 9,182,170 insured persons at the end of year 2007, with an accumulated reserve fund of B307,931 million (Suwanrada, 2009: 50–61). The OAP was designed to provide a replacement rate of approximately 30% of the national *average* wage over the last 60 months for a person who contributes for at least 30 years. Those contributing for the minimum period of 180 months will receive a replacement rate of about 15%.

Under the law, no actual pensions will be payable until the year 2014, with individuals retiring before that year receiving lump sums (Asher, 2000). No survivor annuity is provided under the OAP although there is a small lump sum benefit for surviving family members.

The current investment guidelines for the OAP fund comply with regulations of the Social Security Sub-Committee on investment. In December 2003 (four years after the system began) OAP assets were approximately B117,39 billion. The allocation of investments at that time was as follows (Kanjaphoomin, 2004: 9):

- (a) State enterprises/commercial banks: 23.99%
- (b) Government bonds/government guarantee: 37.17%
- (c) State enterprises bonds: 10.71%
- (d) Equity: 6.72%

The OAP fund is currently unable to make direct investments offshore.

Table 8.1 Pension features

Contribution rate	3% each from employers and workers [a]
Old-age pension eligibility	Age 55 and a minimum of 180 months of contributions and termination of employment. Those with less than 180 months receive only a refund of contributions with interest
Old-age pension benefit formula	Annuity equal to 15% of five-year final average pay after 15 years of contributions and 1% for each additional year of contributions
Minimum pension	Ministerial regulations state that the amount of pension must not be less than a certain minimum pension. This minimum rate is prescribed by SSO based on a consideration of the national economic situation at the time of payment [b]
Pension indexing	There is no automatic adjustment of pensions following retirement
Wage cap	B15,000. Contributions and benefits are based on pay up to the wage cap. This limit has been in place without change since the system began in 1999

Notes: a) According to a recent report, the Social Security Office is considering an increase in the employees' contribution rate to 5% and an increase in the retirement age from 55 to 62 or 63, with the objective of improving the system's long-term financial viability. Kitjakosol (2010).

b) Kanjanaphoomin (2004: 9).

Source: Author's compilation.

6.2.1.2 *Government Pension Fund*³

Prior to 1997, government officers received a defined benefit (DB) pension upon retirement, the amount of which depended on the level of income in the last month before retirement and the number of years worked. The formula used for calculating the monthly pension was:

$$(1/50) \times (\text{level of income in the } \textit{last month} \text{ before retirement}) \times (\text{the number of years worked as a government official}).$$

This pension was financed from the national budget.

The current program, consisting of a budget-financed DB pension plus a defined contribution (DC) accumulation known as the Government Pension Fund (GPF), was established on 27 March 1997 following enactment of the Government Pension Fund Act B.E.2539 promulgated in September, 1996.

The GPF is currently Thailand's largest institutional investor, serving more than one million members. Twelve categories of employees are covered, including civil, judicial and university officials, teachers, police officers, and military officers.⁴

Employees hired after 24 March 1997, are required to participate in the GPF program. Government employees who were employed before the fund's

inception were required to choose between remaining in the pre-1997 DB pension scheme or participating in a combination of:

- a DB component based on a modified formula using compensation averaged over the final 60 months of government service and capped at 70% of average compensation; plus
- accumulations in the GPF.

The DB component (which requires completion of 25 years of service) can be paid either as an annuity or as a lump sum, with additional GPF contributions being credited for those who choose an annuity. Currently, GPF member accounts may only be withdrawn, in one lump sum, upon the termination of membership, which occurs upon retirement or other termination of government service or at the age of 60 or at death. The law does not provide for portability or annuity payments from someone's GPF DC account.

Under the GPF program, government officials contribute 3% of monthly wages and the government contributes 3% of monthly wages. Upon retirement, GPF members receive a traditional pension (under the revised, less generous formula) together with a lump sum retirement allowance. This allowance is based on the value of accumulated contributions which, in turn, was comprised of three to five contribution components, depending on an individual's situation:

- (a) the employee's 3% contributions;
- (b) the government 3% employer contributions;
- (c) 2% of monthly income contributed by the government in addition to (b) (but credited only to those who choose to receive their pension as an annuity);
- (d) lump sum endowment fund (incentive scheme for person who were employed prior to 27 March 1997 and chose to participate in the GPF program); and
- (e) investment returns.

As of September 2008, there were 1,186,691 GPF members. According to its most recent published annual report, the GPF had assets of B391,717 million, reflecting an increase (as compared to 2007) of B16,166 million, or 4%.

GPF members receive generous tax treatment. Member contributions of up to B300,000 per year are tax deductible. The returns on contributions accumulated with the fund are fully tax-exempted. Sums withdrawn after age 50 are tax-free. However, members are not allowed to contribute above the mandatory 3% and their accounts may only be withdrawn at termination of membership. Additionally, the fund offers housing loans from both the member's and the employer's contribution accounts as well as life insurance benefits. The GPF's net rate of return to its members was 9.22% in 2007. In 2008, the corresponding figure was a 5.12% loss.⁵

Before 1997, the replacement ratio received by government employees was around 70% of the last drawn salary (Kanjanaphoomin, 2004: 11). The replacement rate under the new government pension arrangements remains unclear at this stage, but is expected to be comparable to the old system. In addition, those receiving pensions are also eligible to receive survivors' benefits and non-contributory medical benefits until death.

The investment policy for the GPF complies with Finance Ministry rules. There is an Investment Sub-Committee to review and recommend investments to the Board of Directors. The rules state that investment must comprise of more than 60% in low-risk (i.e. credit risk) assets and less than 40% in higher-risk assets. In 2004, the GPF's investment was managed 70% in-house and 30% by external fund managers. The portfolio consisted of:

- 1 fixed income: 80% in 2004 and 76% in 2006;
- 2 equity: 15% in both 2004 and 2006;
- 3 real estate: 3% in both 2004 and 2006;
- 4 alternative investments: 2% in 2004 and 6% in 2006.⁶

8.2.1.3 Voluntary provident funds⁷

A provident fund system had been authorized, but not widely implemented, prior to Thailand's fifth National Economic and Social Development Plan (1982–1986). An aspect of that system was a policy to encourage increased saving by employees in the formal sector. This policy resulted in the Provident Fund Act, 1987. An additional objective was to provide income security for employees and their families when they retire, or become disabled or unemployed.

Under the Provident Fund Act, the Fiscal Policy Office of the Ministry of Finance was given responsibility for registering and monitoring provident (DC) funds established by private-sector employers for the benefit of their employees. (An amendment to the Provident Fund Act in 2000 transferred the responsibility for monitoring and registering of the funds to the Security and Exchange Commission).

The provident funds (PVDs) are managed by registered fund management companies, which are selected by the employers' fund committees. The fund committees are typically selected or assigned from employers and employees. These committees are monitored by the Securities and Exchange Commission.

On retirement (at age 55 or above) or when his/her employment is terminated, the employee receives a lump sum composed of his/her contribution, the employer's contribution and the investment income. Employees of government organizations, state enterprises, and private companies, as well as their family members, can belong to a provident fund on a voluntary basis.

Members of a provident fund are eligible for personal income tax deduction, depending upon the amount of their contribution; a maximum of B300,000 can

be deducted each year. Moreover, investment income accrued from the provident fund is tax-exempt.

An employer's decision whether to establish a provident fund is generally voluntary although companies listed on the Thai Stock Exchange are required by stock exchange rules to maintain such funds. As noted above, a provident fund is financed through employer and employee contributions. Under the law, the employee's contribution rate must be between 2 and 15% of salary. However, because employers have an obligation to contribute an amount at least equal to the employee's contribution, many employers have been reluctant to raise employees' contributions above the 3% level.

In 1987, 514 employers had registered provident funds. Approximately 83,000 employees were members of the funds. By 2007, the number of registered employers had increased to 8,187 and 2 million employees were members of provident funds. The corresponding numbers at the end of September 2009 were 9,307 employers and 1.976 million employees.

In 1984, 159 funds had a net asset value (NAV) of B562,000 million. After the passage of the Provident Fund Act in 1987, the number of funds increased to 522 with a NAV of B3.2 billion. The number of funds was highest in 1998 (979 funds). After the Asian financial crisis, many firms closed down and workers were laid off. As of the end of the third quarter of 2009, the NAV of provident funds was B5.1 billion. Approximately 77.1% of the NAV was invested in bonds and debt instruments, while investments in bank deposits and equities stood at 11.1% and 8.8%, respectively. As of the third quarter of 2009, there were 507 provident funds.

To sum up, the NAV continued to increase and the number of employers has been growing. The number of employees contracted slightly.⁸ Approximately 14.4% of formal sector (non-government) workers have provident fund accounts, although current information on the distribution of such accounts among various workers' age and compensation categories is not available so it is not possible to project income replacement ratios that will eventually result from these accumulations.

8.2.1.4 Mandatory Provident Fund Proposal

For several years prior to 2006 the Thai government considered various proposals for supplementing OAS with a mandatory provident fund that would eventually cover all formal sector workers and result in more adequate replacement ratios than those projected under the OAS. An extensive study funded by the Asian Development Bank (ADB) resulted in a detailed proposal for such a mandatory fund – to be known as the National Pension Fund, or NPF. This proposal was extensively analyzed in *Draft Report Thailand Pension System Design Project TA-4011* (25 December 2006) prepared by Mitchell Wiener (hereinafter called the 'Draft Report'). The author of this chapter was an international legal expert on this project and worked with Mr. Wiener in the preparation of the Draft Report.

The ADB submitted this report to the Fiscal Policy Office in the Ministry of Finance, which submitted its recommendation to the Minister of Finance for consideration. The Ministry of Finance was, in principle, agreeable to introduction of proposed legislation establishing the NPF but the governmental crisis that followed shortly after submission of the draft report has resulted in the legislation being delayed and does not presently appear to be under active consideration.

8.2.1.5 Retirement Mutual Funds

Since 2001, individuals have been able to accumulate additional voluntary retirement savings by means of Retirement Mutual Funds (RMF). RMFs are offered by mutual fund management companies that are required to provide investors with funds of varying risk profiles, either as equity, fixed income or mixed funds.

Voluntary savings that are invested in RMFs are tax-privileged. However, favorable tax treatment is subject to certain conditions. Individuals have to continuously buy RMF units until the age of 55, unless they do not have an income in a given year. In addition, savings must amount to at least 3% of income, or B5,000, whichever is lower. The amount invested in RMFs may not exceed 15% of annual income up to a limit of B300,000 when combined with any other pension savings (e.g. provident funds and GPF).

RMFs cover those employees not covered by provident funds, those who wish to make additional contributions to supplement their voluntary provident funds, and those who are not currently covered by any formal pension scheme. They also enable tax-favored savings by the self-employed or by those who wish to make additional savings over and above what is provided in a government provident fund. At the end of 2006, there were 66 retirement mutual funds with combined assets of about B20 billion (World Bank, 2009: 21).

8.2.2 Informal sector programs

8.2.2.1 Old Age Allowance System⁹

This system was established in 1993 to provide financial assistance to informal sector workers classified as ‘unprivileged elderly’ (someone at least 60 years of age with inadequate income to meet expenses, or unable to work). In the beginning, local public welfare assistance committees (representing the central government) had the task of identifying eligible elderly and initially the number of recipients was only about 20,000. Those individuals qualified for an allowance capped at B200 per person per month.

Beginning in 2005, the identification of clients and definition of allowance payments were delegated to local authorities through grants from the Ministry of Interior. The definition of unprivileged elderly was maintained as before. However, elderly with multiple difficulties and/or inhabiting remote areas with

minimal public services were given priority. The targeting process occurs cooperatively between local authorities and the ‘community council’.

Benefits have been increased to B500 per individual per month. In addition, local authorities that have adequately strong fiscal resources may use their own funds to supplement the B500 allowance (but not beyond B1,000 per month). Similarly, local authorities may increase the number of qualified recipients.

After 2005, the number of recipients increased sharply. In 2009, the number of recipients was approximately 2.3 million, with 0.5 million elderly receiving allowances financed by the local authorities.

8.2.2.2 National Savings Fund (proposed)

On 20 October 2009, the cabinet approved and recommended to the Thai Parliament a new nationwide savings fund to cover 24 million workers who lack any form of formal, long-term retirement savings. The voluntary savings program is aimed primarily at low-income workers, with participants able to set their monthly contributions from B100 to B1,100.

Eligible members would be Thai citizens under age 60 who are not covered by the existing social security fund or a provident fund. The government would contribute to each account according to the holder’s age, with members aged 20 to 30 receiving monthly public contributions of B50, those aged 30 to 50 receiving B80 and those over 50 receiving B100. The program would be administered by the Ministry of Finance.

8.3 Assessment of pension arrangements in Thailand

8.3.1 Assessment of the old age pension social security system¹⁰

This system, covering formal sector workers (OAP), is inadequate in many respects. The most urgent problems with this system are:

- Benefits are inadequate for everyone retiring in the next 20 years. No pensions at all are paid between now and 2014 and benefits thereafter are based only on years of contributions. Since the OAP was established in 1999, no one has credit for years of service before 1999.
- Even when the system matures (when the longest-participating members have accumulated 30 years of service), benefits appear inadequate. Benefits for many low-paid workers will be less than the projected poverty level and benefits for other workers will be below international norms. The system fails to meet its primary goal of preventing poverty among elderly formal sector workers following retirement.
- The long-term financial outlook is poor due to deteriorating demographics. In the future, there will be fewer contributors supporting a growing number of pensioners. The true estimated long-term cost of the current OAP system

is 11.62% while the current contribution rate is just 6%. If the contribution rate and other system features are not changed, operational losses will begin in 2028 and the system will be unable to pay full promised benefits beginning in 2046.

- Thailand's other pension systems are not well coordinated with OAP and the overall structure impedes labor and pension mobility. Each system is separately managed and has its own rules and governance structure. It is often difficult to move pension money between one system and another, and those who change jobs often must pay taxes on their accumulated pension assets. The systems need to be much better coordinated with each other and pension mobility must be enhanced.

8.3.1.1 Old age pension system replacement ratios

The primary measure of pension benefit adequacy is the replacement ratio. This is defined as the pension benefit payable upon retirement compared to the worker's wage in his or her last full year of work preceding retirement.

Mitchell Wiener's 2006 Draft Report (see note 10 and accompanying text) calculated replacement ratios for a worker retiring 1 January 2014, at age 55, with different years of contributions at retirement, in all cases assuming that contributions were made every year from 1999 through to date of retirement. Table 8.2 shows the projected replacement ratios for selected future retirement years.

In the following table, the expected 'years of contributions' assumes that workers enter the workforce between ages 18 and 25. For workers retiring at age 55, the maximum years of contributions will be between 30 and 37 years. Of course, if the worker doesn't make contributions in all years due to unemployment, disability, childcare, work in the informal sector, and so on, the total years of contributions will be less.

The current B15,000 wage cap will have a significant adverse impact on the future replacement ratios for higher paid workers. Most countries establish the

Table 8.2 Projected replacement ratios

<i>Retirement year</i>	<i>Years of contributions</i>	<i>OAP replacement ratio (%)</i>
2014	15	13.50
2019	20	18.00
2024	25	22.50
2029	30	27.00
2034	35	31.50
2039	40	36.00

OAP = old age pension

Source: Wiener, 2006, 27–28.

wage cap as a multiple of the national average wage and adjust it automatically every year by including the adjustment formula in the pension law. This policy is preferable to periodically adjusting the cap on an ad-hoc basis.

The Thai government should establish a wage-cap adjustment promptly.¹¹ The B15,000 limit has been in place for many years and is now reaching the point where it will have a harmful impact on contribution revenue and future pension benefits if it is not indexed.

8.3.1.2 Old age pension system finances

To understand the need for reform of the OAP system, it is necessary to look at its long-term financial prognosis. These projections show that the true cost of the OAP system is about 11.62% of wages, while the current contribution rate is just 6%. Absent any changes in retirement age, benefits and contributions rates, by 2046 the system will be unable to pay the full amount of promised benefits. The situation will be even worse if OAP benefits are increased. The primary reasons for the poor long-term outlook are discussed next.

DETERIORATING DEMOGRAPHICS

'Solidarity' systems, in which active workers contribute to enable payment of pensions to older workers, function best when the ratio of pensioners to contributors is low and declining. The required contribution rate depends on this ratio and the level of benefits as shown in the formula below.

$$\text{Contribution rate} = \text{dependency rate} \times \text{replacement rate}$$

The dependency rate is the ratio of pensioners to contributors, and the replacement rate is the ratio of the average pension benefit to average salary. If the average pension benefit is 40% of average pay, and there are 5 contributors for every pensioner (dependency ratio is 20%), then an 8% (40% times 20%) contribution is required to fund the system.

Currently, the OAP has no pensioners at all. To be eligible for a pension, a worker needs 180 months of contributions. Since the system began in 1999, no-one will have the required months of contributions before 2014. Consequently, all pensioners receive only a refund of contributions made on their behalf with interest. However, from 2014, true pensions will be paid.

Unfortunately, Thailand chose to start its system at a time when its demographics were about to begin a period of rapid deterioration. Over the past 20 years, the Thai birth rate has declined dramatically, from a high of more than 6 children per family, to under 2 children per family today. This means that when current workers retire, there will be far fewer workers to make contributions to finance their pension benefits than there are today, and the overall cost of the system as a percentage of payroll will rapidly increase. At the same time as the demographics

deteriorate, the Thai pension system will also reach maturity and workers will be entitled to benefits based on all years of service during their working career.

According to projections in the Draft Report, the combination of these two factors guarantees that the current pension system will experience problems beginning in 2035 and will be unable to pay full benefits beginning in 2046. The longer the government waits to bring the current system into balance, the more severe the required adjustments – increase in retirement age, increase in contribution rate, and/or decrease in benefits.

LOW RETIREMENT AGE

The retirement age in the OAP system is 55 for both men and women. At this point in time, the retirement age has little impact on the OAP system. No one is receiving a pension and the retirement age only determines the age at which the worker is entitled to a contribution refund. However, once true pension payments begin, the retirement age will have a significant impact on system costs.

RESERVE ACCUMULATION AND INVESTMENT

The real cost of the OAP system will start out low and then rapidly increase over the next 40 years. The current 6% contribution rate is more than adequate today, but it is about half the true required contribution to fund the system over the next 75 years. Nevertheless, contributions do currently exceed expenditures and the excess (the ‘system reserves’) is being saved and invested to help cover the expected future shortfalls.

The OAP’s financial situation would be much worse if the system reserves are used for some other purpose such as to finance benefit improvements or give special benefits to politically favored groups, or if they are invested unwisely. As the following projections show, certain other factors also point toward increasing strains on the OAP system.

POPULATION

The size and the age of the population is the major determinant of the size of the labor force and the relative number of children and retirees to workers. Figure 8.1 shows the population projections for Thailand for the next 75 years. The total population is projected to increase until 2029 and then decline for the remainder of the projection period. By 2058, the population is projected to be the same as in 2004 and by 2079, the projected population is under 60 million.

The size of the population is affected by a number of factors:

- *Birth rate.* This is determined by the number of women of childbearing age and the fertility rate – the number of babies born to a woman during her lifetime. In 2004, Thailand’s fertility rate was 1.84 children per woman.

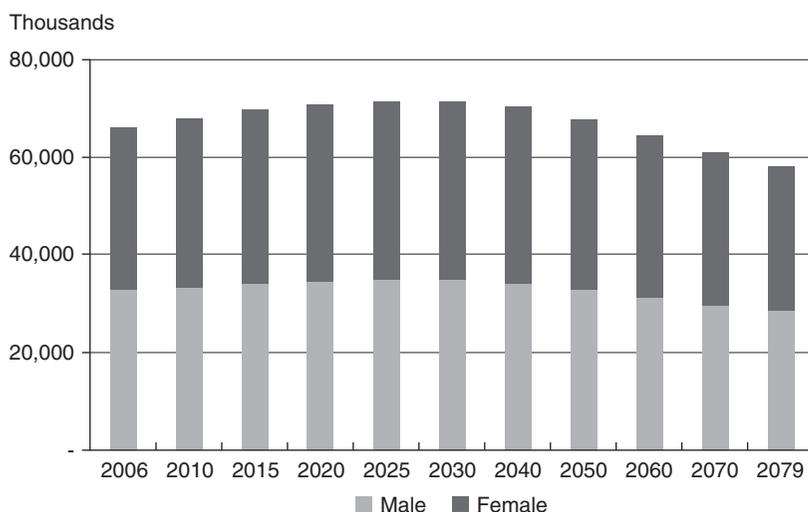


Figure 8.1 Population.

Source: Wiener (2006: 31).

In the past, fertility rates in Thailand exceeded 6, but have dropped drastically during the past 20 years. According to projections by National Economic and Social Development Board of Thailand, the fertility rate will decline further to 1.76 by 2020. However, the fertility rate is expected to increase again in the future and should return to 1.84 by the end of the projection period.

- *Mortality.* Thailand suffers from high mortality rates by worldwide standards. Life expectancy at birth is about 67 for men and 74 for women, primarily as a result of high mortality rates from ages 1 through 25. A Thai woman who lives to age 55, however, can expect to live for another 24.1 years; a man who lives to 55 can expect to live a further 21.0 years. Consequently, those who survive to pension age can expect to live considerably longer than average.

Figure 8.2 shows how the composition of the population is expected to change over the next 75 years. The chart shows the percentage of the population in each of three age groups:

- Children: ages 0–14
- Working age: ages 15–54
- Pensioners: ages 55+

Figure 8.2 clearly shows that the number of elderly increases sharply between now and 2040, while the number of working age declines equally sharply.

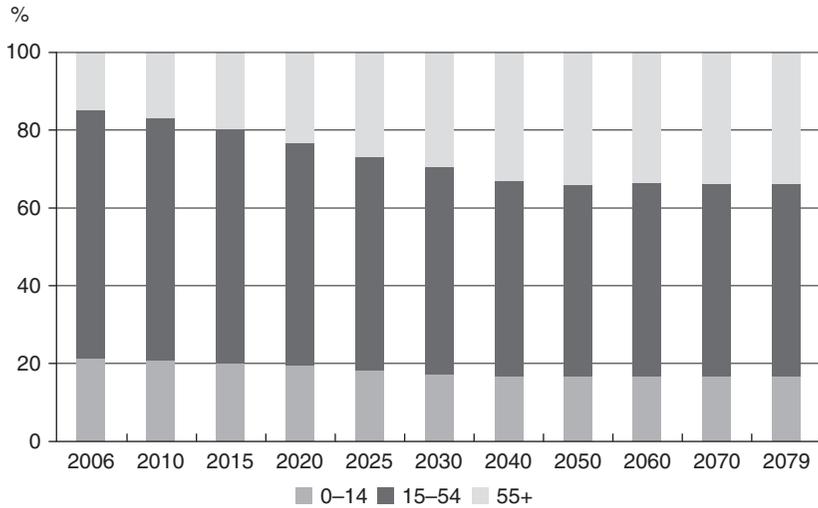


Figure 8.2 Population by age groups.

Source: Wiener (2006: 32).

This means that a smaller number of working age Thai will need to support a growing number of elderly Thai. The population dependency ratio is defined as the ratio of the number of elderly to the number of working age. This ratio increases from 23.5% today to nearly 69% by 2050.

LABOR FORCE, EMPLOYMENT AND NUMBER OF CONTRIBUTORS

The size of the labor force represents not only the number of people employed but also the number of contributors to the OAP system. The number of contributors is calculated differently in Thailand than in many other countries. In Eastern Europe, for example, virtually all workers are required to participate in the national social security system. If the number of contributors is less than the number employed, it is primarily due to evasion. The OAP system does not currently cover the very large informal sector. As a result, the number of contributors is determined directly from SSO data rather than by reducing the number employed for evasion. Figure 8.3 shows the projected size of the labor force, number employed and number of OAP contributors.

As would be expected from the population projections, the size of the labor force and the number employed declines steadily from 2014 on. The analysis of the Draft Report shows that the percentage of contributors employed in the formal sector is much higher at younger ages than older ages and averages 23.6% of the total number employed. The question is what will happen in the future.

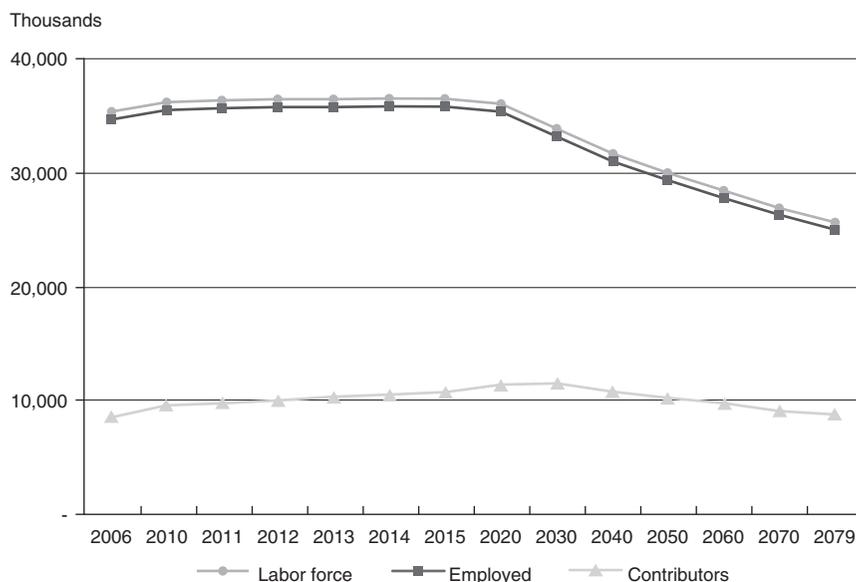


Figure 8.3 Labor force, employment, and contributors.

Source: Wiener (2006: 34).

Based on pre-2004 data, workers leave the formal sector for the informal sector as they get older. Starting at age 30, workers have moved from the formal to informal sector at an ever-increasing rate. Is this a reasonable assumption going forward? Given the decrease in the size of the agricultural sector and the trend toward urbanization, this seems unlikely. Instead, projections are based on the assumption that those that are in the formal sector will remain in the formal sector as they get older. This leads to a gradual aging of the formal workforce and an increase in its size as a percentage of total employment over time (Table 8.3). As a result the number of contributors as a percentage of total employed increases and eventually reaches a maximum of 35%, as shown in Table 8.3. It is difficult to know whether the formal workforce will become even larger. However, the assumption produces an increase over time.

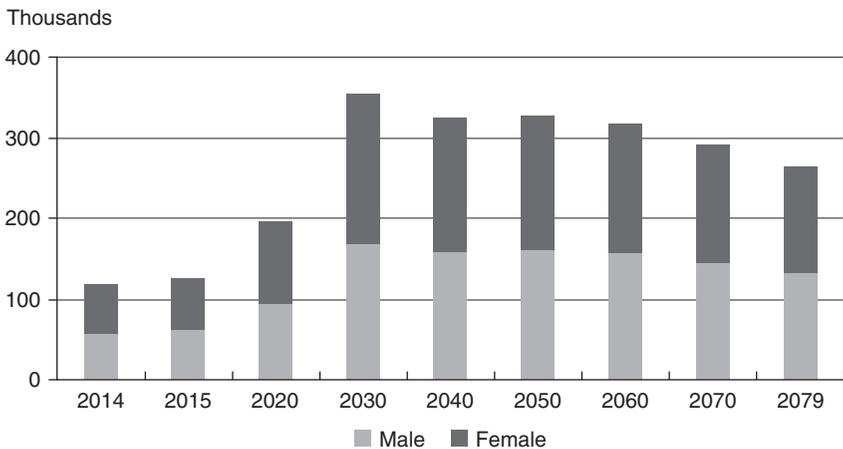
PENSIONERS AND SYSTEM DEPENDENCY RATIO

Today only a very small percentage of total workers at older ages participate in the OAP. Between ages 50 and 54, only 9.2% of male workers and 8.4% of female workers are contributing to the OAP. If this were to continue in the future, then the number of pensioners would be quite small. However, the number of formal sector workers has been projected to increase as a percentage of the workforce over time. The methodology used to project the number, age and sex of contributors as a percentage of the workforce was also used in the

Table 8.3 Percent of workforce in formal employment sector

<i>Year</i>	<i>Percent in formal employment %</i>
2004	23.6
2006	24.7
2010	27.0
2020	32.0
2030	34.6
2040	34.7
2050	34.6
2060	35.0
2070	34.5
2079	34.7

Source: Wiener (2006: 35).

*Figure 8.4* New old-age pensioners.

Source: Wiener (2006: 35).

calculation of the future number of pensioners. The result is that the percentage of the 50–54 age group contributing to the OAP will grow from 8.8% in 2006 to 42.7% by 2030. Figure 8.4 shows projections of the number of new old age pensioners.

This chart also shows that the number of new old age pensioners will accelerate dramatically between 2015 and 2030 and then will remain at a very high level for another 30 years. Beginning in 2034, those retiring will have 35 (or more)

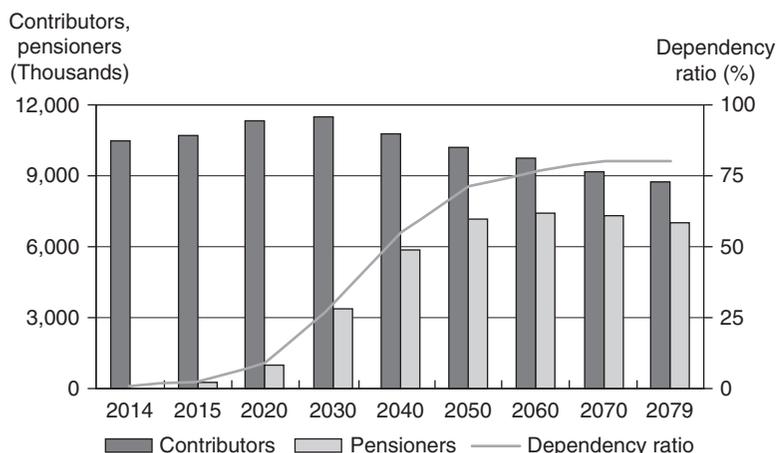


Figure 8.5 System dependency ratios.

Source: Wiener (2006: 36).

years of contributions as well, so not only is the number of pensioners increasing but also the average size of those pensions. This ‘double hit’ has a further negative consequence for the finances of the OAP system. Figure 8.5 shows the projected pension system dependency ratio which measures the ratio of pensioners to contributors.

The number of pensioners starts out very small compared to the number of contributors but then rises rapidly. In 2020, there are only 8.8 pensioners for every 100 contributors. By the end of the projection period, there are 80.2 pensioners for every 100 contributors; the dependency ratio exceeds 80%. From 2020 to 2079 the dependency ratio increases by 911%. This means the cost of the system will increase by a factor of 9 between 2020 and 2079 if no changes are made.

OLD AGE PENSION REVENUE AND EXPENDITURE

Projections of the number of contributors and pensioners need to be combined with contribution rates and replacement ratios to determine the total amount of payroll contributions and benefit payments. Other sources of revenue and expenditure must then be added in order to project OAP surpluses and deficits in future years.

Based on OAP statistics from SSO, the average wage of contributors in 2004 was B6,571. This amount is assumed to increase for inflation and real wage growth each year. Similarly, the B15,000 contribution limit is also assumed to grow in proportion to wages each year. If this were not the case, the average wage would quickly exceed the B15,000 limit and both contributions and benefit payments would become unrealistically small. Figure 8.6 shows total revenues and expenditures as a percentage of GDP for selected years.

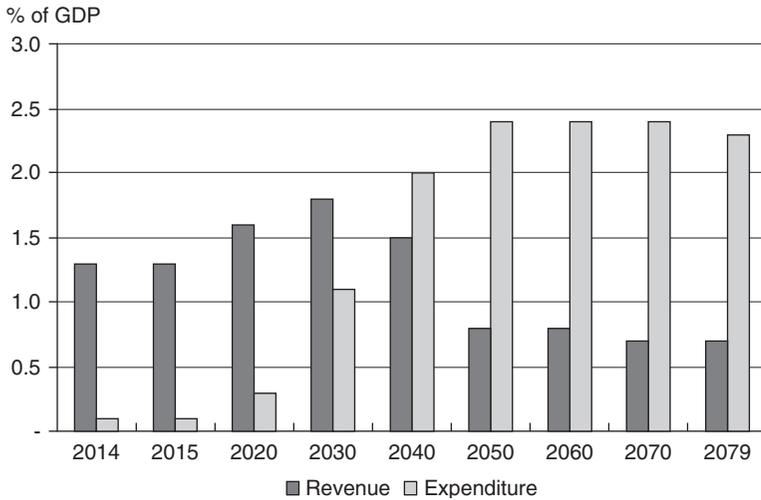


Figure 8.6 Old age pension revenue and expenditure as percentage of GDP.

Source: Wiener (2006: 38).

In 2014, when pension payments begin, expenditures will be a tiny fraction of contributions. However, in 2035, expenditures will exceed revenues for the first time. If investment income on reserves is ignored and only cashflows are taken into account, expenditures will exceed revenues by 2028. Thereafter, expenditures exceed revenues by a wide margin as the number of pensioners grows and the number of contributors dwindles.

SURPLUS/DEFICIT AND RESERVES

Although the OAP portion of the SSO fund will start experiencing deficits in 2035, the fund will still be able to pay full benefits for a few more years (Figure 8.7). Between now and 2034, the fund will have a surplus in each and every year if investment income on reserves is treated as revenue. On an operating basis, the fund will have a surplus only through 2027. This surplus is saved and invested to help supplement the fund in years when it has a deficit. The accumulated surplus is referred to as the reserve. The reserve and interest on the reserve are used to help stabilize the fund. The chart below shows the surplus/deficit of the OAP portion of the SSO fund as a percentage of GDP and the system reserves as a percentage of GDP. If the fund is not in balance prior to the time reserves are exhausted, then the fund will be unable to pay full benefits when due without government subsidies.

The reserves in the OAP portion of the SSO fund are projected to be fully exhausted in 2045. Once reserves are exhausted, large deficits are expected thereafter for the balance of the projection period. If the system is to be maintained

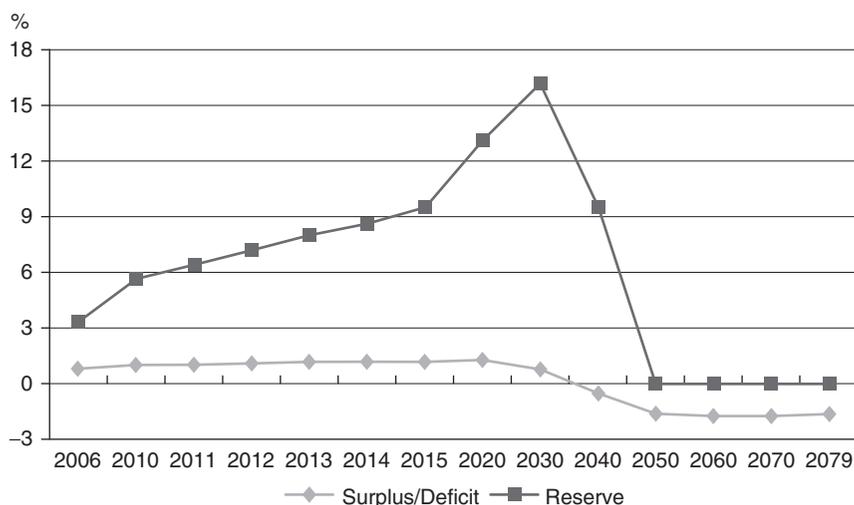


Figure 8.7 Surplus/deficit and reserves as percentage of GDP.

Source: Wiener, M. *Draft Report Thailand Pension System Design Project TA-4011* (25 December 2006), p. 38.

after that time, government transfers of approximately 1.5 to 2% of GDP will be needed each year.

In order to fully stabilize the OAP system over a 75-year analysis period, the contribution rate would have to be immediately increased to 11.62%. Alternatively, changes can be made to the retirement age and benefit levels so the system is in balance over the projection period with a lower contribution rate.

8.3.2 Assessment of provident fund systems

Changing several aspects of the current provident fund systems (GPF and PVD) would enhance those systems’ effectiveness in providing retirement income for the elderly. First, there is a lack of incentive upon separation from one’s employer to keep saving until retirement age due to the fact that members must take the lump sum payable at the time of separation. Generally, fund membership must be promptly terminated upon separation from service and tax law (discussed later) encourages taking one’s accumulated benefit as a lump sum. Also, there is no vehicle to rollover the benefit to another retirement savings funds.

Second, the laws discourage a higher level of savings even for those who are inclined to do so. GPF members are not allowed to make contributions above 3% of compensation and PVD members are not allowed to make the contributions above the level that the employer is willing to match.

Third is the limited supply of types of investments needed to achieve adequate diversification of risk. As noted by Niwat Kanjanaphoomin of the Government Pension Fund:

The limited supply of quality securities is a major obstacle for efficient asset allocation to achieve the objective of optimum balance of capital growth and preservation of capital. For defined contribution schemes like GPF and provident fund, diversification is prudent and of utmost importance to protect the investment from specific risks. The lack of broad range of quality instruments due to relatively small and immature financial and capital markets in developing countries makes it difficult especially for large funds to achieve efficient diversification. For GPF with a fund size in excess of 230 billion Baht compared with Thai bond market of 1,895 billion Baht and Thai equity market of 4,790 billion Baht, GPF is relatively big fund. Therefore, the flexibility to adjust its positions without causing market impacts is limited.

Kanjanaphoomin, 2004: 18

8.3.3 Assessment of tax structure

Thailand currently follows an exempt, exempt, exempt regime in which contributions to a fund are tax deductible up to a limit of B300,000 per annum (the first 'E'), the investment income of the fund is not subject to tax (the second 'E') and the retirement benefits payable from the fund are not taxable as income to beneficiaries (the third 'E'). However the benefit payable (last E) must be paid in lump sum, otherwise it is taxed (except for pensions payable from OAP or the government-defined benefit plans).

The most prevalent tax regime in other nations is the so-called EET method, where contributions and growth are not taxed, but distributions are taxed. Any change from EEE to EET would be politically unpopular and general consideration of taxation policy is beyond the scope of this chapter. However, two observations seem appropriate:

- (a) To the extent any pension system functions primarily as a means for the wealthy to accumulate assets, those who are able to afford to save will be inclined to make use of the system as a means to avoid income taxation.
- (b) It would be possible to exempt a part of retirement income from taxation under an EET regime so a country is able to continue the tax advantage for those of modest means.

More critical from a pension policy perspective is the fact that the current EEE regime encourages withdrawing retirement accumulations in a lump sum which often results in more rapid depletion of funds, leading to longevity risk. If the pension and tax systems did not discourage retiring workers from leaving their accumulated funds invested, or if accumulated funds could be rolled over into

annuity products, this longevity risk could be reduced. These options could be enabled rather than being mandatory as some individuals may wish to invest in a business, purchase a home or pursue other activities after discontinuing regular employment.

8.3.4 Assessment of provision for the elderly in the informal sector

Statistics on urban and rural poverty in Thailand reflect a reduction in poverty levels between 1986 and 2008 (Jitsuchon and Pat Patanarangsun, 2009). Nevertheless, Figure 8.8 shows that rural poverty remains above 10%. The figure does not necessarily reflect relative poverty in the formal *versus* informal sectors, because a substantial portion of the urban poor are informal sector workers. Also, this figure does not show the age distributions of those classified as living in poverty.

Data developed earlier in this chapter indicates that 2.3 million informal sector workers are receiving benefits under the Old Age Allowance System and extrapolating from other statistics indicates that the total of informal sector individuals over the age of 60 is approximately 4 million. It is a reasonable and conservative assumption that more than half of informal sector individuals would, but for family support and the local B500 grants (sometimes increased to B1,000), be living in extremely precarious conditions.

The Thai Government has provided extremely well for career government workers in their retirement. Beginning in 1999, the OAP began to provide for private sector workers – thus far financed through employer and employee contributions. However, the employer contribution is only received if the individual employee contributes and the lower-paid formal sector workers are less likely to be able to contribute and thereby gain the employer match.

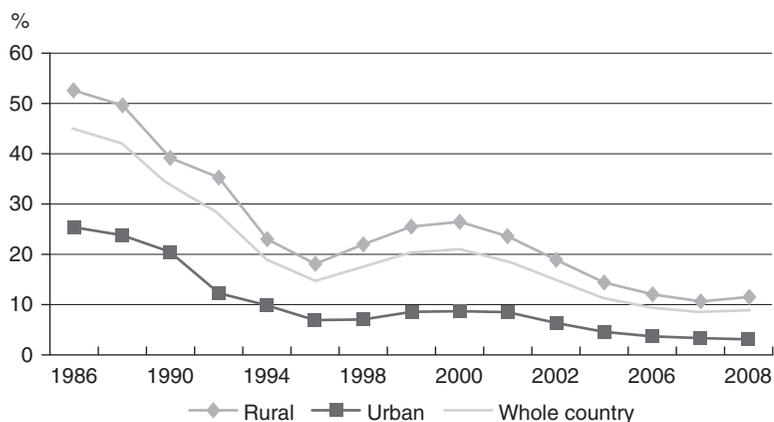


Figure 8.8 Poverty incidence, 1986–2008.

Source: Jitsuchon and Pat Patanarangsun (2009)

The projected shortfall in OAP resources constitutes an implicit commitment of the national government unless steps are taken to increase contributions and/or increase the retirement age.

The proposed National Savings Fund (NSF) will begin to provide for informal sector workers and, if enacted, will require contributions toward informal sector pensions by the national government. The fact that the government has introduced NSF legislation and does not appear to be pushing for enactment of a mandatory provident fund for the formal sector seems to reflect a growing recognition that, heretofore, the retirement needs of those in the informal sector have been largely ignored. The apparent inequity of this allocation of resources is somewhat offset by the acknowledgment that it is primarily formal sector workers who pay income taxes. Accordingly, if greater priority is accorded to pensions for the informal sector, then that sector should also bear its share of the associated tax burden.

8.4 Reform options: goals and objectives for the Thai pension system reform

8.4.1 Formal sector

Thailand should establish the key priorities for gradual reform of the formal sector pension system. In the author's view, those priorities should be:

- Increase benefits through the OAP system in a manner that improves income replacement ratios for lower-paid workers.
- Introduce a mandatory provident fund to assure that all formal sector workers engage in appropriate retirement savings.
- Permit workers who are able to do so voluntarily to make contributions to provident funds to enhance their own retirement, coupled with modification of the EEE tax regime – the object being that the pension system should not be a means for the well-paid to escape taxation of their income.
- Modify the OAP by increasing contribution levels and/or retirement ages so that future national budget priorities are not distorted as a result of the government having to pay benefits that are supposed to be funded through worker and employer contributions.

Regardless of the option selected for increasing benefits, additional changes to the pension system should be made to improve the overall design and stabilize the system's long-term financial outlook. These include the following:

- Establish an integrated and independent pension regulator enabled to coordinate the nation's various pension schemes on a long-term basis, considering both social protection issues and macro-economic issues. This seems preferable to having the Labor Ministry introducing and promoting pension legislation opposed by the Finance Ministry, and vice versa.

- Improve pension portability when workers change jobs, particularly between the government and the formal private sector.

The selected changes should stabilize the pension system and achieve the following objectives:

- *Long-term financial sustainability.* The current OAP system will face serious financial problems as the system matures, the number of contributors declines and the number of pensioners increases. Without design changes, the current 6% contribution rate will have to increase and may eventually rise to as high as 20% or more. Changes are needed to stabilize this contribution rate.
- *Integrated national pension strategy.* All of the various pension programs in Thailand should fit together in a logical way. There should be a national pension strategy and each program should help support that strategy. To the extent possible, all systems should be covered by similar rules and regulations and should support labor mobility by allowing easy movement among pension systems without loss of benefits or adverse tax consequences.
- *Reasonable replacement ratio.* The current replacement ratio from the OAP system is inadequate because only years in which contributions were made are used to compute benefits. Those who retire prior to 2014 do not even receive a pension; they receive only a return of contributions with interest. Since contributions began in 1999, the total benefit is very low. Even when the system matures, the replacement ratio for a worker with 35 years of service will be about 31.5% of final salary. This may be sufficient to prevent poverty for average to higher-paid workers but is likely to be inadequate for the lower paid. Additional benefits are needed to meet international norms and prevent poverty for all workers following retirement. Either an NPF system or an improved OAP system could be used to meet this need.
- *Affordable costs for employers and workers.* Currently workers and employers each pay 3% to finance the OAP. They also pay an additional 1.5% each for sickness, death and disability benefits and another 0.5% each for unemployment insurance for a total of 5% each from employers and workers. Introduction of NPF or improvements to the OAP will further increase pension costs. If no changes are made, the cost of the OAP will increase significantly in the future even without benefit increases, making the total payroll contribution burden even higher. The pension reform must control and stabilize pension costs at an acceptable level (e.g. 12–15% of payroll). If cost control results in inadequate retirement income, further increases in retirement age may be the only reasonable alternative for workers who are unable to increase their savings.
- *Recognition of economic development implications.* It is acknowledged that systems such as the OAP have a negative impact on the competitiveness of

Thai products, labor market growth and unemployment. Increasing payroll contributions increases the price of Thai goods and services. It also increases the cost of hiring new workers, encouraging employers to substitute capital for labor. In addition, it transfers wealth from the current generation of workers to current pensioners. Such considerations may limit worker and employer support for reform options that otherwise appear worthwhile.

- *Attractive to all stakeholders.* Any pension reform must create a pension system that is considered fair by younger workers, older workers and current pensioners. Finding the proper balance often requires a mixture of different types of systems.
- *Solid system for supervision and control.* Pension systems require a great deal of trust from citizens. Workers make contributions today, knowing that they will not receive benefits until many years in the future. Workers rely on the government to protect their interests and make sure that the money to pay promised benefits will be available when they retire. The government must enact legislation and establish appropriate regulatory and enforcement agencies that will protect citizens' rights and significantly reduce the chance that savings will be lost. An example of this problem is a legal structure that enforces fiduciary norms through a system of fines (paid to the government) as opposed to damages (paid to the pension system which was damaged by fiduciary misconduct.) If workers do not believe the system is safe there will likely be widespread evasion.

8.4.2 Informal sector

Benefits for elderly informal sector workers have been largely a matter of inter-generational care within families and support under the 'B500' programs which are administered locally. Apart from recent introduction of NSF legislation, Thailand has not provided any meaningful program for informal workers (funded or unfunded).

As noted earlier, governmental relief of poverty among the elderly (particularly at the national level) would be delivered primarily in cash while the income received by the informal sector is largely unreported. Many informal sector workers do not earn enough to be subject to income tax in any event, but it is inherently more difficult to design a 'replacement income' pension system without a record of a worker's earnings history.

A fundamental problem in designing and funding a Thai pension system is that Thailand has a very large 'shadow' economy. A recent study of Southeast Asian economies reflects a high volume of 'off the books' cash transactions. While there is no basis to assume that informal sector workers account for more off-the books transactions than workers in the formal sector, to the extent those transactions occur in the informal economy, it would be inequitable to subsidize old age benefits for individuals who had accumulated substantial wealth from untaxed economic activity. The above-mentioned study produced the following statistics:

If one first starts with the latest results (2000–2001), the largest shadow economy estimate [among the eighteen nations studied] is for Thailand, with 51.9% of official GDP being the equivalent measure of shadow economy in that country. This is followed by Sri Lanka (43.7% of GDP) and the Philippines (42.6% of GDP)...

If we turn to the development of the shadow economies for these eighteen countries since 1989/1990, we see that the shadow economy on average climbed from 20.9% of GDP to 22.9% of GDP by 1994–1995 and then to 26.1% by 2000–2001. On average the shadow economy for these eighteen countries increased by 5.2% of official GDP. The effect is even more significant for the less developed countries: Bangladesh with a shadow economy of 26.2% during 1989–1990 climbed to 34.9% by 2000–2001; Thailand with a shadow economy measuring 44.2% in 1989–1990 climbed to 51.9% by 2000–2001...

If we consider the size of the shadow economy labor force as a percentage of the ‘official’ labor force, we see once again that Thailand (for the year 1989/1990) has by far the biggest shadow economy labor force (40% of the official labor force), followed by Indonesia (31.3%) and Sri Lanka (31.3%).

Bajada and Schneider (2003)

It would be difficult to overstate the difficulties of gathering reliable data that could be the rational basis of a government-funded pension scheme providing income replacement for those whose income is either unreported or non-cash. From that perspective, a modest program such as the ‘B500’ allowance, administered at the local level, seems a good starting point in that local officials are in a better position than those in the national government to make need-based decisions. With appropriate oversight, enhancement of local-based systems from the national budget seems to be a logical next step.

Notes

- 1 In September, 2010, B1 = 0.0255 or US\$0.0325.
- 2 Sources: UN Population Division and Thai National Statistics office as provided by GESS (*Global Extension of Social Security*), available at: <http://www.oit.org/gimi/gess/ShowCountryProfile.do?cid=404&aid=2>
- 3 Information in this section of the chapter has been compiled from English translations of the Government Pension Fund Act B.E. 2539 (1996) and the GPF website, with acknowledgment of Prof. Suwanrada’s helpful analysis and data.
- 4 GPF, <http://www.gpf.or.th/Eng/ourmember.asp>
- 5 http://www.businessweek.com/globalbiz/content/jun2009/gb20090612_259884.htm
- 6 Kanjanaphoomin (2004: 12) and GPF chart provided to author in late 2006.
- 7 Inter-regional project. How to strengthen social protection coverage in the context of the European Union Agenda on decent work and promoting employment in the informal economy. Thailand. A case study International Labour Office, Social Security Department – Geneva: ILO, 2008 (<http://ideas.repec.org/p/eab/laborw/1129.html>)
- 8 Statistics of Thai Provident Fund at www.thaipvd.com

- 9 Suwanrada (2009: 55).
- 10 This portion of Chapter 8 is primarily based on the information and analysis developed by Mitchell Wiener and the author during a technical assistance project for the Thailand Ministry of Finance in Bangkok in 2006.
- 11 However, on 24 January 2010 ‘SSO Secretary-general Pan Wannaphinit said that ‘the salary ceiling of Bt15,000 – which is used for all beneficiaries no matter how high their salaries – will remain unchanged, because adjustment would cause technical difficulties.’ Kitjakosol, J. ‘SSO mulls raising age for pensions to avoid fund running out of cash by 2047’. *The Nation*, 24 January 2010.

References

- Asher, Mikul G. (2000) *Social Security Reform Imperatives: The Southeast Asian Case*, April. Available at: <http://www.spp.nus.edu.sg/docs/wp/wp02.pdf>
- Asian Development Bank (2003) *Technical Assistance Performance Audit Report on the Reform of Pension and Provident Funds in Selected Developing Member Countries*. ADB.
- Bajada, C. and Schneider, F. (2003) The size and development of the shadow economies in the Asia-Pacific. Working Paper No. 0301, Department of Economics, Johannes Kepler University Linz.
- Jitsuchon, S. and Pat Patanarangsun, P. (2009) Employment impacts in Thailand’s trade and sectors from the global economic crisis. Thailand Development Research Institute, Bangkok. Available at: <http://www.adb.org/documents/events/2009/Poverty-Social-Development/WG1A-employment-impact-tha-Jitsuchon-paper.pdf>
- Kanjanaphoomin, N. (2004) Pension Fund, Provident Fund and Social Security System in Thailand.
- Kitjakosol, J. (2010) ‘SSO mulls raising age for pensions to avoid fund running out of cash by 2047’. *The Nation*, January 24.
- Suwanrada, W. (2009) Poverty and Financial Security of the Elderly in Thailand. *Ageing International* 33(1–2). Available at: http://tgri.thainhf.org/document/edoc/edoc_790.pdf
- Wiener, Mitchell (2006) Thailand Pension System Design Project TA–4011. Draft Report, 25 December, prepared for the Asian Development Bank.
- World Bank (1994) *Averting the Old Age Crisis*. Washington DC: World Bank.
- World Bank (2009) Pension Systems for the Informal Sector in Asia. *Working paper 47679*. Washington DC: World Bank.

9 Viet Nam

Pension system overview and reform directions

Giang Thanh Long

9.1 Introduction

Demographic changes have significant impacts on the social and economic performances of countries, regions and the whole world. Recently, the most observable demographic change is the phenomenon of rapidly aging population, and this trend is expected to continue in the coming years. With the definition of an elderly person as aged 60 years and over, the medium-variant population projections of the United Nations (2008) show that the number of elderly people will increase from 759 million in 2010 (or 11% of the world population) to around two billion people in 2050 (or 22% of the world population). In the developing countries that become old before becoming rich, population aging will present various challenges for public policies. In addition, under profound social and economic changes stemming from modernization and urbanization, the weakening of family bonds also suggests an urgent task for old age security in developing countries, where social protection systems, especially pension schemes, are underdeveloped with limited coverage (United Nations Department of Economic and Social Affairs, 2007).

After about 25 years of implementation for the *Doi moi* (renovation) programs, Viet Nam has changed from one of the poorest countries in the world to a low middle-income country. The average GDP growth rate was about 7.4% during 1990–2009, which helped increase GDP per capita more than ten times, from US\$98 in 1990 to US\$ 1,170 in 2010. Such remarkable economic growth has resulted in a substantial reduction in poverty, from 58.1% in 1993 to 14.8% in 2008. The poverty gap, measured as a percentage of poverty line, also significantly fell from 18.5% in 1993 to 3.8% in 2006 (World Bank, 2007). In terms of region, poverty rates in all eight economic regions have fallen over time. Also, the social protection system in Viet Nam, including the pension scheme, has been developed with considerable progress in terms of such important aspects as poverty reduction, job creation and income maintenance for various groups of Vietnamese people. The country has also reached most of the Millennium Development Goals in advance (Gaiha and Thapa, 2007). Regarding demographic characteristics, Viet Nam is also in line with the world's experience mentioned previously. Fertility rates decreased from 3.4 children per woman in 1990 to 2.03 in 2009 (which is lower than replacement rate),

while life expectancy at birth increased from 64.8 in 1990 to 74.3 in 2008 (or about 10 more years). The aforementioned population projections indicate that the old age population in Viet Nam will increase significantly from 8.7% of the whole population in 2010 to about 26% in 2050. Viet Nam will enter both ‘demographic bonus’ and ‘demographic aging’ at the same time, from 2010.¹

While remarkable economic successes have been widely acknowledged in Viet Nam, however, many groups of elderly people are still living in poor and vulnerable conditions. The majority of the aged are still living in rural and disadvantaged areas, and only a small percentage of them are receiving public pensions, while others are living on their own and/or supported by family members (MoLISA, 2005). In addition, a potentially worrisome issue for supporting the aged is that the past decade witnessed a continuous decline in the multi-generational family model, in which the number of elderly people who lived as dependents declined, while those who lived alone or in households with only elderly increased (Giang and Pfau, 2007; ILSSA and UNFPA, 2007). Any reduction in family support caused by such trends, therefore, will leave the elderly persons behind with further vulnerabilities.

Recent studies on the Vietnamese pension scheme show that pension and social assistance recipients have lower probability to be poor than their non-receiving counterparts (see, e.g., Evans *et al.*, 2007; Giang and Pfau, 2009a). Given low and unstable income sources of the majority of elderly persons in Viet Nam, benefits from the pension scheme are becoming an important factor to mitigate various social and economic shocks, such as an economic slowdown like the one in 2008–2009. This requires that the social protection policymakers analyze the current status of the pension scheme, as well as discuss reform directions so that it can protect the elderly.

Under such a research demand, this chapter aims to provide descriptions and discussions on both contributory pension and non-contributory pension schemes in Viet Nam with focuses on their key features and challenges. It will also discuss designing and implementing an appropriate pension system that will be able to mitigate such challenges, particularly in terms of financial sustainability. It is organized as follows. In Section 9.2, we will give an overview of the social protection system in Viet Nam, in which both contributory and non-contributory pension schemes play a role as income security schemes. Then, Section 9.3 will provide an analysis of the current status and challenges of the contributory pension scheme in both the short term and long term. We will focus on such issues as coverage, benefits, investments and administrative capacity. Section 9.4 provides an analysis of the non-contributory pension scheme with a particular focus on old age poverty. Section 9.5 concludes the chapter.

9.2 Pension schemes in the social protection system

The current social protection system in Viet Nam includes three main pillars: (1) labor market; (2) social insurance and social health insurance; and (3) social

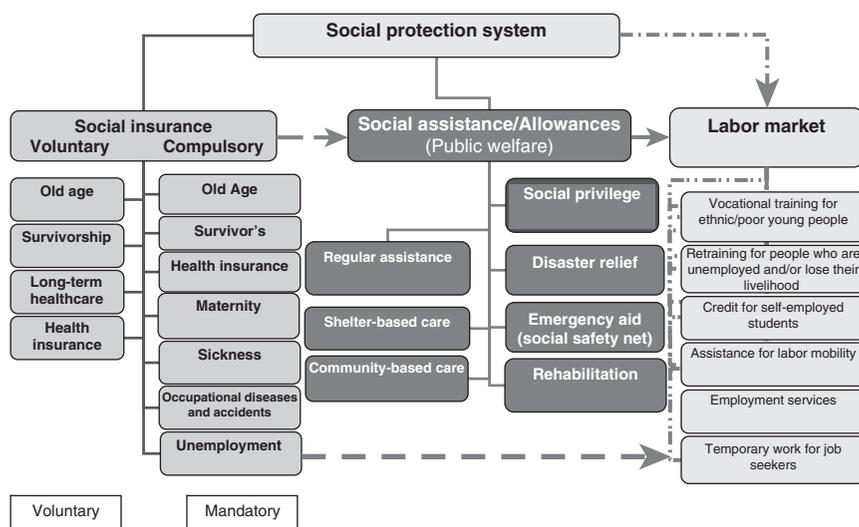


Figure 9.1 Structure of the social protection system in Viet Nam.

Source: Adapted from the draft of the Viet Nam’s Social Protection Strategy 2011–2020.

assistance or social allowances. These pillars are built to deal with various risks, including social, economic and health risks, which can present at any stage of a person’s life. For instance, the labor market policies are for preventing risks; social insurance and social health insurance policies aim to mitigate risks once they occur, while social assistance policies help people overcome their risks if they are unable to cope by themselves. Figure 9.1 illustrates the design of the social protection system in Viet Nam.

Under the Social Insurance Law, the social insurance scheme includes five components: sickness, maternity, occupational accidents, occupational diseases, and retirements and survivorship. There are two contributory pension schemes, which are mandatory and voluntary ones. The former covers people working in the formal sector with labor contracts of more than three months, while the latter covers people working in the informal sector.² At the same time, for the elderly who do not have any contributory pensions, they will receive non-contributory pension benefits, which are paid by government budget. As such, contributory and non-contributory pension schemes are built as income safety net for the old aged.

9.3 Contributory pension scheme: issues and reform directions

The Vietnamese pension scheme is a component of the social insurance system, which has been in operation since 1961. Until 1 January 1995, the pension scheme was non-contributory defined benefit (DB), which covered only the

employees of the state sector, and it was managed by different agencies under the supervision of the government. In that scheme, retirement benefits were defined by the number of working years and base earning (usually, it was the wage of the last year before retirement). Benefits were paid by the social insurance fund, which was created from employers' payrolls and government budget. The fund was managed and guaranteed by the government, and was a component of the government budget. For more than 30 years, particularly in wartime, the scheme significantly contributed to stabilizing living standards for the insured people and their families.

However, the growing private sector under an emerging market economy forced the government to expand the scheme. In 1995, the pension scheme was transformed to a PAYG DB scheme. Viet Nam Social Security (VSS) was established to manage the scheme, along with the Ministry of Labour, Invalids and Social Affairs (MoLISA) in charge of policy formulation, and the Ministry of Finance being responsible for financial strategy. The Social Insurance Law, officially put into effect on 1 January 2007, marked another milestone for the development of the pension scheme in Viet Nam, in which a number of new regulations on such important factors as contributors, contribution rates and benefit rates are regulated.

The current pension scheme, therefore, includes both pre-1995 and post-1995 contributors and pensioners. The number of the former is getting smaller due to its phase-out process, while the latter are getting larger due to its phase-in process. In the following paragraphs, we will only describe the key features and shortcomings of the post-1995 scheme.

9.3.1 Coverage and compliance

The current pension scheme is mandatory for (i) laborers working with an indefinite duration contract or a contract valid for three months or more; (ii) state officials and employees; (iii) laborers working for state defense and public security; (iv) commissioned and non-commissioned officers in the military and police forces; and (v) laborers who join the mandatory social insurance before working abroad with definite duration. In addition, the pension scheme is voluntary for all citizens at working age (aged 15 and over) who are not included in the mandatory scheme.

By 2008, the total number of contributors of the mandatory scheme was 8.5 million. The annual growth rate of contributors during 2000–2008 was about 9%, in which participation of the workers from non-state sector has increased overtime. The coverage rate of the scheme, however, is still low because it is inherently limited to state sector workers, and there are few participants in the voluntary scheme.

Table 9.1 shows that, by 2008, the scheme covered only 19% of the total labor force. In terms of economic ownership, Figure 9.2 indicates that the scheme coverage was almost universal for state sector workers (mostly government officials and state-owned enterprise workers) as they accounted for almost 80% of

Table 9.1 Number of participants, 1996–2008

Year	Number of participants (1,000 persons)	Labor force (1,000 persons)	Coverage rate (as percentage of labor force)
(1)	(2)	(3)	(2):(3)
1996	3,231	35,866	9.01
1997	3,572	36,896	9.68
1998	3,765	37,207	10.12
1999	3,860	37,583	10.27
2000	4,128	37,610	10.98
2001	4,376	38,563	11.35
2002	4,445	39,508	11.25
2003	4,987	40,574	12.29
2004	5,820	41,586	14.00
2005	6,190	42,527	14.56
2006	6,747	43,339	15.57
2007	8,179	44,174	18.52
2008	8,539	44,916	19.01

Source: Author’s compilation from VSS reports (various years).

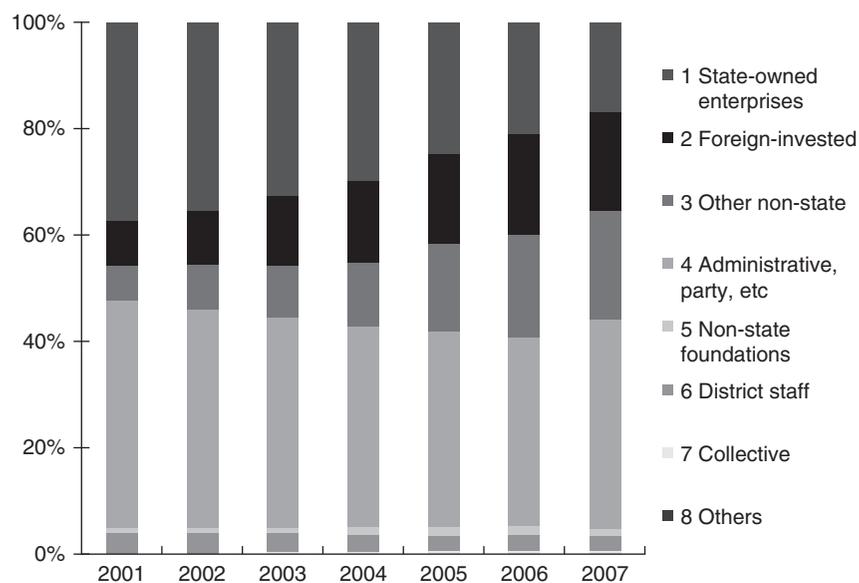


Figure 9.2 Contributors by economic ownership, 2001–2007.

Source: Author’s compilation from VSS reports (various years)

the active contributors in 2007, while the remaining 20% was for participants from the non-state sector.

Situation of the non-state sector is also the same for the voluntary pension scheme, in which only 65,000 people participating by 2008. Participation of the self-employed is extremely limited.

In terms of gender and age, the statistics show that participants, both males and females at all ages, are small in comparison with their respective population. Reports by VSS (various years) show that there are no large gaps between males and females at all ages participating in the pension scheme (Figure 9.3).

Recent surveys and studies show that the compliance rate of the scheme – measured by the number of active contributors as a percentage of the number of regulated contributors – is low, particularly in the non-state sector. For instance, in 2007, the compliance rate of state and foreign-invested enterprises was 99%, but that of the non-state sector was only 26.5% (MoLISA, 2008). Some factors underlying such a low compliance rate include low income earning, complicated regulations and weak information delivery (Nguyen, 2009).

Another problem is that the current regulations to some extent are banning vulnerable and poor people from access (Figure 9.4). Evans *et al.* (2007) and Giang and Pfau (2009a) show that pension benefits are an important factor for households with elderly persons to reduce their probability of being poor. Nevertheless, almost half of pension spending is going to the two richest income quintiles, while only 2% goes to the poorest. The pension scheme is not pro-poor, and its payments are regressive (World Bank, 2007).

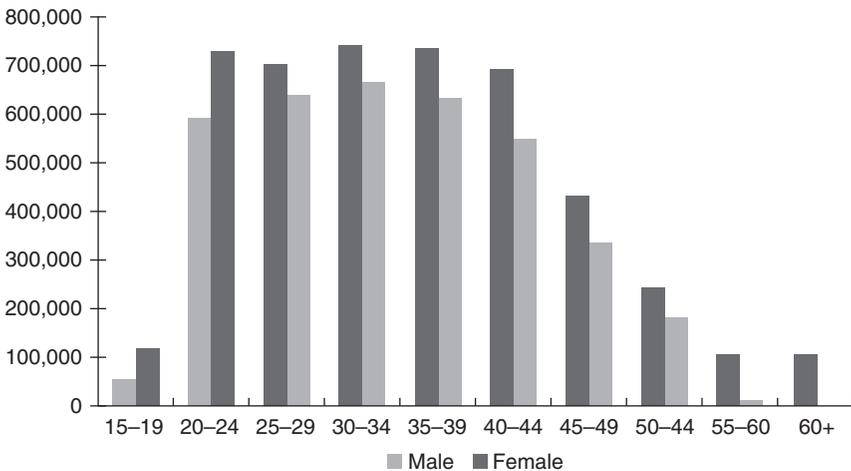


Figure 9.3 Contributors by gender and age, 2008.

Source: Author's compilation from VSS reports (various years).

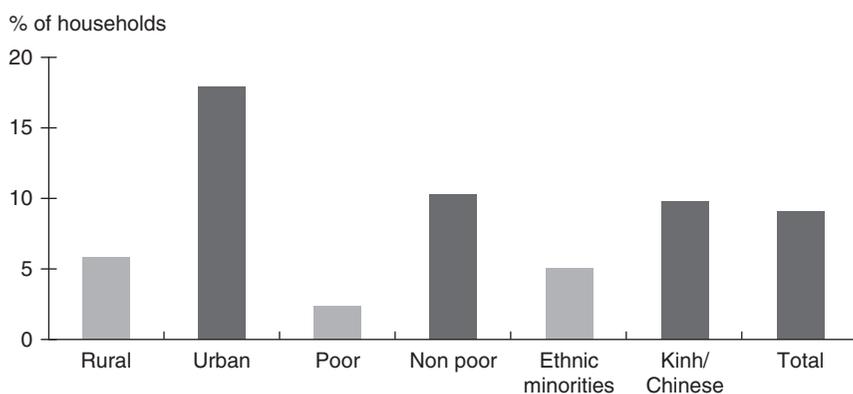


Figure 9.4 Households receiving pension income (%).

Source: World Bank (2007).

9.3.2 Contributions and benefits

The contributions to the pension scheme are from both employers and employees. The contribution rates have been changed over time to adapt to a strategy to balance the pension fund.

Table 9.2 presents contribution rates according to the Social Insurance Law 2007. Regulations for contributions are different between workers whose wages are stipulated by the state and those having contract-based wages. The former's contributions are computed using the common minimum salary, while the latter's contributions are computed using wages indicated in the labor contract. The current minimum wage is D650,000 (or about US\$36), and the ceiling contribution is 20 times the minimum wage (or about US\$720). The average contribution wage in 2007 was D1.3 million (or US\$70). Due to different minimum wages for state, foreign-invested, and other non-state sector workers, the two formers usually have a contribution wage about 1.5 times higher than that of the latter.

Table 9.2 Contribution rates to the pension scheme

Year	Total (%)	Employer (%)	Employee (%)
From 1 January 2007 to 31 December 2009	16	11	5
From 1 January 2010 to 31 December 2011	18	12	6
From 1 January 2012 to 31 December 2013	20	13	7
From 1 January 2014 onwards	22	14	8

Source: Viet Nam's Social Insurance Law 2007.

The retirement pension is normally paid to males and females at age 60 and 55, respectively, with at least 20 years of contributions according to the specific formulas. For instance, the benefit formula is calibrated by multiplying the base earning by a service factor. Base earning is measured by the average monthly salary during a certain period of time, such as the average monthly salary of the last 10 working years for workers whose wages have been stipulated by state. Service factor is measured with 3% for the first 15 years, and 2% thereafter for males and 3% thereafter for females. However, the total benefit rate (or replacement rate) cannot exceed 75%. Those having a replacement rate of more than 75% will get the respective lump sum at the additional rate. The benefit rate will be reduced by 1% for each year of early retirement. It is not possible to defer pension after normal retirement age, but it is possible to combine working and receiving pensions.

Benefits are adjusted based on the consumer price index, but adjustment levels are decided by the government. Both contribution wages and pension benefits are tax-exempted.

A recent estimation (OECD, 2008) shows that the average replacement rate of the Vietnamese pension scheme, at about 72%, is among the highest in Asia and the Pacific regions. In absolute terms, however, the average pension benefits for different groups of beneficiaries were only \$50–\$70 in 2008, which were lower than GDP per capita at \$US85 (Nguyen, 2009).

There are two critical issues regarding the relationship between contributions and benefits. First, the ratio between total expenditure and total revenue has decreased over time, due significantly to large adjustments of benefits in line with higher inflation rates in recent years. Table 9.3 shows that this ratio substantially decreased from 3.9 times to 1.4 times in only 8 years, partially due to the fact that benefits are adjusted more rapidly than contributions.

Second, the current benefit formulas will result in inequality between males and females, and state and non-state workers. Figure 9.5 shows that state workers are the winners as their expected replacement rates are higher than both actuarial benchmark and expected rates for non-state workers. Females are also winners, as their pension benefits accrue more rapidly after 15 years of contribution (though due to their longer life expectancy, their average actuarial benchmark is lower than that of males). Non-state workers might expect to have higher benefit rates if they decide to contribute to the scheme for less than 30 years, meaning that the current regulations are creating low incentives for non-state workers to stay longer in the scheme.

9.3.3 Investments

Investment incomes are among various categories financing the scheme. Article 97 of the Social Insurance Law 2007 indicates that forms of pension fund investment include (i) purchase of government bonds, state treasury bills and bonds of state-owned commercial banks (SOCBs); (ii) lending to state commercial banks; (iii) investment in main state economic projects; and (iv) other investments

Table 9.3 Ratio between total expenditure and total revenue, 2000–2007

Year	Total expenditure (D billions)	Total expenditure as a percentage of total revenue (%)	Ratio between revenue and expenditure (times)
2000	3,335	25.69	3.89
2001	4,936	30.50	3.28
2002	5,572	36.94	2.71
2003	7,792	33.03	3.03
2004	9,865	36.75	2.72
2005	12,759	39.39	2.54
2006	16,780	45.73	2.19
2007	19,390	69.73	1.43

Notes: This ratio presents the whole social insurance system. However, as the pension scheme accounts for a large proportion, such a decreasing trend for the ratio also reflects that of the pension scheme.

Source: Pham (2009).

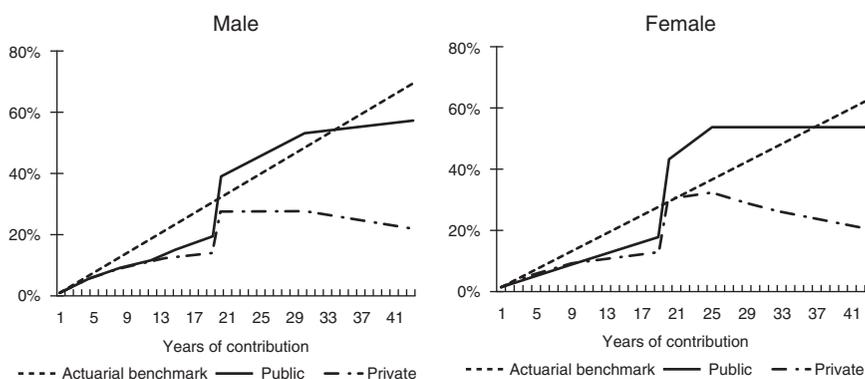


Figure 9.5 Estimated replacement rates: males vs. females and state vs. non-state workers.

Source: World Bank (2007).

prescribed by the government. All investment forms and their returns are tax-exempted.

Up to 2008, the pension fund accumulated to D91,522 billions (or \$4.77 billion), which was one of the two biggest investment funds in Viet Nam. So far, investments of the pension fund have been largely concentrated on domestic investments with a heavy lending to SOCBs and government bonds, and there have been no international investments. Such a portfolio in turn has produced a lower rate of return than the average market rate (Giang and Pfau, 2009b).

Rama (2010) points out some drawbacks of the pension fund investments, including:

- all investments are of a ‘bond-like’ nature, with a given interest rate;
- all are directly or indirectly related to government (loans to state budget, government bonds, loans to SOCBs, etc.);
- all are held to maturity, with no trading during the life of the investment;
- loans to SOCBs account for nearly half of the portfolio, but no bidding to ensure highest interest rate;
- the investments have low returns due to loans justified on social objectives;
- the investment portfolio is held at book value, and not ‘marked’ to market (changes in bond values are not counted);
- recording at book value does not recognize market risk and does not support trading before maturity;
- not reporting on returns by asset class does not help assess performance of investments or assist decision making;
- no benchmarks are used to evaluate investment performance and investment management expenses and other costs.

9.3.4 Administrative and regulatory framework

Since 1995, VSS has been responsible for both short-term and long-term functions, which previously belonged to the Viet Nam General Confederation of Labor, and MoLISA, respectively. VSS now has a hierarchical structure that expands to the lowest district levels, and the local agents of VSI are responsible for both collections and disbursements. This vertical management of the scheme effectuates an increasing number of participants by updating information on laborers from local levels. Nevertheless, it may also give rise to administrative costs, which may result from corruption and fraud. In fact, administrative co-operation between VSS and other line ministries have not been very effective, so that evasion and late contributions of social insurance are frequently observed, especially in the non-state sector.

Along with managerial problems, the regulatory framework concerning tax treatments between the pension scheme and other instruments of contractual savings is also exacerbating the evasion situation. For instance, as both contributions and benefits in the current pension scheme are exempted for the purposes of corporate and personal income tax, while pension annuity plans are not exempted for any purpose, it is creating ‘incentives’ for enterprises, particularly small enterprises, to evade contributions by reducing the registered number of employees, signing short-term labor contracts and so on.

9.3.5 Financial sustainability

The financial sustainability of a pension scheme is presented by two most important indicators: (i) benefit suitability or adequacy, meaning the scheme must

guarantee the minimum living standards for the pensioners, and (ii) short-term and long-term financial balance, meaning that the balance should be guaranteed even in the worst economic conditions. Given the current regulations of the pension scheme, a number of long-term challenges regarding financial sustainability are emerging.

First, the rapidly aging population resulted from decreasing fertility rates and increasing life expectancy of the elderly will be a critical factor for maintaining the current PAYG DB scheme. Figure 9.6 (left panel) presents the historical and projected demographic dependency ratios in Viet Nam during 1990–2050. It shows that the total dependency ratio will be mostly driven by old age dependency ratio, due to increases in both absolute and relative number of elderly in the total population in the coming decades.

Figure 9.6 (right panel) presents the projected scheme dependency ratio – measured by ratio of number of pensioners to number of active contributors – if the scheme’s design is remained the same in the next 50 years. In fact, the scheme’s dependency has increased over the past years, from 1/17 in 2004 to 1/15 in 2008. It is projected that the dependency ratio will reach to only 1/6 in 2020 and 1/2 in 2050. It means that keeping the long-term balance between contributions and benefits under such a PAYG DB pension scheme will requires significant trade-offs.

Second, along with increasing life expectancy at retirement ages for both males and females, prevalence of early retirements will obviously result in longer retirement duration, which in turn will put significant pressures on the pension fund balance (Figure 9.7). A recent estimate by Kieu (2009) shows that the average actual retirement age in 2008 was only 53, in which that for males was 55 (or 5 years earlier than the normal retirement age) and for females was 51 (or 4 years earlier than the normal retirement age). At the same time, the

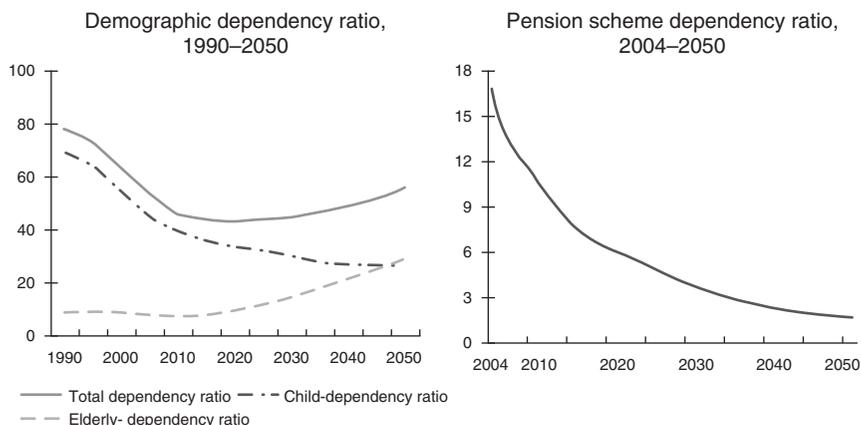


Figure 9.6 Dependency ratios: population and pension scheme.

Sources: United Nations (2008); Gian *et al.* (2010).

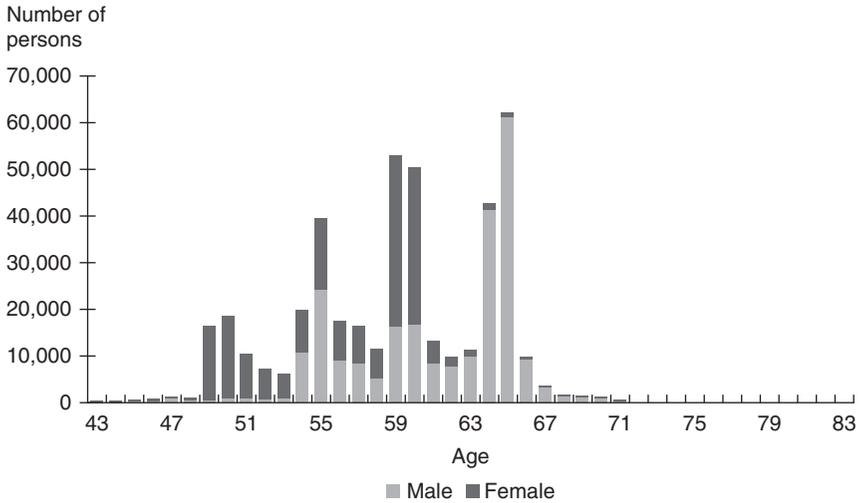


Figure 9.7 Early retirements.

Source: Giang and Pfau (2009b).

average life expectancy of the retirees was 72.5, in which that of males was 71, and of females was 74. This means that the average number of years for retirement was about 19.5 years, in which that for males was 16 years and for females was 23 years. However, a 28-year contribution can only provide pension benefits for only 10 years, so that the remaining 9.5 years of benefit receipt must be paid by other sources rather than the pension fund.

Third, a number of projections have shown that the current PAYG DB pension scheme in Viet Nam will not be financially viable. For instance, static simulations by Gian *et al.* (2009) indicate the same findings that the pension balance will be zero from 2034 and totally depleted by 2039. Giang and Pfau (2009b), using stochastic simulations, also show that the pension fund will be unbalanced from 2038 and depleted in 2051 with 90% confidence interval of 2 years for estimation. To balance the fund, Giang (2008) implies that the contribution rate must be 30%, which is 10 percentage points higher than the current rate. The OECD (2008) indicates that it would be more than 40%. Such an expected contribution rate would be very costly since it would make contribution evasion more prevalent due to heavier burdens for contributors.

The last but most critical long-term issue regards dealing with fairness among generations due to implicit pension debts (IPDs). Giang (2008), using an open-system approach to estimate IPDs for Viet Nam if the system remains the same until 2050, shows that the scheme will accumulate a large amount of debt (Table 9.4), which in turn will negatively influence the fund itself and government budgets.³

Table 9.4 Estimated pension liabilities, 2000–2050

<i>Discount rate</i>	<i>Total pension liabilities as % of GDP 2000</i>
3%	108
5%	63
6%	50

Source: Giang (2008)

In general, without systematic transformations of the current pay-as-you-go DB, Viet Nam may be involved in a future pension crisis, characterized by financial instability and generational inequity. Sustaining the scheme financially and maintaining equity among generations are difficult policy questions, particularly under limited financial and administrative capacity, but Viet Nam must find policy options that adapt to specific social and economic situations in order to remedy the aforementioned issues in the long term.

9.3.6 Reform directions

There are various types of pension schemes suitable for reform. Nevertheless, to avoid future financial difficulties and generational inequity, it is suggested to shift from the current pay-as-you-go DB scheme to a funded-type scheme, particularly a system of individual accounts. Partial or full shift depends on the specific demographic and socio-economic conditions of the country. A funded-type scheme is preferred for the following crucial reasons. First, a funded-type scheme will raise the economic benefits for the participants, because they can save during their working life, and then finance themselves when they are retired. During the time of accumulation, saving can be invested in financial markets to earn interest, which is higher than the implicit rate of return generated by a pay-as-you-go (PAYG) scheme (Feldstein, 1998). This result is apparent, because there are no real investments and no real rates of return in a PAYG scheme, in which contributions of the current contributors are paid for the current pensioners.

Second, shifting to a funded scheme will avoid unaffordable benefit promises, and thus avoid abrupt increases in the contribution rates as the population ages. This result is already pointed out in the previously mentioned projections. Further, shifting to a funded scheme is associated with increases in private savings in the long-term, thus building long-term national savings, and eventually economic growth. Financing methods for shifting should be thoroughly discussed, however, because it will be meaningless if it crowds out other forms of private saving, or leads to greater public deficits (James, 1998).

Third, moving from a DB to a defined contribution (DC) scheme is desired for a number of reasons, but the main rationale is that benefits are closely linked with contributions in a DC scheme, and this prevents participants from

evading contributions. Under a DC scheme, evasion of contributions means that participants reduce their own pensions, while evasion of contributions in a DB scheme helps participants to earn benefits by ‘exploiting’ others, particularly younger generations. Furthermore, a DC scheme discourages early retirement and makes financial viability less sensitive to early retirement decisions. In this scenario, the retirement benefits will be automatically adjusted by an actuarially fair annuity, so that neither aging nor early retirement affect the financial viability of the pension scheme. Fraudulent disability claims, whereby beneficiaries enjoy benefits at the expense of the others, can also be prevented via a DC scheme.

In a DB scheme, early retirements and disability entitlements are frequently observed because early retirees and the disabled can collect greater benefits than if they waited until retirement. Also, with an aging population, governments will be confronted with the difficult task of raising the normal retirement ages continuously to keep up with longevity (James, 1998).

Recently, the notional defined contribution (NDC) scheme has emerged as, to some extent, a successful solution for pension reform in some countries. Sweden, Italy, and Poland are the forefront countries applying this model. Although the NDC scheme is ostensibly DC, it is still PAYG. However, in comparison with a PAYG DB, an NDC may be more favored since contributions and benefits have a closer link, and the transitional costs can be avoided by keeping both contributions and benefits in the same pay-as-you-go scheme. For the case of Viet Nam, moving from pay-as-you-go DB to a funded-type scheme via an NDC will help to avoid making possible IPDs explicit. Also, such a change may not be as costly as moving directly to a system of individual accounts.

With regard to generational equity, however, it is worth noting that an NDC cannot completely solve the problem. First, with the nature of the pay-as-you-go financing mechanism, an NDC needs higher contribution rates, and therefore it may create generational inequity, although this can be solved using a ‘buffer fund’, which is a temporarily accumulated fund of pay-as-you-go DB. More importantly, the notional interest rate during contributions and conversion rate of annuity for retirement are subject to political manipulation (James, 1998) because it is easy for government to change benefit formulas.

Second, as Kunieda (2001) discusses, an NDC may be able to reduce inter-generational inequity only when it is used for reducing the current benefits received by pensioners, and moving to an NDC becomes meaningless (just like ‘old wine in a new bottle’) if benefit levels remain the same, or if the notional rate of returns is higher than population growth rate plus per-capita income growth in a dynamically efficient economy.

Third, timing and targeted groups for reforms are extremely important. As Feldstein (1998) argues, timing for reform depends on the popularity of the pay-as-you-go DB scheme in the country, because it has close links with IPDs. In the case of Viet Nam, as coverage rate of the scheme is still small, reform should be started as soon as possible, so as to avoid inevitably costly late reforms.

Regarding targeted groups for reform, this will depend on how long people have been involved in the pay-as-you-go DB scheme. For instance, in Italy at the time of reform in 1996, those with less than 18 years of contribution would move to new scheme, while those with more than 18 years of contribution could opt for the new scheme. Careful estimation and consideration on ‘winners’ and ‘losers’ are necessary for a successful transfer.

Fourth, regulations for the voluntary pension scheme should also be revised, so that non-state workers and other groups of people can easily join. It should be possible to transfer from a voluntary and mandatory pensions and vice versa. Such transformation can guarantee equal benefits for those who have the same historical contributions.

9.4 Non-contributory pension: dealing with old age poverty

The current social protection in Viet Nam shows that a contributory pension scheme alone will not be able to completely deal with old age vulnerability and poverty, because it merely covers a small percentage of the elderly, who are usually in the better-off groups, and contributory pension benefits account for only about 10% of total income of the elderly households (Giang and Pfau, 2007). Recent studies, such as Evans *et al.* (2007); Giang and Pfau (2009c) and Giang (2010), indicate that a large number of Vietnamese elderly, particularly those at more advanced ages, those living in rural and mountainous areas, ethnic minorities, and those belonging to low-income quintiles, are critically vulnerable to poverty. Many elderly people are also living near the poverty line (Table 9.5).

In Viet Nam, a non-contributory pension (NCP) scheme has been implemented since 2004. In the beginning, it provided a benefit of D65,000 (or about \$4.2) per month to the old age person aged 90 and over who did not have any contributory pension benefits. In 2007, the lowest eligible age was reduced to 85, and the benefit was increased to D120,000 (about \$7.5) per month. From 2010, the lowest eligible age was reduced to 80 and the benefit was increased to D180,000 (about \$9.5) per month. As of 2008, there were 663,923 old aged people receiving this pension, and the total cost was about D961 billion. The number of beneficiaries has not increased significantly, and neither has the total cost.

However, under such a scheme, more than two-thirds of eligible individuals have not received any benefits, and some provinces have not carried out this scheme (NACSA, 2006). ILSSA and UNFPA (2007) show that the impacts of the current scheme are still limited in terms of both coverage and poverty reduction. A recent survey by the Vietnamese Elderly Association in 2010 shows that the leakage rate of the current scheme is high, partially due to the fact that ‘eligible’ old age persons are listed by communal authorities or because of an unadjusted local poverty line (Viet Nam Association for the Elderly, 2010).

In addition, Viet Nam will enter an ‘aging phase’ from 2010, but has just joined the rank of low middle-income countries,⁴ and as such it may be

Table 9.5 Vietnamese old age poverty incidence, 2008

<i>Elderly group</i>	<i>50% poverty line</i>	<i>Official (100%) poverty line</i>	<i>125% poverty line</i>	<i>200% poverty line</i>
<i>All elderly</i>	0.9	13.3	26.5	58.2
<i>By age</i>				
60–69	0.6	10.2	22.8	54.9
70–79	1.1	16.3	29.3	60.5
80+	1.5	15.7	31.0	62.3
<i>By gender</i>				
Male	0.8	11.7	23.5	55.7
Female	1.0	14.4	28.7	59.9
<i>Ethnicity</i>				
Vietnamese	0.4	12.4	24.5	53.1
Ethnic minorities	6.9	43.2	63.8	78.7
<i>Residential areas</i>				
Rural	1.2	17.0	33.5	68.5
Urban	0.1	3.7	8.2	31.0

Source: Author's calculations using VHLSS 2008.

'becoming old before becoming rich'. Without implementing social assistance policies adapting to such a situation, Viet Nam will face a lot of problems in dealing with poverty and vulnerability for the old age population in one or two decades from now.

Given low administrative and financial capacity, it would be costly if Viet Nam still continues the current NCP scheme. A common suggestion from a number of recent studies is that Viet Nam should implement a *universal* NCP scheme, as its costs will be in line with those of other developing countries, which can help to reduce poverty incidence for many elderly people. For example, Week *et al.* (2004) estimate that it would cost about 2% of 1998 GDP to cover all people aged 65 and over. Giang and Pfau (2009c) also find that, with less than 2% of 2004 GDP, such a universal NCP scheme can lift hundreds of thousands of elderly people in Viet Nam to overcome poverty, and the scheme focusing on elderly females and elderly living in rural areas would be the most financially efficient scheme.

9.5 Concluding remarks

Under the situation of a low middle-income country with an aging population, it is suggested that the pension scheme be reformed so as to stabilize pension fund balance, reduce old age poverty, and maintain generational equity. Viet Nam is now growing in line with such trends, so that discussion on the key features,

challenges, and reform directions for both contributory pension (CP) and non-contributory pension (NCP) schemes is demanded.

This chapter makes use of available studies to pursue such a research demand. It showed that both CP and NCP schemes have contributed significantly to the social protection system in Viet Nam, which in turn has improved the living standards of many elderly people. Under swift demographic and socio-economic changes, however, the present author has argued that the current operation mechanisms of both schemes might not be working well. In particular, the CP scheme will face both financial instability and generational inequity, while the NCP scheme will experience a high leakage rate, which results in large costs and low effectiveness. As such, the author has argued that moving the former to a funded-type scheme, particularly a system of individual accounts via an NDC would be a solution, while expanding the latter to a universal NCP scheme, with low costs, would help reduce the poverty level of many elderly people. In addition, expansion of the voluntary pension scheme will also help people, particularly those working in the agricultural sector or living in rural and mountainous areas, to cope with various socio-economic risks.

Notes

- 1 In fact, results from the 2008 Mid-term Population Survey show that Vietnamese elderly people accounted for about 9.5% of the total population, and Viet Nam is expected to enter an 'aging phase' from 2010 onwards when the old-age population reaches 10% of the total population. Similarly, Viet Nam also has entered the 'demographic bonus', in which the total dependency ratio is less than 50, from 2010.
- 2 See Section 9.3 for further details.
- 3 For technical discussions of estimating IPDs, refer to Holzmann *et al.* (2004) and Franco *et al.* (2004).
- 4 The World Bank revises country classification annually. Based on the World Bank's 2008 GNI per capita data, the current classification is as follows: low income countries (\$975 or less); lower middle income countries (\$976–\$3,855), upper middle income countries (\$3,856–\$11,905); and high income countries (\$11,906 or more). Viet Nam has joined the 'middle-income country' rank since 2008, which is sooner than expected.

References

- Evans, M., Gough, I., Harkness, S., McKay, A., Dao, T. H. and Do, L. T. N. (2007) 'The Relationship between Old Age and Poverty in Viet Nam'. *United Nations Development Program (UNDP) Vietnam Policy Dialogue Paper No. 2007–08*. Ha Noi: UNDP Viet Nam.
- Feldstein, M. (1998) 'A New Era of Social Security', *The Public Interest*, 130, Winter 1998: Financing Our Old Age.
- Franco, D., Marino, M. R., and Zotteri, S. (2004) 'Pension Expenditure Projections, Pension Liabilities, and European Union Fiscal Rules'. Paper presented at the International Workshop on the Balance Sheet of Social Security Pensions, Hitotsubashi University, Tokyo, 1–2 November 2004.
- Gaiha, R. and Thapa, G. (2007) 'Growth, Equity, and Poverty Reduction in Vietnam: Prospects and Challenges'. In Giang, T. L. (ed.) *Social Issues Under Economic*

- Transformation and Integration in Vietnam, Volume 2* (pp. 7–50). Ha Noi: The Publishing House of Social Labour.
- Gian, T. C., Castel, P., and Giang, T. L. (2010) ‘A Social Insurance Forecast and Simulation Model for Vietnam’, unpublished manuscript for ILSSA and World Bank Viet Nam.
- Giang T. L. (2008) ‘Aging Population and the Public Pension Scheme in Vietnam: A Long-term Financial Assessment’, *East & West Studies*, 20(1): 171–193.
- Giang T. L. (2010) ‘Aging population in Vietnam: Challenges for a Middle-income Country’. Presentation at the VDF Conference on Avoiding the Middle-income Trap: Opportunities and Challenges for Vietnam, Ha Noi, 18 March 2010.
- Giang, T. L. and Pfau, W. D. (2007) ‘The Elderly Population in Vietnam during Economic Transformation: An Overview’. In Giang T. L. and Duong, K. H. (eds.) *Social Issues under Economic Transformation and Integration in Vietnam, Volume 1* (pp. 185–210). Ha Noi: Viet Nam Development Forum.
- Giang T. L. and Pfau, W. D. (2009a) ‘The Vulnerability of the Elderly to Poverty: Determinants and Policy Implications for Vietnam’, *Asian Economic Journal*, 23(4): 419–437.
- Giang T. L. and Pfau, W. D. (2009b) ‘Demographic Changes and the Long-term Pension Finances in Vietnam: A Stochastic Actuarial Assessment’, *Journal of Population Ageing*, 1(2): 125–151.
- Giang T. L. and Pfau, W. D. (2009c) ‘Aging, Poverty, and the Role of a Social Pension in Vietnam’, *Development and Change*, 40(2): 333–360.
- HAI (HelpAge International) (2006) ‘Pension Watch’. Available at: <http://www.helpage.org/Researchandpolicy/PensionWatch/>
- Holzmann, R., Palacios, R., and Zvinienne, A. (2004) ‘Implicit Pension Debt: Issues, Measurement, and Scope in International Perspective’. *Social Protection Department, Working Paper No.0403*. Washington DC: World Bank.
- ILSSA (Institute for Labour Science and Social Affairs) and UNFPA (United Nations Population Fund) (2007) ‘Assessment on Social Pension for the Elderly Persons in Vietnam’. Unpublished report by ILSSA and UNFPA, Ha Noi, October.
- James, E. (1998) *Social Security Reform—Lessons from Other Nations*. Heritage Foundation.
- Kieu, V. M. (2009) ‘Tham luan ve tang tuoi huu nu o Vietnam’ [Discussion on Retirement Age for Females in Vietnam]. Unpublished manuscript, Viet Nam Social Security, Ha Noi.
- Kunieda, S. (2002) ‘Japanese Pension Reform: Can We Get Out of Inter-generational Exploitation?’. In *Pension Reforms in Asian Countries: Proceedings of the International Symposium*, Hitotsubashi University, Japan, February 2002, pp. 23–63.
- MoLISA (Ministry of Labour, War Invalids, and Social Affairs, Viet Nam) (2005) ‘Mot so tinh hình, so lieu ve nguoi cao tuoi o Vietnam’ [The Current Situation and Data on the Elderly People in Vietnam]. Unpublished report, MoLISA Department of Social Protection, Ha Noi.
- MoLISA (2008) ‘Thong ke tinh hình thuc hien bao hiem xa hoi 2001–2007’ [Statistics on social insurance in 2001–2007]. Unpublished database, MoLISA, Ha Noi.
- NACSA (National Assembly’s Committee for Social Affairs) (2006) *Bao cao ket qua giam sat thuc hien chinh sach, phap luat ve nguoi cao tuoi, nguoi tan tat, dan so* [Report on Monitoring and Implementing Policies and Regulations on the Elderly, the Disabled, and Population]. Ha Noi: The Publishing House of Social Labour.

- Nguyen, L. H. (2009) 'An sinh xa hoi Vietnam: Thuc trang va muc tieu chinh sach cho giai doan 2011–2020' [Social protection in Vietnam: Current status and policy objectives for the period 2011–2020]. Unpublished manuscript, MoLISA, Ha Noi.
- Nguyen, T. T. (2009) 'Cai cach bao hiem huu tri: Nhin tu goc do lap phap' (Reforming the pension scheme: An institutional approach), unpublished manuscript. Ha Noi: National Assembly.
- Organisation for Economic Cooperation and Development (2008) *Pension at a Glance: Asia-Pacific Edition 2008*. Paris: OECD.
- Pham, T. G. (2009) *Bao hiem xa hoi Vietnam: Thuc trang, thach thuc va khuyen nghi chinh sach* [Social insurance in Vietnam: Current status, challenges, and policy recommendations]. Ha Noi: PAG, UNDP-MoF.
- Rama, M. (2010) 'Vietnam Social Security: Reserve Fund Management'. Presentation at the Conference on Social Insurance in Vietnam: Implementation Status and Policy Challenges', Ha Noi, 18–19 March 2010.
- Socialist Republic of Vietnam (2008) *Social Insurance Law*. Ha Noi: Transportation and Communication Publishing House.
- United Nations Department of Economic and Social Affairs (2007) *World Economic and Social Survey 2007: Development in an Ageing World*. New York: United Nations.
- United Nations (2008) *World Population Prospects: The 2008 Revision Population Database*. Available at: <http://esa.un.org/unpp/index.asp?panel=2>
- Vietnam Association for the Elderly (2010) 'Report on the implementation of social pension for older people by Decree 67', unpublished manuscript, VAE, Ha Noi.
- Vietnam Social Security (2009) 'Vietnam: An overview on social insurance and social health insurance schemes', unpublished manuscript, VSS, Ha Noi.
- Weeks, J, Nguyen, T., Roy, R. and Lim, J. (2004) *The Macroeconomics of Poverty Reduction: The Case of Vietnam*. Ha Noi: United Nations Development Programme.
- World Bank (2007) *Vietnam Development Report 2008: Social Protection*. Ha Noi: World Bank Viet Nam.

10 Policy options for reforming developing Asia's pension systems

Donghyun Park

The country-specific analysis of the eight developing Asian countries covered in this study – the PRC, Indonesia, the Republic of Korea, Malaysia, Philippines, Singapore, Thailand, and Viet Nam – should make it abundantly clear that the process of building up strong and well-functioning pensions systems is far from complete in the region. The pension systems of the eight countries vary a great deal in terms of key performance indicators such as coverage, replacement rate, sustainability, and overall performance. In addition, the in-depth diagnosis of the country chapters uncovered a wide range of serious shortcomings in every country. The results of OECD's pension modeling exercise in the Appendix give some quantitative estimates of those shortcomings. The case for reform is compelling even in the more developed East and Southeast countries such the Republic of Korea and Singapore. The case for reform is even stronger in less affluent countries, which face a serious risk of turning grey before they turn rich. Furthermore, even more mature old age support systems with a relatively long history, such as those of Malaysia and Singapore, continue to face formidable challenges to their central mandate of delivering adequate, affordable, sustainable, robust and equitable old age income support. All in all, the analysis of the eight country chapters and the pension modeling exercise resoundingly confirm an urgent need for pension reform in developing Asia.

The fundamental driver of pension reform in developing Asia is rapid population aging engulfing the entire region. The advanced economies of Europe, North America and Japan experienced population aging earlier than developing Asia. Latin America and other parts of the developing world are also witnessing a secular increase in the share of the elderly in their total populations. What is striking and unique about developing Asia's own demographic transition in the context of the historical international experience is its sheer speed and scale. Just as the region's economic growth and development is replicating centuries of advanced-economy experience within a few decades, the region is greying much faster than the advanced economies.

Within the broader region-wide demographic transition toward significantly older populations, the region's countries have very different profiles due to major differences in the timing and speed of their respective fertility and mortality declines. However, while the need for pension reform is more urgent in countries

where the demographic transition is more advanced, even countries which still have relatively youthful populations should start to prepare as early as possible to address the socio-economic impact of population aging. After all, policies implemented today will determine the ability of today's workers to prepare for their retirement in 2040 or 2050.

Well-functioning and robust pension systems are a central pillar of any adequate and sustainable old age income support system but there are other components as well. While private young-to-old transfers are declining due to extensive socio-economic transformation, they remain important in most countries. Asset-based income, in particular income from personal savings, is also a significant source of post-retirement income. While the relative importance of the different components differs across countries, the multidimensional nature of old age income support necessarily means that a number of additional policies will have to complement pension reform. For example, financial development fosters sound and efficient financial systems which foster savings and capital accumulation. To cite another example, expanding investment in human capital, thereby improving labor productivity, will help to offset the negative impact of population aging on the size of the workforce. A constellation of mutually supportive policies, including but not limited to pension reform, will be required for developing Asia to successfully meet the enormous social and economic challenge arising from its seismic demographic shift. We now outline the most salient policy options for pension reform in each country, along with common region-wide themes which emerge from those country-specific policy options.

10.1 Country-specific policy options for pension reform

Given the great deal of heterogeneity among the eight countries, both in terms of their overall socio-economic development and the development of their pension systems, we can expect the policy options for pension reform to differ substantially across countries. While the eight country chapters have already spelled out concrete and specific reform directions, here we summarize the most salient country-specific policy options for building up stronger and better pension systems which can deliver economic security throughout retirement.

10.1.1 The People's Republic of China

- 1 Improve transparency and governance
 - Transparency and governance for both state and private sector systems.
 - Government should make timely and accurate information widely available.
- 2 Extend pension participation
 - Improve compliance in the urban system.
 - Proceed with implementation of the new Rural Pension System.

3 Raise normal retirement age

- First step is to raise female NRA to age 60.
- Make actual retirement age flexible, but with fully enhanced pensions for late retirement and appropriately reduced pensions for early retirement.
- Then gradually raise NRA for both males and females to age 65 over the next 25 years.

10.1.2 Indonesia

- 1 Achieve unity of direction and efficient enforcement of a national retirement policy.
- 2 Reduce disparities in social protection provided to different segments of the population.
- 3 Provide adequate and transparent information to build a sufficient consensus on minimum targets for post-retirement income and protection against inflation and longevity that are affordable and sustainable.
- 4 Gradually adjust the normal retirement age to reflect past increases in longevity and make future adjustment dynamically linked to longevity to ensure that programs remain affordable and sustainable.
- 5 Make all lump sum payments convertible to life annuity or programmed withdrawals over remaining lifetime, and gradually phase out lump sum payments in favor of life pensions to increase financial security in retirement.
- 6 Make pension rights portable between all programs without adverse effects on tax treatment to enhance labor mobility.

10.1.3 Republic of Korea

- 1 There should be a clear delineation of the respective roles of the National Pension Scheme and the Basic Old Age Pension Scheme. Since its coverage is 70%, but the benefit level is very low, its purpose is unclear and its poverty-mitigation impact is limited.
- 2 The coverage of the National Pension Scheme should be extended in real terms. It is important to increase the number of insurance years for the insured. More credit should be given for social contributions such as child rearing.
- 3 Financial sustainability matters for the public pension schemes in the long-term, but social sustainability also matters. Therefore, it is necessary to publicize pension schemes to the public and educate the public about them to mobilize popular support for pension schemes.
- 4 Equity between generations and between different public pension schemes must be improved.

- 5 A multi-pillar system should be developed. It is necessary to clarify the respective roles of public and private pensions in old age income security.

10.1.4 Malaysia

- 1 *Begin to construct a multi-tier system for retirement income security.* Under the current system, too large a weight is assigned to mandatory national provident fund, the Employees' Provident Fund (EPF). Therefore, limiting the role of the EPF, expanding social pension and social assistance systems, and encouraging the private pension system, whether employer-based or through financial institutions, is essential.
- 2 *Civil service pension reform.* Currently, civil servants do not contribute to their pensions. The disparity in pension methods – defined benefit for civil servants versus defined contribution for others – is also wide. So a modest reform will be to make future civil servants contribute towards pensions. A more ambitious reform would be to require new civil servants to be part of the EPF, thus aligning them with private sector employees, and improving portability. This will also improve the transparency of the civil service pensions.
- 3 *Managing the political economy of pension reform.* There is currently a lack of trust between the pension authorities and the general public. This needs to be addressed. The establishment of National Social Security Council or other such agency, and greater transparency and accountability of existing social security institutions could help in this regard.

10.1.5 Philippines

- 1 Establish a clear direction towards which the various pension systems should move. This would prevent further divergence and help rectify features that have resulted in departures from original goals.
 - Replacement rate for the basic benefits to be provided by the mandatory system.
 - Establish clear boundary lines between mandatory and voluntary systems.
- 2 Reduce the proportion of the defined benefit component and correspondingly increase that of a new layer of the defined contribution component to achieve the target replacement rate. Subjected to ceilings, this would leave room for private supplementary plans to provide extra income beyond and above the basic needs of the members.
- 3 Implement a more formal system to address the needs of the first pillar. This involves adding savings from a reformed system to other sources of revenues to support the system.

- 4 Establish clear fiduciary responsibilities to administrators of the funds, preferably separating the professional investment function from the administrative functions. There is a need for an umbrella regulation to impose consistent control over the policies of the various institutions.
- 5 Adopt a more product-based review rather than institution-based review in both regulation and taxation to enable a more consistent treatment of pension products relative to products geared for consumption.

10.1.6 Singapore

- 1 *Develop a multi-tiered retirement income system.* The current near exclusive reliance on mandatory savings, administered by the Central Provident Fund, needs to be reduced by introducing budget-financed social pensions, and a better-designed supplementary retirement system (SRS). Social risk-pooling elements also need to be introduced in the insurance schemes, in particular Medishield and Life Annuity, rather than having them based on individuals.
- 2 *Reform governance structure of Central Provident Fund (CPF).* This should focus on ending the implicit tax on CPF and making CPF-related data a public good by making disaggregated data freely available. The CPF board also needs to become more independent and accountable to members.
- 3 *Reform the Central Provident Fund Investment Scheme.* Reform in this area should aim to limit investment choices, and reduce investment management and transaction costs.

10.1.7 Thailand

- 1 Improve replacement ratios for the non-governmental formal sector and for the informal sector, bearing in mind that the rural sector may have lower costs for food and housing.
 - Assure floor level of retirement income, which may vary by region.
 - Means-testing based on income and wealth, if feasible.
 - Finance through national and local government revenues on a pay-as-you-go basis.
 - Discourage lump sums and enable pension portability.
- 2 Increase compliance in pension contributions and payment of taxes generally.
 - Enforce existing laws and possibly new laws.
 - Use stronger, well-publicized enforcement as a deterrent.
 - For malfeasance, damage remedies may be more effective than fines paid to government.
 - Consider specialized courts for enforcing economic and fiduciary regulations.

- Balancing intrusive aspect of enforcement with harm from lack of compliance is required.
 - A funded system with transparency and individual accounts may promote enforcement efforts.
 - Use better accounting rules and additional disclosure to improve enforcement.
- 3 A National Pension Regulator, independent of finance and labor ministries, to do (inter alia) the following:
- Prioritize reforms.
 - Promote a rational combination of funded and pay-as-you-go systems.
 - Mediate among stakeholders (e.g. organized labor, investment and financial service providers).
 - Provide a uniformity of accounting and actuarial principles – greater transparency and coordination of pension laws with tax policy, inheritance law, spouse and family rights.
 - Investment policies and fiduciary norms and administrative costs for funded arrangements.
 - Educate the population.
- 4 Align pension commitments with available resources.
- Move toward greater reliance on funded pensions.
 - Reduce reliance on investment in government or government-directed investments.
 - Change tax structure to reduce use of pension law for wealth accumulation by the wealthy.
 - If lawful, align pay-as-you-go pensions with available government revenues so that entitlements to government pensions do not squeeze out necessary reforms in the informal sector. This could be done, for example, by reducing the annual amount that has tax benefits or capping tax-favored accumulations, perhaps with cost of living adjustment.

10.1.8 Viet Nam

1 Coverage

- *Enterprise registration.* This will ensure that workers, who must join a compulsory pension scheme, will be registered. Given Viet Nam's current demographic dividend status, such policy action will help to increase the number of contributors and thus reduce dependency ratio.
- *Informal sector participation via voluntary system.* The informal sector in Viet Nam is still large in terms of labor force. However, wages in this sector are still low, which in turn dilutes the incentives of workers to join the compulsory pension system. To protect them in the long-term, it will

be useful if voluntary pension scheme, which is simple and transparent, plays a role in attracting these workers.

- *Social pension expansion for the old aged based on a universal scheme.* Many elderly people do not have any source of income, so live in chronic poverty. They will have difficulties coping with economic and social shocks. Many studies show that a universal social pension scheme can be effective in reducing poverty incidence among the old, and in keeping them healthy and socially empowered.

2 Investment

- *Diversify, including investing in international financial markets.* The current investments of the pension scheme have provided low rates of return. Diversifying the investments will reduce both domestic and international financial risks.
- *Reduce lending to government budget as much as possible.* Such lending is prevalent in pension fund investment portfolios. Such lending may precipitate a vicious circle of rising government debt and insolvent pension funds.

3 Financial stability

- *Moving toward a system of individual accounts (IAs) via a notional defined-contribution scheme.* Such a movement will (i) reduce intra- and inter-generational biases in terms of contributions and benefits; (ii) prevent the unsustainable buildup of implicit pension liabilities; and (iii) reinforce the development of financial markets.

10.2 Asia-wide priorities for pension reform

Given the wide disparity in the general income development level and existing pension systems, it is inevitable that different countries will have different priorities in pension reform. At the same time, a number of common themes which have resonance for pension reform throughout the region emerge from the analysis of the eight country chapters. We now outline some of those recurrent region-wide themes in pension reform. In terms of the sequencing of pension reform in developing Asia, the eight reforms have been arranged in terms of urgency, with the first being the most urgent. In particular, any serious pension reform process will have to begin with drawing up a national blueprint for old age income support and building a national consensus on old age income support. An independent National Social Security Council, along with an independent board and pension regulator, will play key roles in building and maintaining such a consensus. Improving transparency, accountability and professionalism, as well as promoting equity and sustainability will help to inspire public confidence and trust in the pension system. Once a pension system is set up, achieving adequate retirement income via expanded coverage and enhanced benefit levels, mitigating old age poverty, and improving returns on pension assets, will all be key areas of reform.

10.2.1 Draw up a national blueprint for old age income support

Most East Asian countries currently have at least some provisions for old age income support but these tend to be piecemeal and fragmented. The first step towards replacing the current patchwork of fragmented, piecemeal provisions with an integrated, coherent and viable system for old age income support is to draw up a strategic national blueprint for old age income support. Such a blueprint will spell out the overall vision of how the country plans to cope with the challenge of providing for the growing number of elderly. The blueprint should take into account country-specific factors such as the current state of the support systems and their main problems, society's preferences about the appropriate division of risk between individual, employer and state, overall income and development level, the political economy environment, and the current and projected age structure of the population. Top-level political leadership which provides unity of direction and efficient enforcement of old age income support policies is required to give substance to the blueprint.

10.2.2 Build a national consensus on old age income support through constant dialogue

The country chapters indicate that in most cases there is no systematic recognition of the challenge of old age income support. Furthermore, there is very little appreciation of the huge social and financial dimensions of the challenge, and no systematic strategy to address it. The government, backed up by top-level political leadership, should take the lead in moving the issue of old age income support from the background to the front and center of public consciousness and public debate. It should also inform the debate by communicating relevant knowledge and information to the general public. For example, the costs of failing to undertake unpopular but necessary parametric reforms such as raising the retirement age should be clearly spelled out in an accessible way. To cite another example, to foster greater participation in pension systems, the government should educate the general public about the risks of myopia and the benefits of saving for retirement. The national consensus would contribute to the establishment of the national blueprint and efficient enforcement of retirement policies under the blueprint.

10.2.3 Set up an independent National Social Security Council

An independent National Social Security Council can play a key role in building and maintaining a strong national consensus behind a sensible and viable national blueprint. The National Social Security Council (NSSC) can be both an advisory and research body, and should be independent of government ministries, employer associations, labor unions, and other stakeholders. A consultative process will reflect, balance and reconcile stakeholder interests. Related to this, NSSC

would improve coordination between different ministries which have some responsibility for pensions, and promote better private-public partnership. Such a body would take a long-term view which more closely aligns pension commitments with available resources. It could also push through consistent and harmonized reform efforts on a permanent basis through advocacy, dialogue and communication, and protect the pension reform process from undue political interference motivated by short-term political gain. There is also a need for an independent board and pension regulator. In terms of personnel, the NSSC and the two bodies require a balanced set of skills and experience, along with a proven track record of serving the public interest. The NSSC should also monitor the adequacy of the regulatory framework, the efficiency of the supervision, and the quality of the professional expertise supporting the operation of the systems.

10.2.4 Improve transparency, accountability and professionalism

Pensions are ultimately promises to provide old age income in the distant future in exchange for contributions today. Therefore, beneficiaries are understandably less than fully confident that the promises will be kept. Public trust and confidence is of utmost importance in building up pension systems with widespread participation and compliance. It follows that pension authorities such as the aforementioned NSSC should publicize the pension system to the public and educate the public about its key features. To inspire trust and confidence, the pension system should be managed with a high degree of transparency and accountability. Information about individual contribution records, projected benefit amounts and the management of pension assets should be readily available in a simple accessible format. An important additional means of inspiring trust and confidence is to enhance professionalism, including more integral and strategic use of information technology and management information systems in the performance of core functions such as collection of payments and payment of benefits.

10.2.5 Promote equity and sustainability

It is clear from the country chapters that there is a lot of disparity between the various segments of the population in terms of coverage, level of net benefits and retirement age. In particular, civil service and military pensions tend to pay more generous benefits than those received by the rest of the population. In some cases, privileged pensions and health care for the two groups pose a major risk to fiscal sustainability. Gradual, rational reduction of such disparities will increase the general public's sense of ownership in pension systems and thus strengthen popular support for pension reform. Many of developing Asia's pension systems, especially those based heavily on defined benefit schemes, are unsustainable in the long run. Without significant reform, the financial burden on future workers will reach levels likely to generate a great deal of resistance. Therefore, achieving an acceptable degree of inter-generational equity benefits not only

future workers but future retirees as well. A high-priority reform area in all countries is to raise the retirement age, which has become obsolete in light of fast-rising longevity. In some cases, the contribution rate will have to be raised substantially.

10.2.6 Achieve adequate retirement income

In many countries, large segments of the population are excluded from the pension system. This means that expanding coverage is a first step for securing adequate retirement income for the widest possible segment of the population. The PRC's efforts to set up a rural pension system is a good example of such efforts. However, it is costly for the main pension system to cover everyone, so supplementary arrangements such as social pensions for the elderly poor are still required. At a broader level, ensuring an adequate retirement income dictates that individuals assume greater responsibility for their own retirement needs. In practice, this is likely to involve supplementing a national defined benefit scheme for basic needs with a defined contribution scheme based on individual earnings. Some specific additional measures for boosting adequacy include raising contribution rates, limiting early withdrawals for non-retirement uses, converting lump sum into annuities¹ and taking innovative approaches to designing pay-out during retirement, improving the operating environment for providers of private pensions, and enhancing portability.

10.2.7 Mitigate old age poverty

Rapid population aging, in combination with inadequate old age income support systems, is heightening the risk of widespread old age poverty. The old are especially vulnerable to long-term poverty since their ability to fully participate in the labor market remains limited. An important first step toward tackling old age poverty is to define the problem. In this connection, the national or local income level required for a minimum standard of living should be clearly defined but its definition should be periodically reviewed. Social pensions financed out of the government budget should aim to provide the elderly poor with the minimum income. Ideally, the benefits must be means-tested and target only those who need them. However, in some cases, it may be more practical to set up universal basic pension schemes which guarantee a minimum standard of living for all elderly and rely on the tax system to improve equity. Regardless of the exact modality of the transfer, fiscal sustainability dictates that the resources be transferred more efficiently and effectively. The protection of dependent spouses is another priority area in fighting old age poverty.

10.2.8 Improving returns on pension assets

In principle, realizing higher returns on the assets of pension systems provides a relatively painless avenue for boosting adequacy since this does not require

major trade-offs. While there is a great deal of variation in the returns performance of developing Asia's pension systems, the country chapters suggest that overall there is significant scope for improvement. However, preceding the need for high returns is a strong prudential framework which would inspire public trust in the management of pension assets. Related to this, the diversion of pension funds for ad hoc fiscal uses should be minimized, and preferably eliminated altogether. Investment functions should be separated from administrative functions, and performed by professional investment managers. If there is adequate institutional capacity, the managers can invest in a more diversified investment portfolio – including greater investment in equities – to raise returns. In the absence of such capacity, simple measures such as reducing administrative costs can increase the level of pension benefits, which is the most relevant measure of returns.

10.3 Final observations – pension reform must be part of the policy package

Although this book focused sharply on developing Asia's pension systems and pension reform, it is unrealistic and unproductive to ignore the overall socio-economic context and overall policy environment in the pension reform process. For example, the underdeveloped financial markets of many of the region's countries constrain the ability of the pension system's investment managers to improve the returns of their investments and the conversion of lump sum benefits into annuities. Therefore, enhancing returns via portfolio diversification and annuitization is more relevant for more developed countries with sound and efficient financial systems. Put differently, policies which promote financial development are complementary to pension system reforms aimed at improving returns and annuitization. Likewise, successfully raising the retirement age requires flexible labor markets which can productively deploy large numbers of older workers. Fiscal reforms, to provide incentives for retirement savings and to safeguard pension assets, and health care reform, to deliver affordable health care for the old are also key components of the package.

At the same time, pension reform can also reinforce and speed up reform in other areas. For example, portability of pensions contributes to greater mobility of workers and hence a more flexible labor market. Therefore, increasing the portability of pensions can complement other labor market reforms such as greater flexibility in the terms and conditions of labor contracts. To cite another example, fully funded schemes can contribute to bigger, deeper and liquid financial markets. Therefore, introducing such schemes can complement financial market reforms such as strengthening the legal and regulatory framework to promote good corporate governance. Pension reform can also serve as a catalyst for health care reform since both old age income and health care are vital components of the wellbeing of the retirees. A comprehensive policy package for the elderly should seek to provide adequate income as well as affordable health care. The need to protect the purchasing power of pension benefits can contribute to

macroeconomic stability by highlighting the importance of low and stable inflation.

East Asian countries have traditionally prioritized growth over adequate, widely accessible and robust social protection systems, including pension systems. However, the sheer speed and scale of Asia's demographic changes, and the serious shortcomings of current pension systems, means that putting off pension reform is no longer an option. For Asia's growing army of elderly, pension systems could deliver a number of major benefits – including consumption smoothing over lifetime, insurance against longevity risk, and poverty relief. However, these benefits have to be traded off against labor market efficiency and, most critically, overall economic growth. The challenge for the region is thus to achieve adequate old age income support without jeopardizing rapid growth. Building up a good pension system entails large opportunity costs, including less resources available for health, education, infrastructure and, more generally, meeting the needs of the non-elderly population. Exactly how a society allocates the large costs and risks associated with old age income support depends on its collective preferences, especially the relative weight of social risk pooling vis-à-vis individual risk taking. Regardless of the allocation, this book has laid out a number of concrete and specific guiding principles for moving forward on the biggest structural challenge looming on the region's horizon, that of coping with exceptionally rapid population aging. Finally, somewhat ironically, the fact that some countries currently have only rudimentary pension systems can be beneficial. This allows those countries to learn from the experiences of the industrialized countries and avoid their mistakes.

Note

- 1 In practice, the conversion of lump sum into annuities and other regular payments, and the more general challenge of phasing the payouts in a way that maximizes old-age economic security is difficult and challenging, given the under-development of financial markets in many Asian countries.

Appendix

Summary of the OECD's pension modelling exercise

Andrew Reilly

A1 Introduction

This Appendix is a summary of the pension modelling exercise in the OECD's *Pensions at a Glance Asia-Pacific 2011*, a joint work between the OECD and OECD/Republic of Korea Policy Centre. The exercise generates quantitative estimates of key pension indicators such as the replacement rate, or the ratio of pension benefits to pre-retirement income. Therefore, this Appendix adds a quantitative dimension to the qualitative analysis of the eight country chapters. The methodology used allows for meaningful comparisons of indicators across countries. This Appendix explains the methodology used for pension modelling, and reports and discusses the modelling results for the eight countries covered by this study. For comparative purposes, it also reports the results of some OECD economies. The Appendix concludes with a recap of the most salient findings which emerge from the pension modelling exercise.

Pension modelling has now become a major issue. What with increasing life expectancy and declining birth rates, the pressure on public spending has never been greater and pensions are at its heart. The OECD has been modelling public pension systems for the last ten years and expanded its coverage to the Asia-Pacific region in 2005. This Appendix is designed to give an overview of the most recent modelling results for the South East Asian region but also to look at these results in a global perspective.

A2 Pension modelling: methodology and assumptions

It is important to emphasize at this early stage that the methodology employed in the modelling of the pension systems is forward looking for individuals that are currently just starting work rather than nearing retirement age. However, this does not mean that the results are any less important, in fact quite the opposite, as future pension costs can be predicted and monitored. It is not only useful to have this information available for each individual country but it is clearly advantageous to enable comparison between countries. With this in mind, a consistent set of economic parameters is preferable, rather than trying to calculate the information country by country.

For the purpose of this analysis we are using a consistent set of economic parameters and have chosen those that are used in all the OECD pension reports, therefore enabling easier comparison. These economic parameters cover price inflation, earnings growth, rate of return and the discount rate. At this point it is worth covering this topic in a little more detail to be clear what values have been chosen. First, for price inflation, the value is 2.5% per year but in practice this has little effect on the results because of indexation, which in many of the Asian countries has to be assumed. Second, real earnings growth is assumed to increase at 2% per year which, given the base assumption of price inflation, implies nominal wage growth of 4.55%. Individual earnings are assumed to grow in line with the economy-wide average. This means that the individual is assumed to remain at the same point in the earnings distribution, earning the same percentage of average earnings in every year of the working life. Third, the real rate of return after administrative charges on funded, defined-contribution pensions is assumed to be 3.5% per year. Finally, the discount rate (for actuarial calculations) is assumed to be 2% per year. The discount rate is set at the same rate as real earnings growth, which is a common finding of growth models and other dynamic economic models.

The final two assumptions used within the modelling framework refer to career length and expected duration of retirement, both clearly key to the assessment of the pension system. Neither of these two parameters are consistent between countries as both are dependent on retirement age. Rather than maintain a consistent career length it is customary in OECD analysis to fix the entry age into the labor market, and for the pension models entry at age 20 is the norm. Therefore, the career length being analysed can vary from 30 years for retirement at age 50 to 48 years for retirement at age 68. Logically this also means that the length of expected retirement also varies considerably as this is dependent on life expectancy at the national retirement age. For this calculation the United Nations Population Database for the year 2050 has been used.

The last thing that needs to be made clear is the definition of what a pension actually means. The word 'pension' to most people means a regular payment. In this sense, many Asian countries do not provide pensions. In Malaysia, benefits are paid as a lump sum at the time of retirement. Workers in Indonesia receive a mix of a single lump sum or an annual payment over five years. A certain minimum amount has to be taken as annual payments over 20 years in Singapore, but the rest can be taken as a lump sum.

Most countries around the world, however, pay out pensions in the form of 'annuities': regular payments until the death of individual members or their survivors. Economists believe that annuities make people better off. The intuition is straightforward. Individual life expectancy is uncertain, so people would have to spend accumulated wealth slowly after retirement to ensure an adequate income should they live a long time. But this kind of self-insurance is costly because it increases the chances that people will consume less than they could have if they knew when they were going to die. This cost can be reduced with annuities, which pool risk across individuals.

An annuity is a kind of insurance against the risk of exhausting savings in old age. The benefit of this ‘longevity insurance’ depends on how risk-averse people are. The more cautious would spend less of their savings in the early years of retirement if there were no annuities to avoid running out of money toward the end of their lives. The benefit of an annuity also depends on interest rates, life expectancy and how much people plan for the long term. Under reasonable assumptions, access to an annuity has been shown to improve welfare at age 65 by 50–100% compared with a world of pure lump-sum pension payments. Some schemes do not even require people to reach retirement before withdrawing money from their accounts.

For example, Singapore’s provident fund provides savings for different purposes, with three different accounts: one earmarked for retirement, one for healthcare expenses and the other with broader uses, most notably housing. The retirement account receives a share of the total contribution, which is 34.5% for people under age 50, that varies with age. This is just under 15% for under 35s, rising to 25% for 50–55 year olds. However, there are no additional earmarked contributions after 55. The healthcare account also receives a contribution that increases with age: from less than 20% for under 35 to 30% for 50–55 year olds and higher still after age 55. For the purpose of this exercise only the contributions specifically apportioned to retirement income have been modelled, but this can lead to possible underestimates in replacement rates, as discussed later.

Finally, the modelling assumes that tax systems and social-security contributions remain unchanged in the future. This implicitly means that ‘value’ parameters, such as tax allowances or contribution ceilings, are adjusted annually in line with average earnings, while ‘rate’ parameters, such as the personal income tax schedule and social security contribution rates, remain unchanged.

A3 Key results from the pension modelling exercise

In this section, we report and discuss the key findings of OECD’s pension modelling exercise.

A3.1 Replacement rate

When all of these parameters and assumptions have been incorporated and modelled, the results produced are obviously the key output. The most widely quoted statistic from the modelling is the gross replacement rate. This measures how effectively a pension system provides a retirement income to replace earnings, the main source of income before retirement. Often, the replacement rate is expressed as the ratio of the pension to final earnings (just before retirement). Here, however, pension benefits are shown as a share of individual lifetime average earnings (revalued in line with economy-wide earnings growth). Under the baseline assumptions, workers earn the same proportion of

Table A1 Gross pension replacement rates by earnings

	<i>Individual earnings, multiple of mean for men (women where different)</i>			
	<i>Median earner</i>	<i>0.5</i>	<i>1</i>	<i>1.5</i>
Australia	52.6 (50.1)	73.3 (70.8)	47.3 (44.8)	38.6 (36.1)
Canada	48.5	76.6	44.4	29.6
China, People's Rep. of	82.5 (65.1)	97.9 (78.5)	77.9 (61)	71.2 (55.2)
France	49.1	55.9	49.1	41.3
Germany	42.0	42.0	42.0	42.0
Indonesia	14.1 (12.4)	14.1 (12.4)	14.1 (12.4)	14.1 (12.4)
Italy	64.5 (50.6)	64.5 (50.6)	64.5 (50.6)	64.5 (50.6)
Japan	36.3	47.9	34.5	30.0
Korea, Rep. of	46.9	64.1	42.1	31.9
Malaysia	30.4 (27.1)	30.4 (27.1)	30.4 (27.1)	30.4 (27.1)
New Zealand	47.8	77.5	38.7	25.8
Philippines	85.3	113.4	76.7	64.5
Singapore	12.7 (11.2)	12.7 (11.2)	12.7 (11.2)	10.7 (9.5)
Thailand	50.0	50.0	50.0	50.0
United Kingdom	37.0	53.8	31.9	22.6
United States	42.3	51.7	39.4	35.3
Viet Nam	67.4 (61.9)	67.4 (61.9)	67.4 (61.9)	67.4 (61.9)

Source: OECD pension models.

economy-wide average earnings throughout their career. In this case, lifetime average revalued earnings and individual final earnings are identical. So in summary, the gross replacement rate is defined as gross pension entitlement divided by gross pre-retirement earnings, and the findings are shown below.

From Table A1 it is quite clear that there is great variation between countries and for that matter between earnings levels. We start though with a more detailed look at the between-country discrepancies, noting first that the replacement rate for average earners ranges from a high of 77.9 in the People's Republic of China (PRC) and 76.7 in the Philippines to a low of 12.7 in Singapore and 14.1 in Indonesia. In Singapore, as mentioned previously, only a small part of the contribution to the provident fund is ring-fenced to provide retirement income. In practice, people might not spend the maximum allowed on other things, such as housing and healthcare, meaning that retirement incomes in practice may well be higher than those shown. The low replacement rate for Indonesia reflects the small size of the mandatory contribution, although it is important to state that these are results based on a full career for individuals commencing work now and

not for someone just about to reach retirement. Over half of all the countries listed, 10 out of 17, have a gross replacement rate of between 30% and 50% upon retirement, for those on average earnings. It is also important to note that the gross replacement rate for women is at most equal to that of men and is lower for all seven of the countries where separate figures are listed. This is because the working career of a woman is less than that of a man in many countries because of lower retirement ages for women. Over the last few years there has been a general trend to equalise the retirement ages of men and women in EU and OECD countries but this trend has yet to spread to those South East Asian countries with differing retirement ages.

While the gross replacement rate gives an adequate overview of the system, the net replacement rate actually shows what the retirees can expect to receive after taxes and social security contributions have been deducted. It is officially defined as the individual net pension entitlement divided by net pre-retirement earnings, taking account of personal income taxes and social security contributions paid by workers and pensioners. Otherwise, the definition and measurement of the net replacement rates are the same as for the gross replacement rate mentioned previously.

Upon studying Table A2, in conjunction with that for the gross replacement rates, it is clear that taxation and social security contributions have a limited impact on the replacement rates for the Asian countries listed. Generally those receiving retirement income in the Asian countries are not subject to taxation or social security contributions, meaning that the actual monetary amount of the pension is the same for the gross and net replacement rate calculations. Combining this with the relatively low levels of contributions and taxation for workers means that the net replacement rate is only slightly higher than the gross rate. This is in stark contrast to the majority of the other OECD countries listed where it is apparent that there is a considerable increase in the net replacement rate figure in comparison to the gross replacement rate estimate. This is due mainly to the increased tax allowances for pensioners and the slight reduction in social security contributions that they are liable to pay.

As with the gross replacement rates it is abundantly clear that there is considerable variation in the results between country and in some cases earnings level. For average earners it is clear that PRC and the Philippines have the highest net replacement rate, with the same being true for low earners though the order of the two countries is reversed. For high earners, PRC still remains at the top but is now followed by Viet Nam, which has a consistent replacement rate across all the earnings levels. In contrast, the net replacement rates in Singapore are always lowest regardless of the earnings level chosen, immediately followed by Indonesia and then Malaysia, though the latter is somewhat higher. All three of these countries have a consistent contribution level across all the earnings levels and are not affected by changes in taxation rules, explaining the consistent replacement rates both across the different earnings levels and also between gross and net.

Table A2 Net pension replacement rates by earnings

	<i>Individual earnings, multiple of mean for men (women where different)</i>							
	<i>Median earner</i>		<i>0.5</i>		<i>1</i>		<i>1.5</i>	
Australia	65.9	(63.2)	82.5	(79.7)	58.9	(56.9)	47.1	(45.3)
Canada	61.5		88.7		57.3		39.7	
China, People's Rep. of	90.6	(71.5)	106.4	(85.3)	86.8	(69.2)	80.1	(64.7)
France	60.8		69.4		60.4		53.1	
Germany	58.4		55.6		57.9		57.2	
Indonesia	14.8	(13.1)	14.7	(13)	14.9	(13.2)	14.9	(13.2)
Italy	76.2	(63)	78.2	(63.4)	75.3	(62.1)	76.7	(62.1)
Japan	41.4		52.7		39.7		34.9	
Korea, Rep. of	51.8		69.8		47.5		37.3	
Malaysia	34.9	(31.1)	34.7	(30.9)	34.9	(31.1)	35.4	(31.6)
New Zealand	49.6		79.4		41.5		29.4	
Philippines	101.0		131.3		92.3		79.4	
Singapore	16.0	(14.1)	15.8	(13.9)	16.1	(14.2)	13.9	(12.2)
Thailand	52.0		51.6		52.1		52.3	
United Kingdom	48.0		67.5		41.5		30.5	
United States	53.4		63.8		50.0		46.6	
Viet Nam	73.3	(67.3)	73.3	(67.3)	73.3	(67.3)	73.3	(67.3)

Source: OECD pension models.

A3.2 Pension wealth

Replacement rates give an indication of the pension promise, but they are not comprehensive measures; they look only at benefit level at the point of retirement. For a full picture, life expectancy, retirement age and indexation of pensions must also be taken into account. Together, these determine for how long the pension benefit is paid, and how its value evolves over time. Pension wealth – a measure of the stock of future flows of pension benefits – takes account of these factors. It can be thought of as the lump sum needed to buy an annuity giving the same flow of pension payments as that promised by mandatory retirement-income schemes.

The most common pension age in OECD countries is 65, although Germany, the United Kingdom and the United States will all increase pension age to at least 67 in the future. In contrast, the average pension age for men in Asia/Pacific countries outside the OECD is around 59 while for women it is just 57. However, countries outside of the OECD are projected to have somewhat shorter life expectancies and so it might be reasonable for them to have earlier pension ages.

Combining information on national pension ages and life expectancy, it is possible to calculate the expected amount of time that people will spend in retirement. In OECD countries the average is just 18.3 years, compared with 20.3 years in the Asian countries outside the OECD. The average pension age for men is 6 years earlier in non-OECD countries than in OECD members shown. Shorter life expectancy cuts the difference in retirement duration between the two groups of countries, but does not eliminate it.

For women, the differences are starker, pension age is 7 years younger on average for women in countries outside the OECD. Expected retirement duration is 22.5 years for women in the OECD countries, compared with 18.3 years for men. This mainly reflects differences in life expectancy between the sexes. However, for the other Asian countries, expected retirement duration for women is 25.6 years, a full 3 years longer than in the OECD countries shown. This reflects both women's longer life expectancy and earlier pension age in a number of countries.

The calculation of pension wealth uses a uniform discount rate of 2%. Since the comparisons refer to prospective pension entitlements, the calculations use country-specific mortality rates by age and sex projected for the year 2050. Pension wealth is expressed as a multiple of gross annual individual earnings.

Table A3 shows that gross pension wealth for men is highest in PRC at the average and low earnings levels, followed by Viet Nam for average earners and New Zealand for the low earners. The figures vary from 14.9 in PRC for average earners to 2.2 in Singapore and 2.6 in Indonesia. This is not a surprising result as these countries were also at the extreme end in relation to gross replacement rates. For high earners Viet Nam is highest at 14.7, though PRC follows closely behind at 13.6. As with the replacement rate calculations above, the figures for Viet Nam are constant across all earnings levels, which is also the case in Germany, Indonesia, Italy, Malaysia and Thailand. For the other countries the pension wealth multiple decreases with earnings levels as the replacement rates are normally higher for lower earners.

Since women's life expectancy is longer than men's, pension wealth for women is relatively higher in all countries. This is simply because pension benefits can be expected to be paid over a longer retirement period. Also, some countries still have lower retirement ages for women thus extending the payment period even further. For example the gross pension wealth for women in Viet Nam is 18.1 times earnings in comparison to 14.7 for men, explained by the retirement age being 55 for women and 60 for men.

Net pension wealth, like the equivalent indicator in gross terms, shows the present value of the lifetime flow of pension benefits (see Table A4), but it also takes account of taxes and contributions paid on retirement incomes. Both figures for pension wealth are expressed as a multiple of individual gross earnings. The reason for using gross earnings as the comparator is to isolate the effects of taxes and contributions paid in retirement from those paid when working. This definition means that gross and net pension wealth are the same where people are not liable for contributions and income taxes on their pensions. Because net pension

Table A3 Gross pension wealth by earnings

	<i>Individual earnings, multiple of mean</i>					
	<i>0.5</i>	<i>1.0</i>	<i>1.5</i>	<i>0.5</i>	<i>1.0</i>	<i>1.5</i>
	<i>Men</i>			<i>Women</i>		
Australia	13.1	8.0	6.3	14.7	8.7	6.8
Canada	12.9	7.5	5.0	14.4	8.4	5.6
China, People's Rep. of	18.7	14.9	13.6	20.0	15.5	14.0
France	10.6	9.3	7.9	12.1	10.6	8.9
Germany	7.7	7.7	7.7	9.2	9.2	9.2
Indonesia	2.6	2.6	2.6	2.6	2.6	2.6
Italy	10.6	10.6	10.6	11.1	11.1	11.1
Japan	8.1	5.8	5.1	9.7	7.0	6.1
Korea, Rep. of	9.9	6.5	4.9	12.0	7.8	6.0
Malaysia	6.4	6.4	6.4	6.4	6.4	6.4
New Zealand	16.1	8.0	5.4	18.3	9.2	6.1
Philippines	14.2	9.8	8.3	16.8	11.5	9.8
Singapore	2.2	2.2	1.9	2.2	2.2	1.9
Thailand	9.1	9.1	9.1	10.4	10.4	10.4
United Kingdom	7.6	4.5	3.2	9.0	5.3	3.8
United States	7.6	5.8	5.2	8.9	6.8	6.0
Viet Nam	14.7	14.7	14.7	18.1	18.1	18.1

Source: OECD pension models.

wealth is expressed as a multiple of individual gross earnings, it is less than gross pension wealth (if there is some tax liability during retirement) or the same (if pensions are not taxed or pension income is below tax thresholds). This is clear upon comparison of the two tables, gross pension wealth (Table A3), and net pension wealth (Table A4).

Unsurprisingly, the same countries are at the top of the rankings for net pension wealth as was the case for gross pension wealth. PRC is highest for lowest earners followed by Viet Nam, with the two countries being reversed for both average and high earners. This applies for both men and women and as before the figures for women are always at least equal to those of men. Again the figures are lowest in Singapore and Indonesia and as there is no tax or social security liability following retirement the levels are the same for both gross and net replacement rates.

A3.3 Coverage

Although the pension systems in Asia are available to the majority of the population it is still not an option that many people are considering. Therefore, unless

Table A4 Net pension wealth by earnings

	<i>Multiple of individual annual gross earnings</i>					
	<i>0.5</i>	<i>1.0</i>	<i>1.5</i>	<i>0.5</i>	<i>1.0</i>	<i>1.5</i>
	<i>Men</i>			<i>Women</i>		
Australia	13.1	7.7	5.6	14.7	8.6	6.2
Canada	12.9	7.4	4.9	14.4	8.3	5.5
China, People's Rep. of	18.7	14.6	12.7	20.0	15.5	13.7
France	10.0	8.3	6.8	11.4	9.4	7.8
Germany	6.9	6.1	5.7	8.3	7.4	6.8
Indonesia	2.6	2.6	2.6	2.6	2.6	2.6
Italy	10.3	8.8	8.3	11.1	9.6	8.9
Japan	7.3	5.4	4.5	8.8	6.4	5.4
Korea, Rep. of	9.9	6.5	4.9	11.9	7.8	5.9
Malaysia	6.4	6.4	6.4	6.4	6.4	6.4
New Zealand	13.2	6.6	4.4	15.1	7.5	5.0
Philippines	14.2	9.8	8.3	16.8	11.5	9.8
Singapore	2.2	2.2	1.9	2.2	2.2	1.9
Thailand	9.1	9.1	9.1	10.4	10.4	10.4
United Kingdom	7.6	4.4	3.1	9.0	5.1	3.6
United States	7.6	5.6	4.9	8.8	6.5	5.6
Viet Nam	14.7	14.7	14.7	18.1	18.1	18.1

Source: OECD pension models.

action is taken quickly across the region, there are going to be millions of people coming up to retirement without any means of financial support immediately following their retirement.

The latest estimates of pension coverage within the region are provided by the World Bank in their pension database and are shown in Table A5. Coverage of formal pension systems in Asia/Pacific is much lower than in OECD countries. This is unsurprising given the different way the economies work. Countries with large rural populations predominantly engaged in small-scale agriculture and high degrees of absolute poverty are unlikely to have high coverage. Moreover, networks of family support obviate the need for formal pension systems.

Unfortunately, many of the figures are only available for 2005 and so may be slightly dated at the time of writing but they do at least provide an indication of the current position. From the table it is clear that the level of coverage within the Asian countries is considerably lower than that for the OECD countries listed. For the OECD countries, between 70% and 72% of the population

Table A5 Coverage by mandatory pension schemes

	<i>Year</i>	<i>Members</i>	<i>Percentage of population aged 15 to 65</i>	<i>Percentage of labor force</i>
Australia	2005	9,578,000	69.7%	90.7%
Canada	2005	15,950,000	71.3%	89.8%
China, People's Rep. of	2005	159,032,000	17.3%	20.7%
France	2005	24,319,400	61.4%	87.9%
Germany	2005	36,156,000	65.6%	87.6%
Indonesia	2002	15,683,000	11.3%	15.7%
Italy	2005	22,146,000	57.1%	90.2%
Japan	2005	63,560,000	75.0%	95.2%
Korea, Rep. of	2005	11,832,710	34.3%	49.5%
Malaysia	2008	5,746,477	32.5%	47.0%
New Zealand	2003	1,921,300	72.3%	92.7%
Philippines	2008	7,863,340	14.1%	26.5%
Singapore	2008	1,610,000	45.3%	62.9%
Thailand	2005	9,700,000	21.0%	25.9%
United Kingdom	2005	28,402,200	71.5%	92.3%
United States	2005	141,129,000	71.5%	92.1%
Viet Nam	2005	5,805,000	10.8%	13.5%

Source: World Bank pension database.

aged 15 to 65 are covered under at least one pension scheme. Taking just the labor force as the base, the percentage increases dramatically to around 90% in all countries. The exception to this is the Republic of Korea which only has 34.3% of the population aged 15 to 64, or 49.5% of the labor force, covered. The difference between the percentages for the Republic of Korea and the other OECD countries can at least partly be explained by the relative immaturity of the pension system, as it was only introduced in 1988 and the level of coverage has been increasing ever since. It is clear though that there is still a lot of progress that needs to be made in the Republic of Korea, never mind the other countries in Asia.

For the non-OECD Asian countries, as with the other indicators provided, there is considerable variation between countries. For example, 45.3% of those aged 15 to 65 are covered by at least one pension scheme in Singapore while only 10.8% are covered in Viet Nam. Generally for this population group the level of coverage is between 10% and 20% (around one-fifth of the OECD countries). For the labor force the level of coverage increases in Singapore to 62.9%, again the highest for the non-OECD Asian countries. Again, Viet Nam is at the bottom of the rankings with coverage of 13.5% of the labour force, followed closely by

Indonesia at 15.7%. The remaining countries are between 20% and 30%, with the exception of Malaysia at 47.0% (between one-quarter and one-third of those of the OECD countries).

The size of the pension systems already in place are significant when compared to the OECD countries, despite the fact that the level of coverage is still quite low. For example, there are already 159 million members of schemes in PRC covering just over 20% of the labor force whilst over 92% of the labour force in the United States is covered with only 141 million members, yet the United States is by far the largest OECD country based on population alone. Clearly PRC is an outlier on this basis as the eligible population is so vast in comparison with the other countries listed, but the pension schemes in Indonesia, the Philippines and Viet Nam still have the potential to have more members than those in all OECD countries, with the exception of the United States and Japan.

A3.4 Old age support ratio

The alternative method of support for the elderly in many Asian countries has been the strong family support element that has been in place. It is not uncommon for several generations of families to live within the same house and therefore to provide support to each other. This has meant that it has not necessarily been important for the pensioner to be able to provide for their own retirement as they have been able to rely on others. Unfortunately, however, the situation is changing particularly rapidly in a few countries. In many countries within the region it is now not uncommon for the working age population to be more urban-based than previous generations, while the elderly still remain in rural communities.

Population aging is one of the main driving forces behind the wave of pension reforms in recent years. The old age support ratio is an important indicator of the pressures that demographics pose for pension systems. It measures how many people there are of working age (20–64) relative to the number of retirement age (65+). At the moment, there are just over four people of working age for every one of pension age on average when looking at the OECD as a whole, as seen in Figure A1.

From these graphs it is clear that the four European countries on the left follow the same trend over time, decreasing from around 6 in 1950 to just under 4 in 2010 and around 2 in 2050. In an attempt to help ease this problem there have been proposals to increase the retirement ages in many of the countries and in fact retirement age is going to increase to 68 in the United Kingdom by the middle of this century. The same pattern is also evident in the remaining Anglophone OECD countries in the right-hand graph. The other two countries included, Japan and the Republic of Korea, show a slightly different pattern over time. In 1950, there were 10 people aged 20–64 for everyone aged 65+ in Japan and 16 in the Republic of Korea, but from then on the numbers have decreased rapidly. By 2010 the ratio was 3:1 in Japan and 6:1 in the Republic of Korea and will be well

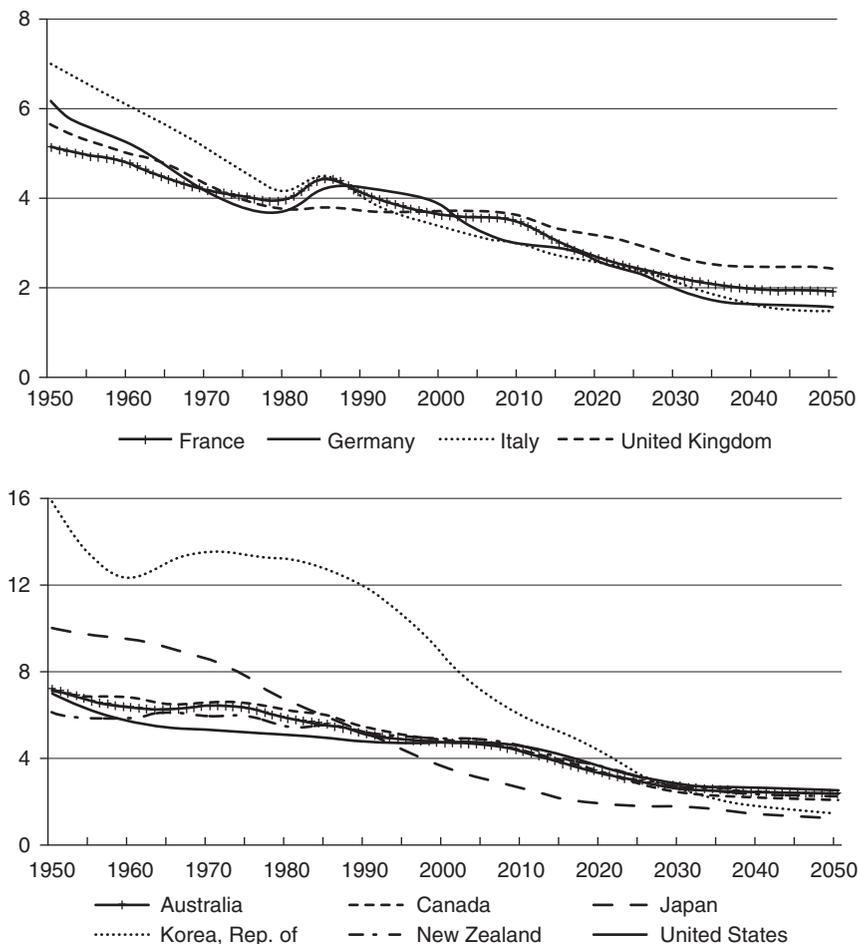


Figure A1 Old-age support ratios: historical and projected values, OECD, 1950–2050

under 2:1 by 2050. In fact the decrease has been so marked in the Republic of Korea that it will have gone from being the second youngest country in the OECD in 1950 to being the second oldest by 2050, with Japan being the oldest. The pattern for the non-OECD Asian countries is somewhere in between the two extremes of Japan/Republic of Korea and the EU/Anglophone OECD countries as shown in Figure A2.

While over the long-term the Asian countries do not quite reach the same level as the OECD countries in 2050 the rate of change is far more dramatic. For example, the old age support ratio was just under 20 for Singapore in 1950, had decreased to 6.5 in 2010 and will decline further to 1.6 by 2050 less than one-twelfth of the value in 1950. Although Singapore is an extreme case, the situation in many other Asian countries is also going to place considerable pressure on the

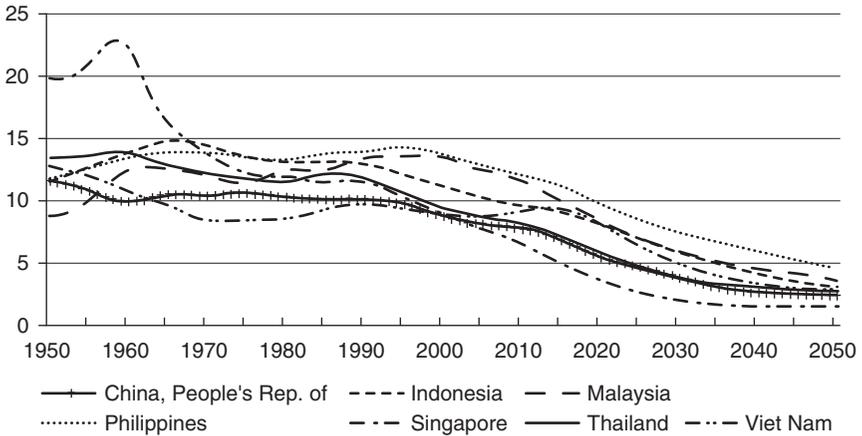


Figure A2 Old-age support ratios: historical and projected values, non-OECD Asian countries, 1950–2050.

pension systems in place. In PRC the support ratio was 11.7 in 1950, decreasing to 7.8 in 2010 and is forecast to reach 2.4 by 2050. The situation is similar in Viet Nam, Malaysia and the Philippines, though for the latter two countries virtually all of the decline occurs after 2010.

A4 Concluding observations

Many of Asia's retirement-income systems are ill prepared for the rapid population aging that will occur over the next two decades. The demographic transition – to fewer babies and longer lives – took a century in Europe and North America. In Asia, this transition will often occur in a single generation. Asia's pension systems need modernizing urgently to ensure that they are financially sustainable and provide adequate retirement incomes.

In some countries, PRC and Viet Nam in particular, pension levels are high relative to earnings. Early retirement ages, especially for women, provide additional financial pressure. These systems are unlikely to be sustainable as populations age and retirement-income provision matures, yet many Asia/Pacific countries also face a problem of adequacy of retirement incomes. There are four reasons why current pension systems are unlikely to deliver a secure income in old age.

- Coverage of formal pension systems is relatively low.
- Withdrawal of savings before retirement is very common.
- Pension savings are often taken as lump sums with the risk that people outlive their resources.
- Pensions in payment are not automatically adjusted to reflect changes in the cost of living.

Aging Asia must face these pension problems to deliver secure, sustainable and adequate retirement incomes for today's workers. Asia's aging will be at its most rapid between 2010 and 2030. Given the long lag in pension-policy planning, there is now a narrow window for many Asian countries to avoid future pension problems and repeating many of the mistakes made in Europe and North America. But it will soon be too late.

It has been shown that many of the Asian pension systems are unlikely to prove sustainable in the long term. For example, PRC currently aims to pay a replacement rate of 68% for men and 45% for women from age 60 and 55, respectively. Allowing for the costs of mixed price/earnings indexation of pensions in payment, the cost of providing such a benefit is nearly 50% of earnings (assuming contributions from age 20 to the normal pension age of 55 or 60). This measure of the steady-state contribution rate is also high in other countries. In the case of PRC and Viet Nam this is due to high target replacement rates. However, early pension ages, especially for women, also have an important effect. Also, indexation of pensions in payment to a mix of wages and prices rather than prices alone in PRC and the Philippines adds to costs.

There are a number of features of Asian pension schemes that fall short of international standards and best practice. Three issues stand out. First, nearly all defined-benefit schemes are based on final salaries. Second, people can and do withdraw benefits early, leaving little money for retirement. This begs the question whether these are really pension plans at all. Similarly, many systems pay lump-sum benefits rather than a regular retirement income, exposing pensioners to the risk of outliving their retirement savings. Third, the adjustment of pensions in payment to reflect changes in costs of living is discretionary or ad hoc, leading to the risk that inflation erodes retirement income over time, leaving the very old in poverty.

Calculating retirement benefits in earnings-related pension plans on the basis of 'final' salary is readily understandable and used to be common practice around the world. It is much more difficult to maintain lifetime salary records and to do the requisite pension calculations than to base benefits on the last salary. Moreover, basing pensions on final pay offers an easy way of dealing with the effect of inflation on pension entitlements earned earlier on in the career. Of the Asian countries, only Viet Nam will in future base pensions on average salary. The Philippines and Thailand use final salaries.

Most OECD countries have now shifted to calculating pension entitlements using lifetime average earnings. The motivation for this change was the undesirable effects of final-salary plans. The higher paid tend to have earnings that rise more rapidly with age, while age-earnings profiles for lower paid manual workers tend to be flat. There is thus redistribution from low to high earners with final salary plans. Having lifetime earnings as the contribution base and final earnings as the benefit base also discourages compliance in earlier years with large incentives to under-report earnings. It encourages strategic manipulation, with employees and employers artificially boosting pay in the final years to secure higher pensions. These effects both reduce contribution revenues and lead to

higher expenditures. Furthermore, record-keeping has improved through the adoption of information technology, allowing files covering longer periods to be maintained rather than relying on final salary. Second, computerisation allows 'valorisation' or indexation of earlier years' earnings to be calculated easily to protect pensions from inflation during the time from when rights are earned to when benefits are received. This means that pension formulae based on final salary are no longer needed as a way of protecting against inflation.

Some degree of annuitisation of retirement savings is desirable, from both the individual's and the policy maker's perspective. Developing a means of achieving this is challenging; for example, annuity markets perform poorly even in some countries with sophisticated financial markets, such as Australia. But the resulting pooling of risks across individuals could improve everyone's welfare in retirement. Some schemes do not even require people to reach retirement before withdrawing money from their accounts.

For example, the relatively low replacement rate for Singapore of 13% is because the calculations only consider the earmarked retirement account. If an individual were to put the general account towards retirement-income provision as well, then the replacement rate would be 82%. It would, of course, be foolish to say that one Singaporean who withdrew the account balance to buy a house is worse off than another who built up a larger retirement income but then had to use some of it to pay rent. Nonetheless, there is a risk that older people find themselves asset-rich and income-poor in retirement and facing difficulty in unlocking the value of their housing assets to pay for essentials. Some Asian countries' rules for early withdrawals are therefore likely to lead to low retirement incomes. Improved protection or 'ring-fencing' of savings for retirement might be appropriate. Also, greater transparency in the rules for early withdrawals – perhaps through the designation of earmarked accounts as in Singapore – is needed.

Aging Asia needs to face up to its pension problems and needs to do so soon. Early retirement ages and relatively high pension levels threaten financial sustainability. Yet, at the same time, low coverage, early withdrawals and lump-sum payments mean that adequacy will also be a challenge.

Index

- adequacy of pension provision: in Asia generally 19; in Korea 88–9, 97, 99; in Malaysia 115–16; in the Philippines 135–7; in Singapore 168–70
- affordability of pension provision: in Asia generally 19–20; in Korea 98; in Thailand 199
- agriculture, economic value of 4, 6
- annuities 8, 231–2; in China 29–30, 32; in Indonesia 51, 55, 63, 68, 73, 224; in Malaysia 114, 118–21; and OECD pension modelling exercise 235–6, 239, 248; in the Philippines 148; in Singapore 165–6, 168, 226; in Thailand 179–81, 197; in Viet Nam 212, 216
- Asher, Mikul G. *xi*, 101–22, 152–72
- Asian Development Bank (ADB) *xiv*, 19, 183–4
- Asian environment: fertility rates 3–4; GDP per capita 2; labour market trends 7; life expectancies 3–4; old age support 3; pension systems 9; population aging 1, 3, 21–3; relative value of agriculture 4, 6; urbanization 3, 6–7
- Asian financial crisis (1997–98) 20, 53, 87, 101, 183
- Asian pension systems: adequacy of 19; administrative capacity of 21; affordability 19–20; benefit rules 12–13; contribution rates for 14; coverage rates for 17–18, 21; design of 15–20; direct benefit and contribution plans in 11–12, 14–15, 19, 21; governance and regulation of 17, 21; pay-as-you-go funding of 15; performance of core functions by 16–17, 21; pre-funding of 15, 21; ratio of assets to GDP 15–16; reform of 20–3; replacement rates of 19; and retirement ages 10–11; sustainability of 19–21
- Bajada, C. 201
- benefit adequacy *see* adequacy of pension provision
- Brustad, Orin *xi*, 176–201
- Chia, Ngee-Choon 155, 169
- China, People's Republic of: demographic trends 26–28; 'di bao' payments 29; fertility rates 28; informal family care in 30; life expectancy in 28; Ministry of Human Resources and Social Security 30–2, 35, 41; Ministry of Labour and Social Security 26; National Actuarial Team 42; National Social Security Fund 15, 22, 31, 34–6, 40, 42, 44–46; one-child policy 26, 36; pension debt as a proportion of GDP 26; population aging 26; retirement ages 41, 224; rural pension system 36–7; state administration of taxation 45; state-owned enterprises 31; urbanization 43
- Chinese pension systems: actuarial expertise in 41–3; asset growth of 46; benefit rules of 12; communication of changes to 43; contributions to 30–1; and enterprise annuities 30, 32–3; governance and transparency of 38, 223; and inflation 40; integration of urban and rural systems 39, 43; investment scope and returns 39–40; multi-pillar model of 26, 28–30, 38; participation rates in 38–9, 223; portability of contributions 43–4; reform of 223–4; replacement ratios in 39; for small and medium-sized enterprises 46; sustainability of 26; tax treatment of 45–6; two-pillar system 15; unitisation of contributions 40–1; urban 26, 28–33, 38–9, 223

- compliance costs 17, 118
 coverage rates: in Asia as a whole 17–18;
 in Indonesia 60; in Korea 80, 82, 84–5,
 87–8, 96; in Malaysia 105–7, 114–15;
 and OECD pension modelling exercise
 241–4; in the Philippines 128–9, 149;
 in Viet Nam 206–8
- defined benefit pension plans 9–10; in Asia
 11–12, 14–15, 19, 21
 defined contribution pension plans 9–10;
 in Asia 11–13, 15, 21
 demographic trends: in Asia as a whole
 1–8, 222–3; in China 26, 28; in
 Indonesia 56–7; in Malaysia 103–4;
 in the Philippines 124–5; in Singapore
 154–5; in Thailand 177, 187–90; in
 Viet Nam 203–4, 213
- equity of pension schemes: in Korea
 89–91, 96–7, 224; in Malaysia 116–17;
 in the Philippines 137–40; promotion of
 230–1; in Singapore 170
 Estrada, Gemma B. *xi*, 1–23
 Evans, M. 204, 208, 217
 exchange traded funds (ETFs) 40
- Feldstein, M. 215–16
 fertility rates: in Asia as a whole 3–4,
 222; in China 28; in Indonesia 56; in
 Malaysia 103; in Singapore 154; in
 Thailand 177, 188–9; in Viet Nam
 203–4, 213
 Fong, J. 164
 fully-funded pension systems 9, 21,
 232; in China 39, 43; in the
 Philippines 146
- Gaiha, R. 203
 Gian, T.C. 214
 Giang, Thanh Long *xii*, 203–19
 global financial crisis (2008–09) 20
 globalization 7, 56
 governance of pension systems:
 in Asia generally 17, 21; in China 38;
 in Malaysia 118–19; in the Philippines
 140–4
 gross domestic product (GDP):
 agricultural contribution of 6;
per capita 2
 Guérard, Yves *xii*, 49–73
- Hamid, T.A. 103, 111–12
 Holzmann, R. 114, 142
- Indonesia: Bapepam-LK 51, 64, 71;
 demographic trends in 56–7; economic
 growth 49–50; income tax 52; Ministry
 of Finance 51–2, 54, 56, 64, 71;
 Ministry of Labour and Transmigra-
 tion 52, 62; Ministry of Manpower 50;
 National Social Security System 50–1,
 53–4, 69; Old Age Savings program
 52, 54, 61–2, 67; Pensions Bureau 61,
 66; PT Jamsostek 51–4, 56, 58, 61–2,
 64, 66–7, 69; PT Taspen 54, 60, 64;
 retirement ages 56, 61–2, 69–70; social
 security system 55, 64; Tax Collection
 Agency 71; urbanization 56
- Indonesian pension systems: accounting
 and reporting for 65–7; administration
 and assets management 71; for armed
 forces and civil service 50, 54, 58, 60–1,
 63–6; contributions and benefits in 12,
 53–4, 57–8; decentralization of 67;
 employer pension funds 50, 61, 68;
 financial institution pension funds 50,
 68–9; investment performance 64;
 labour force coverage 60; legislation
 governing 50–3, 56, 62–3, 67, 71–2;
 longevity and inflation risks 63–4;
 participation in 52, 60–1, 72;
 pre-retirement withdrawals from 62–3;
 private programs 65–8; reform of
 69–73, 224; replacement rates 72;
 Shariah-compliant programs 73;
 for state-owned enterprises 58; tax
 treatment of 52, 63; transparency of 54;
 voluntary occupational programs 50
 International Actuarial Association 42
 International Monetary Fund (IMF) 53;
 financial assistance to Korea (1997) 87
- James, E. 215
 Jitsuchon, S. 197
- Kanjanaphoomin, Niwat 179, 182, 196
 Kim, Seong Sook *xii*, 76–99
 Kinsella, K. 103
 Koh, Benedict S.K. 164
 Korea, Republic of: Basic Old Age
 Pension Law (2007) 77, 84;
 Government Employee Pension Act
 (2009) 85; income security system
 78–80, 91–2; International Monetary
 Fund assistance to (1997) 87; Ministry
 of Health and Welfare 89, 92; Ministry
 of Labour 86; National Basic Livelihood
 Scheme 77; National Pension Research

- institute 88, 90; National Tax Office 88; population growth 22
- Korean pension systems: affordability of 98; adequacy of 88–9, 97, 99; and alleviation of poverty 89; basic old age pension 82, 88, 224; benefit rates and rules 12, 84–5; civil service and armed forces pensions 76; contributions and financing 80, 82, 84–5, 98–9; coverage of 80, 82, 84–5, 87–8, 96, 224; efficiency of 91–3, 97; equity of 89–91, 96–7, 224; government employee pensions 85–6; government subsidization of 84–5; individual pensions 87; legislation governing 85–6; multi-pillar model of 77–8, 224; national pension scheme 76–8, 82, 84, 87–92, 95, 224; participation in 81, 87–8; private income security systems 86; private pension schemes 77–8; public occupational schemes 84, 89; reform of 94–9, 224; replacement rates in 80, 88–9; sustainability of 93–4, 98, 224
- Kunieda, S. 216
- labour market trends: in Asia generally 7; in Malaysia 104; in Singapore 155; in Thailand 190–1
- Leckie, Stuart *xii*, 26–47
- life expectancy: in Asia generally 3–4, 222; in China 28; in Indonesia 56; in Malaysia 103, 111; in Singapore 154; in Thailand 178, 189; in Viet Nam 204, 210, 213–14
- lump sum payments 8
- McCarthy, D. 168–9
- Malaysia: Bank Negara 109, 114; Bumiputra community 101, 118; demographic trends in 103–4; Department of Social Welfare 104, 113; Employees Social Security Act (1969) 112; fertility rates in 103; goods and services tax 116; income tax 113, 116, 121; Inland Revenue Board 121; labour market trends 103–4; life expectancy 103, 111; Life Insurance Fund 116; macroeconomic indicators 102; Ministry of Finance 109, 118–19; Ministry of Public Works 112; New Economic Model/Policy of 102, 107, 120; Pension Fund Trust Act (1991) 111; *per capita* income growth 101; retirement ages 111; Retirement Fund Act (2007) 111; Social Security Organization 104–5, 109, 112–14, 118; urbanization 103; Workers' Compensation Act (1972) 113; Zakat Islamic welfare institution 104
- Malaysian pension systems: adequacy of 115–16; administrative efficiency 117–18; armed forces fund 112; benefit rules 12; Civil Service Pension Scheme 111–12, 121, 225; contribution rates 105, 107, 120; coverage of 105–7, 114–15; Employees Provident Fund 14, 104–10, 113–22; equity of 116–17; investment policies and performance 109–11; Malaysia Retirement Savings Scheme 107, 114; management and governance 118–19; membership balances 107, 109; pre-retirement withdrawals 106; private pension plans 120–1; reform of 119–22, 225; replacement rates of 115; social pensions 113; tax treatment of 113–14, 121; Workman Compensation Scheme 104
- Mitchell, Olivia S. 164, 168–9
- Nandy, Amarendu *xiii*, 152–72
- Ng, Lian Lu 103
- Nguyen, L.H. 208, 210
- old age support: in Asia generally 3, 8, 229; and OECD pension modelling exercise 244–6; and poverty alleviation 22, 89, 148, 217–18, 231
- Ong, F.S. 103, 111–12
- Organization for Economic Cooperation and Development (OECD): and pension contribution rates 214; *Pensions at a Glance Asia-Pacific* 23, 234
- Organization for Economic Cooperation and Development pension modelling exercise: methodology and assumptions 234–6; old age support ratios 244–6; pension coverage 241–4; and pension wealth 239–41; and replacement rates 236–9
- Oskar Surjaatmadja 51
- Othman, Syed Hamadah 107, 115
- Park, Donghyun (editor) *i, xiii*, 1–23, 222–33
- participation rates: in China 38–9; in Indonesia 52, 60–1, 72; in Korea 81, 87–8; in Viet Nam 206–7, 215–16

- Pat Patanarangsun, P. 197
- pay-as-you-go* pension systems 9;
 in Asia generally 15; in China 26, 29;
 in Indonesia 52, 58, 64–5, 70, 72;
 in Korea 90, 93; in Thailand 227;
 in Viet Nam 206, 213–17;
 World Bank model of old age
 income support 10
- pension design 9, 15–21
- pension reform: in Asia generally 222–3,
 228–32; in China 223–4; in Indonesia
 69–73, 224; in Korea 94–9, 224;
 in Malaysia 119–22, 225; in the
 Philippines 145–50, 225–6;
 in Singapore 170–2, 226; in Thailand
 176–7, 198–201, 226–7; in Viet Nam
 215–17, 227–8
- pension systems, aims and core functions
 of 8–9; *see also* Asian pension
 systems
- pension wealth, OECD modelling of
 239–41
- Pfau, W.D. 204, 208, 211, 217–18
- Philippines, the: average basic pay 136;
 Bangko Sentral ng Pilipinas 134, 140;
 Barrio Officials Insurance Fund 130;
 Bureau of Internal Revenue 134, 140;
 Commonwealth Act (1936) 130;
 demographic trends 124–5; Department
 of Social Welfare and Development
 126; Employee Compensation program
 129; Home Development Mutual
 Fund 132; industrialization of 124;
 Insurance Commission 134; National
 Home Mortgage Finance Corporation
 132; overseas Filipino workers 124,
 129; Pag-IBIG Universal Coverage Law
 (1995) 133; Republic Act (1997) 124,
 133; retirement ages in 129, 146;
 Retirement Income Commission 140,
 147; Securities and Exchange
 Commission 134, 140; Senior Citizens
 Act (2010) 126; Social Security
 Commission 129; urbanization
 of 124
- Philippines pension systems: adequacy
 of 135–7; Armed Forces Retirement
 Service Benefit System 128, 131–2,
 136, 139; benefit levels and rules
 12–13, 129–31, 146; contributions to
 126, 129, 131–3, 138, 146; coverage of
 128–9, 149; efficiency and governance
 of 140–4; equity of 137–40; four-pillar
 structure of 126–34; Government
 Service Insurance Scheme 124, 128,
 130–2, 136–9, 141–4, 149; investment
 performance of 142–4; mandatory
 programs 124, 126, 128–33;
 occupational pension plans 134;
 Pag-IBIG fund 132–3, 140, 143–4,
 146–7; Personal Employee Retirement
 Accounts 126, 134, 147; portability of
 benefits 132, 136; reform of 145–50,
 225–6; replacement rates 135–6; Social
 Security System 124, 126, 128–30, 132,
 137–9, 141–2, 144, 149; supplementary
 pension plans 134; sustainability of
 144–5; tax treatment of 134, 140;
 voluntary programs 126, 134
- Piggott, J. 168–9
- population aging: in Asia generally 1, 3,
 21–3, 222; in China 26; in Malaysia
 103; and pension design 21;
 in Singapore 154–5; in Thailand 177;
 in Viet Nam 203–4, 213
- poverty in old age 22, 89, 148,
 217–18, 231
- Rama, M. 212
- Reilly, Andrew *xiii*, 234–48
- replacement rates: of Asian pension
 systems generally 19; in China 39;
 in Indonesia 72; in Korea 80, 88–9;
 in Malaysia 115; and OECD pension
 modelling exercise 236–9; in the
 Philippines 135–6; in Thailand 179,
 182, 186–7, 193, 199
- retirement ages: in Asia generally 10–11;
 in China 41, 224; in Indonesia 56, 61–2,
 69–70; in Malaysia 111; in the
 Philippines 129, 146; in Thailand 188,
 199; in Viet Nam 210, 213
- Reyes, Ernesto *xiii*, 124–50
- Ross, S. 8
- Schneider, F. 201
- Sethi-Iyengar, Sheena 164
- Singapore: Armed Forces Council 171;
 Central Provident Fund 14, 153–61,
 168–72, 226, 236; CPF housing
 schemes 161, 163; CPF Investment
 Scheme 163–5, 170, 172, 226; CPF
 LIFE 165–6, 172; demographic trends
 154–5; economic growth 152; Economic
 Strategies Committee 153; fertility rates
 154; Housing Development Board 161,

- 163; labour market trends 155;
 life expectancy 154; macroeconomic indicators 153; Ministry of Manpower 155; population aging 154–5; Reemployment Act (proposed) 169; savings rate 161; Singapore Government Investment Corporation 160–1, 170–1; Temasek Holdings 160
- Singaporean pension systems: adequacy of 168–70; benefit rules 13; Central Provident Fund 14, 153–61, 168–72, 226, 236; civil service and armed forces pensions 166–7; contribution rates 158–9, 161, 171; disclosure and transparency 160–1; equity of 170; mandatory savings schemes 153; membership and membership balances 156–7; pre-retirement withdrawals from 153, 161; reform of 170–2, 226; Supplementary Retirement System 166; tax treatment 158
- Soeharto, T.N.J. 49
- Sri Mulyani Indrawati 49, 51
- sustainability: of Asian pension systems generally 19–20; of Chinese pensions 26; of Korean pensions 93–4, 98, 224; of pensions in the Philippines 144–5; promotion of 230–1; of Thai pensions 199; of Vietnamese pensions 212–15
- Thailand: and the Asian Development Bank 183–4; demographic trends 177, 187–90; fertility rates 177, 188–9; labour market trends 190–1; life expectancy 178, 189; Ministry of Finance 182, 184–5, 198; Ministry of the Interior 184; National Economic and Social Development Plan (1982–86) 182, 189; population aging 177; Provident Fund Act (1987) 182; retirement ages 188, 199; Securities and Exchange Commission 182;
- Thailand's pension systems: affordability of 199; asset accumulation and investment 188; benefit rules 13; contribution rates 180, 181, 186–7, 190, 193, 226; deficits 193–5; dependency rates 187, 190–3; financing 187; formal sector programs 179–84, 198–200, 226; Government Pension Fund 180–2, 195–6; informal sector programs 184–5, 197–8, 200–1; membership benefits 185; National Pension and Savings Funds proposals 183–5, 200; Old Age Allowance System 184–5; Old Age Pension scheme 179–80, 185–95, 198; reform of 176–7, 198–201, 226–7; replacement ratios 179, 182, 186–7, 193, 199; Retirement Mutual Funds 184; supervision and control of 200; support ratio of 177; sustainability of 199; tax treatment of 181–3, 196–8; Voluntary Provident Funds 182, 195–6
- Thapa, G. 203
- Thillainathan, R. 109, 111
- transaction costs: for Asian pension systems generally 16–17;
 for Singaporean pensions 164, 226
- Tsui, Albert 169
- urbanization: in Asia generally 3, 6–7;
 in China 43; in Indonesia 56;
 in Malaysia 103; in the Philippines 124;
 in Viet Nam 203
- Viet Nam: demographic trends in 203–4, 213; *Doi moi* programs 203; fertility rates 203–4, 213; GDP growth 203; life expectancy in 204, 210, 213–14; and Millennium Development Goals 203; Ministry of Finance 206; Ministry of Labour, Invalids and Social Affairs 206, 212; population aging 203–4, 213; retirement ages 210, 213; Social Insurance Law 205–6, 209–10; social protection system 204–5; state-owned commercial banks 210–11; urbanization in 203; Viet Nam Social Security 206, 212; Vietnamese Association for the Elderly 217
- Vietnamese pension systems: administration and regulation of 212; benefit rules 13; contributions and benefits 209–10, 214; contributory pension schemes 205–19; coverage of 206–7, 227; dependency ratios 213; financial sustainability 212–15; implicit pension debts in 214, 216; investment policies of 210–12, 228; liabilities of 215; non-contributory schemes 217–19; participation in 206–7, 215–16, 227–8; reform of 215–17, 227–8; tax treatment of 212

Wan, H. 103

Widjojo Nitisastro 51

Wiener, Mitchell 183, 186, 189,
192–3

World Bank: Multi-Pillar Model of Old
Age Income Support 9–10, 26, 114

Yudhoyono, Susilo Bambang 49