

# ECONOMIC IMPLICATIONS OF GLOBAL AGEING

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**Abstract.** The effect of global ageing on old age income and security has been a topic of interest across the globe. Global ageing is the result of a two pronged trend – rising life expectancy and declining fertility. The historically known steep pyramid shaped population structure that was characterized by more young people than old is slowly being replaced by an inverted pyramid, with more old than young. Population ageing is presenting a new challenge for the state for providing pensions and other long-term care benefits for a longer period than expected. The public system and the economy at large have to provide both for pension/retirement and health. There is no choice that exists between the two. Perhaps one can look at ways of exploiting the synergies between pension funds and long-term care.

**Key-words:** pay-as-you-go, long-term care (LTC), defined benefits, defined contribution, phased retirement, annuities, pay-out

## 1 Introduction

"It is not how old you are but how you are old which matters." Chinese proverb

The effect of global ageing on old age income and security has been a topic of interest across the globe. A majority of the studies have emphasized on the social impact as also the merits and de-merits of the various funding methods existing for retirement benefits in various countries.

This paper attempts at discussing the economic impact of global ageing and attempts at suggesting some methods that can help exploit the complementing requirements of pension and long-term care.

## 2 Global Demographic Trends

The world over, the demographic trend is moving towards increased life expectancy.

Following are some of the key indicators of the demographic profile of the world:

- Life expectancy at birth: As per the United Nations report, by 2050 the more developed countries are expected to attain a life expectancy of 82, while that of the developing ones is expected to be around 75.
- Fertility rates<sup>1</sup>: The fertility rates in the more developed regions are expected to remain below the replacement level.

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<sup>1</sup>Replacement level indicates the fertility level required to ensure that the population replaces itself over the long run. For most populations, replacement is ensured with a fertility of 2.1 children per woman.

- Gross Reproductive Rate (GRR) <sup>2</sup> for the world is projected to decline to 1.15 in 2020-2025.

The impact of declining fertility and increasing life expectancy is evident in the age structure of the population.

Some of the key features as per the UN report are:

- Number of older people
  - Globally the numbers of older persons (60 years or over) will more than triple (increasing from 606 million today to nearly 2 billion by 2050)
  - Increase in the number of the oldest old (80 years or over) is expected to be even more marked, passing from 69 million in 2000 to 379 million in 2050, more than a five-fold increase.
- As a % of the total population
  - Developed regions – as of today about 20% of the population is aged 60 or over and by 2050, it is likely to be 33% of the population. The older population of the more developed regions has already surpassed the child population (persons aged 0-14) and by 2050 there will be 2 older persons for every child.
  - Developing regions - the proportion of the population aged 60 or over will rise from 8 % in 2000 to close to 20% in 2050.

This clearly indicates that the world population is ageing faster. The historically known steep pyramid shaped population structure that was characterized by more young people than old is slowly being replaced by an inverted pyramid, with more old than young.

The pressure that global ageing is causing on the world resources is evident from the fact that the elderly dependency ratio<sup>3</sup> is expected to increase to 26 in 2050. Here again the trend is different in the developed countries (expected to rise from 33 to 44) as compared to the Asian countries (expected to rise from 9 to 27).

### 3 Where is all this leading?

Population ageing is presenting a new challenge for the state for providing pensions and other long-term care benefits for a longer period than expected.

An ageing population poses many challenges. Chief among these are the

- Fiscal or financial challenge: A population that is characterized by increased dependency of the economically dependant population (elderly population) on the working age population means new challenges to the state and the economy at large for net cash flow that is heavily polarized towards outgo.

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<sup>2</sup> Average number of daughters born to a woman.

<sup>3</sup> The ratio of the number of elderly persons (typically 65 years and over) to the number of persons in the working age (ages 20 to 64) – a common measure of the extent of dependency of the economically dependent population on the working-age population.

- The general volatility of the equity market and the increasing responsibility of the individual in managing his/her retirement assets as well as longevity risk are throwing up new dimensions in post-retirement risks.
- Labor challenge: An ageing population changes the age distribution of the labor force skewing it more towards the older work force.
- Increasing spending in pension and health: The threat of illness increases in old age. For the older people in many countries, a good physical asset is perhaps the most important asset since it is linked to their productivity and ability to generate income at an old age to maintain their standard of living. The mounting healthcare costs accompanied by the decrease in real income at an old age are the most challenging aspects of healthcare and social protection systems.

### **Pension Systems**

Though most of the debates currently focus on 'pay-as-you-go' vs. "funded" pension schemes or "DB vs. DC", the crux of the matter of concern is the adequacy and the financial burden on the pension system of the country (whether state sponsored, employer sponsored or personal pension) and long-term care benefits.

With the elderly dependency ratio increasing, there has also been a debate over the adequacy of the current retirement systems and the associated costs.

While the population is slowly getting polarized towards old-age, the retirement age has relatively remained flat over the past few decades. In fact, the average effective retirement ages have actually declined in many OECD countries. Cross country differences have also become wider.

Regardless of the pension system prevalent in the country, one basic principle that governs the provider to the pension system and the consumer of the pension system is that a portion of the productivity of the working population (in the form of goods and services) is distributed to the older people whose working careers have ended.

The quantum and the guiding principle of the distribution may vary depending upon whether the pension system is pay-as-you-go or funded.

This means that there are more consumers (at a macro level, even the working population is a consumer of the goods and services it produces) than people contributing to the productivity of the economy.

The effect on the pension systems is primarily at two levels:

1. Effect on the costs associated with providing pension to the retired population.
2. The adequacy of the pension income to maintain an acceptable standard of living

### **Long term care**

Ageing would also impact health care costs. The per capita health costs for the aged are higher than those for the working age population or even children. One significant trend accompanying aging is that not only are people surviving, but they are also more fit at an older age than they were a couple of decades back.

This means that there is a rise in long-term care costs (long-term care is characterized by a combination of health and social services provided for individuals who need assistance on a continuous basis due to physical or mental inability to perform daily routine functions).

The traditional support for long term care came from the informal services by families and friends. With the changes in family setup and increasing participation of women in active labor force, there is a considerable decline in the availability of the informal services. Added to this is the declining built-in support of large extended families.

Increasing awareness of the risks and costs associated with long-term care implies that there is greater pressure on the social insurance and welfare system for providing long term care. Covering long-term care through social insurance alone may be prohibitively expensive. This means that we need to have a mix of social insurance, employee sponsored schemes and private insurance.

## **4 What does one do about it?**

The strategy to address various dimensions of the economic implications involves understanding various old-age needs. While there are many aspects that one needs to consider, we would focus on pension and long-term care.

### **Pension Reforms**

The crux of any pension reforms lies in understanding that the need is to have a greater flexibility in pension design to be able to have a proper balance between state, private and individual pension.

The state pension programs have to reduce their costs. This may involve reducing the generosity of current pensions, making early retirement benefits less attractive, making new pensions less generous etc.

Most state pensions have traditionally been linked to the wage index. This increases the volatility of future benefits for index-linked benefits. Some countries have started using price index instead of wage index to align the increase in pension with inflation. A wage index aligns the pension with current living standards while a price index attempts to align it with the purchasing power of the domestic currency.

Another way of circumventing the labor shortage and pension costs is to discourage early retirement and encourage late retirement. Infact many of the developed countries have started streamlining their phased retirement programs. The additional financial challenges posed by the defined benefit pension plans and the health-care costs associated with the retired work-force is forcing employers to come up with innovative manpower strategies. Companies have also recognized the need to address the growing shortage in certain key positions. In this context, phased retirement provides a flexible mechanism of meeting the needs of the

employee as well as addressing the problem of skilled labor shortage. Reforms such as introducing actuarial reduction for early retirement and liberal actuarial increases for late retirement reduce disincentives to work.

Increasing funding of state pension schemes and reducing pay-as-you-go pensions would address part of the growing needs for supporting a sustainable and real income of the elderly population. The insurance companies would need to contribute to the retirement kitty of the elderly by encouraging advanced savings in the working life towards income deferred to the old age.

Another challenge that the elderly population faces is that of choosing a good annuity product for the pay-out phase. Most of the pension reforms concentrate on the funding requirements, norms and regulations for the pre-retirement phase. There needs to be an equal if not less emphasis on the need for good annuity products that address the need for income stability, inflation risk, investment flexibility while retaining easy to understand features.

### **Long Term Care**

We need to look at a 3 legged stool for long-term care on the same lines as is prevalent for retirement benefits.

The first leg is the minimum level of benefit provided by the social scheme that involves creating a long-term care program through social insurance. There could be various methods of funding this kind of scheme. Based on the rationale of maximizing utility, one could look at merging long-term care needs with that of retirement income. One could also think of creating a fund for long-term care. The contributions could be from one or more sources. For instance, it could be a small portion of the contribution towards the state pension prevailing in the country.

The second leg is long-term care as an employee benefit. In many countries, employers have shown an increasing interest in long-term care. This is primarily to prevent loss of productivity due to the employees requiring to manage or provide some kind of long term care to elderly persons, within or without the family. This also goes a long way in boosting employee morale and improving employee satisfaction. The way LTC coverage stands as of today, it is almost entirely employee-contribution with the employer's role being restricted to handling communication and administration with the insurance carrier. There could be a suggestion to have an employer contributed LTC plan, perhaps more on the lines of defined contribution rather than defined benefit (given

The third leg is by way of personal LTC insurance. The market for LTC insurance is relatively new. The reasons are both to do with demand and supply. The way current LTC products are designed such that they are stand alone products. There would be resistance in buying such products since the premium is perceived to "go waste" if the need for long-term care benefit does not arise. On the supply side, pricing LTC insurance is one of the greatest challenges for the insurance carrier. There is a concern about moral hazard and adverse selection. Moreover, very few companies have enough relevant data and experience to use for pricing.

One suggestion is that LTC be sold as a rider to a base insurance product rather than as stand alone. This would mean that if the insured does avail of the long-term care benefit, the death benefit gets reduced to that extent. Else, the benefit under the base policy continues to grow. This would reduce the moral hazard to

some extent in that it would discourage over-use or abuse of long-term care benefits. It would also look appealing in the sense that the premium would not be perceived to go waste and hence have a combination of healthy and not-very-healthy people going in for insurance so as to reduce the risk of adverse selection.

## 5 Conclusion

Any economic reforms aimed at funding or addressing future needs of pension and healthcare will have to have the flexibility to changing workforce expectations of managing long-term obligations and help them with tools for better self-management of their retirement and health care programs.

The public system and the economy at large have to provide both for pension/retirement and health. There is no choice that exists between the two.

Perhaps one can look at ways of exploiting the synergies between pension funds and long-term care. The pension funds can be invested effectively to finance the development of appropriate systems, facilities and frameworks that can be utilized for long-term care or other health care benefits for the pension scheme members/beneficiaries.

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