DYNAMICS OF POPULATION AGEING: HOW CAN ASIA-PACIFIC RESPOND?
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Introduction

Population ageing, the process by which older individuals become a proportionately larger share of the total population, was one of the most distinctive demographic events of the late twentieth century. This phenomenon is equally reflective of the Asia-Pacific region. Some of the countries in the region have already embraced Population ageing while several others are to follow suit. Economies such as Australia; Georgia; Hong Kong, China; Japan; New Zealand; and Russian Federation have already experienced rapid ageing of their populations and are confronting with associated socio-economic challenges. Several others including China; Republic of Korea; Macao, China; Singapore; Sri Lanka and Thailand are facing the pressures of ageing.

The intensity of ageing in Asia and the Pacific region is bound to increase at a faster rate in the twenty first century with the share of population over 60 years of age increasing from 10.0 per cent of the total population in 2000 to 24.1 per cent by 2050. Of the five countries of the world that are expected to have more than 50 million older people by 2050, three would be from the Asia-Pacific region: China (437 million), India (324 million) and Indonesia (70 million). The share of the old aged living in the Asia-Pacific region would increase from the current level of 54 per cent of the world’s total to 63 per cent by 2050.

The demographic transition would have important multiple implications for the socio-economic conditions of the region. The rising share of elderly people in the total

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1 Old aged is defined as the population aged 60 years and over. This definition used by the United Nations is consistent with the retirement age of most countries of Asia and the Pacific.
population would exert pressure on government budgets as the demand for health services and social welfare increases. The changing age structure would also result in a shift in overall consumption and saving patterns with a long-term impact on investment and growth. Increasing migration due to adjustments in regional and international labour markets in response to rapid ageing would have implications on domestic labour markets, particularly on supply and productivity of labour. Governments would be increasingly under pressure not only for devising innovative mechanisms to deal with issues arising from an ageing population but also for undertaking market reforms and policy coordination to ensure long-term viability of social welfare programs, while minimizing the negative effects on the economy.

How governments respond to these challenges now would be a deciding factor in the well-being of not only the current young and the elderly but also the future generations. While the fact that ageing is not a transitional issue makes responding to the ageing process in time a necessity, the ability to anticipate the demographic transition with a fairly high degree of accuracy makes it a surmountable problem and provides countries with ample room for better preparing for facing the challenges posed by ageing. The countries in the region being in different stages of demographic transition will enable them to harness the issues arising from ageing through regional/bilateral cooperation and learning from other countries which are already aged.

Responding to ageing in advance would enable countries to reap the “demographic dividend” produced by reduced fertility rates. It also gives countries

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3 For example, the East Asian "economic miracle" shows how reduced fertility can help to create conditions for robust economic growth. See Bloom. D., David Cunning and Jaypee Sevilla (2002), “The Demographic...
which are still young a time-bound opportunity to capitalize on their demographic conditions and benefit from ageing of other countries by making productive use of its young labour force. However, collecting the demographic dividend would require that right policies and incentives are in place. Policies considered by most countries include pension reforms, labour market reforms and elderly care. However, reforms in many countries are either incomplete or yet to be undertaken.

Countries in Asia-Pacific could learn from other ageing societies both within and outside the region as to how they have responded to emerging health, elderly care and social security requirements, as well as issues on labour and capital markets, government budgets and human migration. For example, Australia’s strategic approach to aged and community care, United States’ migration policy to stabilize the working age population, and Chile’s pension reforms provide good examples of policy responses to issues relating to ageing.

Addressing issues arising from ageing goes beyond national boundaries as ageing would lead to increasing levels of human migration in the next few decades. How labour issues are treated in a global context would be a key factor not only in making productive use of excess labour in some parts of the world by allowing them to migrate to labour shortage countries but also in containing the destabilizing effects of uncontrolled emigration on labour markets in labour exporting developing countries. This calls not only for bilateral and regional cooperation but also for a fresh look at the existing global frameworks such as Mode 4 of the General Agreement on Trade in Services (GATS) of

the World Trade Organization (WTO) for widening the scope of such initiatives for human migration just as in the case of trade in services.

The objective of this chapter is to analyze the dynamics of population ageing in the Asia-Pacific region with particular attention to analyzing socio-economic implications of ageing and the policy responses required to face the current and the future challenges of the demographic changes. The chapter is organized as follows. Section II provides a brief analysis of population dynamics of the region. Implications of population ageing are discussed in Section III while policy responses for issues related to ageing are analyzed in Section IV. Section V concludes.

Section II. Population dynamics

Population ageing is a process common to almost all developed and developing countries. The dynamics of population ageing differ from country to country depending on their level of economic and social development as well as policies adopted during the past. Population ageing has taken place at a rapid rate in the Asia-Pacific region during the past fifty years and would continue at a faster pace during the next fifty years (figure I). Asia-Pacific region is already home for more than half of the world’s old aged and the share would continue to increase in the next fifty years. Meanwhile, population dynamics have created several gender related issues, which could worsen the welfare, particularly of women.
Determinants of population ageing

The demographic transition witnessed in the Asia-Pacific region is underlined by declines in mortality and fertility rates, mainly due to improved health conditions and family planning, respectively.

Decline in mortality

The decline in mortality rate has been the main trigger at the initial stage of demographic transition. Advances in the medical field and improved access to health services led to a sharp reduction in infant mortality along with maternal and adult mortality. Aggressive campaigns to control infectious diseases such as Malaria and Tuberculosis along with successful control of frequent epidemics of smallpox, cholera and yellow fever positively contributed to improvements in the mortality rate as early as
1920’s. For example, mortality rate fell sharply in Sri Lanka when public health and campaigns for sanitation were undertaken, particularly to eradicate malaria, which led to an increase in life expectancy by 14 years between 1947 and 1954. Similar trends were seen in countries such as India and Pakistan after the Second World War.

Table I. Changes in infant mortality rate and total fertility rate in developing countries

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant mortality rate</td>
<td>-58%</td>
<td>-41%</td>
<td>-42%</td>
</tr>
<tr>
<td>Total fertility rate</td>
<td>-27%</td>
<td>-29%</td>
<td>-27%</td>
</tr>
</tbody>
</table>

As reflected by Table I, the decline in mortality rate has been a common feature in developing countries. For example, infant mortality rate has declined by 58 per cent during 1950-1975 and by a further 41 per cent during 1975-2000 in developing countries. The trend is expected to continue in the next quarter century. Reflecting these improvements in the mortality rate, the life expectancy increased by 26 years or 63 per cent to 67.4 years in Asia and by 13.5 years or 22 per cent to 74.4 years in the Pacific during the past half century. As figure 2 indicates life expectancy in the Asia-Pacific region stood well above the world average.

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Decline in fertility rate

Fertility rates in many countries in the Asian region exceeded 6 children per woman until mid 1960s due to very early nuptiality and an increase in fertility since 1956 in several countries in the region. As a whole, the Asian region had a high fertility rate of 5.9 children per women during 1950-55 while that in the Pacific region was 3.9. As such, fertility played a marginal role in the demographic transition in many developing countries in the region at its initial phase.

Table II. Total Fertility Rate

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td>5.9</td>
<td>4.2</td>
<td>2.5</td>
<td>2.1</td>
<td>2.1</td>
</tr>
<tr>
<td>% drop</td>
<td></td>
<td>-28.8</td>
<td>-40.5</td>
<td>-16.0</td>
<td>-</td>
</tr>
<tr>
<td>Pacific</td>
<td>3.9</td>
<td>2.8</td>
<td>2.4</td>
<td>2.2</td>
<td>2.1</td>
</tr>
<tr>
<td>% drop</td>
<td></td>
<td>-28.2</td>
<td>-14.3</td>
<td>-8.3</td>
<td>-4.5</td>
</tr>
</tbody>
</table>
However, as reflected by Table II, total fertility rate in the region declined by 29 per cent between 1950-1955 and 1975-1980. The Asian region, in particular witnessed a sharp decline of 40 per cent in the fertility rate during the last quarter of the twentieth century. In countries such as Japan fertility rate has dropped well below the replacement rate. Several socio-economic factors have contributed to this decline in the fertility rate. Foremost among them is the population control policies adopted by governments either through family planning programmes or the fertility control measures such as the “one child” policy in China\(^5\). Individual family planning, even in the absence of State sponsored family planning programmes, especially among the educated in response to economic pressures is also a major contributory factor for declining fertility rate.

Nuptiality control, characterized by a delay in the age of first marriage in response to cultural changes and socio-economic challenges in a changing global environment is increasingly becoming a major force in population control. There is an increasing tendency to give more priority to career development and independence than marriage among educated women.\(^6\) This has been particularly the case in countries where the wage gap between men and women has narrowed over the years. Difficulty in reconciling work with child rearing is another reason. Another contributory factor is the steady improvement in pension schemes over the years, which has reduced the need to rely on the traditional sources of old-age support such as children. The likelihood of using children as old-age support has also declined over the years due to rural urban migration.

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\(^6\) For example in Japan as women acquire education, their salaries increase, which in turn raise the opportunity cost of withdrawing from the labour force to rear children. (See David E.H., and Mackellar (2003)). Another study reveals that 25 per cent of ethnic Chinese women in Singapore and Malaysia were still single by the time they reach 30 years (See (Un)tying The Knot: Ideal and Reality in Asian Marriage, eds. Gavin W. J., and Kamalini Ramdas (2004), Asian Research Institute, Singapore).
and declining fertility rates. As a result of these changes the fertility in the Asia-Pacific region has declined below the world average (see figure 1 above). The sharp decline in the fertility rate since mid 60’s has made it the driving force behind the demographic transition during the past quarter century.

Another important development is the increasing life expectancy at older age, which is expected to continue during the next fifty years. For example, life expectancy at age 60 is expected to increase from 18.1 years to 21.1 years by 2050 in Asia, while that in the Pacific it is expected to increase from 21.5 years to 23.9 years.

**The scale and speed of ageing**

Many countries in the Asia-Pacific region have experienced rapid ageing of their populations during the past fifty years and the intensity of ageing is expected to increase at a faster rate during the next fifty years. For example, the number of persons aged 60 years or over increased from 96 million in 1950 to 326 million in 2000 registering over two-fold increase within a half a century. An even higher rate is expected to be seen during the next fifty years raising the number of old aged people over 60 years to over 1.2 billion by 2050 (Table III). The old aged population as a share of the total population in the region has increased from 6.8 per cent in 1950 to 8.8 per cent in 2000. This share is expected to rise sharply to 14.7 per cent by 2025 and to 22.6 per cent by 2050.

**Table III. People aged 60 years or over**

(In Millions)

<table>
<thead>
<tr>
<th></th>
<th>1950</th>
<th>2000</th>
<th>% increase</th>
<th>Share of total population</th>
<th>2050</th>
<th>% increase</th>
<th>Share of total population</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>205</td>
<td>606</td>
<td>195</td>
<td>10.0</td>
<td>1964</td>
<td>224</td>
<td>21.1</td>
</tr>
<tr>
<td>Asia-Pacific</td>
<td>96</td>
<td>326</td>
<td>240</td>
<td>8.8</td>
<td>1238</td>
<td>280</td>
<td>22.6</td>
</tr>
<tr>
<td>China</td>
<td>42</td>
<td>129</td>
<td>207</td>
<td>10.1</td>
<td>437</td>
<td>238</td>
<td>29.9</td>
</tr>
<tr>
<td>India</td>
<td>20</td>
<td>77</td>
<td>250</td>
<td>7.6</td>
<td>324</td>
<td>320</td>
<td>20.6</td>
</tr>
</tbody>
</table>
The speed of ageing in the region is such that the share of population aged 65 years and over in Asia-Pacific, which stood at 45 per cent of the world total in 1950 increased to 52 per cent by 2000 surpassing the rest of the world. The region’s share of old aged is expected to increase to a staggering 63 per cent by 2050 (figure 3).

**Figure III.**

<table>
<thead>
<tr>
<th>Share of 65+ population in 2000 of selected countries</th>
<th>Share of 65+ in 2050 of selected countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rest of the world</td>
<td>Rest of the world</td>
</tr>
<tr>
<td>43.5%</td>
<td>37.1%</td>
</tr>
<tr>
<td>Rest of Asia Pacific</td>
<td>Rest of Asia Pacific</td>
</tr>
<tr>
<td>11.7%</td>
<td>16.0%</td>
</tr>
<tr>
<td>China</td>
<td>China</td>
</tr>
<tr>
<td>20.9%</td>
<td>22.8%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Indonesia</td>
</tr>
<tr>
<td>2.4%</td>
<td>3.5%</td>
</tr>
<tr>
<td>India</td>
<td>India</td>
</tr>
<tr>
<td>12.0%</td>
<td>16.0%</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>Russian Federation</td>
</tr>
<tr>
<td>4.3%</td>
<td>16.0%</td>
</tr>
</tbody>
</table>

Four countries in the region China, India, Indonesia and Japan accounted for 77 per cent of the region’s old aged and for 41 per cent of the total old aged in the world in 2000. The drop in the share of old aged in these four countries to 71 per cent of the region’s total while the region’s share in the world total rising to 63 per cent by 2050 from the current level of 52 per cent implies that the pace of ageing in other countries in the region during the next fifty years is becoming faster than seen in the past.

Table IV provides a classification of countries in the region according to their speed of ageing. According to this classification, many countries of East and North East Asian, North and Central Asia and all developed countries in the region are rapidly
ageing. An interesting feature of demographic transition in the next half century is the rapid ageing of countries such as China, Sri Lanka, Thailand and several north and Central Asian countries which are still developing. Such a rapid evolution of demography would pose serious challenges for these countries in the immediate future. One positive sign is the still moderate ageing of large economies such as India and Indonesia, which provides them ample room to benefit from the current wave of rapid ageing in the rest of the world as well as prepare to face the challenges of ageing their populations well in advance.
### Table IV.

**Speed of ageing of 60+ population**

<table>
<thead>
<tr>
<th>Speed of ageing of 60+ population</th>
<th>Slow</th>
<th>Moderate</th>
<th>Rapid</th>
</tr>
</thead>
<tbody>
<tr>
<td>East and North-East Asia</td>
<td>Democratic People's Republic of Korea</td>
<td>China Republic of Korea</td>
<td>Mongolia</td>
</tr>
<tr>
<td></td>
<td>China</td>
<td>Republic of Korea</td>
<td>Hong Kong, China</td>
</tr>
<tr>
<td></td>
<td>Macao, China</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South-East Asia</td>
<td>Cambodia</td>
<td>Malaysia</td>
<td>Thailand</td>
</tr>
<tr>
<td></td>
<td>Lao People's Democratic Republic</td>
<td>Myanmar</td>
<td>Singapore</td>
</tr>
<tr>
<td></td>
<td>Timor-Leste</td>
<td>Indonesia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Philippines</td>
<td>Viet Nam</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Brunei Darussalam</td>
<td></td>
</tr>
<tr>
<td>South and South-West Asia</td>
<td>Afghanistan</td>
<td>India</td>
<td>Sri Lanka</td>
</tr>
<tr>
<td></td>
<td>Maldives</td>
<td>Iran (Islamic Republic of)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bhutan</td>
<td>Turkey</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nepal</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pakistan</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Bangladesh</td>
<td></td>
<td></td>
</tr>
<tr>
<td>North and Central Asia</td>
<td>Turkmenistan</td>
<td>Tajikistan</td>
<td>Kazakhstan</td>
</tr>
<tr>
<td></td>
<td>Kyrgyzstan</td>
<td>Azerbaidjan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Uzbekistan</td>
<td>Georgia</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Russian Federation</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Armenia</td>
<td></td>
</tr>
<tr>
<td>Pacific</td>
<td>Solomon Islands</td>
<td>New Caledonia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Papua New Guinea</td>
<td>French Polynesia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vanuatu</td>
<td>Fiji</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Samoa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developed economies</td>
<td></td>
<td></td>
<td>Australia</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>New Zealand</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Japan</td>
</tr>
</tbody>
</table>

**Note:**
- Slow - percentage of 60+ population in 2050 is less than 20 per cent.
- Moderate - percentage of 60+ population in 2050 is between 20 to 25 per cent.
- Rapid - percentage of 60+ population in 2050 is greater than 25 per cent.

### Ageing of the old

Relative ageing of the old aged population itself is becoming a notable feature of the ageing process in the Asia-Pacific region. A larger fraction of the older population in the world is living in the Asia-Pacific region and is growing faster. For example, the
population aged 65 and over in the region accounted for 52 per cent of the global total in 2000 and is expected to expand to 63 per cent by 2050 against a drop in the share of the rest of the world to 37 per cent.

**Figure IV.**

The share of 80 years and over age group in the region would increase from 43 per cent of the world’s total in 2000 to 61 per cent by 2050. Four countries in the region, China, India, Indonesia and Japan accounted for 80 per cent of the region’s population over 80 years old in 2000. This share is expected to decline to 76 per cent with the ageing of the old in other countries in the region. This implies that countries whose populations are already ageing would experience a rapid ageing of the older population while the rest would experience a rapid ageing of the population.
Is ageing a gender issue?

An important dimension of the ageing process is the rising share of women in the older age groups. Ageing has been a progressively gendered experience in the Asia-Pacific region (see figure VI). The share of women in the 65 years and over age group would increase from 6.5 per cent of the total in 2000 to 18.4 per cent by 2050. In contrast, the share of men in that age group rises from 5.3 per cent to 15 per cent during the same period. A similar pattern is observed in the 80 years and over age group with a sharp increase in the share of women over 80 years during the second quarter of the twenty first century. This phenomenon is underlined by the higher life expectancy of women due to better survival chances at old age due to biological reasons.
Section III

Implications of population ageing

Population ageing would have profound implications on the economies as well as societies experiencing a rapid increase in the share of old aged in the total population. While rising demand for medical services at old age and high medical costs would impose pressures on government and family budgets, an ageing population could lead to a drastic shift in the consumption and savings behaviour of people. Labour markets would also experience a shift in the supply of labour with implications on productivity of labour. On the other hand, ageing will also lead to the emergence of social welfare and gender related issues. The combined effect of these changes could affect economic growth and thereby the welfare of the people. These issues are discussed below in detail.

Fiscal Implications

The demographic changes that would be experienced by countries are likely to have a significant influence on the public expenditures, in particular on the provision of pensions and health care. Expenditures on pensions and health care being major
components of government budgets, pressures arising from demographic changes would have adverse effects on the budget deficit/surplus. The decline in the share of the working age population in the region from 62.3 per cent in 2025 to 57.9 per cent in 2050 as well as the possible drop in output could lead to a shrink in the tax base and thereby tax revenues in the second quarter of this century. Fiscal implications of ageing would be felt strongly and much earlier in countries such as Australia, China, Georgia, Japan, Republic of Korea, New Zealand, Russian Federation, Singapore, Sri Lanka and Thailand where population is ageing rapidly and the working age groups decline in the first quarter of the century.

**Public pensions**

In many countries in the Asia-Pacific region public pension schemes are unfunded and operate on pay-as-you-go (PAYG) systems. In most cases the pension benefits are defined. With the number of workers per pensioner declining rapidly as reflected by the sharp rise in the old aged dependency ratio in the Asia-Pacific region during the next fifty years (see figure VII below), financial burden on governments to provide adequate public pensions under the existing defined benefit pension schemes could be substantial.
In the absence of increased contribution to compensate the declining workforce or policy changes, an increase in public pension expenditure could lead to large budget deficits.

**Health care**

The rapid ageing of the population in the region, in particular the ageing of the older population would increase expenditure on public health due to three reasons. First, the elderly in particular the older population group is more prone to diseases\(^7\). The older population group is expected to expand by more than four fold during the next fifty years and is bound to increase the demand for health services on a substantial scale. Secondly,
health care for the elderly is on average more expensive than that for the non-elderly. Finally, the declining trend in families operating as caretaking institutions for the aged due to smaller family units may result in a shift in health financing from family financed to public financed health services.

**Implications on the labour market**

Population ageing would have implications on both the supply of and the demand for labour leading to a labour market mismatch. On the supply side, the share of the working age group (15-59 years) in the Asia-Pacific region would drop from 61 per cent in 2000 to 58 per cent by 2050. The expected drop in the share of the working age group by 2050 would imply that labour force would shrink in many countries in the region within the next fifty years. In countries such as Japan, the share of this most productive age group in the population will drop from 62.1 per cent in 2000 to 52.8 per cent by 2025 and further down to 45.2 per cent by 2050. Countries such as China, Republic of Korea and Sri Lanka will follow suit albeit to a lesser extent during the second quarter of the twenty first century (see figure VIII below).

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7 For example, industrial country data suggest that the elderly consume almost three times more medical services than those aged 0-14. The results also suggest that there is a positive link between medical cost and
On the demand side, there will be a growing demand for labour intensive services such as old-age health care, institutional, social and home care services during the next fifty years. The demand for educational services could drop as the population at schooling age would decline in the next few decades. Demand for such labour, however, may not be met domestically as the labour force is shrinking in many countries. Countries with moderate ageing and high unemployment rates would be in a position to meet their labour demand and benefit from the ageing processes. However, migration of labour in response to changes in immigration policies in more advance economies in the face of rapid ageing in those economies may eliminate that advantage underscoring the need for a coordinated approach to immigration policies in labour importing countries and exporting countries.

age. ibid

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The sharp increase in the median age during the next fifty years implies that many countries in the region would have an ageing labour force. An ageing labour force may have the following adverse implications:

i) A structural change in production due to a shift in demand towards services and products for older aged and the resulting frictional unemployment if labour mobility remains restricted. Such frictional unemployment could widen the qualification gap producing a situation in which the highly qualified are in short supply and the poorly qualified are out of work.

ii) A possible change in labour productivity although research on this area is not conclusive. While older workers are likely to have positive attitudes, be more reliable and possess better skills than the average workers, they are also more expensive in terms of health care costs, lack flexibility in accepting new assignments and training.  

**Saving and Investment**

According to the life-Cycle theory of Savings, individuals make a choice between present consumption and savings for future consumption. Assets accumulated during working years are spent during their retirement. This is particularly the case when there is no or limited retirement benefit schemes to smooth out consumption during retirement. However, empirical evidence in support of the life-cycle hypothesis is mixed. While

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9 For example, in a study of major industrial economics, Masson and Tryon (1990) estimated that an increase of 1 percentage point in the dependency ratio causes a commensurate fall in the savings ratio.
some studies provide support for a strong link between demographic changes and private savings, others find only a weak relationship between them. However, the fact that in many developing countries in the region retirement benefits are inadequate to support living at old age and the fact that additional gain in life expectancy, particularly of the older groups, are spent as retirees, ageing would have a negative impact on savings.

The severity of the drop in savings could off-set to some extent, if young worker have a prior knowledge on the increasing life expectancies which could prompt higher savings for future consumption. Adopting such an approach Ando et al (1995) projected a drop in Japanese Savings rates to 10 per cent\textsuperscript{10}.

The drop in savings would ultimately lead to a contraction in investment in countries that are ageing. As the demand for homes, recreation, transportation, and schooling drops due to the shift in the relative age structure and preferences, investment in such areas may be particularly affected.

**Public debt**

The pressures arising from an ageing population on public expenditures on pensions and health care, particularly in the absence of reforms in pensions and health services could lead to a build up of public debt in developing countries in the region. Countries with weak tax systems and high levels of public debt and fiscal deficits could be particularly at a disadvantage unless specific policy actions are in place to broaden the tax base, improve the efficiency in tax administration and debt management. The

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expected drop in savings would impose additional pressure on public debt as the increasing demand for pension and health care would compel governments to depend on borrowing to finance increasing expenses. Meanwhile, the declining pension contribution would provide little leeway for governments to make use of pension funds for budgetary financing. The unfunded pension schemes in a majority of countries could lead to large implicit pension debts undermining the sustainability of such systems (see Box III.1).

**Box III.1.**

**Growing Implicit Pension Debt**

Implicit Pension Debt (IPD), which refers to the benefit promises a pension scheme makes to workers and pensioners, is perhaps the largest single unreported liability in public sphere. Such implicit liabilities have grown rapidly with the proliferation of publicly managed, defined benefit pension plans during the twentieth century. Estimates of IPD for selected countries in the Asia-Pacific region are given in the table below.

### Implicit pension debt in selected countries

<table>
<thead>
<tr>
<th>Country</th>
<th>IPD as a % of GDP</th>
<th>Country</th>
<th>IPD as a % of GDP</th>
<th>Country</th>
<th>IPD as a % of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>94</td>
<td>Australia</td>
<td>115</td>
<td>Kazakhstan</td>
<td>88</td>
</tr>
<tr>
<td>Japan</td>
<td>162</td>
<td>Philippines</td>
<td>107</td>
<td>Kyrgyzstan</td>
<td>185</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>33</td>
<td></td>
<td></td>
<td>Turkey</td>
<td>72</td>
</tr>
</tbody>
</table>


The above estimates show that unfunded pension liabilities are large even in
young developing countries such as the Kyrgyzstan and the Philippines. A similar pattern could be expected for other countries in the region as most countries have PAYG pension systems. IPD liabilities would become larger and heavier as population become older. The rapid ageing of the Asia-Pacific region as well as the dominance of a public funded pension scheme would add additional burden on the existing levels of IPD. Such large implicit liabilities would have serious implications for the inter-temporal budget constraints as such liabilities become due in the future. The design and implementation of pension reform as well as fiscal policy would very much be influenced by the level of IPD.

**Impact on Capital Markets**

The dominance of PAYG systems in the provision of pensions in many countries in the region and the rapid ageing of populations would require substantial reform of public pension schemes leaning more towards defined contributory pension schemes. Such a policy change would have important implications on both the domestic and international capital markets and their governance behaviour.

The possible emergence of pre-funded public and private pension systems and insurance schemes would enable the development of capital markets in ageing developing countries in the region, provided proper incentives for innovations and efficient regulatory structures are in place and governments refrain from manipulating the public pension funds for budgetary purposes.

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11 IPD is measured by adding the present value of benefits that have to be paid to current pensioners plus the present value of pension rights that current workers have already earned and would have to be paid if the system were terminated today. See Wang, et al (2001), “Implicit pension debt, transition cost, options and impact of China’s pension reform-A computable general Equilibrium Analysis”. World Bank Working Paper no 2555, and Holzmann. R., et al (2001), “Implicit Pension Debt: Issues, measurement and scope in international perspective,
On the other hand, the lower propensity to save by the older generation could have a negative impact on capital markets, in particular stock markets. This effect will be heightened by the ageing of the baby boomers beginning 2010\textsuperscript{12}.

**Economic Growth**

The rising dependency ratio in the Asia-Pacific region could have a major impact on economic growth as the output is produced by a declining labour force. The drop in labour force and investment could adversely affect economic growth unless factor productivity improves commensurately or the drop in labour force is matched by migrant labour. However, the negative impact of slow output growth on per capita income would be mitigated to some extent by the declining population growth. For example, the level of real GDP in Japan is estimated to drop by a cumulative 20 per cent over the next century due to a shrinking population and associated lower employment levels while per capita GDP is expected to drop by about 5 per cent\textsuperscript{13}. Real economic growth rates could also drop in Hong Kong, China; Republic of Korea, Singapore and Taiwan province of China during the third quarter of the twenty first century.\textsuperscript{14} Developing countries, which experience ageing at its early stages of development, would be particularly at a disadvantage as they are resource constrained, subject to labour outflows due to migration and lack initiatives for productivity gains.

**Old aged care**

\textsuperscript{12} International Monetary Fund (2004), World Economic Outlook
Familial care of the old aged is a deep rooted social norm in most parts of the Asia-Pacific. Caring of the old aged has been a moral obligation of children and as a result only a small proportion of elderly in Asia-Pacific live alone. However, with the changing family structure and composition, in the face of urbanization, industrialization, migration and the increasing trend towards nuclear families coupled with declining fertility and increasing longevity, the ability of families to take care of the old aged is gradually declining. The extent to which the family will remain the primary source of care for older people will have important implications for formal arrangements for elderly care.

**Poverty, isolation, and discrimination**

Older persons are often afflicted by poverty due to a host of factors including lack of skills or skills mismatch, lack of resources, ill-health and social prejudices. Poverty among the rural elderly, in particular the older women, tends to be severe due to the absence of formal or informal social security at old age. As reflected by figure VI, women tend to live longer than men and the rapid urbanization which results in migration of mostly youth to urban areas lead to isolation of particularly rural women at old age. With the expected decline in potential support ratio from 10.9 per cent in 2000 to 3.8 per cent by 2050, the poverty aspects of ageing could become worse in the next few decades, underscoring the need for formal social support and elderly care. On the other hand, discriminatory treatment of the old aged particularly in relation to job recruitment, promotion and training creates stigma and social exclusion. Elimination of such
discriminatory attitudes requires providing a climate of acceptance so that the elderly could be integrated into mainstream development\textsuperscript{15}.

\section*{Section IV.}

\textbf{Policy Responses}

Rapid ageing of populations would impose serious challenges for policy makers in the countries in the Asia-Pacific region. The severity and complexity of such challenges would depend on the level of economic development, and the stage of ageing. Rapid ageing in the region and the resulting socio-economic implications would require governments to take corrective actions to minimize the negative effects of ageing on the fiscal operations, market behaviour and social welfare of the old aged. These measures may include market reforms, institutional reforms, economic policy responses and initiatives for regional cooperation. Fundamental changes in policy design, particularly in health and pension systems would be necessary to minimize the pressures on public expenditure and the overall growth potential. Countries experiencing a shift from a relatively young to an ageing population at a rapid pace while the economies are still not matured to manage such shocks would face a daunting task ahead of them in putting in place such policies and institutional changes.

\textbf{Pension Reforms}

\footnote{\textsuperscript{15} For a discussion on the situation of older persons in the region, see United Nations (2001) \textquotedblleft Policies and Programmes for older persons in Asia and the Pacific: Selected studies, Social Policy Paper no 1 (sales no}
As indicated earlier, in many countries in the region public pension schemes are pay-as-you-go systems with the financial burden accumulating over time. Rapid ageing of the population with a shrinking labour force would impose pressure on public pension expenditure on two counts. First, an ageing population along with increasing life expectancy implies that the share of retirees, who receive public pensions, would become larger in the next half century. Secondly, the share of contributors to pension funds would become smaller with the declining share of working age population. Under these circumstances drastic policy changes would be inevitable for sustaining such pension schemes. Policy options available for governments are:

(a) Converting un-funded pension schemes to funded pension systems. A move towards actuarial neutrality of old-aged pension systems through pre-payment as against un-funded schemes would not only reduce the financial burden on governments but ensures the sustainability of such schemes. The advantage of moving towards a funded pension schemes is that it enables governments to minimize the economic costs of restoring long-run fiscal sustainability in the face of ageing-related pressures by spreading the required adjustment over a long period.  

(b) Increase in the age of retirement

A majority of countries has the mandatory retirement age at 60 years while giving the workers early retirement at age 55. The fact that a substantial part of retirees spend a healthy life, especially during the first 5-7 years after

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16 David C., (2002), Coping with population ageing in the Netherlands, Economic Department Works papers no. 325., OECD.
retirement would make extending the retirement age to 65 years or 67 years depending on the present retirement age an effective and practical option. Although such an option would not be feasible in countries having high unemployment rates, the mismatch in the labour supply and demand in the years ahead would make such an approach a justifiable and productive one. The impact of such an increase in the retirement age on unemployment could be off-set to some extent by implementing pension reforms along with labour market reforms to increase the flexibility of the labour market. Prolonging working lives, along with the move towards funded pension schemes would reduce the scale of transfers and minimize the long term economic costs. Old aged workers may have to be trained or retrained to ensure that they are equipped with the necessary skills and competencies and their specific needs have to be met for efficient outcomes of this policy option.

(c) Remove incentives to early retirement

Along with the above policy measures reforms are also needed in the public pension systems, taxation policy and social transfer programmes to remove financial incentives for early retirement and dis-incentives for late retirement. Incentives for early retirement have become a major policy option for countries facing high unemployment rates and removing such incentives in those countries may be counter productive in the short-run. However, future trends of declining labour force would make such a policy option an effective one as it would not only enable to retain productive
workers in the labour force without undue impact on unemployment rates but also reduce the fiscal burden on governments.

An evaluation of existing pension schemes in selected Asian countries along with possible policy options is given in table V below.

<table>
<thead>
<tr>
<th>Common features of Pension schemes in the Asian region</th>
<th>Policy options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low coverage:</strong> Coverage is below 20 per cent in most countries*. Vast majority in the informal sector is not covered by any social security and rely mostly on family support</td>
<td>Increase coverage by introducing multipillar structures consisting of: (i) mandated publicly managed defined benefits scheme for redistributive and coinsurance objectives, (ii) privately managed and funded defined contribution scheme for savings, and (iii) retirement provisions on a voluntary basis for those who would like more protection at old age(^\text{17})</td>
</tr>
<tr>
<td><strong>High replacement rates:</strong> Formal public sector schemes are relatively generous making them fiscally unsustainable in the long-run when such schemes mature and the potential support ratio is declining</td>
<td>Move towards notional defined contribution pension schemes and link benefits to contributions Limit early retirement windows Shift indexation of pensions to prices rather than wages(^\text{18})</td>
</tr>
<tr>
<td><strong>Low rate of return:</strong> Publicly managed pension schemes governed by mandates and limitations on investments result in lack of portfolio diversification. Mostly tied up with government bonds with low return for budgetary needs.</td>
<td>Move away from politically determined investment decisions by giving autonomy in decision making to fund managers Reduce administrative costs</td>
</tr>
<tr>
<td><strong>Limited investment options:</strong> Statutory restrictions on investment abroad and shallow capital markets limit investment options</td>
<td>Shift towards independently managed systems along with reforms of the capital market providing opportunities for innovation in market instruments Foster the development of government bond markets to provide a term structure which serves as a benchmark for the private sector</td>
</tr>
</tbody>
</table>

\(^{17}\) Such a system would address not only short-term and long-term sustainability issues of pension systems but also economic and distributive concerns. See World Bank (1994). “Averting the old aged crisis: Politics to protect the old and promote growth”, Washington D.C.: World Bank and Oxford University Press for a detailed account of the multipillar system for pensions

Non-portable: Impede labour mobility between sectors and create obstacles for reforms

| Make pensions portable and improve labour market flexibility |

* Note: Coverage in countries such as Singapore and Malaysia exceed 50 per cent. India has recently switched to a defined contributory pension system.

**Increasing the efficiency in the health care sector**

The demand for health services is bound to increase substantially in the next few decades with the rising share of older age groups in the society. The elderly are usually prone to diseases, especially at older ages and would require the provision of services for specific needs of that age group. Policy options for addressing the emerging health needs of the elderly would also need to take into account resource requirements, present and future institutional constraints and the sustainability of such policy measures.

**Health promotion**

Health promotion throughout the life course would be a key factor for a healthy life during the old age. Promotion of healthy diets, physical activity, prevention of unhealthy and risky behaviour and health education could be as important as improving the efficiency of health service delivery at both local and national level and investing in health infrastructure and human resource development.

**Health insurance**

The increasing public health expenditure would make health insurance an effective mechanism to finance health care needs of the elderly. However, at present private-pre-paid health insurance is almost non-existent in developing countries in the Asia-Pacific region except for few countries. In those countries health care expenditure is borne either by the government or by individuals
themselves. More advanced economies such as Singapore and the Republic of Korea provide substantial coverage under medical insurance programmes funded largely by a combination of employer and employee contributions, budgetary transfers and direct co-payments by patients. Japan provides a separate system of health care for the elderly. Private pre-paid health insurance plans are being developed in the Republic of Korea, the Philippines, Thailand and Indonesia.

**Box III.2 Responding to rapid ageing in Australia: A strategic approach**

The proportion of people aged 60 years and over in Australia will reach 28.4 per cent by 2050 reflecting the rapid ageing of the Australian population. Such rapid ageing will have important ramifications on both the economy and the society at large. Recognizing these potential implications, Australia has adopted a strategic approach in addressing the issues relating to ageing of its population. Main elements covered in the strategy are:

- Encouraging the continued participation of the old aged in the workforce.
- Supporting for retirement planning which covers financial and social/life style issues.
- Encouraging people to stay healthy and active and continue to participate in their communities as they age.
- Improving the health and aged care services.

**Key aspects of aged and community care**

- Family and other informal care arrangements play a significant role in enabling older people to remain in the community and avoiding premature admission to

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residential aged care.

- A national needs-based planning framework for residential and community aged care places has been introduced, ensuring that growth in care services is controlled and targeted to areas of greater need.
- A national needs-based assessment mechanism has been introduced at an individual level to control access to services by the needy on a priority basis.
- A national accreditation framework has been established for residential aged care services to ensure high standards of care and for eligibility of government funding.

**Key lessons**

Key lessons from Australia’s experience in developing a response to population ageing include the need to:

- Develop a strategic and holistic response to population ageing.
- Maintain national leadership and direction in developing a response to such a complex policy area.
- Engage all stakeholders in the process.
- Ensure coordination of activities and collaboration between governments, businesses, other organizations and the community.
- Ensure that responses are pro-active and forward-looking with flexibility to incorporate required changes as these arise.
- Maintain a strong evidence base to inform policy responses to population ageing.

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**Institutional arrangements for elderly care**

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An important implication of the declining fertility rate to replacement or even below replacement level on elderly care is the pressure on family care giving. This demographic change would result in a 2-2-4 (or 1-2-4) family structure i.e. a middle aged couple would have to support their two children (or one child as in the case of China’s one child policy) as well as four old parents (grand parents of the children). Such a family structure would compel the present and future generations to look for alternative arrangements for taking care of older parents. For example, the gradual weakening of the residual mechanism for elderly care in Sri Lanka has led to an increase in demand for institutional support by the elderly\textsuperscript{20}. One way of meeting such demand is the public provision of institutional elderly care. The other option would be to create an environment conducive for private sector or the not-for profit organizations to provide such services (see Box III.2).

**Market Reforms**

One of the most important aspects of policy design to face the challenges of rapid ageing would be regulatory and market reforms that would provide an enabling environment for promoting higher levels of efficiency both in the public and private sectors and raising the growth of factor productivity. Macroeconomic stability, increased competition in an open market setting, transparency and accountability would ensure the sustainability of the dynamic gains from such reforms with a positive impact on growth

\textsuperscript{20} This argument is supported by the growing number of Homes for the Aged and also by the long waiting lists of persons requesting admission to them. See Siddhisena., K.A.P and Kanthi Ratnayake (1998)”Ageing of population and elderly care in Sri Lanka”, Sri Lanka Journal of Population Studies, 1(1), 35-55
and welfare\textsuperscript{21}. Such reforms could facilitate countries to transform the ageing problem into opportunity (see Box III.3).

**Box III.3**

**Population Ageing: from Problem to Opportunity**

The cost of ageing populations is becoming a serious concern for policy makers in countries in the region where population is ageing rapidly. The adverse implications of rapid ageing could be reflected in slow growth and deterioration in social welfare. Contrary to these pessimistic views, the paradigm shift in population dynamics could be transformed into an opportunity for both the aged and young economies, provided that right incentives are in place and opportunities are grabbed in time.

For still young economies the “demographic dividends” are derived mainly in four counts:

- **Increasing labour force** could be an impetus to higher growth in young economies. For example, large countries such as India and Indonesia, which are ageing moderately and countries such as Bangladesh, Pakistan and the Philippines, which are ageing slowly could benefit from their still young workforce. These countries would be competitive at the labour intensive end of manufacturing for several decades to come.

- These slowly ageing economies would benefit more from a “consumption dividend” than the rapidly ageing economies such as Japan as they would be

\textsuperscript{21} Regulatory and market reforms are probably the most important as the gains could have a permanent positive influence on growth and living standards. See Turner et al (1998), “The Macroeconomic implications of ageing in a global context, OECD Economic development working paper no 193, available at http://www.oecd.org/eco/eco
better placed to invest less and still maintain a given level of per capita output during the next two-three decades.

- **Higher return to capital in young economies** could attract foreign direct investment. Relative scarcity of capital in slowly ageing developing economies would drive up the rate of return on capital in these economies. Such high rates of return could induce capital flows from ageing economies where capital is abundant while rate of return is low.

- **Increasing opportunities to export labour** to rapidly ageing economies. Still growing labour force and excess labour would enable these economies to export labour to labour shortage countries. For example, countries such as India, which has one of the largest stock of skilled human capital in the world, yet having limited opportunities in the domestic market, would be in a better position to exploit the evolving global labour market conditions including the acceleration in outsourcing in services and manufacturing

  The realization of above opportunities in the face of generally favourable demographic trends, however, depends critically on the progress with the closely intertwined tasks of fiscal consolidation and structural reforms, educational reforms to suit the changing environment in a globalized world, development of infrastructure, provision of legal protection, and adoption of an effective migration policy.

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Rapidly ageing economies could also benefit from an ageing population. Following are key areas.

- **Productivity growth.** A relative shortage of workers would increase the incentives for developing labour-saving technologies which would spur technological development. Economic incentives such as patent rights could provide a boost for technological innovation.

- **Increasing purchasing power of the old aged.** Unlocking the purchasing power of the old aged as a consumer force could yield growth as the demand for health care and recreation services could increase in an ageing population. The old aged could also be a production power as they have good work ethics, are experienced and knowledgeable.

**Labour market reforms**

Population ageing and its adverse effects on the economy and the welfare of elderly would compel governments to undertake vigorous reforms in the labour market sooner or later. Liberalization of the labour market would need to focus on the effect of the declining labour force, productivity, migration and the adaptability of older workers to the present working environment.

Implementing measures that would increase the efficiency of the economy could off-set adverse effects of population ageing to a large extent. Initiatives to improve productivity both at the local and national level could be the most important strategy particularly in countries where the labour force is likely to shrink due to an ageing
population. This would allow countries experiencing rapid ageing of its population to sustain their current levels of economic growth.

Liberalization of the labour market would also enable countries to face the possible adverse effects arising from increasing labour migration. The threat of large scale migration would be inevitable, particularly in developing countries in the face of declining labour force in countries which are experiencing rapid ageing\textsuperscript{23}. A flexible labour market would enable migrant labour to return to their home countries after their short term contracts abroad are completed, a process necessary to avoid transforming short-term labour migration to permanent migration. Formal arrangements between labour exporting countries and labour importing countries through bilateral or regional cooperation could benefit all parties as it could solve the unemployment problem in the exporting country while meeting the supply shortages in importing countries (see Box III.4).

\begin{center}
\textbf{Box III.4 Migration policy: A cushion for the Ageing process?}
\end{center}

The Asia-Pacific region constitutes both labour importing and labour exporting countries. For example, Bangladesh, India, Indonesia, Pakistan, Sri Lanka, Thailand and Viet Nam serve as a pool of migrant workers for countries experiencing labour shortages. The number of migrant workers deployed from these countries increased from 1 million in 1990 to 2.4 million by end 2000. About 5.5 million foreign workers are estimated to be living in main areas of destination in East and South East Asia\textsuperscript{24}. With the rapid

\textsuperscript{23} Immigration or temporary worker flows have already proven important in Malaysia and Thailand. For example, foreign workers account for 25 per cent of Malaysia’s labour force. See Heller., P. S., (1997), Aging in the Asian “Tigers”: Challenges for Fiscal Policy, IMF working paper no WP/97/143

ageing, economies such as Japan, Republic of Korea and Singapore would experience severe shortages in labour supply in the coming decades.

In these circumstances, would immigration be a promising cushion for the ageing process in the region? The current debate provides support for both yes and no.

On the positive side are the following factors.

1. Higher net migration may mitigate the negative fiscal consequences of an ageing society because of the expected age distribution of migrants who are more likely than the resident population to be of working age.\textsuperscript{25} Migrant workers are on average younger than nonimmigrants and are likely to contribute more in taxes than they receive in services.

2. The imbalance between labour supply and demand and the resulting labour market mismatching could be avoided to some extent with migrant labour and thereby sustain growth.\textsuperscript{26}

On the negative side are the following factors.

- The amount of migration required to prevent a decline in the working age population is larger than that exporting countries may afford to due to its adverse implications on the labour markets in countries of origin. For example, if Japan wishes to keep the size of population at the level attained in the year 2005, the


\textsuperscript{26} Katsumata Y., (2000). The impact of population decline and population ageing in Japan for the perspectives of social and labour policy


country would need 17 million net immigrants up to the year 2050 or an average of 381,000 immigrants per year between 2005 and 2050. By 2050, 30 per cent of the population would be immigrants and their descendents. Similarly Republic of Korea may need an average of 100,000 immigrants per year during 2035 (population will peak in 2035) and 2050. It is unlikely that such large flows could happen in these countries in the foreseeable future.

- In most of the ageing economies labour markets are not sufficiently flexible to absorb migrant workers and to offer the requisite training on a large scale.

The above arguments underscore the fact that immigration alone may not be an effective solution for labour market distortions arising from an ageing population. It has to go hand in hand with reforms in labour markets and social insurance. However, the evolving dynamics of population ageing would provide an opportunity for a collaborative effort by both the labour exporting and importing countries to exploit the labour market conditions to their advantage. An understanding on a common migration policy framework at the regional and multilateral level, and bilateral negotiation within such a framework would enable to mitigate the labour shortages in ageing economics while allowing countries of origin to benefit from such initiatives without disrupting the labour markets in home countries. Labour market flexibility, portability of pensions and restricting such migration to a fixed term or mechanisms for compensation for the countries of origin would be key ingredients of such a framework.

An important source of labour for many countries in the region would the unemployed and underemployed women themselves in home countries. In many countries in the region participation of women in the labour force is constrained by
factors such as lack of flexibility in career and child rearing, the lack of day care facilities for children, lack of home care of the aged, social norms which leads to gender bias in education and employment. Removal of these constraints alone could neutralize a large part of the negative impact of ageing on labour markets.

Labour market also needs to respond to the needs of elderly workers as the elderly work force would become an important component of the labour force in the years to come. Job redesign, the re-organization of the division of labour and the provision of a flexible working environment to meet the aspirations of the elderly and to make the best use of a growing number of older workers could be effective policy responses to an ageing work force.

**Fiscal policy**

The most important policy issue arising from an ageing population from the government’s perspective is the fiscal burden of rising public pension and health care expenditures. Many developing countries in the region are already embraced with large budget deficits and the fiscal demands arising from an ageing population would be an additional burden on them. As such challenges facing the developing countries with ageing populations would become more difficult in the years ahead.

In this context, effective fiscal consolidation would become an important policy goal for developing countries in the Asia-Pacific region. While maintaining macro-economic stability should be a primary goal, policy coordination to ensure the coherence and consistency of policies would be essential. Efforts to reduce public debt burden now itself would be necessary not only to absorb future shocks but also to prevent the country falling into a debt-trap in the face of rising public expenditures. While the negative
impact of pensions on the budget could be minimized by linking pension benefits to contributions, those arising from health care expenditure could be reduced to a certain extent by introducing privately managed health care systems. Public-private partnerships in the provision of pension and health care could become effective arrangements in an ageing population.

**The role of private sector**

The rapid ageing of populations in many countries in the region would open the doors for the private sector, including NGOs to play an important role in addressing issues relating to ageing. The diminishing role of governments and the increasing influence of the private sector on the society in a globalized world and the increasing gap between the rich and the poor would necessitate strategic partnerships between government and the private sector as no single sector or organization can address issues relating to ageing on their own.  

The increasing demand for health insurance, annuities and savings instruments and institutionalized aged care services would provide ample opportunities for the private sector to expand their services while contributing to ease the pressure on the public sector. Meanwhile the role of NGOs would be critical in providing community based support systems for the elderly and covering gaps in public and private services.

**Section V: Conclusion**

Many countries in the Asia-Pacific region are experiencing rapid ageing of their populations. The intensity of population ageing in the region is bound to increase rapidly

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during the next fifty years with the share of population over 60 years of age increasing from 8.8 per cent of total population in 2000 to 22.6 per cent by 2050. Three out of five countries in the world having more than 50 million older people by 2050 would be in Asia-Pacific. China, India and Indonesia alone would account for 42 per cent of the world’s population over 60 years of age and 63 per cent of the region’s old aged by 2050.

A distinctive feature of ageing in the Asia-Pacific region is the rapid ageing of populations in economies which are still developing. The rapid ageing of populations in these countries would have profound implications on their economies and societies. The rising demand for health care services at old age and increasing pension liabilities, particularly in the face of declining potential support ratios would place fiscal implications of ageing at the forefront. Labour markets would experience a shift in the supply of labour with serious implications on labour productivity. The changing age structure would also induce a shift in consumption and savings behaviour of people. The combined effect of these changes would have adverse implications on capital markets, growth and social welfare.

Moreover, the changing family structure and composition in the face of urbanization, globalization and migration would have a negative impact on social norms in familial care imposing pressure on the provision of formal residential care for the elderly. As a result, the challenges faced by ageing developing economies in the region in the years to come would be more complex than those faced by ageing developed economies.

How to respond to these challenges? First and foremost, fundamental changes in policy design particularly in health and social security systems would be necessary to
minimize the pressures on public expenditures and overall growth potential. Pension systems in many countries in the region are PAYG systems with financial burden accumulating over time resulting in an inter-generational transfer of liabilities and a disproportionate reduction of welfare of future generations. Implementation of multi-pillar social security structures consisting of mandated publicly managed defined benefit schemes on an equity ground, privately managed and funded defined contributory schemes for the working class and additional retirement schemes for voluntary contribution would be an effective and sustainable approach to address old aged social security. Promotion of health throughout the life course and the creation of a conducive environment for the private sector to develop alternative social security schemes such as health insurance and annuity schemes are other policy options to consider. Development of institutional care for the elderly by both the public and private sectors would be necessary, particularly in light of the changing family structures and their negative impact on familial care.

Regulatory and market reforms to provide an enabling environment for promoting higher level of efficiency both in the public and private sectors, and the provision of incentives for innovation would be important aspects in addressing issues relating to ageing. Liberalization of labour markets, fiscal consolidation and policy coordination while maintaining macro-economic stability should be key elements in such a policy agenda.