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The Future of Old Age Income Security

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I. Introduction

Good Morning distinguished ladies and gentlemen. It is an honor to be invited to deliver the International Longevity Centre (ILC) Singapore's Robert Butler memorial lecture on the future of old age income security. This is an issue of increasing importance economically, socially, and politically.

I am grateful to Dr. Mary Ann Tsao, president for the ILC Singapore, for this honor. The presence of key officials of ILCs Global Alliance is a testimony to Dr. Mary Ann Tsao's leadership and to the quality of professional staff of the ILC Singapore.

It is entirely appropriate that this lecture is in the memory of Robert Butler, who was among the pioneers in recognizing the need for a rigorous multi-disciplinary approach to longevity studies. The influence of his scholarly and popular publications (Butler 1975, 1985, 2011) among scientists and researchers from many disciplines has been immense.

His life-long pursuit in understanding the ageing process from a scientific and policy perspective, and his role as an idea-entrepreneur, not just in the United States, but also internationally, has now been institutionalized, helping to develop future generation of multi-disciplinary scholars focusing on ageing. Very few scholars are able to leave such a rich and enduring legacy behind. He founded an ILC at the Mount Sinai Medical Centre in 1990, and this gathering demonstrates the spread of ILCs internationally.

His concept of 'productive ageing', focusing on public policies and private behavior to enable individuals to have good quality life has now become part of the conventional wisdom.

He emphasized that research and policies on ageing issues concern individuals of all ages, and not just the old. This point has also been recently emphasized by Börsch-Supan (2013), labeling the proposition that the economics of ageing is only about the old as one of the myths.

The rest of the lecture is organized as follows. An overview of global ageing trends is presented in Section II. These trends arise from a combination of decline in fertility rates and increase in life expectancy. The importance of each of the two factors may vary across countries and even for the same country at different periods of time. This is followed by a discussion of how ageing impacts on the resource requirements in Section III. Section IV discusses avenues for funding and financing –mix, and is followed by concluding remarks in Section V.

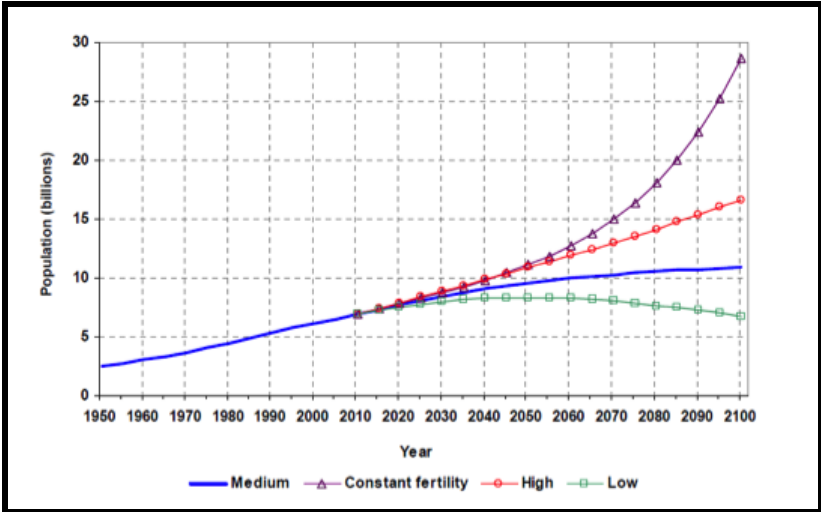
II. Global Ageing: An Overview

The most recent data on population projections is from the revised 2012 population projections of the United Nations (UN). The UN projections, which focus on chronological age of the population, are conventionally used for analyzing ageing trends. Sanderson and Scherbov (2007), however, argue that as individuals live longer, both the traditional chronological concept of ageing, which they term ‘retrospective age’ and forward looking concept termed ‘prospective age’, should be used for policy formulation and analysis. While the traditional concept measures how many years a person has lived, the ‘prospective age’ measures the number of expected years left to live by the individuals. With increasing longevity, a fifty year old person, who currently has a much longer life expectancy than a same age person in 1990, may well make different saving, investment, labor force participation and other relevant economic and personal decisions. The differing behavioral decisions in turn have different implications for public policies and social attitudes towards ageing.

The data on 'prospective age' are however not published by UN and other international agencies. The focus in this section therefore is on 'retrospective age'. Nevertheless, policy implications of the 'prospective age' concept, which is consistent with Robert Butler's concept of 'productive ageing', will be incorporated in the analysis in this lecture.

According to the medium-variant projections of the United Nations, the global population will increase from 7.2 billion in mid-2013 to 8.1 billion in 2025, and to 9.6 billion in 2050, increasing by one-third in just thirty-seven years (Figure 1).

Figure 1: Population of the world, 1950-2100, according to different projections and variants



Source: United Nations Department of Economic and Social Affairs/Population Division, World Population Prospects: The 2012 Revision, Key Findings and Advance Tables

There is, however, considerable variation in the projected global population size by the variant chosen¹, especially after the year 2050. Thus, the projections suggest that the difference in population between the low and high variant will be 10 billion people in the year 2100. Under the constant fertility assumption (2.50 during 2010-15 period), the corresponding differential in

¹ The high variant assumes half a child more per woman than the medium variant while low fertility assumes half a child less than the medium variant.

population projection will be around 20 billion people. These projections bring out the grave implications for the carrying capacity of the earth unless the fertility rates are significantly moderated.

The above suggests that even at an aggregative level, there is considerable uncertainty in population projections, with serious implications for public policy options, and behavioral responses of various stakeholders in the society. They also strongly suggest the need to strengthen population projections and research capabilities in individual countries. Flexibility and reversibility of public policies, including those involving old age income security, should therefore be given due weightage. As an example, keeping institutional retirement age and pension benefit schedules relatively constant, and lack of flexibility in labor markets facilitating employment of older workers even as longevity increases would imply diversion of greater of society's income and production to meet the needs of the elderly.

Uncertainty in population projections, lack of reliability and timeliness of underlying morbidity and mortality data, particularly at a disaggregated levels, and possible impact of health technologies on life expectancy, which the United Nations projections do not take into account, will make greater competence in the price discovery process for various financial products or instruments deployed by public and private sectors, including those related to pensions and health care, increasingly essential.

Number of Elderly and Pace of Ageing:

Select indicators of the number of elderly by regions are presented in Tables 1A and 1B, on the basis of which the following observations may be made.

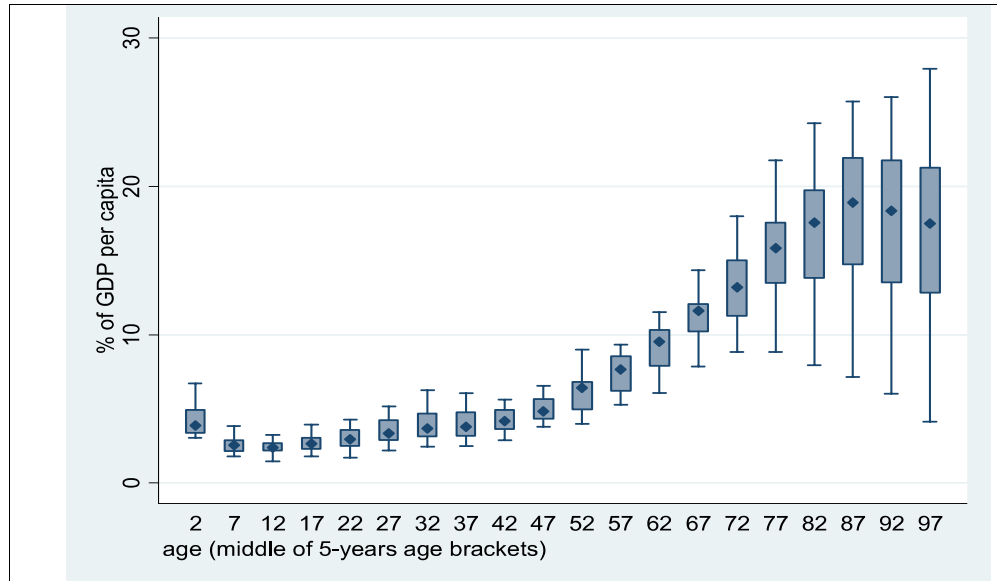
- (i) The projections indicate that the ageing phenomenon is global and its extent is accelerating. Globally, the number of individuals above 60 (henceforth the elderly) is

projected to increase from about 765 million in 2010 to 2021 million in 2050; an increase of two and a half times in just forty years, while the proportion of elderly will nearly double from 11 per cent of the total population in 2010 to 21 per cent in 2050. This implies rapid pace of ageing leaving less scope for gradual adjustments to the ageing society.

- (ii) Most of the increase in the number of elderly will be in less and in least developed regions, which have lower incomes and institutional capacities to address the challenges of the ageing society. Thus, the share of elderly in more developed regions will decline from thirty-five percent of the global elderly in 2010 to only twenty-one percent in 2050.

By 2050, the so called ‘old-old’ (i.e. those above 80 years) will constitute about a fifth of the elderly as compared to fourteen percent in 2010. In more developed regions, however, the old-old will comprise thirty percent of the total elderly by 2050. This trend is significant as this group of elderly will require disproportionate share of the resources going to the elderly. As Figure 2 suggests, public health expenditure as share of GDP per capita increases with age in OECD countries (Maisonneuve and Martins Oliveira, 2013). The diamonds represent the median. The boxes are the 2nd and 3rd quartiles of the distribution of expenditure across countries. The whiskers are the 1st and 4th quartiles. The reasons for such dispersion, and how to minimize the dispersion; need to be better understood, particularly in low and middle income countries. This is essential for pricing health insurance products, and for developing strategies for risk sharing among different stakeholders. More robust databases and research capabilities will however be needed to pursue this task.

Figure 2: Public Health Expenditure by Age Groups as Share of GDP Per Capita



Source: Maisonneuve, C. and Martins Oliveira, J., 2013

(iii) The feminization of the elderly is evident from the data on sex ratio (number of men per hundred women) of 83.3 for those above 60 and only 59.8 for those above 80. This is the outcome of higher life expectancy for women than for men. Globally, in 2010-15, life expectancy of women at age 60 was four years higher than for men. This suggests that old-age retirement income security arrangements must have provisions for survivors' benefits as while women live longer than men, their labor force participation rate as a group is usually lower than that for men. Thus, globally, while more than two-fifths of men over sixty were still participating in the labor force, the corresponding proportion of women was only one-fifth. The labor force participation rates tend to vary inversely with income. As per capita incomes in less and in least

developed countries grow, they will begin to exhibit trends similar to those found in more developed regions.

(iv) The data suggests that the tendency of the elderly to live independently tends to increase significantly with per capita income. Thus, circa 2010, while nearly three-fourths of men and women in more developed regions were living independently, the corresponding global average was about two-fifths. Thus relying primarily on family and community in formal arrangements for providing old age income security becomes less feasible as rapid ageing occurs and per capital incomes rise. Independent living widens choice, the primary benefit of higher income, but it increases the need for formalization of retirement arrangement, and raises costs of their provision.

(v) The global ageing trends will have significant labor market implications. The old age support ratio (number of persons aged 15 to 64 years per person aged 65 years or over) for the world will fall from 8.6 in 2010 to 4 in 2050, implying that there will be less number of workers to support the aged. Greater labor market flexibility and other institutional arrangements will be needed to reduce the proportion of average lifespan spent without participating in the labor market. Such extended labor market engagement is consistent with Butler's concept of productive ageing, and with research that suggests that labor market participation performs an anchoring function, helping to keep mind active and providing social interaction opportunities (Börsch-Supan, 2013).

Ageing trends in five most populous countries:

The ageing trends in the five most populous countries of the world suggests that the world will face challenges in financing old age and facilitating productive ageing in these countries on an unprecedented scale. The number of elderly in China is projected to increase from about 193 million in 2013 to over 450 million by 2050, while in India it is projected to increase from 103 million in 2013 to almost 300 million by 2050. The United States, Indonesia, and Brazil will have about 109, 68, and 67 million elderly persons by 2050 respectively (Table 2).

Population projections for Africa:

The population projections for Africa also suggest unprecedented challenges in financing old age income security. The population of Africa is projected to increase about five-fold over this century, and that of Sub-Saharan Africa about six-fold. The old age population in Africa is projected to increase by nineteen times, to 795 million, over this century, and that of Sub-Saharan Africa by over twenty-two times. Nigeria will witness an eight-fold increase in population, and a twenty-five-fold increase in old-age population over this century. It is expected to surpass Brazil to be counted among the five most populous countries in 2100. (United Nations, 2013)

III. Ageing and Resource Requirements

An overview of the global and regional trends in ageing strongly suggests that societies will need to allocate additional resources for the aged. Productive ageing policies will also require high level of organizational and coordination capabilities by all stakeholders in the society.

This section briefly reviews the projections of additional expenditure (as a share of GDP) needed to address the ageing trends. Even as the need for broader productive ageing policies and programs is recognized, the projections primarily focus on costs of pensions, healthcare, and long term care. Even for these areas, the main focus is on financial costs, and not broader economic costs. Thus, the opportunity costs of “unpaid” or “voluntary” care, so prevalent in the not-for-profit sector, and in civil-society organizations, are usually not estimated.²

The focus of public policies for provisioning of old age income security is usually on pensions, healthcare, and long-term care arrangements. For the European Union (EU 27), age related expenditure on these three areas is projected to rise from 20.3 percent of GDP in 2010 to 24.5 in 2060, requiring additional 4.2 percent of GDP (Roy, Puhani, and Hsieh, 2013).

As may be expected, the average hides wide variations in resources needed for individual countries. Such projections for non-OECD Asian countries are not available. The age related expenditures are however expected to rise as coverage and benefit levels increase, and as state-intermediation acquires greater prominence.

² This is an area meriting greater research efforts.

For analyzing resource needs for ageing, 'life expectancy at 60' is a relevant indicator. For 2010-15, it is projected globally to be 18 years for men, and 22 years for women (Table 1B). The differences in life expectancy are positively correlated with income levels. As the current low and middle- income countries progress towards higher income levels, the differential may however narrow among regions, but widen among men and women.

The tendency for the elderly to live independently is also positively correlated with income. Globally, about two fifths of elderly men and women exhibit this tendency (Table 1B). The East Asian welfare model which emphasizes family as the main provider of retirement income security appears oversimplified as empirical evidence in East Asia also suggests that in some economies such as Taiwan, significant proportion of the elderly are living alone, and much of the economic support from non-government sources has been replaced by the support from the state (Li, 2013). A higher proportion of elderly living independently imposes not just financial challenges, but challenges related to delivering public services to them as well.

Many Asian countries hope to rely on increasing labor force participation of the elderly to finance old age. Globally, only about two-fifths of elderly men, and one-fifth of elderly women are participating in the labor force (Table 1B). This ratio, however, declines with rising incomes, a trend which low and middle income Asian countries are likely to exhibit as their per-capita income increases. Nevertheless, obtaining at least a portion of income in retirement from labor market activities will be essential, requiring changes not only in the functioning of the labor markets, and tax provisions for the elderly, but also attitudinal changes by the stakeholders.

Two broad avenues for funding requisite resources are through reducing expenditure needs, and through raising additional resources. It may be useful to distinguish between funding and financing for the old age.

Funding involves allocating society's total economic resources to meet the needs of the ageing population. If cost compression and expenditure needs reducing measures are effective, the requirements for additional funding will be lower. It is however highly probable that additional funding needs will remain significant, necessitating finding additional fiscal space.

Financing refers to different methods or instruments, such as social or private insurance, mandatory savings, government budgetary financing, employer provision³, etc. Financing mix is important as it impacts on where the ultimate economic burden lies and how the risks of funding the aged are distributed among different stakeholders.

IV. Avenues for Funding Resources and Financing – Mix :

Two broad avenues for funding concern reducing expenditure needs, or more accurately reducing the growth rate of increases in funding needed to meet the ageing challenges; and to raise conventional and non-conventional government revenues, including taxes.

It should be recognized that the primary source of economic security for both the young and the old is dependent on the current level of GDP and its trend rate of growth (Barr and Diamond, 2008). Merely putting aside money for retirement is thus not adequate; the pension savings must also be utilized productively through financial intermediation.

Levy and Schady (2013) have emphasized the importance of sustainable economic funding in a recent survey of social policies in Latin America; "Social policy, in our view, should also

³ The economic burden however may be partly or wholly shifted to employees and others as employers alter other elements of the overall staff costs of the company.

contribute to productivity growth, or at least not hinder it. In the end, one cannot sustain a welfare state on stagnant productivity, particularly since the costs of that welfare state will increase rapidly as the region's population ages and its epidemiological profile evolves towards more cost pathologies" . . . "Higher average per capita incomes are needed if only to provide the revenue base from which social programs can be financed- a key point in a region that in the past suffered much from unsustainable fiscal deficits."

The above message is particularly instructive in the current global economic environment that has led to diminished growth prospects, increased importance of fiscal and debt sustainability, increasing difficulties in generating high returns from the pension assets⁴; search for more reliable macroeconomic theory and policy guidelines, and rising global inequalities. (IMF, 2013)

Reducing Expenditure Needs:

Policies conducive to productive ageing facilitate at least three avenues for reducing the expenditure needs. First, they could lead to better understanding the underlying of reasons for certain diseases more prevalent in the elderly, reducing their incidence and treatment costs.

Second, they could assist in keeping individuals economically (and socially) active for a longer period. Increasing the effective retirement age⁵ has been one of the significant policy responses in Europe, U.S, Japan, Singapore, and the U.K. Other Asian countries, most notably China, India

4 Towers Watson's Global Pensions Assets Study (GPAS) 2013, covering 13 countries/economies indicates that pension assets as at end of 2012 were nearly USD 30 trillion, equivalent to about four-fifths of the GDP of the sample countries. Investing these assets in a manner which enhances long term growth rate of these countries could help generate real resources to fund ageing needs.

⁵ This is usually lower than the institutional or statutory retirement age.

and Indonesia, may also consider reforms designed to increase effective retirement age to reduce the number of years for which financing is needed in old age. The gradual rather than abrupt shift from full time work to retirement also merits serious consideration.

Third, awareness of productive ageing facilitates more informed debates about ageing and equitable sharing of resources and amenities between generations. This is an area where ILCs are playing a vital role. The state also has a responsibility to initiate high quality expertise and empirical-evidence based debate among all the stakeholders.

The state should also help promote totalization and labor agreements, which affect growing number of cross-border workers. The totalization agreements involve recognition of social security contributions made by citizens of the two respective countries. They therefore help protect social security benefit rights of workers who divide their working career between two or more countries. They are akin to Double Taxation Treaties (DTAs) involving income taxation. In Asia, the Philippines has been active in pursuing totalization agreements.

Fiscal Space: Definition and Options

The discussion so far strongly suggests that countries will need substantial fiscal space. Fiscal space may be defined as “...the financing that is available to government as a result of concrete policy actions for enhancing resource mobilization, and the reforms necessary to secure the enabling governance, institutional and economic environment for these policy actions to be effective for a specified set of development objectives.” (Roy, Heuty and Letouze, 2007). The above definition explicitly recognizes that if additional budgetary expenditure, including that for social protection, is not spent productively with outcome orientation, then the desired impact will

not occur. In countries with low coverage and large informal sectors, budgetary financed and mostly non-contributory, but means, asset, or pension tested social pensions grants will be needed.

In many Asian countries, the coverage of pension and healthcare programs is relatively low. For extending coverage, social pensions, involving non-contributory benefits financed from budgetary revenue are potentially an important source. But these require fiscal space and organizational capacity by the public sector to deliver these pensions to the intended beneficiaries.

Estimates of fiscal costs of adequate social pensions alone are large. In New Zealand, fiscal costs in 2009-10 were 4.3 percent of GDP and are expected to increase to 8 percent of GDP by 2050. In Australia, the fiscal costs of means tested pensions were 2.7 percent of GDP in 2009, and are projected to be 3.9 percent of GDP in 2050 (Bateman and Piggott, 2011). ILO has estimated that modest social pensions in low and middle- income countries would be around 1 percent of GDP in the short run; but its estimates for a complete social protection package range from 3.7 percent to 10.6 percent of GDP (Barrientos, 2009). Even if additional resource needs are equivalent to around 2 percent of GDP, this will require substantial reforms in public financial management in countries with total fiscal revenue to GDP ratio of around 20 percent.⁶

An argument may be made that without reforming existing formal systems and realizing real resources savings, additional fiscal (and private expenditure) space would be difficult to create without significant distortions elsewhere. Some countries such as U.K, India, Singapore, as well

⁶ There is anecdotal evidence that state officials collect tax-like levies from individuals and businesses that do not get deposited in the state treasury, and are therefore not included in conventional measures of tax revenue. This implies that real tax burden in an analytical sense may well be much higher, which may reduce the scope for further increases in raising fiscal resources.

as some states in US have been reforming civil service schemes to bring about greater equity and sustainability.

Additional Avenues:

Additional avenues to generate resource savings and fiscal space and finance for funding expenditure on the aged are briefly noted below.

1. There is considerable scope for economic resource savings, which can be obtained through increased professionalism in the design, administration and structure of provident and pension funds, and health care systems, among others. The Philippines SSS (Social security system), for example, exhibits administrative costs of around 7 percent of contributions, while the estimate for Malaysia's EPF (Employee Provident Fund) is around 3 percent. A reduction in costs of the SSS could improve benefits. The SJSN Law of Indonesia (2004) has insufficient clarity on financing, benefits etc., and does not adequately address the need for appropriate organizational incentive structures. This may generate contingent fiscal liabilities. Social security contribution rates are already quite high in several countries (for example; China, India, Malaysia, and Vietnam), and there is limited scope to raise them further.
2. Enhancing competence to generate resources from unconventional sources such as utilizing state assets (land, property rights such as air-space, oil and mining resources, and carbon trading, among others) efficiently.
3. Better coordination among and between pension and healthcare sectors for increased resource savings and greater policy coherence (Bali and Asher 2012).

4. Conventional tax reforms, and improving compliance levels and efficiency. In Europe, US, and the U.K, corporate tax reforms, particularly those provisions designed to protect the tax base have become a priority. The aggressive corporate tax planning is exemplified by reports that Google shifted € 9 Billion to Bermuda as part of its global tax planning (Houlder, 2013) In 2012, OECD created a forum on VAT (Value Added Tax) to help counter aggressive tax planning of VAT by the businesses. (<http://www.oecd.org/ctp/consumption/firstmeetingoftheoecdglobalforumonvat.htm>)
5. Sovereign Wealth Funds (SWFs); set up to smoothen excess of current receipts over expenditure arising from energy resources, trade surpluses, and other sources, and between generations represent another avenue for funding old age needs. In Asia, South Korea, China and Singapore have been adept at using the SWFs to fund future expenditure needs, including those of the aged.
6. Financial innovations, particularly at the pay-out phase, are accumulation schemes. The conventional practice of relying on annuities will be inadequate given limited financial instruments to mitigate longevity risk, and due to uncertainties in longevity trends due to uncertainties in medical technology breakthroughs. Such innovations, which reduce transaction costs of service delivery and provide better risk sharing between the insurance company, the individual, and the government, will be needed.

Some high income countries have attempted to finance old age by developing instruments which convert real estate into a retirement consumption stream. They have had some

success, but greater research and innovations in this area is essential for it to play a significant role. In developing Asia, individuals and households will need to bear a greater proportion of increased share devoted to old age financing.

Promoting its secure and stable policy and regulatory environment for long term savings by the individuals should therefore be an important instrument for financing old age. But this needs to be undertaken without creating fiscal risks which ultimately must be borne by the citizens.

V. Concluding Remarks

In a remarkably short period of time, Robert Butler's concept of productive ageing has inspired policymakers, researchers and other stakeholders to address the challenges arising from global ageing.

It is increasingly recognized that the issue of ageing does not just concern the aged but persons of all ages. This broader view also implies that finding economic resources, i.e. funding, for the aged will need to involve ways to sustain growth, improve productivity, finding ways to economize on resources, reduce expenditure needs, and raise additional resources from conventional and non-conventional sources.

The needs of the increasing old-age population living longer and the rising expectations of both the young and the old are at odds with the difficult global and domestic economic environment. There is a serious risk to social cohesion and state-people implicit contract if the urgency of addressing it is not recognized, and no effective initiatives are forthcoming.

The challenges in evolving appropriate policies, finding adequate resources, and sustaining public support and cohesion which could facilitate productive ageing, should however not be minimized. The role of ILCs will be critical in enhancing research capabilities and in contributing to analytically rigorous and empirical-evidence based public policy debates concerning issues related to productive ageing. The governments must be held accountable if they fail to create policy environment and provide requisite resources for facilitating such debates, and for not incorporating relevant findings in productive ageing policies and programs.

Table 1A: Select Indicators of the Aged by Region

	Population aged 60 years or over							
	Number (millions)		Proportion of total population		Share of old-old (80+) ¹		Sex Ratio, 2010	
Area	2010	2050	2010	2050	2010	2050	60+	80+
World	764.9	2020.4	11.1	21.2	14.2	19.4	83.3	59.8
More developed regions ^a	270.8	417.4	21.8	32	19.6	29.6	74.6	50.4
Less developed regions ^b	494.1	1602.9	8.7	19.4	11.2	16.7	89.2	69.9
Least developed regions ^c	44.5	183.3	5.3	10.1	8.7	11.3	89.5	82.0

^aMore developed regions comprise all regions of Europe and Northern America, as well as Australia, Japan and New Zealand.

^bLess developed regions comprise all regions of Africa, Asia (excluding Japan) and Latin America and the Caribbean, as well as the regions of Melanesia, Micronesia and Polynesia.

^cThe least developed countries, as designated by the United Nations General Assembly in 2011, comprise 48 countries including 33 in Africa, 9 in Asia, 1 in Latin America and the Caribbean and 5 in Oceania. The least developed countries are included in the less developed regions.

¹Persons aged 80 years or over (the 'old- old') as a percentage of the population aged 60 years or over.

Source: United Nations Department of Economic and Social Affairs/Population Division, World Population Prospects: The 2012 Revision; accessed August 2013

AREA	Life Expectancy at age 60, 2010-2015		Proportion living independently, 60 years or over (percentage), circa 2010		Old Age Support Ratio ¹		Proportion in labor force, 60 years or over ² (percentage), circa 2010	
	Men	Women	Men	Women	2010	2050	Men	Women
World	18	22	40	39	8.6	4.0	42	20
More Developed Regions ^a	21	25	75	73	4.2	2.3	26	15
Less Developed Regions ^b	18	20	28	25	11.2	4.6	50	22
Least Developed Regions ^c	16	17	12	13	16.2	9.2	68	43

Table 1B: Select Indicators of the Aged by Region

^aMore developed regions comprise all regions of Europe and Northern America, as well as Australia, Japan and New Zealand.

^bLess developed regions comprise all regions of Africa, Asia (excluding Japan) and Latin America and the Caribbean, as well as the regions of Melanesia, Micronesia and Polynesia.

^cThe least developed countries, as designated by the United Nations General Assembly in 2011, comprise 48 countries including 33 in Africa, 9 in Asia, 1 in Latin America and the Caribbean and 5 in Oceania. The least developed countries are included in the less developed regions.

¹Number of persons aged 15 to 64 years per person aged 65 years or over

²Proportion of persons aged 60 years or over who are economically active, as estimated and projected by the International Labor Organization (ILO).

Source: United Nations Population Division, available at <http://www.un.org/en/development/desa/population/publications/pdf/ageing/2012PopAgeingandDevWallChart.pdf>, and United Nations Department of Economic and Social Affairs/Population Division, World Population Prospects: The 2012 Revision

Table 2: Select Demographic Indicators of Five Most Populous Countries

*Population figures are in millions

Country	2013			2025			2050		
	Total Population*	60+	80+	Total Population	60+	80+	Total Population	60+	80+
China	1385.6	192.6 (13.9)	22.2 (1.6)	1449.0	289.3 (20.0)	29.3 (2.0)	1385.0	454.4 (32.8)	90.4 (6.5)
India	1252.1	103.9 (8.3)	10.0 (0.8)	1418.7	156.6 (11.0)	14.4 (1.0)	1620.1	296.5 (18.3)	37.2 (2.3)
USA	320.1	63.2 (19.7)	11.8 (3.7)	350.6	86.4 (24.6)	2.7 (1.0)	400.9	108.2 (27.0)	9.6 (3.0)
Indonesia	249.9	20.2 (8.1)	2.0 (0.8)	282.0	33.9 (12.0)	15.2 (4.3)	321.4	67.7 (21.1)	31.7 (7.9)
Brazil	200.4	22.4 (11.2)	3.2 (1.6)	217.5	35.7 (16.4)	5.2 (2.4)	231.1	66.9 (28.9)	15.8 (6.8)

Note: Numbers in parentheses denote the percentage of country's population over 60/80 years in a given year

Source: United Nations Department of Economic and Social Affairs/Population Division, World Population Prospects: The 2012 Revision, Key Findings and Advance Tables

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