

1. Pension System

Making Pension Promises More Credible in Asia-Pacific Economies

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1. Introduction

The Pacific Economic Cooperation Council (PECC) has initiated a project on Social Resilience which comprises four elements – pension, medical insurance, unemployment insurance and macro analysis on savings/ consumption, to provide policy suggestions for the 2010 APEC meeting in Japan (Japan Institute of International Affairs, 2010). This paper focuses on how the pension arrangements can be improved in Asia-Pacific economies to enhance social resilience.

The need to strengthen pension systems in Asia-Pacific has been evident since at least the 1997-98 Asian financial crisis. As the economic recovery was swift and robust, the initial efforts to strengthen social protection systems made to address the crisis were not sustained in many parts of Asia. The dominant thinking that Asia should concentrate on high economic growth, and not construct robust social protection systems therefore continued among the policymakers and influential stakeholders.

The current global crisis is once again leading to intense focus on pension reforms as credibility of pension promises has come under scrutiny. As the crisis is global, and has underlined the urgent need for structural as well as financial sector reforms, it is hoped that the focus on making pension promises more credible will not be short-lived.

The main objectives of any pension system security are consumption smoothing over an individual's lifetime; insurance (particularly against longevity and inflation risks); income redistribution for society as a whole; and poverty relief. However, these have to be traded off against economic growth, labor market efficiency. As resources devoted to social protection have opportunity costs, needs of groups other than the elderly in society, and other needs such as health, education, and infrastructure, have to be traded off against allocations for retirement.

Individual, fiscal, and societal affordability should also be considered when constructing and reforming pension systems. It should be emphasized that the trend of rate of economic growth is among the most important macroeconomic variable impacting on economic security of both young and the old, provided growth is shared widely among different income groups and regions. Moreover high rate of growth in employment, particularly in the formal sector where workers are more likely to receive pension and health care benefits, has traditionally been the instrumental factor leading to expanding coverage of the labor force.

This paper discusses the implications of the Global Crisis for the pension systems and

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suggests an avenue for strengthening the pension system with a view to increasing the credibility of pension promises in Asia-Pacific Economies. The rest of the paper is organized as follows. Main implications of the 2008 global crisis for the pension systems in Asia-Pacific economies are indicated in Section 2. This is followed in Section 3 by analysis of the demographic and labor market trends and their implications for the pension systems in Asia-Pacific economies. The trends portray rapid ageing, and strong tendencies towards informalization of employer-employee relationships, increasing the complexity and scope of pension reform challenges. A brief overview of current pension systems in Asia-Pacific economies is provided in Section 4. This is followed by discussion of possible avenues to make pension promises more credible. As the discussion of these avenues is by necessity fairly general, each Asia-Pacific economy would need to construct pension packages combining elements from different avenues keeping in view the starting point, the policy goals, and its economic, institutional and other capacities. The final section provides the concluding observations.

2. Implications of the 2008 Global Crisis on Pension Systems

The 2008 global economic crisis is arguably among the most severe since the Great Depression of the 1930's (IMF, 2010). The crisis has increased the need for strengthening the pension systems in the Asia-Pacific economies, but has simultaneously made the task of sustaining robust, adequate, and equitable pension systems accessible universally even more complex and difficult. The crisis is expected to have a significant medium to long term economic, financial, and social impact globally. For the pension promises in Asia-Pacific, the following impacts of the crisis are of particular relevance:

Reduction in medium term growth rate, which is the single most important macroeconomic variable impacting on the economic security of both the young and the old (IMF, 2010).

Adverse impact on the pace and quality of jobs and livelihoods creation (see Section 3).

Potential rise of the cost of debt refinancing (particularly for highly leveraged economies) as sovereign debt risks have risen. This is indicated by the widening sovereign CDS (credit default swaps) spreads for many European economies. As an example, between August 3 and August 12, 2010 the spread for Ireland rose by 41 percent to 282 basis points (The Financial Times, London, August 14-15, 2010, p-16). Another indication of the concern is that the US federal government issued debt in 2009, which was about equal to the debt issued in six preceding years; and in 2010, the 2009 debt issue level is expected to be exceeded (The Financial Times, London, August 14-15, 2010, p-15).

The global crisis is expected to adversely impact the growth of remittances flows (Ratha et al, 2008). This is relevant as in many Asia-Pacific economies such as the Philippines, Vietnam, and Thailand; the inward remittances constitute an important part of the social safety nets for both the young and the old persons.

Potentially lower medium term real investment returns on pension assets (Pino and Yermo,

2010).

Aggressive fiscal and monetary stimulation could lead to inflation, constraining fiscal space for expanding social safety nets (IMF, 2010).

On the positive side, the global crisis provides an opportunity to extend pension systems and social safety nets as an important component of rebalancing the economies (IMF, 2010). Linking of rebalancing with expansion of pension coverage however will be a complex process which will take a decade or more. It will also need to accommodate the global concerns about the existing nature of economic growth, as environmental issues have gained greater prominence, and social and human costs of conventional growth patterns which assume ever rising consumption of goods and services per person become more evident.

3. Demographic and Labor Market Trends

Demographic and labor market trends constitute the essential context within which policies and programs to make pension promises more credible must function. Tables 1A to 1C provide selected demographic indicators based on projections by the United Nations (2008) for Asia-Pacific economies. The demographic trends suggest rapid ageing in the region due to declining fertility rates and increasing longevity. In 2030, the number of persons above 60 years of age in the World is projected to be 1.8 times the corresponding number in 2010, but for Asia it is expected to double. In some Asia-Pacific Economies such as Singapore, Vietnam, Malaysia and Philippines the growth in number of population above 60 years of age between 2010 and 2030 is projected to more than double. In 2010, Asia's share of World population aged 60 or over was 54 percent, but by 2030 it is projected to be 60 percent, implying more rapid ageing in Asia (Table 1A). Asia will also exhibit more than doubling of the population above 80 years of age. Asia-Pacific economies will continue to exhibit among the highest life expectancy in the World (Table 1B). The above trends imply that not only each person will need to be supported in old age for a longer period, but health care expenditure increase disproportionately with increases in longevity (Fuchs, 1998), the total resources needed to support each individual in retirement will also increase substantially.

Table 1A: Asia-Pacific Economies: Selected Demographic Indicators

Economy	Total Population (million)		Population aged 60 or over (million)		Population aged 80 or over (million)	
	2010	2030	2010	2030	2010	2030
World	6,909	8,309	759.1 (11.0)	1370.4 (16.5)	105.6 (1.5)	194.2 (2.3)
Asia	4,167	4,917	413.6 (9.9)	821.2 (16.7)	47.3 (1.1)	99.2 (2.0)
Asia-Pacific Economies						
Australia	22	26	4.2 (19.5)	6.8 (26.5)	0.8 (3.9)	1.5 (6.0)
Brunei	0	1	0.0 (5.8)	0.1 (13.5)	0.0 (0.5)	0.0 (1.2)
China	1,354	1,462	166.5 (12.3)	342.3 (23.4)	19.3 (1.4)	40.9 (2.8)
India	1,214	1,485	91.7 (7.5)	184.6 (12.4)	8.1 (0.7)	18.0 (1.2)
Indonesia	233	271	20.8 (8.9)	43.4 (16.0)	1.8 (0.8)	4.2 (1.5)
Japan	127	117	38.7 (30.5)	44.5 (37.9)	8.1 (6.3)	15.1 (12.9)
Malaysia	28	35	2.2 (7.8)	5.3 (15.0)	0.2 (0.7)	0.6 (1.6)
New Zealand	4	5	0.8 (18.2)	1.3 (26.3)	0.2 (3.5)	0.3 (5.4)
Papua New Guinea	7	10	0.3 (4.2)	0.7 (7.3)	0.0 (0.2)	0.0 (0.5)
Philippines	94	124	6.2 (6.7)	14.1 (11.3)	0.5 (0.5)	1.3 (1.1)
Republic of Korea	49	49	7.6 (15.6)	15.3 (31.1)	1.0 (2.0)	2.5 (5.1)
Singapore	5	5	0.8 (16.0)	1.9 (35.6)	0.1 (2.0)	0.3 (5.9)
Thailand	68	73	7.9 (11.5)	15.8 (21.6)	0.8 (1.2)	1.6 (2.2)
Vietnam	89	105	7.8 (8.7)	19.2 (18.2)	1.1 (1.3)	1.9 (1.8)

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>

Note: Numbers in parentheses is the percentage of total population above 60 and 80

By 2025-2030, only two Asia-Pacific economies, the Philippines and Papua New Guinea are projected to have total fertility rates (TFR) above the replacement rate of 2.15 (Table 1B). The median age in Asia in 2010 was slightly lower than for the World as a whole but by 2030 it is projected to be higher at 35.2 years; indeed, in Japan the median age will be 52 years, Korea and Singapore 48 years, and in Australia and China 41 years.

Table 1B: Fertility Rate, Life Expectancy and Median Age in Asia-Pacific Economies

Economy	Total Fertility Rate		Life Expectancy at Birth		Median Age	
	2010-2015	2025-2030	2010	2030	2010	2030
World	2.49	2.21	68.9	72.1	29.1	34.2
Asia	2.26	2.01	70.3	73.6	29.0	35.2
Asia-Pacific Economies						
Australia	1.85	1.85	82.2	84.1	37.8	41.2
Brunei	1.95	1.85	77.7	79.1	27.8	33.7
China	1.79	1.85	74.0	76.6	34.2	41.1
India	2.52	1.96	65.2	69.4	25.0	31.7
Indonesia	2.02	1.85	72.2	75.7	28.2	35.4
Japan	1.27	1.4	83.7	85.3	44.7	52.2
Malaysia	2.35	1.87	75.2	77.5	26.3	33.2
New Zealand	2.02	1.85	81.0	83.0	36.6	40.2
Papua New Guinea	3.77	2.8	62.3	66.7	20.0	24.6
Philippines	2.85	2.35	72.9	75.8	23.2	29.0
Republic of Korea	1.26	1.39	80.0	81.7	37.9	47.6
Singapore	1.29	1.44	81.0	82.6	40.6	48.4
Thailand	1.85	1.85	69.9	73.5	33.2	38.8
Vietnam	1.95	1.85	75.4	78.0	28.5	36.7

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>

Note: The average number of children a hypothetical cohort of women would have at the end of their reproductive period if they were subject during their whole lives to the fertility rates of a given period and if they were not subject to mortality. It is expressed as children per woman.

By 2030, China is projected to have 342 million persons above 60 years of age; while the corresponding number for India, Japan, Indonesia and Vietnam are 185 million, 44million, 43 million and 19 million respectively. Such large numbers suggest that pension reform should not lock an economy into a particular pension arrangement from which reversibility would be very costly. Even maintaining fairly robust administrative records for such large numbers over a long period would be a major task, which if not performed with requisite accuracy could adversely

impact on credibility of the pension system.

The Old Age Dependency ratio (ODR) is expected to increase significantly in many Asia-Pacific economies. As compared to the global average of 5.6 active workers supporting each retiree in 2030, in eight Asia-Pacific economies the corresponding figure will be the same or lower (Table 1C).

Table 1C: Trends in Old-Age Dependency Ratios in Asia-Pacific Economies

Economy	Old Age Dependency Ratio	
	2010	2030
World	12 (8.3)	18 (5.6)
Asia	10 (10.0)	17 (5.9)
Asia-Pacific Economies		
Australia	21 (4.8)	34 (2.9)
Brunei	5 (20.0)	13 (7.7)
China	11 (9.1)	24 (4.2)
India	8 (12.5)	12 (8.3)
Indonesia	9 (11.1)	15 (6.7)
Japan	35 (2.9)	53 (1.9)
Malaysia	7 (14.3)	15 (6.7)
New Zealand	19 (5.3)	33 (3.0)
Papua New Guinea	4 (25.0)	7 (14.3)
Philippines	7 (14.3)	12 (8.3)
Republic of Korea	15 (6.7)	36 (2.8)
Singapore	14 (7.1)	46 (2.2)
Thailand	11 (9.1)	23 (4.3)
Vietnam	9 (11.1)	18 (5.6)

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>

Note: The old-age dependency ratio is the ratio of the population aged 65 years or over to the population aged 15-64. All ratios are presented as number of dependants per 100 persons of working age (15-64).

Numbers in parentheses refers to persons between ages 15-64 which could potentially support those above 65; calculated as inverse of the old age dependency ratio.

In many Asia-Pacific economies, the share of formal sector employment is relatively low – in the range of ten and thirty five percent of the total labor force (Forteza et al, 2009). Even in high-income economies such as Japan, nearly a quarter of the labor force is reportedly no longer on full-time contracts. So the path followed by the OECD countries in extending coverage

through the expansion of formal sector employment is less applicable, particularly in low and middle income economies of the Asia-Pacific as labor markets will continue to be characterized by high informal sector employment. Moreover, as many economies in Asia-Pacific are rapidly ageing, they will have a more mature demographic profile before they attain high income status.

There are four major implications of the above demographic trends suggesting varying levels and pace of aging among Asia-Pacific economies may be noted.

First, the above demographic trends suggests that time available for extending coverage of pensions is also relatively less than was the case in the OECD countries. Therefore acting in time to reform pension systems, and recognizing that such reforms are a process and not an event, merit greater urgency and focus of the policy makers.

Second, rapid population aging signified by rising old-age dependency ratios, and increasing life expectancy at birth, suggests that greater resources will have to be devoted to the elderly. These will involve not only higher pension costs, but also higher health care costs as these tend to rise disproportionately with improved longevity trends (Fuchs, 1998).

A substantial share of the increase in resources will be through the government budget. Finding more budgetary resources, particularly when the medium-term growth rates are likely to be moderate, will be a challenge as there will be other demands on such resources. Better management and governance by social security organizations, and the need to undertake parametric reforms in the design of various provident and pension fund schemes to ensure their medium-term financial sustainability, have therefore become even more urgent in Asia-Pacific economies.¹

Aggressive fiscal stimulus packages by Asia-Pacific economies to sustain growth during the current global crisis may also constrain future fiscal flexibility as the resulting future budget deficits will need to be financed. In Australia, the budget deficit is projected to be 2.3% of GDP in 2009 and 3.5% of GDP in 2010, a sharp contrast to the average annual surplus of 1.7% of GDP during 2003–2008 (IMF, 2010). Similarly, the International Monetary Fund (IMF) projects that in 2009 and in 2010, Japan's budgetary deficit will be close to 10% of GDP, as compared to 5.2% of GDP during 2003–2008. If the slowdown in global economic growth continues, the fiscal situation in most Asia-Pacific economies will become even more constrained. However, some economies such as the People's Republic of China have considerable fiscal capacity to expand government expenditure, including that required for social security and safety nets (*The Economist* 2009). In some Asia-Pacific economies, such as Japan and the Philippines, large debt to GDP ratios constrains capacity for continuing fiscal stimulation measures (EIU, 2009).

Third, the social security needs of foreign workers will need to be addressed by Asia-Pacific economies. Many economies in the region, such as Korea, Japan, Malaysia, U.S., Australia, Thailand, and Singapore, are large and persistent recipients of foreign labor, much of which is

¹ Giang and Pfau (2009) have undertaken a stochastic actuarial assessment of pension finances in Vietnam and found that the demographic changes are likely to deplete the pension fund by about 2052 with a 90% confidence interval range of 8 years.

supplied from economies, such as Bangladesh, Sri Lanka, India, Myanmar, Philippines, Thailand, and Viet Nam. Several economies in Asia-Pacific such as U.S., Australia, China, India and Thailand have significant bi-directional flows of manpower as they simultaneously host a significant number of foreign workers while their own nationals are also working abroad.

Totalization agreements² and agreements involving working and living conditions of foreign workers, involving Asia-Pacific economies, will need to be encouraged. Recent agreements by Japan with the Philippines and Indonesia for special arrangements for workers from these two economies to be employed in Japan on a temporary basis represents an example of taking advantage of demographic complementarities, as well as drawing attention to the social security needs of foreign workers.³

Fourth, between 2010 and 2030, it is projected that Asia-Oceania will need to generate 56.5 percent of the total livelihoods to be generated globally, followed by Africa (38.2 percent) Latin America and Caribbean (8.4 percent), Northern America (2.1 percent), while Europe and Japan will exhibit a decline in the economically active population (Table 2). In the Asia-Oceania region, India alone will need to generate 26 percent of the global livelihoods, while China will need to generate only 1 percent. The labor market challenges therefore will vary among the economies, with the livelihood creation priority being high for India, while improving labor productivity as a priority being high for China and Viet Nam.

² Totalization agreements are designed to ensure that individuals and employers do not end up paying social security taxes or contributions in more than one jurisdiction, or alternatively avoid paying them in either jurisdiction. They also assist in recognition of pension rights and in cross-border social security administration. The Philippines has entered into about 10 such agreements, mainly with economies in Europe and with Canada. India has also made several such agreements, primarily with European economies.

³ The main objective of leveraging demographic complementarities is to help expand economic space, and to achieve greater economic integration among Asia-Pacific economies. Rapidly aging Asia-Pacific economies such as Japan, Korea, and Singapore could make more extensive and innovative use of off-shoring activities, involving those economies such as India, Philippines, and Vietnam, which are currently in a demographically favorable phase (i.e. where the share of the working-age population to total population is rising). They can also use technology to minimize use of labor in economic activities, including elderly care. Some Asia-Pacific economies, such as Malaysia, see hosting the affluent elderly as long-term residents from rapidly aging Asia-Pacific economies as a good business opportunity.

Table 2: Potential Livelihoods Generation* by Region (2010-2030)

Potential Livelihoods Generation by Region (2010-2030)			
		No (Millions)	% of world total
World		931.1	100.0
Asia-Oceania		525.8	56.5
of which	India	241.1	25.9
	Indonesia	31.8	3.4
	Vietnam	10.4	1.1
	China	9.9	1.1
	Japan	-13.0	-1.4
Africa		355.5	38.2
Europe		-47.6	-5.1
Latin America and Caribbean		78.3	8.4
Northern America		19.1	2.1

Note: *This is defined as the number of economically active persons, defined as those between 15 and 64 years of age in a given region, for whom livelihoods will need to be generated in the formal or the informal sectors.

Source: Calculated from 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/>

4. Pension Systems in Asia-Pacific Economies: An Overview

Asia-Pacific economies have overtime constructed fairly elaborate social security arrangements involving old-age, sickness and maternity, work injury, unemployment and family allowances (Table 3). This range suggests that there is a general acceptance of the importance of the role of pension systems in ensuring equitable growth and social stability. Since space constraints preclude a detailed description of the pension systems in each economy, the discussion is confined to the broad features and characteristics of Asia-Pacific pension systems.

Table 3: Availability of Programs under Different Branches of Social Security in the Asia-Pacific Region

Economy	Old age, disability, and survivors	Sickness and maternity		Work injury	Unemployment	Family allowances
		Cash benefits for both	Cash benefits plus medical care ^a			
Australia	X	X	X	X	X	X
Brunei	X	b	d	X	b	b
China	X	X	X	X	X	X
India	X	X	X	X	X	b
Indonesia	X	b	d	X	b	b
Japan	X	X	X	X	X	X
Myanmar	b	X	X	X	b	b
New Zealand	X	X	X	X	X	X
Papua New Guinea	X	b	d	X	b	b
Philippines	X	X	X	X	b	b
Republic of Korea	X	b	d	X	X	b
Singapore	X	X	X	X	b	b
Thailand	X	X	X	X	X	X
Vietnam	X	X	X	X	X	b

Sources: Constructed from OECD, 2009; and

<http://www.ssa.gov/policy/docs/progdsc/ssptw/2008-2009/asia/ssptw08asia.pdf>

- a. Coverage is provided for medical care, hospitalization, or both.
- b. Has no program or information is not available.
- c. Old-age benefits only.
- d. Medical benefits only.
- e. Maternity benefits only.

The considerable heterogeneity in pension systems in Asia-Pacific economies reflects a host of historical and other factors, including the level of economic development and structure of the economy. The role of public sector provident fund and pension organizations is predominant in most of the Asia-Pacific economies. This reflects the structure of the formal sector, where public sector employees and a relatively small proportion of private sector employees are covered by

state-mandated and administered schemes. Only the two economies of Hong Kong, China and Australia operate privately managed defined contribution schemes. There are also programs financed from the government budget which provide income support to the elderly.

The availability of a pension system, however, does not necessarily imply that it is well designed, has wide coverage, or is financially sustainable. Nor does it imply that the pension system organization administering it is well governed, or that different components of the social security system complement each other to bring about systemic effectiveness and financial sustainability. Therefore, in many Asia-Pacific economies greater substance would need to be injected into the formal social security arrangements with particular emphasis on extending coverage (Asher, 2009).

In most of the low- and middle-income economies of Asia-Pacific, between ten and thirty five percent of the labor force is covered by formal pension systems. This reflects relatively low formal-sector employment in these economies (Forteza et al, 2009).

The contribution rates for old-age income, unemployment insurance, and health care vary considerably among Asia-Pacific economies (Table 4). The variations in contribution rates are usually motivated by the larger macroeconomic and political economy factors. For instance, Thailand's Social Security Fund, in view of the current global economic crisis, has reduced contribution rates from 5% to 3.5% for all employers and employees. The state's contribution to plans will also be reduced from 2.75% to 2.25% in 2009. Estimates suggest that the reduction in contribution rates will collectively save Thailand 22.6 billion Baht for employers and employees, and 3.8 billion Baht for the Government.

Table 4: Contribution Rates of Social Security Programs in Asia-Pacific, 2008 (in percent)

Economy	Old age, disability, and survivors (pensions)			All social security programs ^a		
	Insured person	Employer	Total	Insured person	Employer	Total
Australia ^d	0.0	9.0	9.0 ^e	0.0	9.0 ^f	9.0 ^e
Brunei	5.0	5.0	10.0 ^h	5.0	5.0 ^f	10.0
China ^d	8.0	20.0	28.0	11.0	29.0 ^f	40.0 ^c
India ^d	12.0	17.6	29.6	13.8	22.3	36.1
Indonesia	2.0	4.0	6.0	2.0	7.0 ^f	9.0
Japan ^d	7.7	7.7	15.4	12.4	13.1	25.5 ^c
Myanmar ^d	0.0	0.0	0.0	1.5	2.5	4.0
New Zealand	0.0	0.0	0.0 ^e	0.0	0.0	0.0 ^e
Papua New Guinea	6.0	8.4	14.4	6.0	8.4 ^f	14.4
Philippines ^d	3.3 ^b	7.1 ^b	10.4 ^b	4.6	8.3 ^f	12.9
Republic of Korea ^d	4.5	4.5	9.0	7.6	8.5	16.1
Singapore ^d	20.0 ^b	14.5 ^b	34.5 ^b	20.0	14.5 ^f	34.5
Thailand ^d	3.4 ^b	3.4 ^b	6.9 ^b	5.0	5.2	10.2
Vietnam ^d	5.0	11.0	16.0	7.0	18.0	25.0

Total may not add up due to rounding.

Source: Constructed from OECD, 2009; and

<http://www.ssa.gov/policy/docs/progdesc/ssptw/2008-2009/asia/ssptw08asia.pdf>

a. Includes Old Age, Disability, and Survivors; Sickness and Maternity; Work Injury; Unemployment; and Family Allowances. In some economies, the rate may not cover all of these programs. In some cases, only certain groups, such as wage earners, are represented. When the contribution rate varies, either the average or the lowest rate in the range is used.

b. Also includes the contribution rates for other programs.

c. Government pays the total or most of the cost of family allowances.

d. Contributions are submitted to a ceiling on some benefits.

e. Government pays the total cost of most programs from general revenues.

f. Employers pay the total or most of the cost of work injury benefits.

g. Employers pay the total cost of cash sickness and maternity benefits.

h. Government pays the total cost of the universal old-age and disability pensions.

j. Government pays the total cost of unemployment benefits.

k. Employers pay the total cost of family allowances.

l. Plus flat-rate contributions.

- m. Government pays the total cost of the universal old-age pension.
- n. Government pays the total cost of cash maternity benefits.

Singapore's Central Provident Fund reduced the contribution rate for those aged 55 and above from 33% (employee: 20%; employer: 13%) in 2003 to 27% (employee: 18%; employer: 9%) in 2006. This was done to enhance wage competitiveness of older workers and to make them more employable.

In some Asia-Pacific economies, the total contribution rates are quite high. Thus, the People's Republic of China total contribution rate is 40%, India's 36.1%, Singapore's 34.5%, Japan's 25.5%, and Viet Nam's 25%. The pension systems contributions are statutory levies and therefore impact on the cost of hiring workers. They also adversely affect the disposable income available to workers, leading to liquidity constraints; and create compliance challenges. As a result, these economies have very limited room to raise contribution rates to improve retirement benefits.

At the other end of the scale, the contribution rates are quite low for some economies like Australia (9%) and Indonesia (9%), Brunei (10%), and Myanmar (4%) (Table 4). These economies therefore have greater flexibility in improving retirement benefits through higher contributions.

Several Asia-Pacific economies, such as Malaysia, do not require civil servants to contribute to their pensions, and finance pension liabilities out of current revenue. In several economies, such as Indonesia and Thailand, contributions by civil servants cover some proportion of the pension costs, with the remaining financed out of government's annual budget.

While there is evidence of parametric reform in civil service pension schemes, fundamental systemic reform has not been widespread (Asher 2000). Such reforms however are needed particularly in economies such as Malaysia, Thailand and Indonesia where there is considerable scope for either improving the sustainability of existing civil service pension arrangements, or for bringing about more equitable treatment of pension provision and accessibility between the civil servants on the one hand and the rest of the labor force on the other.

Pension Assets and Investments: For a variety of reasons, pension assets in Asia-Pacific have been exhibiting rapid growth. The region's pension assets increased from USD 1,251 billion in 2003 to US\$2,951 billion by 2008, surpassing those in Europe, but still behind assets in North America, which had US\$4,686 billion in 2008 (Watson Wyatt 2009). Many of the largest pension funds in Asia, such as those in People's Republic of China, Japan, Korea, and Singapore are sovereign wealth funds (SWFs). SWFs are an integral part of what has come to be known as the shadow banking system, with hedge funds and private equity funds constituting other components. China's foreign exchange reserves of USD 2,500 billion as at mid 2010 will have profound implications for financial and capital markets globally; and for investment policies and asset allocation of pension funds in Asia-Pacific. There is however considerable uncertainty about the

dynamics of such a major development, particularly the long run implications for global financial and capital markets and for pension investment policies and performance.

In many low- and middle-income economies of Asia-Pacific, the limitations of domestic financial and capital markets, and lack of capacity or unwillingness to engage in international diversification of pension fund assets, have meant that investment risks have been concentrated in terms of geography (domestic assets) and allocation of assets. In economies such as India, much of the provident and pension fund investments are in government securities, while in economies such as Indonesia, domestic bank deposits account for more than half of total investments of the national provident fund. Nearly all of the sizeable assets, of Malaysia's Employees Provident Fund (EPF), equivalent to about half of its GDP as at end 2009, are invested domestically. Consideration, however, is being given to diversifying the investment allocation of EPF balances internationally. Some Asia-Pacific economies, notably People's Republic of China; Hong Kong, China; Korea; Japan; Singapore; and Thailand have, however already diversified their pension assets internationally to varying degrees.

As in other regions, the global economic crisis has added to the challenge of investing provident and pension fund assets of Asia-Pacific economies in a manner that generates high real rates of return over a prolonged period (Watson Wyatt 2009).

Provident and pension fund governance and regulation: The governance and regulation of provident and pension funds involve managing principal-agent (or agency) relationships. These arise when principals (provident and pension fund beneficiaries, and tax payers when government funding is involved) need to rely on agents (provident and pension fund managers and trustees, government bureaucrats) to pursue their interests. While there has been increasing recognition of the need for institutionalizing good governance practices involving clarity, accountability, transparency, and management of differing interests among stakeholders, progress among Asia-Pacific economies has been relatively modest. State domination of provident and pension fund sponsorship and management in Asia-Pacific has led to less receptivity to the role of an independent pension regulator who would enforce good governance practices.

There are, however, encouraging signs that governance and regulation issues are beginning to receive the due attention of policymakers. It is in this context that the establishment of India's interim Pension Fund Regulatory and Development Authority may be regarded as an encouraging sign. International organizations such as the International Social Security Association (ISSA) and the Organization for Economic Co-operation and Development (OECD) are also increasingly emphasizing good governance and regulatory practices by their members. Most Asia-Pacific economies are members of at least one of these two organizations. Increasing the role of private occupational pensions in Asia-Pacific economies, and the pressures to generate better returns on pension assets, are also likely to increase the importance of good governance and regulation.⁴

⁴ Thus Japan's Government Pension Investment Fund (GPIF), with assets of US\$1.2 trillion, became an independent institution in April 2006. Earlier it was part of the Ministry of Health, Labour and Welfare.

5. Making Pension Promises More Credible

The description of pension systems of Asia-Pacific economies in Section 4 suggests that these systems are diverse with respect to their philosophy, design features, contribution rates, investment policies and performance, and coverage. As the starting point and the objectives concerning destination are different, no single blueprint of pension reform is applicable to all Asia-Pacific economies. The desired replacement rate (ratio of post-retirement to the pre-retirement income) would however need to be obtained from a variety of tiers, including from engaging in economic activities during the retirement period. A mixture of state intermediated and private savings and other support will be needed in economies at all income levels. In general the share of the state intermediated pension is likely to decline for most groups, except the elderly poor for whom retirement income transfers, sometimes called social pensions may become more prominent, provided fiscal space exists.

Elements in Reform Packages to Making Pension Promises More Credible

As noted, each Asia-Pacific economy would need to plan pension reform to suit its context, policy objectives and fiscal economic and institutional capacities. The reform package can be structured from the following elements:

Core Functions: Modernizing and professionalizing existing social security organizations in performing core functions. Each provident and pension fund must perform five core functions with a reasonable degree of competence and efficiency. These are: reliable collection of contributions, taxes and other receipts (including any loan payments in the security systems); payment of benefits for each of the schemes in a timely and correct way; securing financial management and productive investment of provident and pension fund assets; maintaining an effective communication network, including development of accurate data and record-keeping mechanisms to support collection, payment, and financial activities; and production of financial statements and reports that are tied to providing effective and reliable governance, fiduciary responsibility, transparency, and accountability (Ross, 2004). The use of modern technology, management and governance practices is a prerequisite for ensuring credibility of pension promise. In many Asia-Pacific economies a sixth core function concerns promotion of financial literacy and greater understanding of pension economics, policymakers, trustees or provident and pension fund organizations and other stakeholders.

Parametric reforms: In pension formulas, increasing retirement age, indexing, etc will need to be managed better. This also applies to civil service and military pensions. Parametric reforms involve changing one or more parameter of the pension system, such as altering the pension benefit formula, increasing the retirement age, and changing pre-retirement withdrawal provisions.

The examples of parametric reforms in Asia-Pacific economies include:

Introduction of deferred annuity scheme by Singapore, called CPF Life, to help address the longevity risk. The CPF Life does not increase the resources available to an individual in retirement but changes the timing of withdrawals, and introduces a private risk-pooling insurance

scheme financed by the members themselves.

New Zealand has introduced a portable, defined contribution scheme called the 'Kiwi Saver Scheme', to help manage additional resources needed to address longevity risks

Several economies, such as Japan, Malaysia, and Singapore are encouraging retired individuals to be at least partly active in the labor market through a variety of measures.

Systemic reforms: A systemic reform involves substantive changes in such areas of the pension system as basic philosophy (such as a shift from social risk pooling to individuals bearing pension risks), or pension methods (such as a shift from a defined benefit to defined contribution method of pensions). This may include for example a shift from Defined Benefit (DB) to Defined Contribution (DC) pension systems, with appropriate grandfathering provisions.

China and Vietnam are considering a possible shift to Notional (sometimes called Non Financial) Defined Contribution (NDC) for their pension systems for formal sector workers. The NDC arrangements are complex, but they generally involve pension benefits according to the choice by the member in resaving retirement benefits, and some sharing of risks by the retirees in post-retirement longevity increases and when wage growth is relatively low.

Takayama (2006) has argued in favor of adopting NDC arrangement to address Japan's pension challenges.

Indonesia's 2004 social security law (SJSN) envisages the fundamental change towards the comprehensive social insurance mechanism method for covering not only pension by health care and other social security risks on a universal basis. The current coverage of the pension system in Indonesia is only around one-sixth of the total labor force.

Retirement Income Transfers: More creative and extensive use of retirement income/social assistance transfers, which do not depend on formal labor market relations, requires fiscal space and efficiency in delivery of public services.

Chile's recent reforms emphasizing social pensions, and non-contributory transfers are instructive in this regard.

In 2007, Beijing Municipal Government extended coverage of old-age benefit to all elderly citizens under its jurisdiction. This may be regarded an example of a social pension.

A 2007 Korean initiative expects to cover 70% of all senior citizens through a basic old-age pension financed by the Government.

Others: These include such diverse measures as converting home equity into retirement consumption through reverse mortgages and other avenues; occupational or private pension plans; using the microfinance sector to develop micro-pension products support from family and community; an income derived from physical and financial savings accumulations.

Peoples Republic of China, Philippines, and Thailand are encouraging occupational private pension plans or individual retirement accounts (or both) to broaden the sources of retirement financing and risk sharing.

Indonesia and Philippines are encouraging the linking of pension with microfinance. Policy

makers hope that this will also help enhance financial inclusion and strengthen social cohesion.

Korea and Singapore are experimenting with schemes designed to convert home equity into retirement income stream.

6. Concluding Remarks

Enhancing social resilience in Asia-Pacific economies would require that pension reforms are regarded as being integral to overall economic, social and political management of an economy rather than being of secondary concern. Moreover pension reforms will require complementary reforms in other areas such as fiscal policies, labor markets and financial and capital markets.

There are several factors which have increased the urgency of conventional and innovative initiatives concerning pension policies and processes with the objective of making pension promises more credible in Asia-Pacific economies.

First, Asia-Pacific economies are exhibiting rapid population ageing arising from declining fertility rates, and increasing longevity. It is projected that Asia's share of World population aged 60 or over will increase from 54 percent in 2010 to 60 percent in 2030, implying more rapid ageing in Asia. Asia will also exhibit more than doubling of the population above 80 years of age, with many economies in the Region exhibiting the highest life expectancy in the World. By 2025-2030, only two Asia-Pacific economies, Philippines and Papua New Guinea are projected to have total fertility rates (TFR) above the replacement rate of 2.15. The median age in Asia in 2010 was slightly lower than for the World as a whole but by 2030 it is projected to be higher at 35.2 years.

Second, increasing informalization of the labor market relationship requires innovative approaches; including better designed and funded social pensions, to extend pension coverage.

Third, rapid ageing, and accelerating industrialization and urbanization in Asia-Pacific economies are expected to increase the resources, both public and private, needed for pensions and for health care.

Fourth, pension arrangements for cross-border workers have acquired greater importance as their numbers grow, and because of opportunities to take advantage of potential demographic complementarities between low fertility economies such as Japan and Republic of Korea and Singapore on the one hand, and those economies where share of working age population to total population is still rising such as Indonesia, India, and the Philippines.

The urgency of pension reforms has increased, but the 2008 global crisis has made this task even more complex; primarily due to its adverse impact on the medium term growth and fiscal sustainability, and considerably less benign environment for generating returns from pension assets.

The paper argues that each Asia-Pacific economy would need to construct a pension reform package suited to its policy objectives, and economic, fiscal, and institutional capacities. Major elements of such a package for each economy would include a differing mixture of greater

competence or professionalism in performing core functions of provident or pension fund organizations; parametric and systemic reforms; budget financed retirement income transfers; creating the labor market environment in which a part of retirement income can be obtained by the elderly from remunerative economic activities; converting home equity into retirement income streams; and using the microfinance sector to develop micro-pension products. Healthcare measure and habits which enable individuals to resist the onset of old age diseases should acquire greater prominence, if elderly are to be able to participate in remunerative economic activities.

In constructing context specific pension reform packages, the Asia-Pacific economies would need to pay considerable attention to, and be open to innovations in pension design and delivery systems. The reversibility issue in pension design would also need to be addressed. Construction and maintenance of robust databases, strong analytical capabilities, appropriate organizational structures and mindsets, and understanding of the subtleties of pension economics (particularly sustainability over a long time-horizon, the tyranny of seemingly small numbers exerting a powerful impact on pension scheme viability) will also be needed. It is vital that provident and pension fund organizations publicly communicate to stakeholders stochastic actuarial assessments providing long-term projections of the impact of changes in demographic, labor market, and other variables on the sustainability of current pension arrangements. The importance of social pensions financed from the budgetary resources, requiring fiscal and public service delivery capacities, would need to be recognized.

As the single most important macroeconomic variable in social resilience is medium term trend in economic growth, which is widely shared among the population groups, the task of sustaining such growth without undermining environmental and social capital of the societies merits serious consideration. This will require rethinking current assumptions about economic growth which assume ever rising consumption of goods and services. As the nature of growth and growth processes become more context specific, greater emphasis on developing indigenous research capacity, including in pensions policies, and the willingness of the policymakers to incorporate relevant research findings into pension design, processes, delivery systems, and governance structures will be essential.

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Social Resilience, Means-testing, and Capital Taxation – Reflections on Economic Paradigms

Cagri Kumru* and John Piggott**

1. Introduction

Throughout the developed world, pay-as-you-go (PAYG) social security has been the backbone of retirement income support for most of the 20th century. Over the last two decades or more, however, governments everywhere have retreated from their unsustainable promises, as they try to balance adequate retirement benefits against manageable tax burdens and fiscal stress. The trigger for this tension has been demographic shift. Pay as you go plans worked well when labor forces were always growing relative to retired populations. The prototypical social security plan is a Ponzi scheme in which ever-increasing human resources are required for sustainability.

Retirement financing has become the battleground for social resilience. It is imperative that at least the less well-off elderly receive government assistance, since they have few resources, neither human capital nor financial or real assets. But funding all the retired adequately requires tax rates on the working population that will test social cohesion. Most governments have coped with this by reducing benefits surreptitiously – reducing survivor benefits, for example, or altering indexation arrangements. Such changes provide short-term political relief, but do little in the long term to buttress social resilience – the beneficiaries of survivor benefits, for example, are likely to be among the oldest and poorest in the retired pension community.

With this scene setting in mind, this paper re-visits means-testing as a policy option. Means-testing has a surprisingly bad name among policy makers world-wide. The main reason for summary rejection of this policy paradigm is that the marginal tax rates faced by those from whom a benefit is being withdrawn are usually very high. But we will argue that this has been overblown, and that, in fact, the distortions and adverse impacts on consumer choice from a means tested program may be less than that associated with a typical social security program.

The case for means-testing has been strengthened in recent years not only by the imperatives of demographic transition, but also by new analytic insights that indicate that a means tested program may in fact be second-best optimal. If this is true, then means-tests, which, when they do crop up, are typically very crude, will require detailed attention to optimize their design impact. Means-test design has received virtually no attention either by academic researchers or by policy-makers, and their potential has not yet been anywhere near realized.

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We begin in section 2 by describing the retirement income system of one of the very few economies in the world to embrace means-testing – Australia. Australia has lower public pension outlays, as a proportion of GDP, than any other developed economy. In 2006, Australia’s public pension spending was 3.5 % of the GDP while the average public pension spending of the OECD countries was 7.2% of the GDP (OECD, 2009). Section 3 offers an intuition for why means tests might dominate more traditional social security paradigms, based on what might be termed classic arguments. In section 4 we introduce some new analytic insights to further support our case. Finally, section 5 concludes.

2. The Australian Approach to Retirement Transfers¹

For more than a century, the mainstay of retirement income support in Australia has been the Age Pension. Introduced in 1909, it has served as the social welfare safety net for the elderly and has provided a major source of retirement income for most retired people. In 2007 around 77% of the retired of eligible age received some Age Pension – while just over half of new male entrants were paid at the full rate, 56% of new women entrants were paid at the full rate. However, only 13.3% of pension recipients relied solely on the Age Pension (Harmer, 2008).

The Age Pension is payable to women aged 62 years and over, and to men aged 65 years and over. (The eligibility age for women is being increased to age 65 by the year 2014). Claimants must also satisfy certain residency qualifications. It is means-tested by either a person’s income or assets, whichever determines the lower rate of pension, and is automatically indexed twice yearly. A higher rate of pension is payable to a single person than to each member of a married couple. Since 1997, indexation has been against the greater of the growth of the Consumer Price Index (CPI) and male average earnings. The Age Pension is subject to personal income tax but a pensioner tax rebate applies which fully exempts full-rate pensioners from income tax and provides partial exemption for part-rate pensioners.

In July 2009 the Age Pension amounts were \$A14,614.60 pa for single people (around 25% average male earnings) and \$A12,207 pa (around 20% average male earnings) for each of a married couple.

Means-testing

The Age Pension has been means-tested since its inception. Initially both an income test and a separate property (assets) test applied. The annual rate of pension was reduced on a pound for pound basis once earnings exceeded a free area and also by one pound for every ten pounds of the value of property (including the family home) above a second free area. In December 1912 the family home was made exempt from the property test, and remains so.

The means tests remained largely unchanged until the late 1960s, when the reduction of the income test withdrawal rate from 100% to 50% in 1969 marked the commencement of a period of

¹ This section has been adapted from Bateman and Piggott (2003).

liberalization. In the 1972 Federal election campaign, both major parties undertook to abolish means testing for the Age Pension. Following this election the pension free amounts were doubled and, by 1975, the means tests had been abolished for those aged 70 and above. By 1976 the assets test was abolished.

This represented the highpoint of liberalization of the Age Pension means tests. In 1978 tightening of the means tests commenced when partial means testing was reintroduced for persons aged 70 or more. By the mid-1980s, means testing on both income and assets was again being applied to all retirees.

Recent policy has reflected an increased emphasis on targeting, with an attempt to simplify the administrative burden.² Under current rules (as of July 2009) the income test the Age Pension is withdrawn at the rate of 40 cents for each dollar of private income in excess of a free area of \$A138 fortnightly (for single pensioners) and \$A240 fortnightly (for a pensioner couple). The assets test operates to reduce the Age Pension by \$A1.50 per week for every \$A1,000 of assets above a statutory threshold: \$A171,750 for a single homeowner, \$A243,500 (partnered homeowner), \$A296,250 (single non-homeowner) and \$A368,000 (partnered homeowner). As noted earlier, the test paying the lower rate of Age Pension applies (Harmer, 2009).

Means testing has ensured that a high proportion of government transfers are received by the poorest aged, thereby generating significant redistribution (Bateman et al. 1994). It has also helped to keep the aggregate value of transfers modest.

For some time now, successive governments have maintained the single rate Age Pension at a minimum of 25% of male average earnings.³ Recently, this rate was increased to 27.7%. Compared with other rich developed economies, these magnitudes are favorable for safety net payments, but fall far short of the payments promised under typical public earnings-related pension schemes.

² The thrust of the simplification is the extension of 'deeming' for financial assets. That is, income to be tested under the income test is determined by applying a statutory (deemed) rate of return to the capital value of financial assets. 2009 deeming rates are 3 per cent for the \$41,000 of financial assets held by a single pensioner or \$68,200 for a couple, and 4 per cent on amounts above this.

³ Increases flow-on to the partnered rate.

Table 1: Features of the Age Pension ^(a)

Established	1909		
Eligibility	Residency		
	Age (males age 65, females age 62 ^(b))		
	Means-tested (income and assets)		
Funding	General revenues		
	PAYG		
Amounts	Single rate - \$A14,614.60 pa		
	Partnered rate - \$A12,207.00 pa		
	(Subject to income and assets means-tests)		
	Indexed to greater of growth of CPI and male average earnings.		
Other benefits	Rent allowance, concessional pharmaceutical benefits, public transport, public utilities etc.		
Taxation	Pensioner tax rebate fully exempts full rate pensioners from income tax, partial exemption for part rate pensioners		
Means-tests	<i>Income test:</i>		
	Pension withdrawn at the rate of 40c for each \$A1 of private income in excess of a free area of \$A138 fortnightly (single rate), \$A240 fortnightly (married rate).		
	<i>Assets test:</i>		
	Pension withdrawn by \$A1.50 per week for every \$A1,000 of assets above thresholds:		
		Single	Married
	Homeowner	\$A171,750	\$A243,500
	Non homeowner	\$A296,250	\$A368,000
	Thresholds and limits indexed to annual movements in the CPI		
	Part pension based on whichever test determines the lower rate of pension		

(a) The dollar amounts are for July 2009.

(b) Until recently the eligibility age for women was age 60. An increase to age 65 is being implemented over the period 1995 to 2014.

Second pillar support – the Superannuation Guarantee

The Superannuation Guarantee was introduced in 1992, following compliance problems identified with the inclusion of superannuation in industrial awards. The Superannuation Guarantee mandates employers to make superannuation (retirement saving) contributions on

behalf of their employees to superannuation (pension) funds of their choice⁴. Employers that fail to do so are subject to the Superannuation Guarantee Charge. The superannuation contributions are placed in individual accounts in private superannuation funds and invested on behalf of the employees. The guarantee is essentially a guaranteed payment to a superannuation fund of 9% of earnings. In the last budget, the Government foreshadowed an increase of this mandated contribution to 12%.

3. Means-testing – A Conceptual Approach⁵

Like any other tax-financed financial transfer, retirement income transfers impact on incentives at two points in economic transactions: when the tax is levied, and when the transfer is received. These two points of price distortion must both be taken into account in assessing the economic efficiency effects of a tax-transfer policy.⁶

To capture both these points of intervention, however, it is necessary to adopt an economy-wide conceptual framework. Indeed, there are complex interactions between effective marginal tax rates facing those eligible to receive transfers, those not eligible, and those who are being taxed to finance it. The problem is also complicated by dynamic inter-temporal effects: the perspective of benefiting from a transfer during old-age might affect decisions about labor supply and savings during active life. So, individuals who would not be eligible for a transfer if the transfer program did not exist would become eligible for a transfer because the program is in place. In fact, even if the transfer is not targeted, individuals might have incentives to change labor supply and savings rates over the life-cycle, simply because their endowments have been enhanced by this entitlement.

The usual place to start when assessing the incentive effects of retirement income transfers and social assistance programs in general, is to look at the effective marginal tax rates (EMTRs) facing potential beneficiaries. Targeted programs can induce large EMTRs and can reduce incentives to work and save for individuals close to the “eligibility line.” Because efficiency costs, or excess burdens increase disproportionately with EMTRs, their estimation is a natural focus for analysis. There are, however, potentially important tradeoffs between the EMTR, the number of people affected by the targeting, and other explicit taxes in the economy. We discuss these issues next.

Assume for the moment that we wish to compare a targeted with a universal social pension. First, while a means tested pension will impose high EMTRs on those at the margin of eligibility, where withdrawal of the pension is operative, many individuals potentially impacted by a universal pension will be unaffected by a targeted pension. The rate of withdrawal of the means tested pension, sometimes called the taper rate or claw-back, will impact on this. The lower the

⁴ Superannuation is analogous to private retirement saving and superannuation funds are analogous to pension funds. These terms may be used interchangeably throughout the paper.

⁵ This material draws heavily on Piggott *et al.* (2009).

⁶ For a discussion of links between redistribution and incentives see also Robalino *et al.* 2008.

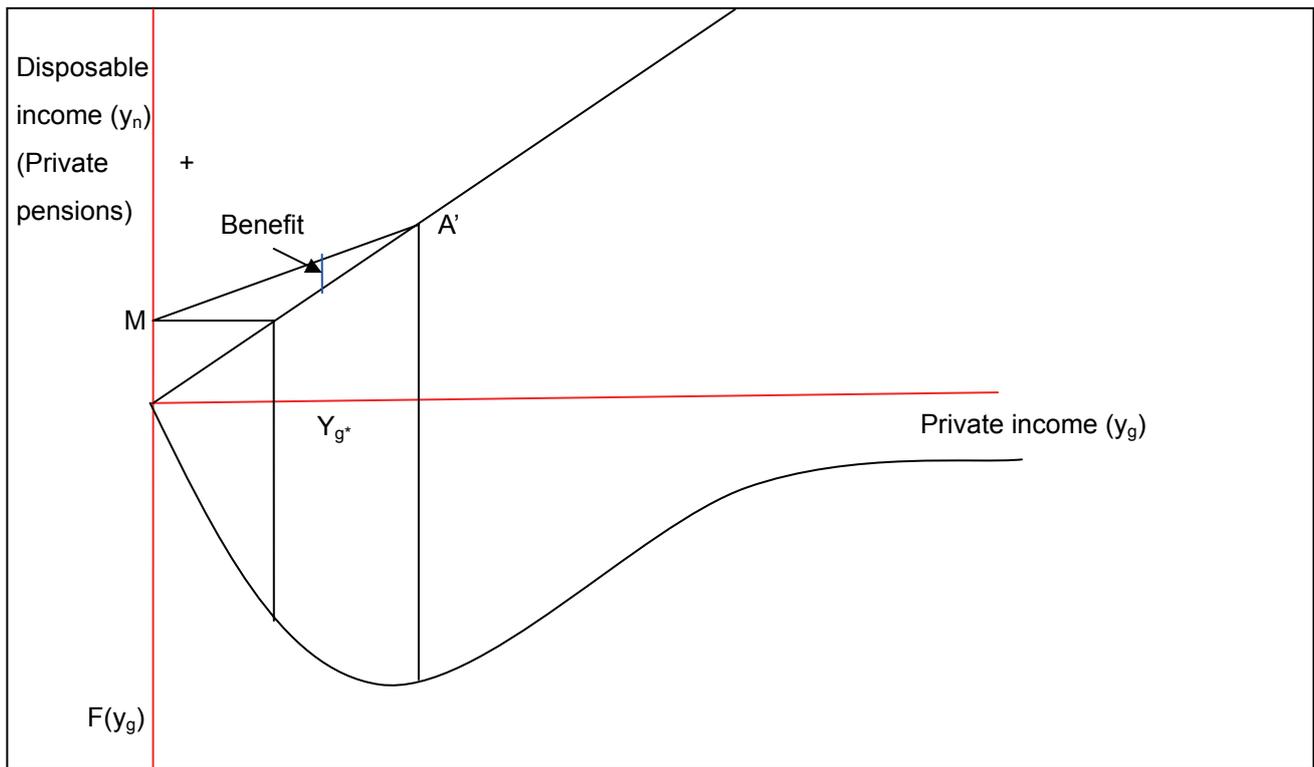
taper rate, the lower will be the EMTR, but the more people will be affected.⁷ Second, as the taper rate (and the associated EMTR) is reduced, the overall revenue requirement of the program will increase, and this will require higher tax rates to be applied to others in the economy, probably workers. If they already pay high taxes, as in developed economies, then the same argument about disproportionate efficiency costs of high marginal tax rates will apply, offsetting the EMTR reduction among pension recipients. If the economy is less developed, with low tax rates, it is likely that the tax imposition will retard the development of the formal sector – or affect employment levels when programs are financed through pay-roll taxes (the common approach in the case of minimum pensions). Overall, the efficiency impact of the two designs will be a somewhat subtle trade-off between keeping a low EMTR for potential beneficiaries and keeping the tax-burden of the economy at affordable levels.

Figure 1 captures these effects graphically. The upper panel of the figure maps gross income, y_g (on the horizontal axis) into net income, y_n (vertical axis). M gives the level of minimum income available under the assistance scheme.⁸ A 100% taper, that is, dollar for dollar withdrawal of the transfer with increments in gross income, is represented by the horizontal line MA . A 50% taper is represented by MA' . For an individual at any level y_g^* the cost of the pension is given by the vertical distance between the 45 degree line and the relevant disposable income line, MA or MA' . The fiscal cost of the program, however, will depend on the number of recipients, whose frequency is mapped in the lower panel. While the frequency distribution shown is illustrative, it is consistent with available evidence. The revenue cost increases dramatically as the taper rate is reduced, necessarily requiring increases in distortionary taxes elsewhere in the economy. Moreover, the income effect generated among those not affected by the claw-back can still change behaviors regarding labor supply, savings, and retirement.

⁷ This point was first made by Blinder and Rosen (1985). Sefton *et al.* (2008) makes the same point in the context of means tested pensions in the UK.

⁸ Depending on the nature of the scheme, this may be guaranteed to all, all above a certain age, or only to those enrolled in a social security program.

Figure 1: Means-tested Transfers



Implications of Means-tested Pension Program in a Large Scale OLG Model

In a recent paper, Kumru and Piggott (2010) study a stylized UK-type means-tested pension program, to quantify the effects of means testing on economic aggregates and social welfare. They develop a large scale stochastic closed economy overlapping generations model that incorporates a model-equivalent representation of the UK tax and transfer system. In the model individuals face mortality and idiosyncratic income risks and they face borrowing constraints in an incomplete market setting. Hence, the means-tested pension program has an insurance role in the model. Although the insurance benefits provided by the means-tested program is welfare enhancing, the program creates distortions on individuals' saving and labor supply decisions. In particular, a decrease in the taper rate increases the tax burden on workers and makes them heavily dependent on the public retirement in their old age. In contrast, an increase in the taper rate decreases the tax burden and encourages individuals to save more for their retirement. Yet, although these two effects positively affect workers' saving and labor supply decisions, an increase in the taper rate leads old individuals to decumulate their asset holdings as early as possible to receive more pension benefits.

They show that the existence of another pension program in the economy (the UK has an earnings-dependent PAYG financed pension program as a second tier) affects the aggregate and welfare implications of the means-tested pension program. In particular, they show that when there is another pension program, individuals decumulate their asset holdings less rapidly than when there is only means-tested pension program in the economy. Therefore, an increase in the

taper rate creates more positive impact on economic aggregates. They conclude that in this environment, a 100% taper rate is optimal.

In a related paper, Sefton *et al.* (2008) assess the quantitative implications of the UK's means-tested program in a simpler environment than that of Kumru and Piggott (2010). In particular, they consider the effects of a recent policy reform applied in the UK that reduced the marginal tax rate on private income of means-tested retirement benefits from 100% to 40%. They conclude that policy reform encourages poor people to save more and delay retirement but has the opposite effect on richer households. Since Sefton *et al.* (2008) analyze the means-tested pension program in isolation by assuming away the earnings-dependent pension program, the negative effects of the 100% taper rate on after retirement asset decumulation is over-emphasized.

It is clear from both Sefton *et al.* (2008) and Kumru and Piggott (2010) that analysis of means-tested pension program is complex, and results can be affected from the simplifications made in the model. Both studies clearly show that higher taper rates positively affect higher income groups' saving and labor supply decisions while they negatively affect lower income groups' economic decisions. But the extent of the negative impact crucially depends on the availability of other sources of public retirement income.

Empirical Evidence on Behaviour

The empirical evidence on the impacts of means-tested programs is limited.⁹ In the US, Neumark and Powers (1998, 2000) empirically analyze the effects of the means-tested pension program of the US, the Supplemental Security Income (SSI) program, on individuals' labor supply and saving decisions. They show that an increase in SSI benefits results in a reduction in aggregate labor supply and savings because potential participants of the program, in particular those who are close to retirement age reduce their savings and labor supply.

In a similar vein, Disney and Smith (2002) empirically analyze the behavioral implications of the UK's pension program. They show that abolition of the earnings test raises working hours of older male workers by around 4 hours a week, with a lesser impact on women's behavior.

In developing economies, findings are even less settled. Ardlington *et al.* (2007) analyze the South African means tested pension, received by most blacks. While the standard result of reduced labor supply held for workers resident in the household, the ability of households receiving a pension to help its younger members find work elsewhere offset this effect. As they suggest:

“If social transfers allow households to overcome credit constraints, enabling households to bankroll potential migrants or potential work seekers who need financial support to look for jobs, then social transfers like the pension may promote employment and help households to break out of poverty traps.” (Page 2).

⁹ Piggott *et al.* (2009) provide a brief overview.

4. Some New and Relevant Analytical Insights

The case for means testing, and the more sophisticated development of means tests, has been given new impetus over the last two decades by new analytical work on optimal taxation.

The received wisdom since the 1980s has been that it is inefficient to tax capital. This result has been challenged by number of writers: the zero capital income taxation result might not hold if there is market incompleteness and/or the life-cycle framework is used. Alvarez *et al.* (1992), Erosa and Gervais (2002) and Garriga (2003) show that it might be optimal to tax capital when the lifecycle framework is used. In particular, Erosa and Gervais (2002) prove that it is optimal for a government to tax or subsidize interest income. The reason is simple: Individuals' optimal consumption-work plan is not constant over the life-cycle. As a result, the government always wants to use age-varying consumption and labor income tax rates. If it is not possible to condition tax rates on age, a positive capital income tax rate can be a substitute for age-conditioned consumption and labor income tax rates.

Conesa *et al.* (2009) quantitatively characterize the optimal capital and labor income tax by using an OLG model in which individuals face uninsurable idiosyncratic income shocks and permanent productivity differences. They find that the optimal capital income tax rate is significantly positive at 36 percent. This result is not surprising. In the absence of truly age-based consumption and labor-income tax rates, the positive capital income tax rate is the second best solution and hence, it should be positive. Nakajima (2008) extends Conesa *et al.* (2009)'s work by adding housing into the model to compare whether and how the optimal capital tax rate differs between the model with housing and without housing. He showed that the optimal capital tax rate in the model with housing is 13%, substantially lower than the Conesa rate.

It is interesting that the idea of age based taxes has not been further developed in a policy setting. This is possibly because in the US, such a tax would be regarded as discriminatory. In fact, however, age based programs do exist – the US Medicare program is one example. In Australia, older people are entitled to a personal income tax offset which effectively changes the rates of personal income taxation.

The most important implication of the studies above, however, is that means testing now has a positive rationale. This is because an age pension means test on assets, or capital income, is exactly a tax on capital. Moreover, it is better targeted than a generic capital income tax, because it directly addresses the complementarity between retirement saving and retirement leisure. Further, the age based tax literature suggests that means test withdrawal rates could be far better tailored than they currently are. Taper rates could vary with the value of wealth, and also the age of the pension recipient. This is an important research program which has barely begun. But it may hold the key to resolving the tension between providing adequate income to the retired, and keeping the associated fiscal requirement under control.

5. Conclusion

Demographic transition is rendering earnings-dependent PAYG financed public pension programs unsustainable at the levels of benefit traditionally promised. Therefore, both academic economists and policy-makers are increasingly interested in alternative ways of providing old age income. Means-tested pension programs offer one possible solution to providing old age-income by reducing distortions on individuals' saving and labor supply decisions. Although theoretical and empirical analyses of means-tested pension programs have been neglected by economists for a long time, they have been successfully implemented by a few economies including Australia and the UK.¹⁰

Recent theoretical developments shed light on a further role of means-tested pension programs as a proxy for the optimal age-dependent consumption and labor income tax. This in turn implies that means-tested pension programs are not only a less burdensome way of providing benefits to retirees, but also a good proxy for optimal consumption and labor taxation.

¹⁰ The earliest analysis of the means-tested pensions –to the best of our knowledge- was provided by Feldstein (1987). Sefton *et al.* (2008) and Kumru and Piggott (2010) carried Feldstein's early research to more realistic environment at the expense of the analytical tractability.

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Social Issues and Policy Agendas in Korea

Hyungpyo Moon*

1. Introduction

The Korean society has gone through a number of changes and faced several new challenges since the foreign exchange crisis in 1997. As for the change in the role of the government, the government has put forth enormous efforts for the past decade to increase its social expenditure which had been disregarded during the period of high growth. The size of social expenditure today recorded a rapid annual growth rate of 13%, as shown in Table 1. As a result, social expenditure grew nearly four-fold in the past decade.

The basic framework of Korea's social security system was finalized during this period, and many new systems were adopted, such as the Employment Insurance in 1995, and the launch of the National Basic Livelihood Security System in 2000. More recently, Korea reinforced its social safety net through the Basic Old-age Pension (2008) and Long-term Care Insurance (2007) for the elderly. Not only that, in the context of 'Workfare,' it also adopted the Earned Income Tax Credit (EITC) and the public childcare system.

Despite the government's efforts to increase social expenditure Korea's social safety net has not sufficiently fulfilled its role in ensuring economic security and upward social mobility of various vulnerable groups in the society. Many loopholes and blind spots are still prevalent within the social safety net. On the other hand, the continuous deterioration of income distribution and the rapid pace of population ageing in recent years increased social demands for a more complete social security system.

Under this background, this short paper aims to suggest a new social policy direction to the present Korean policymakers. First, I will briefly go over the current social issues and problems in Korea and discuss the meaning and agendas of new social policy, followed by suggestions on the principles and challenges that should be emphasized in the process of developing and implementing the policy. The specific issues in pension coverage are also included in the later part of the paper.

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<Table 1> Changes in Social Expenditure

(unit: trillion won, %)

Category	'98	'03	'08	'09	Annual growth rate		
					'08	'09(est.)	'99-'09
Social expenditure ¹⁾ (A)	21.0	38.0	67.3	79.6	12.5	18.3	12.9
Consolidated government expenditure ²⁾ (B)	115.4	164.3	235.8 (262.8)	275.9 (301.8)	12.4 (10.8)	17.0 (14.8)	8.2
A/B(%)	18.2	23.1	28.5	28.9			

1) Expenditures in health care · welfare, social security, housing, etc. based on consolidated public sector finance (=gross expenditure-loan collection)

2) () denotes the amount of gross expenditure

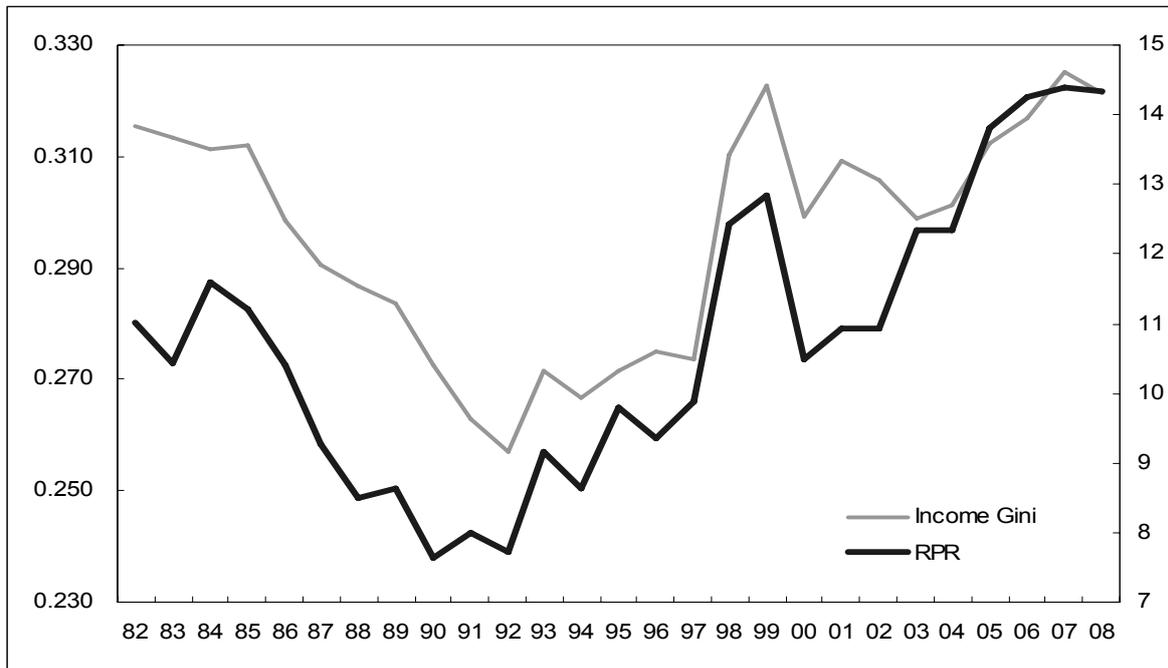
* Source : Ministry of Strategy and Finance, Republic of Korea.

2. Current Social Issues and Problems

Rising income inequality

Despite the rapid increase in social expenditure, Korea's income inequality has continued to deteriorate since the mid-1990s. As shown in Figure 1, the Gini coefficient rose sharply from 0.275 in 1996 to 0.321 in 2008. Moreover, the relative poverty rate, which is the proportion of households with less than 50% of median income, increased even faster from 9.3% to 14.3% over the same period. Such a drastic change raises a concern now that the momentum of equitable growth, which the Korean society has been long boasted, particularly, during its development decades, might come to an abrupt end because of the advent of the information era, globalization, and structural changes in the labor market.

<Figure 1> Changes in Gini Coefficient and Relative Poverty Rate

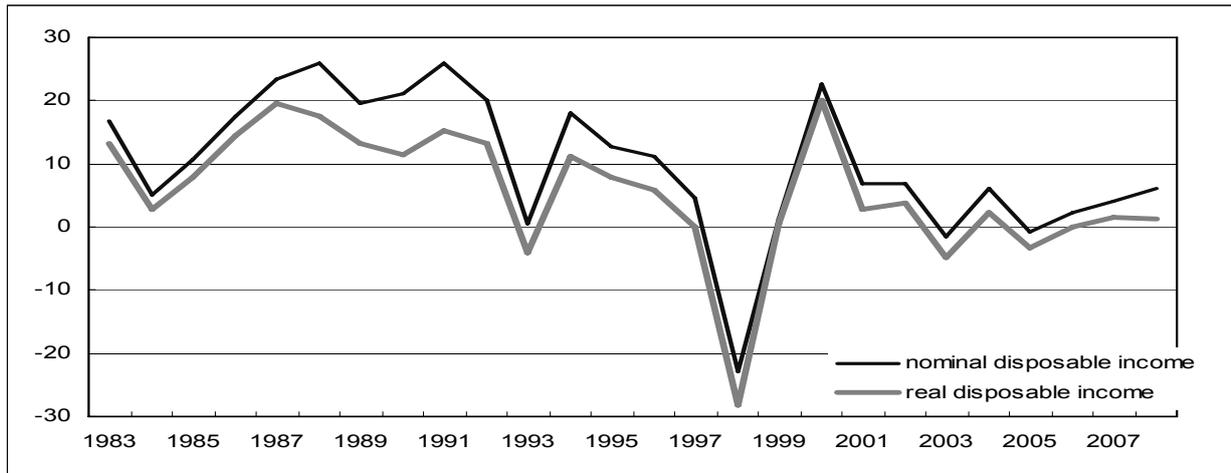


Note: The relative poverty rate is the proportion of households with less than 50% of median income
Source: Urban Household Survey (original data, including households with wage worker, self-employed, unemployed).
Korea National Statistics Office

The deterioration of income distribution is mainly attributable to the failed trickle-down effect from the economic growth into poor households. According to data released by the Korea National Statistics Office, the real disposable income of poor households, especially those in the lowest 20% in the income decile, has stagnated since the crisis in 1997 as shown in Figure 2. The deterioration also has weakened the foundation of middle-income class, stating that the proportion of the middle class, which is households with 50%~150% of median income, has fallen by more than 10 percentage point from 68.7% in 1996 to 56.4% in 2008.

Given that a large middle class is crucial to sustaining social stability and balanced growth, such a large fall should inevitably lead to weakening the foundation of social integration. Furthermore, continued deterioration in income distribution in spite of the increasing social expenditure implies that existing welfare expansion policy, which focuses on simple income transfer, might not be enough to substantially reduce poverty and restore the middle class under the changed conditions as today.

<Figure 2> Income Growth Rate of the Bottom 20% Households



Weakening social mobility

Another concern is the decline in social mobility and the subsequent weakness in economic dynamism in Korean society. In particular, the failing public education contrast to booming private education has widened the educational gap among income classes, resulting in the intergenerational transmission of poverty. For example, high-income households spend 10 times more on private education than low-income households, and students from high-income households turn out to record higher scores by more than 30 points in the National Scholastic Aptitude Test, compared to those from low-income households. (Moon, ed. [2009]) Along with this, as Table 2 shows, there is a growing gap of wage and job security between labor union vs. non-union, large company vs. SME, and regular workers vs. non-regular workers. This dual structure of the labor market serves as an additional factor that has limited the upward mobility among income classes.

<Table 2> Dual Structure of Labor Market

	Labor union ∩ Large company ∩ Regular worker	Non-union ∩ SME ∩ Non-regular worker
Average monthly salary (thous.won)	3,257 (100)	1,138 (34.9)
Working duration (year)	12.3	1.7
UI take-up rates (%)	77.7	32.3
Number of employees (thous.people)	1,144 (7.1%)	4,347 (27.0%)

Source: Economically Active Population Survey Additional Survey, Mar. 2009.

Despite the increase in relative poverty, Korea's social safety net has not sufficiently fulfilled its role in preventing and extricating from poverty. The expansion of social insurance so

far has been highly centered on regular workers; hence its protection for temporary and self-employed workers is very weak. For instance, at present, the Employment Insurance subscription rate of non-regular workers is only 39% and more than 6.5 million of the National Pension is delinquent insurers. (See Table 3). Furthermore, there are a large number of poor households with no access to the benefits of the National Basic Livelihood Security System, and the “all-or-nothing” type of comprehensive pay system is also pointed out as a problem that greatly reduces the incentives to work in order to extricate from poverty.

<Table 3 > Narrow Coverage in Social Insurance Programs

Category	Uncovered Areas
National Pension	5,107 payment-exempt insurers and 1,526 delinquent insurers (2 years) as of 2007
National Health Insurance	2,130,000 households exempt from paying contribution as of 2006
Long-term Care Insurance	3.1% beneficiary rate as of 2008
Employment Insurance	34.8% unemployment benefit payment as of 2007, 39% subscription rate of non-regular workers as of 2008
Industrial Accident Compensation Insurance	Excluding majority of non-regular workers

Source: Moon, ed. [2009]

Ageing society

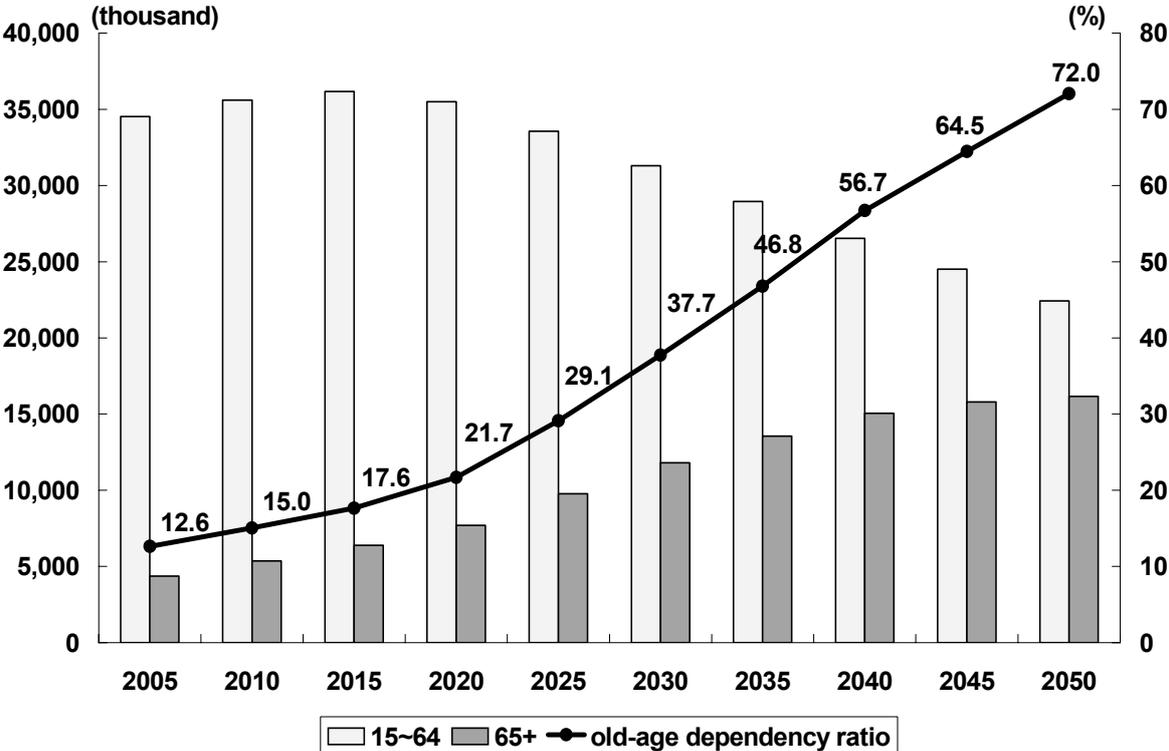
Along with the issues mentioned above, Korea’s low fertility rate, among the world’s lowest, and rapidly ageing population increasingly threaten as serious social issues. In particular, an insufficient support system available for women to rear children while simultaneously pursuing a working career, overly excessive costs of private education, and prevalent discrimination in the workplace for married women are obstacles that restrain both fertility and women’s labor participation rate.

As shown in Figure 3, Korea’s elderly dependency ratio is expected to rise by almost six times from 12.6% in 2005 to 72% in 2050. Rapid ageing population will not only undermine the growth potential by reducing labor supply and savings, but also will substantially put additional pressure on supporting the elderly. This phenomenon of ageing population is likely to serve as a stumbling block for Korea to join the ranks of developed economies. The rapidly ageing society carries ominous warnings for Korea such as a decline in growth potential, decrease in the working population, and surging demand for welfare expansion including medical care and public pension provision, among others.

A rapidly ageing population will also make old age income security more important, while at the same time, significantly affecting public pension finance. In this regard, Korea now faces two major policy challenges—that of enhancing the role of the old age income security system as early as possible and, at the same time improving the financial sustainability of the public pension

system. These two policies, however, could potentially clash. For example, in the case of overemphasizing the function of public pension as a social protection measure, a rapidly ageing population could undermine the system’s sustainability. On the other hand, if Korea focused mainly on stabilizing pension finance, its function for old age income security could weaken.

<Figure 3 > Demographic Changes in Korea : Forecasts



Source: National Statistics Office, Republic of Korea (2006)

3. Directions for New Social Policy

Objectives

The Korean society, today, is faced with new challenges such as deteriorated income distribution, declining social mobility, low fertility rate, and ageing population. Further, increasing instability in various social sectors calls for the government to move beyond the existing ex-post, residual, and passive attitude in its social policy stance and to intervene in a more active and preemptive manner. In particular, there is an urgent need to preemptively build and invest in the foundation to enhance human capacity, potential, and will in order to overcome poverty and revive the middle-income class.

Under this context, the current Korean government launched “Human New Deal” in March 2009 and has declared its strong will to protect the middle class from erosion, promote new entries, and foster future entrants through comprehensive measures that focus on the middle class.

The term “Human New Deal” has not been coined exactly, yet, but in a broad sense, it could be interpreted as social policy for preemptive social investment and system improvement with an aim to build competency to counter potential risk factors in individual life cycle and enhance individual progress. (Moon (ed.) [2009])

New social policy should put an emphasis on ‘investment in human.’ In other words, the core value of social policy in the future should be to embody “integrated society pursuing shared growth” through building a foundation to strengthen the capacity of all members of the society in order to actively participate in the knowledge-based economy of the 21st century. The objectives of the new social policy are to establish a society with a large middle class as the foundation for social stability and balanced growth, a society that guarantees equal opportunity and high upward mobility of social strata, and a society with a sustainable and broad-based growth potential.

Strategies

In order to accomplish these policy goals of new social policy, there are three driving strategies to pursue. First, since sustainable and endogenous economic growth requires the accumulation of human capital resources, the social policy needs to focus on preventive intervention in poverty and income inequality through preemptive investment that aims to enhance competency-based human resources. In doing so, it is important to strengthen non-cognitive skills such as endurance, motivation, self-control, etc. as well as to foster cognitive skills through education and training. (Heckmen and Krueger [2002]) Also, to lessen human capital inequality, intensive focus should be put on the low-income class through investment on human capacity development so that equal opportunity will be guaranteed to all income levels.

Among these preventative and investable approaches, one of the most important would be the investment on children. As pointed out by numerous studies, childhood poverty leads to poor school performance and inferior social and economic status later in life. Therefore, new social policy needs to considerably strengthen early intervention programs to heighten human capital development of children from poor families. “Head Start” of the US and “Sure Start” of the UK are some of the good examples.

Second, a user-oriented integrated approach is needed. Existing social policies on welfare, education, labor, etc. are provider-oriented, which caused efficiency loss, frequent overlaps and omissions. Even the method of financial support is provider-oriented as well, weakening the performance incentives. The educational policy, in particular, was implemented by the principle of input equality, undermining the performance incentives of teachers and schools, which serve as factors for the collapse of public education and expansion of private education.

In order to solve these problems, we need to focus on the enhancement of comprehensive human capacity, such as intelligence, social, and emotional aspects, through integrated care, education and training services. It is also necessary to make financial assistance available through a direct Voucher method to users in order to expand their selection choices as well as to improve the service quality of provider institutions through healthy competition.

Third, because each life cycle of each individual differs, risks faced and development stages of each individual differ as well, and hence, the role of the government for each individual will differ. Therefore, we need to put concerted efforts on accurately identifying different risk factors in different stages of life such as preschool, school, productive age and old age so that step-by-step customized services will be available.

As mentioned earlier, in order to correct deficiencies in human capacity due to poverty, early intervention beginning in infancy and pre-schooling is most effective. Accordingly, the strategic investment scheme of new social policy should put its priority on early intervention such as in the preschool stage for substantial development in human capacity.

4. Major Policy Agendas

Under the basic concept of new social policy, mentioned above there are four major policies I would like to suggest for implementation in each sector.

Firstly, in order to pursue a broader growth through restoring the middle class, it is crucial to reinforce social safety net which would improve economic security and upward mobility. As the Hamilton Project from the Brookings Institution [2006] states, a proper social safety net will surely help each individual to recover from economic difficulties and also it will encourage people to invest in the uncertain future through start-ups or taking vocational training programs. In other words, it will function as a “springboard for a better future.” In this regard, Korea needs to expand the coverage of social insurance as the primary social safety net and that of public assistance as the secondary safety net. Particularly, policy measures should be prepared to encourage those excluded from social insurance to actively signing up by the subsidizing insurance premium for low-income and non-regular workers and self-employed to the coverage.

Specific policy measures that need to be considered include,

- Health Insurance: expanding its coverage and approving loans for medical bills for unemployed.
- Employment Insurance: subsidizing the insurance premium for low-income workers and pending approval on including self-employed to the coverage.
- National Pension: pending insurance-matching support measures for low-income atypical workers.
- Long-term Care Insurance: improving access for the near poor elderly.
- National Basic Livelihood Security program: In order to strengthen the incentives to escape poverty, allowances for medical, housing, education, etc. should be separately provided for a certain period of time to past recipients who are no longer eligible for the benefit.

Secondly, it is important to guarantee equal education opportunity through the quality improvement of public education and reduction in the cost of private education. To strengthen performance of teachers and schools, it is important to establish a student-oriented teacher evaluation system, strengthen schools’ autonomy and accountability, and expand the rights of

student/school selections. To reduce the cost of private education, which is the main culprit for excessive burden of the middle-income households and their low rate of fertility, it is necessary to enhance the quality of public education, improve the school entrance system, and prevent excessive growth of the private academic institute industry.

Along with this, to provide equal opportunity of education, it is necessary to implement mandatory infant education, support more after-school programs, provide more education funds, and launch “Lifelong Learning Account” projects. Further, it is also important to integrate education and childcare programs as well as strengthen their quality along with providing more flexible working hours for woman workers, considering their rise in the labor market.

Thirdly, as for welfare service, it is necessary to strengthen poverty prevention and social mobility through aggressive early investment policies, which allows for equal opportunity at the starting line. To that end, it is important to expand the Dream Start project nationwide, which is an ongoing program that integrates healthcare, childcare, and welfare focusing mainly on the children from low-income areas. In addition, it is necessary to implement the Healthy Start program which provides house-to-house health services to households with infants and toddlers.

Efforts are needed to prevent the fall into poverty due to temporary financial adversity and support should be strengthened to help people in need to escape poverty through jobs. To that end, it is necessary to expand the coverage and scale of emergency support programs for sudden accident, sickness, or business closure. It is necessary to implement the Self-reliance Support program which incorporates a self-help project, social employment, and micro-credit programs. It is also necessary to expand EITC to strengthen work incentive, and to adopt an earnings disregard system to the unemployment benefit.

Lastly, a core challenge to restoring the middle class is job creation. Hence, policies that promote quality and creation of jobs should be pursued as well as sustained. To put it another way, under the premise that the government does not create jobs but ultimately jobs are created by private investment, it is necessary to consistently implement measures that alleviate the dual structure of the labor market, upgrade labor management relations, correct unfair trade practice, and enhance productivity of service industries.

To boost employee productivity, it is important to develop their fundamental competency and support career development. To that end, more tax benefits should be provided for education and training, and voluntary on-the-job-training and selective training programs by employees in the private sector should be encouraged. It is also necessary to come up with active measures to encourage hiring of female workers as part-timers so that they can manage both work and family. Consistency is also needed to streamline laws and regulations to correct gender and age discrimination practices in the labor market.

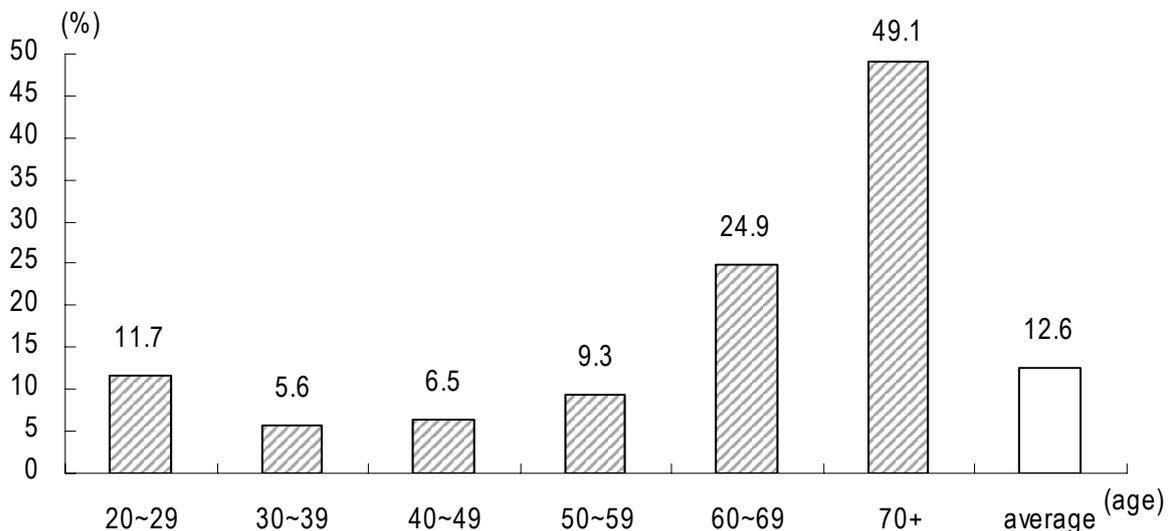
5. Issues in Pension Coverage¹

Narrowness of the pension coverage

Despite the continuous economic growth, deep poverty in the elderly population in Korea still remains as a very critical problem. As demonstrated in Figure 4, when the relative poverty line is set at 40% of the average household income, about one fourth of the households with a 60 or older household head and around half of the households with their head aged 70 or over expectedly fall in the poverty category. This figure is two times and four times higher, respectively than the average poverty rate of the whole society. Likewise, Korea's poverty rate of the elderly households is highest among the OECD member countries and the relative income gap between working families and elderly households is also widest (Whitehouse [2008]).

The reason for the elderly poverty rate can be easily understood by looking at the composition of income sources of elderly households as seen in Table 4. As the table shows, the private transfers account for the largest part, 25.8%, of the total income source of elderly households in Korea while the public pension amounts for only 12.8%. This clearly contrasts with the fact that the public pension plays the most important role as a major income source for the elderly population in other advanced economies. Furthermore, even the sum of the public transfers including public assistance and other social welfare subsidies still accounts for less than 20%, showing a lower proportion than the private transfers. This tells us that a majority of elderly households are financially dependent on their offspring, which has been the tradition.

<Figure 4> Poverty Rates by Ages of Household Heads in Korea1 (2006)



Note: 1) Poverty line is set at 40% of the median income and the number of households is converted by applying an equivalence scale.

Source: Korea National Statistical Office, 「National Household Survey」 (2006).

¹ This section partly relies on Moon [2009].

<Table 4> Composition of Income Sources of Elderly Households1

(Unit: %)

Income source	Payroll income	Business income	Asset income	Private transfers	Pubic transfers		Non-ordinary income	Total
					Public pension	Others		
	22.8	9.7	10.9	25.8	12.8	7.8	10.1	100.0

Note: 1) Based on the households with a 65-year-old or over household head.

Source: Korea National Statistical Office, 「National Household Survey」 (2006).

The insignificant role of the public pension is basically due to the fact that Korea's public pension system has a very short history. In the case of the National Pension Scheme, it was first introduced to payroll workers in 1988 and expanded to self-employed in 1999. Therefore, a majority of participants have not reached the minimum participation period (10 years), and even if they receive their pension benefits, the amount is not so sufficient to lift them out of poverty in many cases. Making matters worse, those who were already older than 60 when the scheme was first introduced as well as dedicated housewives have not been given any opportunity to participate in the scheme.

Another problem in the application of the National Pension is that many of the participants do not actually pay contributions. As seen in Table 5, 5.1 million participants, or 28% of the total, are classified as exempt payers, meaning they are given a grace period for the time being because they cannot afford to pay contributions. Even more serious is that the number of those people is on the rise recently. Many of them fall into the poor or near poor class, so a substantial number of those exempt payers will continue to have difficulties in securing the right to receive their pension in the future.

<Table 5> Current Status of National Pension Exempt Payers

(Unit: thousand, %)

	Total participants	Workplace participants	Regional participants	Exempt payers
2005	17,074 (100.0)	7,951 (46.6)	4,489 (26.3)	4,634 (27.1)
2006	17,691 (100.0)	8,605 (48.6)	4,150 (23.5)	4,936 (27.9)
2007	18,212 (100.0)	9,149 (50.2)	3,956 (21.7)	5,107 (28.0)

Source: National Pension Service.

Policy implications

The narrow coverage of the National Pension, or the issue, the so-called “pension blind spot,” has been raised as one of the current social issues along with the long-term financial insecurity. Recognizing this issue, the Korean government put forth its effort to expand the pension coverage and compliance of the challenging groups. Besides building up the administrative ability to detect the actual income of temporary or daily workers and the self-employed, more radical policy measures are currently under active discussions. One of such policy options would be the provision of a contribution subsidy to atypical workers with low income. The main purpose of a contribution subsidy would be to prevent the potential old-age poverty in advance, rather than providing ex-post financial support after people become actually poor in the latter stage of their life.

Contribution subsidy can be considered as a pre-emptive social investment, as it will alleviate poverty among the elderly in the future. It is also a policy option which costs much less compared to the financial burden of the introduction of non-contributory universal basic pension. Therefore, it would be worthwhile to provide financial incentives for voluntary participation in the pension plan to the low-income class such as atypical workers and poor self-employed, before we jump into the implementation of more drastic structural reform of the Nation Pension.

Currently, many atypical workers are not paying their contributions mainly because neither workers themselves nor their employers have enough incentives to participate in the pension plan. Thus, in designing the subsidy scheme for atypical workers, it is important that it should provide incentives both to workers to voluntarily participate in the National Pension, and to employers to convert the individually insured workers into workplace-based insured. One way to achieve this

goal would be relieving the contribution burden partly from both workers and their employers.

6. Conclusion

Undoubtedly, the social safety net, if properly designed, plays a crucial role in ensuring economic security and social mobility of each individual in a society. In particular, its importance is growing with increasing various economic risks due to the recent global financial crisis and rapid population ageing, among others. However, the social safety net in Korea is still not sufficient enough to play the role of ensuring economic security and preventing poverty due to its short history and narrow coverage. Hence, it is imperative that the Korean government should place a top priority in strengthening the basic social safety net in order to protect the middle class from erosion and promote new entries.

The reinforcement of the social safety net can also help increase consumption demand and promote economic recovery, as it will generally reduce the precautionary motive for savings. It does not seem desirable to me, however, to expand the social safety net for the purpose of boosting domestic consumption. Since expanding the social safety net not only takes time but also is very costly, it would be a less effective measure for economic stimulus compared to other traditional macroeconomic, both fiscal and monetary, tools. The causality should be the other way around; consumption increase is the result of, not the purpose of, a strengthened social safety net.

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Development of Pension Arrangements and Future Pension Policy Issues in Japan

Noriyuki Takayama*

1. Introduction

In the past, families and occupational schemes on a private basis were the major old-age safety net in Japan. The principal social security pension program was introduced during the World War II. It had developed gradually under the period of high-speed economic growth. Its development looked like a dividend from economic growth. An enormous shift of the population from farmers to salaried-men took place during the rapid growth period, along with longer life expectancy. The household size has become smaller and smaller on average. The rise and the fall of private enterprises have been very common in this period. These factors forced a major source of old-age income to shift from families and occupational schemes to social security pension programs.

The future demographic and economic situations of Japan will make the current, generous social security pensions hard to maintain, however. It is still an open question whether or not Japan will manage to contain the increasing social security pension cost, while assuring its people stable lives over the whole life-cycle.

This chapter first explains changes in Japan's social security pension programs. Second, it discusses future pension policy options in Japan.

2. Changes in Japan's Social Security Pension Program

Japan had six social security pension programs covering different sectors of the population. The earliest plan was established in 1890; the most recent, in 1961. The earliest plan was for military servants, which asked no individual contributions. It was totally financed by general revenue. The scheme was then expanded to civil servants. The old-age benefit for military and civil servants was based on the final salary and its benefit level was generous from the outset.

The principal program mandatory for private sector employees is the Kosei-Nenekin-Hoken (KNH), which was enacted in the wartime in 1942. Old-age pensions of the KNH were forced to suspend immediately after the end of the war and the KNH contribution rate was reduced from 11% to 3%. The KNH was rebuilt in 1954 shifting from an earnings-related pension to a two-tier benefits system with flat-rate basic benefits.

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2.1 High-speed Growth Period

The social security pension system was and is to be reformed at least every five years. In the early stages, the KNH benefit level was not charming yet, and for the old-age retirees at that time a lump-sum retirement benefit provided on a private basis by their employers was often of much more significance. On the other hand, pension benefits for civil servants were considerably higher. This difference induced “gap-decreasing” adjustments in benefit levels between private and public sector employees. Drastic improvements in the KNH old-age benefits were taken place in 1965 and in 1973; the replacement ratio in gross wage terms was increased to 40% and then to 60%. In 1973 the updating of past salary together with the benefit indexation enabled retired people to afford to manage in their old-age with the generous KNH benefits. In the meantime, there happened the sharp decline in the real significance of their lump-sum retirement benefits provided privately by their employers.

Under the KNH, equal percentage contributions are required of employees and their employers. The 3% contribution rate had been gradually increased and the total percentage went up to 7.8% in 1973.

At the outset, the KNH was established as a defined-benefit plan on a fully funded basis. It was initially regarded as a compulsory saving program to prevent inflation. Its finance shifted gradually from funded to pay-as-you-go. Currently the KNH has a reserve fund of about 128 trillion yen in March 2010. KNH contributions used to be accumulated in a reserve fund to be invested in social overhead capital for the construction of highways, railways, bridges, airports, and other public projects.

Before 1961 the self-employed, people engaged in agriculture/forestry/fishery, the unemployed, persons with no occupation, and employees working in small firms were still excluded in the social security pension system. The Kokumin-Nenkin (KN) Law was put into effect in April 1961, embracing all the people, previously uncovered, under social security. The participation in the KN has been compulsory for everyone (even for the jobless persons) between 20 and 59 years old.

The basic structure of the KN is a flat-rate basic benefit and a flat-rate contribution on an individual basis. One-third of the KN benefits were financed by subsidy through general revenue. The full old-age benefit of the KN was payable initially after 25 years of contributions from age 65, although an actuarially reduced or increased benefit could be claimed at any age between 60 and 70. The transitional KN old-age benefit with a special 10-year-contribution requirement began to be paid actually in 1971. A majority of the elderly came to enjoy receiving this special benefit, which contributed to making the public aware of a significant role of social security pensions in old-age income security. “Go and Go” policies were immediately adopted. The benefit formula of the KN had been revised to be more and more generous. Meanwhile automatic indexation of the KN benefit was also enforced in 1973.

2.2 Period of Diminished Expectations

The KN started with a very small contribution, which was politically difficult to increase. The KN soon faced severe difficulties in financing benefits. An enormous shift of the population from farmers to salaried-men during the rapid growth period obliged some revenue-sharing scheme between employees' and non-employees' pensions to be necessary. The scheme was established in 1986, and since then, the first-tier basic flat-rate benefits of all the pension systems have been financially integrated. Currently the flat-rate pension benefit is financed on a fully pay-as-you-go basis. The 1986 reform has changed some requirements of the KN; the full old-age pension is payable after 40 years of contributions, provided the contribution were made before 60 years of age. There have been introduced special transitional provisions for those born after 1926 with at least 25 years of coverage. They can receive the maximum pension even with fewer contribution years, provided they had been contributing since 1961.

It should be noted that those covered by the KNH (and the other employee pension systems) are not required to make individual contributions to the KN, while the KNH itself is responsible for the financial participation in the integrated first-tier, flat-rate basic pensions.

Since the 1986 reform, if the husband has the contribution deducted from his salary and placed in the KNH, his dependent wife has been automatically entitled in her own name to the flat-rate basic benefits, and she has not been required to make any individual payments to the public pension system. Through this, the women's right for pension has been comprehensively established.

The 1986 reform included another advance in the flat-rate disability pensions. A dependent child of age less than 20 got to be entitled to the flat-rate basic benefits in case of disability. Though the medical check was (and is) very strict, the handicapped children largely came to be supported by the social security pension system and not by the special welfare program.

Through the 1986 pension reform, the accrual rate for the earnings-related component of the KNH old-age benefits was to be reduced gradually from 1.0% per year to 0.75% cohort by cohort. The reductions corresponded to the longer average contribution years of the younger cohorts. On average, each cohort was expected to receive 30% of his career average monthly real earnings as the earnings-related component.

The future demographic situations of Japan were getting darker and darker; the total fertility rate (TFR) showed an unexpected sharp decline from 1975 and the current level in 2009 is 1.37. There is still little sign that the TFR will stabilize or return to a higher level. Japan's total population began to fall from 2005, reaching 45% of its current level by 2100. On the other hand, life expectancy was steadily increasing. Consequently, the proportion of the elderly (65 years and above) for Japan was 22.7% in 2009 and became the front runner in the world. It is expected to reach 30% by 2020 and more than 40% around 2050. In the 1990s, the Japanese economy changed dramatically, too, when the asset bubble finally burst. The colorful dreams that Japanese youth have placed in their economy would be likely to be destroyed.

Both demographic and economic factors in the future will probably impose greater stresses on social security pension programs which are based on pay-as-you-go defined-benefit financing. The biggest political issue in the Japanese pension system was when to start benefit payments. The pension age was 60 years for workers in the 1990s. The government had proposed twice in 1979 and 1989 to raise the eligibility age for all workers to 65. The proposal was turned down by the Diet both times since trade unions and opposition parties were strongly against the bill.

In summer 1993, the political situation changed dramatically. The Liberal Democratic Party (LDP), which had been ruling Japan ever since the end of the Second World War, fell from power. It was replaced by a coalition of opposition parties (excluding the Japanese Communist Party). It was this coalition that prepared the 1994 legislation.

The approved legislation guaranteed that the tier-2 earnings-related benefits for retired employees between 60 and 64 will be paid without any reduction. The tier-1 basic benefits for this age group were to be phased out by stages (between 2001 and 2013 for men), and eventually nobody under 65 will receive full basic benefits (the phasing out of basic benefits for female employees will be delayed by five years starting only in 2006).

Up to October 1994, benefits were adjusted in line with the hikes in gross wages, but since 1994, they have been in net wages.

In December 1998, the government decided to increase existing pension benefits in fiscal year 1999 to reflect only changes in the CPI over the previous calendar year, though fiscal year 1999 was previously anticipated as seeing net-wage indexation of existing pension benefits after a five-year interval.

In July 1999, the government submitted the 1999 pension reform bill to the parliament and the bill was passed through it in March 2000. Its main points are as follows:

- a) Earnings-related benefits are to be reduced by 5 per cent; specifically, the current annual accrual rate of 0.75 per cent is to be decreased to 0.7125 per cent from fiscal year 2000.
- b) Both the flat-rate basic benefits and the earnings-related pension benefits once paid are to be CPI-indexed after age 65 from fiscal year 2000.
- c) The normal pensionable age for earnings-related old-age benefits is to be increased step by step from age 60 to 65 for men from fiscal year 2013 to 2025. The phasing out of earnings-related old-age benefits for female employees in their early 60s will be delayed by five years starting only in 2018. In exchange, those between 60 and 64 will become eligible for newly provided advance payment, at a reduced rate, out of the earnings-related benefits. The rate of reduction will be 0.5 per cent by one month (6 percent by one year). If a person begins to receive the advance payment from age 60, his/her benefit level will be 70 per cent of the normal amount.
- d) An earnings test for those aged 65 to 69 is to be introduced from fiscal year 2002 (currently Japan has no such test for them). Increases in earnings-related old-age benefits for delayed retirement between ages 65 and 69 are to be abolished accordingly.

- e) Employers are to be exempted from paying their share of social security pension contributions for their employees on child-care leave from fiscal year 2000.
- f) The monthly standard earnings base for social security pensions is upgraded to the 98,000 to 620,000 yen range from October 2000.
- g) The benefit/contribution base is to be shifted from monthly standard earnings to annual earnings including semi-annual bonuses from fiscal year 2003. The shift is to be adjusted to induce no changes in aggregate income from contributions in 2003.
- h) The rebates on contributions for contracted-out schemes are to be frozen from fiscal year 1999.
- i) A 50 per cent reduced flat-rate contribution for the non-employees is to be newly introduced from fiscal year 2002. This is mainly for low-income groups. Their basic benefit will be two-thirds of the full amount. Students aged 20 and over are to be able to postpone paying in their flat-rate contributions for ten years at the most. They are, however, to be eligible for the full basic disability benefit during years of non-payment.

By these measures, aggregate pension benefits will be reduced by 20 per cent by 2025. As a result, the contribution rate for the KNH will peak by 2025 at 25.4 per cent, instead of 34.5 per cent anticipated without any reforms (the rate estimated on the basis of monthly standard earnings). The flat-rate monthly contributions for non-employee people will peak by 2021 at 18,500 yen (instead of 26,400 yen) at 1999 prices.

2.3 The 2004 Pension Reform

The administration of Prime Minister Koizumi Jun'ichirō submitted a set of pension reform bills to the National Diet on February 10, 2004, and they were enacted on June 5. This section will describe the gist of the approved reforms and explore issues that remain to be addressed.

Salaried workers are, as a rule, enrolled in the KNH, which is part of the public pension system. Contributions under this plan have since October 1996 been set at 13.58% of annual income, paid half by the worker and half by the employer, but the newly enacted reforms raise this rate by 0.354 percentage points per year starting in October 2004. The rate rises every September thereafter until 2017, after which it will remain fixed at 18.30%. The portion paid by workers will accordingly rise from the existing 6.79% of annual income to 9.15%.

For an “average” male company employee earning JPY360,000 a month plus annual bonuses equivalent to 3.6 months’ pay, contributions will increase by nearly JPY20,000 a year starting this October 2004, and by the time they stop rising in September 2017, they will have reached just under JPY1.03 million a year, and the share paid by the worker will be just over JPY514,000. This comes to 35% more than the current level of contributions.

Those who are not enrolled in the KNH or another public pension scheme are required to participate in the KN, which provides just the so-called basic pension. (The basic pension also forms the first tier of benefits under the KNH and other public pension system.) Contributions under this plan will rise by JPY280 each April from the current JPY13,300 per month until they

plateau at JPY16,900 (at 2004 prices) in April 2017. The actual rise in KN contribution is adjusted according to increases in general wage levels.

In addition, the government increased its subsidies for the basic pension. One-third of the cost of basic pension benefits is paid from the national treasury; this share was to be raised in stages until it reaches one-half in 2009.

Lower Benefits Despite Higher Contributions

Benefits under the KNH consist of two tiers; the flat-rate basic pension, which is paid to all public pension plan participants, and a separate earnings-related component. The latter is calculated on the basis of the worker's average preretirement income, converted to current values. Until now, the index used to convert past income to current values was the rate of increase in take-home pay. Under the 2004 reform, though, this index will be subject to a negative adjustment over the course of an "exceptional period" based on changes in two demographic factors, namely, the decline in the number of participants and the increase in life expectancy. This period of adjustment is expected to last through 2023.

The application of the first demographic factor will mean that benefit levels will be cut to reflect the fact that fewer people are supporting the pension system. The actual number of people enrolled in all public pension schemes will be ascertained each year, and the rate of decline will be calculated based on this figure. The average annual decline is projected to be around 0.6 percentage points.

Introducing the second demographic factor, meanwhile, will adjust for the fact that people are living longer and thus collecting their pensions for more years; the aim is to slow the pace of increase in the total amount of benefits paid as a result of increased longevity. This factor will not be calculated by tracking future movements in life expectancy; instead, it has been set at an annual rate of about 0.3 percentage points on the basis of current demographic projections for the period through 2025. Together, the two demographic factors are thus expected to mean a negative adjustment of about 0.9 points a year during the period in question.

How will these changes affect people's benefits in concrete terms? Let us consider the case of a pair of "model" KNH beneficiaries as defined by the Ministry of Health, Labor, and Welfare: a 65-year-old man who earned the average wage throughout his 40-year career and his 65-year-old wife who was a full-time homemaker for 40 years from her twentieth birthday. In fiscal 2004 (April 2004 to March 2005), this model couple would receive JPY233,000 a month.

How does this amount compare to what employees are currently taking home? The average monthly income of a salaried worker in 2004 is projected to be around JPY360,000, before taxes and social insurance deductions. Assuming that this is supplemented by bonuses totaling an equivalent of 3.6 months' pay, the average annual income is roughly JPY5.6 million. Deducting 16% of this figure for taxes and social insurance payments leaves a figure for annual take-home pay of about JPY4.7 million, or JPY393,000 a month.

The JPY233,000 provided to the model pensioners is 59.3% of JPY393,000. But this

percentage, which pension specialists call the “income replacement ratio,” will gradually decline to an estimated figure of 50.2% as of fiscal 2023 (assuming that consumer prices and nominal wages rise according to government projections by 1% and 2.1% a year, respectively). Over the next two decades, then, benefit levels will decline by roughly 15% by comparison with wage levels.

The revised pension legislation stipulates that the income replacement ratio is not to fall below 50% for the model case described above, and so the exceptional period of negative adjustment will come to an end once the ratio declines to 50%. This provision was included to alleviate fears that benefits would continue to shrink without limit.

How will the reforms affect those who are already receiving their pensions? Until now, benefits for those 65 years old and over were adjusted for fluctuations in the consumer price index. This ensured that pensioners’ real purchasing power remained unchanged and helped ease postretirement worries. But this cost-of-living link will effectively be severed during the exceptional period, since the application of the demographic factors will pull down real benefits by around 0.9 points a year. In principle, however, nominal benefits are not to be cut unless there has also been a drop in consumer prices. Once the exceptional period is over, the link to the consumer price index is to be restored.

Provisions for Working Seniors and Divorcees

People aged 60-64 who are receiving pensions and also have wage income have up to now had their benefits reduced by a flat 20%, regardless of how much or little they earn. This rule has been abolished so as not to discourage older people from working. But these people will still be subject to the current rule that if the sum of wages and pension benefits exceeds JPY280,000 a month (after factoring in annual bonuses), the pension benefits are to be cut by 50% of the amount in excess of this level.

Workers aged 70 and over, meanwhile, have been exempt from paying into the KNH, even if they are still on a company’s payroll. And they have not had their benefits reduced no matter how much they earn. Beginning in April 2007, though, their benefits were reduced if they were high-income earners. Those receiving more than an equivalent of JPY480,000 a month in wages and pension benefits will have their benefits cut by 50% of the amount in excess of this level. This is a rule that currently applies to those aged 65 to 69, and it will be maintained for this age group. The over-70 group will still be entitled to the full amount of the basic pension, and they will continue to be exempt from paying contributions.

Divorced wives were not legally entitled to any portion of their former husbands’ earnings-related pension benefits, but this changed under the revised legislation. Couples who divorce after April 2007 are able to split the rights to the earnings-related portion of the husband’s pension that accrued during their marriage. The wife is able to receive a share of up to 50% of these rights; the actual share is to be determined by agreement between the two. For rights accruing after April 2008, moreover, a full-time homemaker is able to automatically receive half of her husband’s

benefits in case of divorce by filing a claim at a social insurance office. Underlying this rule is the assumption that even though the contributions are paid in the husband's name, the wife has provided half of the couple's livelihood through her work as a homemaker. (Note that the provisions for working husbands and dependent homemaker wives apply conversely in cases where a home-maker husband is dependent on the wife.)

Widowed spouses younger than 30 and without children under the age of 18 had been entitled to lifelong benefits under the survivor's pension scheme (based on the earnings of the deceased spouse). After April 2007, however, they receive benefits for no longer than five years.

Workers taking child-care leave are exempt from making pension contributions, and to prevent a decrease in their future benefits due to this period of nonpayment, they are treated as having continued their full payments, even when they have no income. This special exemption was claimed for up to one year after childbirth, but starting in April 2005 the period was extended until the child reaches age three.

Also from April 2005, parents who change their working arrangements to put in shorter hours so as to care for children under age three and who take a corresponding cut in pay will be treated as having worked full time and earned a full salary. Actual contributions during this three-year period, though, will be based on the lower earnings.

Additional Adjustments

As a rule, a person cannot simultaneously receive more than one public pension. But the recent reforms have created an exception. People with disabilities who had gainful employment and paid pension contributions from April 2006 were entitled to not only their basic disability pension but also the earnings-related component of the old-age pension or survivor's pension. This measure is designed to encourage employment among people with handicaps.

Participants in the KN who have low incomes currently pay either half of the regular contributions or none at all. There was a finer tuning of payment exemptions starting in July 2006, when low-income earners also were exempt from paying one-quarter or three-quarters of the regular contributions.

The reform covered private pension plans as well. The upper limit of the amount that could be put aside each month under company-funded defined-contribution pension plans was raised from JPY36,000 to JPY46,000 in cases where there was no other corporate pension plan and from JPY18,000 to JPY23,000 in cases where there was another plan in effect. The ceiling on monthly installments under individually funded defined-contribution plans for salaried workers was raised from JPY15,000 to JPY18,000 where there was no corporate pension coverage, while the cap for the self-employed remained unchanged at JPY68,000. The higher ceilings for private plans were designed to make up for the anticipated smaller benefits of public old-age schemes.

3. Future Pension Policy Issues

Social insurance payments in Japan already exceed the amount collected in national taxes,

and contributions to the pension system are by far the biggest social insurance item. If this already huge sum is increased by more than JPY1 trillion a year, as the government plans, both individuals and companies are bound to change their behavior. Government projections of revenues and expenditures, though, completely ignore the prospect of such changes.

Companies will likely revamp their hiring plans and wage scales to sidestep the higher social insurance burden. They will cut back on recruitment of new graduates and become more selective about midcareer hiring as well. Many young people will be stripped of employment opportunities and driven out of the labor market, instead of being enlisted to support the pension system with a percentage of their income. And most of the employment options for middle-aged women who wish to reenter the work force will be low-paying ones. Only a few older workers will be able to continue commanding high wages; there is likely to be a dramatic rise in the number of aging workers who will be forced to choose between remaining on the payroll with a cut in pay or settling for retirement. Many more companies will either choose or be forced to leave the KNH, causing the number of subscribers to fall far below the government's projections and pushing the system closer to bankruptcy.

The jobless rate on the whole will rise. The Ministry of Economy, Trade, and Industry has estimated that higher pension contributions will lead to the loss of 1 million jobs and boost the unemployment rate by 1.3 points. The government plan to increase pension contributions annually up to 2017 will exert ongoing deflationary pressure on the Japanese economy. For the worker, a rise in contribution levels means less take-home pay; as a result, consumer spending is likely to fall, and this will surely hinder prospects for a self-sustaining recovery and return to steady growth.

Another problem with increasing pension contributions is that they are regressive, since there is a ceiling for the earnings on which payment calculations are based and unearned income is not included in the calculations at all.

One major objective of the reforms is to eventually eliminate the huge excess liabilities of JPY500 trillion in the balance sheet of the KNH. The plan is to generate a surplus equal to this amount by (1) hiking contributions, (2) increasing payments from the national treasury, and (3) reducing benefits. But the combination of higher contributions and lower benefits will mean the future participants will end up getting back less than they pay into the system. It is estimated that their benefits will amount to only about 80% of their contributions. This is hardly likely to encourage people to participate. Higher contributions will further alienate younger workers from the pension system and deepen their distrust of politics.

As noted above, those who are already receiving their pensions will see their benefits decline in real terms by an average 0.9% per year. The government scenario sees consumer prices eventually rising 1% a year and take-home pay 2.1% a year. This means that the model beneficiary who began receiving JPY233,000 a month at age 65 in 2004 will get roughly JPY240,000 at age 84 in 2023; nominal benefits, in other words, will remain virtually unchanged

for two decades, despite the fact that average take-home pay of the working population will have risen by over 40%. The income replacement ratio, which stood at nearly 60% at age 65, will dwindle to 43% by the time the model recipient turns 84. The promise of benefits in excess of 50% of take-home pay does not apply, therefore, to those who are already on old-age pensions.

The so-called demographic factors are likely to continue changing for the foreseeable future. The government itself foresees the number of participants in public pension plans declining over the coming century: The estimated figure of 69.4 million participants as of 2005 is expected to fall to 61.0 million in 2025, 45.3 million in 2050, and 29.2 million in 2100. This corresponds to an average annual decline of 0.6% through 2025, 1.2% of the quarter century from 2025, and 0.9% for the half century from 2050. In other words, the decline in the number of workers who are financially supporting the public pension system is not likely to stop after just two decades.

The 2004 reform, though, adjusts benefit levels in keeping with the decline in the contribution paying population for the next 20 years only; the government's "standard case" does not foresee any further downward revisions, even if the number of participants continues to fall. If the government really anticipates an ongoing decline, there is no good reason to abruptly stop adjusting benefit levels after a certain period of time. Sweden and Germany, for instance, have adopted permanent mechanisms whereby benefit levels are automatically adjusted for fluctuations in demographic factors.

The decision to keep the model income replacement ratio at 50% at the point when pension payments commence represents, in effect, the adoption of a defined benefit formula. Maintaining both fixed contributions on the one hand and defined benefit levels on the other is not an easy task, for there is no room to deal flexibly with unforeseen developments. The government will be confronted with a fiscal emergency should its projections for growth in contributions and a reversal in the falling birthrate veer widely from the mark.

The government based its population figures on the January 2002 projections of the National Institute of Population and Social Security Research. Under these projections, the medium variant for the total fertility rate (the average number of childbirths per woman) falls to 1.31 in 2007, after which it begins climbing, reaching 1.39 in 2050 and 1.73 in 2100. Actual figures since the projections were released have been slightly lower than this variant, and there are no signs whatsoever that the fertility rate will stop declining.

If the government is to keep its promise on an upper limit for contributions and a lower limit for benefits, the only policy option it will have in the event of a financial shortfall will be to raise the age at which people begin receiving benefits. The reform package makes no mention of such a possibility; the drafters of the bills no doubt chose to simply put this task off to a future date.

In fiscal 2009 the share of the basic pension benefits funded by the national treasury was raised from one-third to one-half. This means that more taxes will be used to cover the cost of benefits. Taxes are by nature different from contributions paid by participants in specific pension

plans, and there is a need to reconsider the benefits that are to be funded by tax revenues.

The leaders of Japanese industry tend to be quite advanced in years. For the most part, they are over the age of 65, which means that they are qualified to receive the flat-rate basic pension. Even though they are among the wealthiest people in the economy, they are entitled to the same basic pension as other older people hovering around the poverty line. Using tax revenues to finance a bigger share of the basic pension essentially means asking taxpayers to foot a bigger bill for the benefits of wealthy households as well. For an elderly couple, the tax-financed portion of the basic pension will rise from JPY530,000 a year to JPY800,000. If a need arises to raise taxes at a future date, who will then actually agree to pay more? Few people will be willing to tolerate such wasteful uses of tax money.

On 30 August 2009, there was a dramatic change in the political arena of Japan. The LDP fell down from power, and it was replaced by the Democratic Party. The new administration plans to implement a drastic pension reform by 2013, including an introduction of a minimum pension funded by consumption tax, with integrating all the existing earnings-related pension systems to a unified one. The concrete reform contents still remain to be drafted.

