

THE GLOBAL RETIREMENT CRISIS IN KNOWLEDGE SOCIETY*

Tuncay Gülođlu*
İbrahim G. Yumuşak♦

ABSTRACT

The contemporary world experiences the retirement crisis. One of the important issues is the public pension systems in the 21st century. After the industrial revolution, public pension systems were established by many different countries. Since its inception, they have played an important role to protect the elderly population. Moreover, they have sustained this role in industrial and postindustrial societies. On the other hand, demographic transformation has begun since the 1960s. As a result of the transformation, the elderly population grew all over the world. Aging affects virtually all societies today, but more so the industrial countries, which have generally been experiencing for a longer period.

In this study, we examine the reasons of the global retirement crisis for both developed and developing countries. Later, we explore the effects of the aging population on public pension systems in the world. Then we review other factors about the crisis. In addition, we discuss new alternatives against the crisis. Moreover, we examine the results of some observations and projections that focus on demographic change and future of pension systems in the world.

Introduction

Social security is one of the vital issues for all societies. It is a basic human right and a fundamental way of social justice, social peace and social inclusion. It is an indispensable part of governmental social policy and an important instrument to fight against poverty. It is also important for the development of democracy and human dignity.

Most of the time in the registered human history, humankind lived in rural areas with extended families and worked in the agricultural sector. However, this situation totally changed with the Industrial Revolution. More and more people became wage earners and worked in the industry. At the same time, the Industrial Revolution changed the social structure. In fact, after the Industrial Revolution, rural population gradually declined and urban population grew. People moved from small rural communities to larger cities, for instance, in 1890, only 28 percent of the U.S. population lived in cities by 1930 this percentage had doubled to 56 percent (SSA, 2008: 3).

Industrial wage earners came to be regarded as a group whose income security was jeopardized by the social security risks, for instance, unemployment, disability and old age. Also in this social environment, the socialist movement gained strength, spread in the European countries and threatened the regime of the countries. During that period, Germany was the most powerful industrialized country in continental Europe. In this country, Chancellor Bismarck

* This paper based on "The Global Retirement Crisis in The Knowledge Society" at presented at the International Conference on Business, Economics and Management (ICBEM08), Yasar University Assistant Professor, Kocaeli University, iyumusak@kocaeli.edu.tr

* Associate Professor, Kocaeli University, tguloglu96@yahoo.com

♦ Assistant Professor, Kocaeli University, iyumusak@kocaeli.edu.tr

adopted a new strategy against socialist opposition and applied social policy precautions. First, he established a social insurance system as a public system. The system became the first social insurance system in the world. The aim of the social insurance system was to protect wage earners for social security risks. Later, this social insurance system became an important part of the industrial life. Especially, the new social insurance system brought social protection to the elderly population. In fact, the world's first social security retirement program was put into effect in Germany in 1890. After Germany, retirement systems were accepted across to Europe until the end of the 1920s (Gordon, 1963: 2)

In the United States, the great depression of the 1930s triggered a crisis in the nation's economic life. It was against this backdrop that the Social Security Act emerged in 1935 and the act provided old-age insurance benefits. After World War II, retirement systems became widespread all over the world and especially developed countries provided generous and prevalent retirement benefits (SSA, 2008: 3).

However, a demographic transformation has begun since 1960s. As a result of the transformation, the elderly population grew all over the world. Aging affects virtually all societies today, but more so the industrial countries, which have generally been experiencing it for a longer period.

Recently, a retirement crisis is being experienced throughout the world. Estimations show that (in the future) one of the important problematic fields will be the retirement systems in 21st century. The problem is not only an economic problem but also a socio-demographic and cultural problem. Life expectancy increased faster over the last two decades and over the same period, most developed countries have seen very sharp falls in total fertility rates.

On the other hand, the world economy has been unstable since the first oil crisis and recently the world has encountered an economic crisis. Fluctuations in the world economy automatically have been affecting social security systems. Especially after the 1970s, western countries which have been experiencing problems in their retirement systems have been confronted with an unemployment problem. A high unemployment rate and the cost of unemployment benefits have been affecting entire social security systems.

Society is in the transformation period in the world. Traditional societies have been experiencing changes. Traditional values have been eroded by modernization. In the modern society, traditional family values are too weak and separated families have been increasing with each passing day. This situation forces countries to take steps against aging and retirement problems. At this point, countries do not have so many alternatives as a solution. In general, they try to extend working life with late retirement ages and reducing retirement and aging benefits. In addition, they try to implement an improvement of solidarity within society by NGOs that are the highly dynamic and organized part of all societies.

A new transformation in the population creates new problems in the world. As a percentage of the total population, this is the first time the elderly population has reached this level in the history of the world. The new structure also creates new problems for the social security of the elderly. In the future, it would bring huge problems about social security and the social services of the elderly if governments did not take certain precautions. Recently, aging and related aging subjects such as retirement, pension, social services etc., are very arguable and

these issues will be discussed during this century.

1. The Concept of Aging

Generally, aging is defined as the process of getting old. According to Britannica Encyclopedia, aging is progressive physiological changes in an organism that lead to senescence, or decline of biological functions and of the organism's ability to adapt to metabolic stress (<http://www.britannica.com>).

Aging is a broad concept that includes physical changes in our bodies over our adult life, psychical changes in our minds and mental capacities. Some dimensions of aging grow and expand over time, while others decline. For example, reactions, cognition, power and resistance may slow with age, while experience, knowledge and wisdom may expand.

It is common to describe the human life cycle in terms of three different periods:

1. Maturation, in which the person develops,
2. Full maturity, in which the person exercises full power,
3. Aging, in which the person gradually declines.

Actually, this description is simply based on biological characteristic of life in humans and shows us a different period of the human life cycle (Atchley, 1991:4). At the present day, aging has been discussed by three different dimensions which are biological or physical aging, chronological aging and social aging:

Biological or physical aging: According to gerontologists who are specialists in aging, aging is a natural and an inevitable biological process, one that begins at birth. People undergo physiological changes that continue until end of their lives (Neubeck and Neubeck;1997:370). At the same time, biological aging, or senescence, can be defined as the normal process of changes over time in the body and its components. It is a gradual process common to all living organisms that eventually affects an individual's functioning vis-à-vis the environment but does not necessarily result in disease or death. It is not, in itself, a disease, but aging and disease are often linked in most people's minds, since declines in organ capacity and internal protective mechanisms do make us more vulnerable to sicknesses such as Alzheimer, Arthritis and heart conditions which have a higher incidence with age (Hooyman and Kiyak, 1999: 55).

Biological aging is the result of numerous processes, most of which do not progress at the same rate. For example, kidneys typically show diminished functioning much earlier than the skin. In addition, different physical functions reach maturity at different ages (Atchley, 1991:4-5).

It is observed that some general physical changes with aging are:

1. Changes in the skin,
2. Changes in the hair,
3. Changes in the musculoskeletal and kinesthetic system,
4. Changes in the sense of touch,
5. Sexual changes,
6. Changes in the gastrointestinal system,
7. Changes in the nervous system,
8. Changes in sleep patterns,
9. Changes in sensory functions

These physical changes are more or less seen in all elderly people (Hooyman and Kiyak, 1999: 60).

On the other hand, aging is a losing proposition for some people. They may lose physical or mental capacities, good looks, opportunity for employment and income, or positions in organizations to which they belong (Atchley, 1991: 4-5).

Chronological Aging: It is the definition of aging on the basis of a person's years from birth. Thus, a 75-year-old is chronologically older than a 55 year-old. Chronological age is not necessarily related to a person's biological or physical age, or to their psychological or social age. Generally, men's chronological aging is distinct from their biological or psychological aging. Generally, retirement systems or aging benefits are based on chronological age. As a matter of fact, International Labor Organizations accepted this (Hooyman and Kiyak, 1999: 2-3; Yazgan: 1992: 252-256).

Social Aging: social aging refers to the nature of the society in which individual aging occurs, the influence that society has on its aging individuals, and the impact aging individuals have on their society. In accordance with another definition, social aging refers to an individual's changing roles and relationships in the social structure in both paid and unpaid productive roles, and within organizations such as religious and political groups (Hooyman and Kiyak, 1999: 2-3).

2. The General Problems of the Elderly Population in the World

2.1.Poverty

Poverty and income inequality are drastic problems in the world. At the present time, poverty is defined in terms of income poverty and is measured in different ways. The poverty line is defined at international levels by considering US\$1 and US\$2 per head per day as alternative minimum levels of income. Labor market conditions such as employment, unemployment, wages and the composition of employment affects the poverty status (Guloglu-Guder, 2007: 175-177).

For many people, growing old brings the possibility of poverty. Poverty remains a significant social problem for many of the elderly. For most of this century, the elderly were much more likely than other people to be poor. Income is a crucial determinant of how the aged live. The level, the adequacy and the maintenance of income affects other aspects of the lives of the elderly.

Recently every country has been having an important number elderly population. For example, 9.4 % of Americans who are 65 or over live under the poverty line in 2006. In general, poverty rates of older women are higher than that of older men (Coleman and Cressey, 1999: 296-297).

Elderly people depend on different income sources such as real estate, private and public pension and interest from their saving. For this reason, the economic structure, payments, taxes and the inflation rate influence the income of elderly people and sometimes push them into poverty.

Saving is the most important factor for poverty in old age. In general, during their work life, people have to save money for their old age, but some people do not have enough of a chance to save because of low wages, children and the high cost of living.

2.2. Housing

Decent housing is especially important for the elderly because they spend so much time at home. The elderly need higher room temperatures than the young, but housing for the elderly often lacks proper heating. Those who are physically handicapped or disabled also need wheelchair ramps, elevators, and other special facilities. The ownership of a house is extremely important for the elderly because they need to be stable in their environment for their psychological health. In the United States, 80 percent of 65+ people live in homes they own.

In most societies, families provide care for the elderly people in their homes. However, many elderly people living alone in their homes face some problems. For example, a good number of houses were built many years ago and thus need more repair and heating than newer homes which younger people tend to reside in.

Only a small percentage of people over 65 live in institutions. In Turkey for example, from the more than 5 million elderly who are over 65, only 19303 of them live in an institution. Institutional care centers are expensive and not civil; because of many other reasons, most countries encourage the elderly to live in their homes. Recently, Germany organizes care insurance as a social insurance for the elderly in order to support the elderly for living in their homes (Coleman and Cressey, 1999: 296-297; Neubeck and Neubeck, 1997: 388).

2.3. Health Care

Today, people live longer than ever before. This does not mean that they do so free from health problems. The elderly are more likely to experience chronic disease: four out of five elderly people suffer from at least one chronic condition and more than half suffer limitations in their activities due to the condition. The most common chronic conditions are arthritis, rheumatism, heart disease, and high blood pressure. The duration of these conditions increase with age.

In addition, the admissions of elderly to hospitals have been growing, for example between 1965-1986 admissions of older people grew more than 50 percent in the United States. Older people benefit from hospitals more than other age groups and they stay in hospitals more than other age groups. The medical expenses of an elderly person average more than four times compared to those of a young adult. This is partly because the elderly suffer much more long-term illnesses, such as cancer, heart problems, diabetes, and glaucoma (Zastrow, 2000: 498). The burdens of health care costs are one of the significant problems across the world, long lifetime increase the cost of health care. Generally, the duration of elderly treatment is longer. For this reason, recently, health insurance systems of many countries have been experiencing financial difficulties. Like pension systems, health insurance systems lead to pressure on pay as you go systems of many countries, especially in developed countries (Atchley, 1991: 178-179).

2.4. Employment

Older workers suffer from high levels of unemployment. Age discrimination is at the root of older workers' employment problems. Age discrimination intensifies on the elderly. In many countries, there are strict rules regarding older workers' employment. For instance, in the United States, "The Age Discrimination in Employment Act" was legalized in 1967 and the act made illegal the use of age as a criterion in hiring, firing, layoff, working conditions and

referral by employment agencies (Atchley, 1991: 192).

Although many countries take precautions against discrimination to older workers, it is an observed obstacle for older workers' employment. Employers think that older workers are less productive than others.

3. The Concept of Retirement

Retirement is when employees completely leave their working life. For an individual, retirement can have several meanings. Retirement can mean withdrawal from employment and receipt of a retirement pension. The term retirement generally refers to at least partial separation from a position of employment.

In an agriculture society before the industrial revolution, elderly people were taken care of by their families and when they lost the power to work or they become too old to work, their families supplied all their needs. This system was based on social solidarity and large families. The family at the same time was a social institution.

After the industrial revolution, the social structure was changing very fast. Meanwhile the family situation and family life style radically changed. Since the beginning of the industrial revolution, peasants began migrating to urban areas because the city centers became centers of gravity to find better jobs.

The cities attracted a large numbers of immigrants when new factories were built. Particularly in European countries, the social situation changed drastically within a hundred years. In the new situation, elderly people did not find any support. In this structure when one became old, it meant being poor and hungry because of the collapsing traditional system.

In 1883, Chancellor Otto Von Bismarck of Germany had a problem. Marxists were threatening to take control of Europe. In this social situation, Bismarck for the first time in the world announced a pension system. The German system became an example to other countries. Today, almost every country organizes a public pension system except few very under developed countries like Afghanistan.

A pension is a steady income given to a person after retirement. Pensions are typically payments made in the form of a guaranteed annuity to a retired employee.

Traditional pension systems in most countries of the world today are based on six principles:

1. The state and employers administer collections and benefits,
2. Financing is pay as you go, where current payroll tax revenues are used to pay current beneficiaries,
3. Benefits are defined in advance and predictable with clear expectations of a retirement benefit level,
4. Benefits may be linked to lifetime income to support a retirement consistent with a retiree's previous lifestyle,
5. Risk is pooled to provide social security against a variety of risks, including lacking old age income, disability and survivorship (Orenstein, 2005: 181).

4. The Reasons of Retirement System Crisis

The retirement crisis is based on three significant trends, these are increasing aging population, dependency rates and unemployment rates.

4.1. Aging Population

Increasing life longevity and declining fertility rates are changing the age distribution of populations in industrialized countries towards an aging population. Some countries will experience this demographic transformation before others (Anderson and Hussey, 2000: 191).

It is estimated that after 2010, this transformation will accelerate in most industrialized countries. The effect of population aging on retirement systems will create new problems about the financial balance of the systems as well as income distribution.

It is a phenomenon that the world population is getting older. Especially developed countries have large elderly populations. The United States had only a 4 percent elderly population in 1900 but it reached 13 percent in 2000. According to the projection, in 2020, Japan will have a 26.2 percent elderly population while in 2000; this portion of the population was only 17.1 percent. In the United Kingdom, this percentage will be 19.8 while in 2000 this portion of the population was 16.0 (Anderson and Hussey, 2000: 192).

Ageing, which is an inescapable reality of human existence in the world, plays in the global demographic transition. According to the projection of the United Nations Population Division, there will be two elderly persons for every child in the world by 2050. In addition, with a similar estimation, aged 60 and above population will be 32 percent of the total world population by 2050 (www.globalaging.org).

There are several reasons for the increasing elderly population. The improved care of expectant mothers and newborn infants has reduced the infant mortality rate, and vaccinations have prevented many life-threatening childhood illnesses, allowing an increased proportion of those born to live to adulthood. New drugs, better sanitation, and other medical advances have increased the life expectancy (Zastrow, 2000: 490).

Table 1 below shows that according to the United Nations, 7.5 percent of the world population is aged 65 and over. 15.5 percent of the total population of more developed regions is age 65 and over. The population is 5.7 percent in less developed regions. Africa has the smallest aging population with 3.4 percent and Europe has the largest elderly population with 16.1 percent.

Table 1: Percentage of Population Aged 65 or Over (2007)

Major Areas	65 or Over %
World	7.5
Africa	3.4
Asia	6.6
Europe	16.1
Latin America and Caribbean	6.3
Northern America	12.5
Oceania	10.3

Source:[http://www.un.org/esa/population/publications/WPA2007/Summary Tables](http://www.un.org/esa/population/publications/WPA2007/Summary%20Tables) Accessed 30 March 2008.

On the other hand, two major demographic dynamics drive population ageing: people are living longer; they are having fewer children. According to the figures in table 2, fertility rates are decreasing, and the fertility rates declined in the most developed countries in more than others.

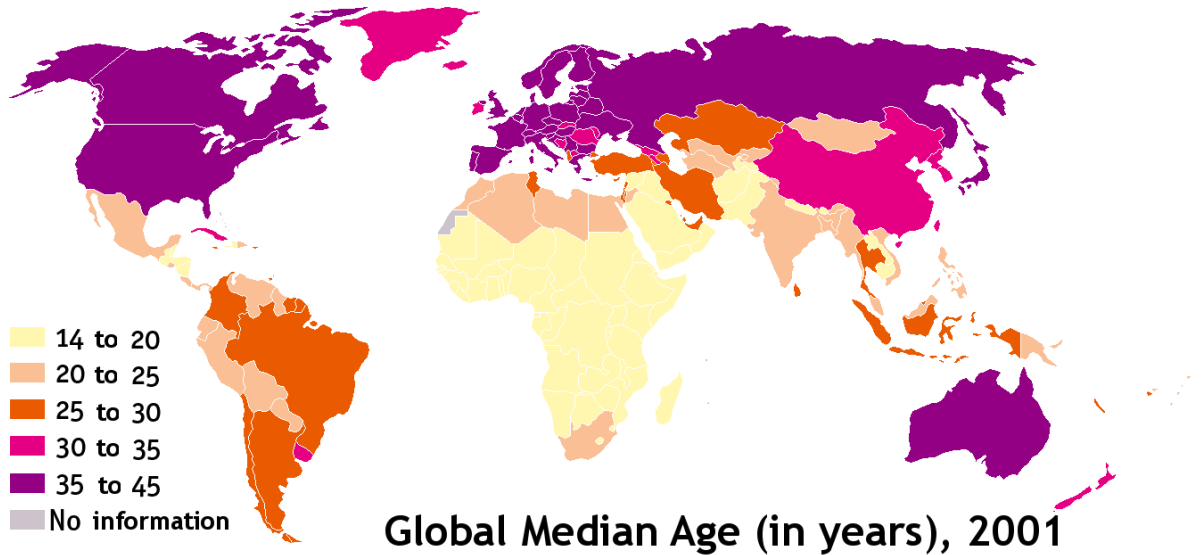
Table 2: Fertility Rates, Total (births per woman)

Country	1970-1975	2000-2005
Australia	2.5	1.8
Canada	2	1.5
Japan	2.1	1.3
France	2.3	1.9
United States	2	2
United Kingdom	2	1.7
Germany	1.6	1.3
Italy	2.3	1.3
Israel	3.8	2.9
Turkey	5.3	2.2
Chine	4.9	1.7

Source: United Nation, Human Development Report 2007/2008.

The shift is seen not only in developed countries but also in developing countries. The fertility rate was 2.5 between 1970-1975 in Australia; however, the rate became 1.8 between 2007-2008. Similarly, a fertility rate in Japan is decreasing.

Map 1: Global Median Age (2001).



Source: Unite Nations

On the other hand, Map 1 above shows the median age in the world. According to this map, median age reached the highest level in Europe, North America and Russia. Contrary to those

countries, the continent of Africa has the youngest population in the world.

The fertility rates in Europe and Japan have fallen far short of the replacement rate. The decrease in the number of children per family at the end of baby boom in the United States, coupled with increases in life expectancy, has inevitably led to a projected increase in the ratio of elderly to working age population throughout the developed world (Population and Development Review, 2004: 780).

Table 3: Life Expectancy at Birth (2005)

Country	Year
Australia	80.9
Canada	80.3
Japan	82.3
France	80.2
United States	77.9
United Kingdom	79.0
Germany	79.1
Italy	80.3
Israel	80.3
Turkey	71.4
Chine	72.5

Source: United Nation, Human Development Report 2007/2008.

On the other hand, life expectancy at birth is getting to be higher than even before. As the above Table 3 reveals, life expectancy in 2005 was 80.9 in Australia, 80.3 in Canada, 82.3 in Japan, 77.9 in the United States, 79.0 in the United Kingdom and 79.1 in Germany.

Low birthrates affect retirement systems. Since the 1880s, the systems have been based on the solidarity of generations but the new trend affected retirement systems all over the world. Moreover, rising life spans has important effects on retirement systems. Longer life expectancy means longer payments for retirees. The situation increases the cost of the systems.

4.2. Dependency Rates

Because of falling birthrates, the child dependency rate has been decreasing all over the world. Table 4 below shows that from 1950 to 2005 child dependency rates have decreased all over the world. However, the most dramatic fall is seen in more developed regions.

Table 4: Child Dependency Rates

Countries/Regions	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000	2005
World	59,6	63,0	67,0	69,4	68,9	67,3	62,5	58,2	55,6	53,5	50,1	45,9
More developed regions	44,9	45,2	47,4	46,5	43,7	40,1	36,2	34,4	33,3	31,6	29,4	27,0
Less developed regions	67,2	72,0	76,4	80,0	79,6	78,0	72,1	66,0	62,3	59,6	55,4	50,3
Least developed countries	76,8	79,7	82,4	85,4	87,2	88,3	88,1	87,9	87,1	85,5	82,2	78,6
Africa	79,5	81,7	84,5	87,9	89,2	89,8	89,6	89,9	88,8	85,5	81,4	77,8
Eastern Africa	83,9	86,2	88,7	91,4	93,2	94,7	95,3	95,1	94,7	92,3	90,3	87,0

Source: United Nations, Population Divisions, Date Retrieval, 2006.

The so-called the elderly dependency ratio, the ratio of older adults to younger adults, has been rising in the industrialized world for at least 150 years. In 2005, the elderly dependency ratio was 16.9 % in the world. The increase in the elderly dependency ratios causes increase in total dependency ratios.

Table 5: Elderly Dependency Rate

Countries/Regions	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000	2005
World	14,2	14,5	14,8	15,2	15,6	15,7	15,3	15,4	15,8	16,2	16,7	16,9
More developed regions	19,3	20,0	21,3	22,7	24,4	25,6	25,0	26,4	28,6	29,7	31,2	32,1
Less developed regions	11,5	11,7	11,7	11,7	11,8	11,8	11,7	11,7	12,0	12,5	13,0	13,3
Least developed countries	10,2	10,0	9,9	9,9	10,1	10,1	9,9	9,7	9,6	9,5	9,5	9,5
Africa	10,0	9,8	9,8	10,1	10,2	10,0	9,9	9,8	9,8	9,7	9,8	9,8
Eastern Africa	9,3	9,0	8,9	9,1	9,1	9,2	9,2	9,1	9,0	9,0	9,1	9,1

Source: United Nations, Population Divisions, Date Retrieval, 2006. Population

Continued increases in life expectancy and slow growth in the working-age population imply that this ratio is likely to increase. The United States, France, Germany, Japan and the United Kingdom, will all experience population aging due to a drop in fertility and rising life expectancy, and they will face an age dependency problem more severe than the United States. In 2030, the ratio of people older than 64 to those between the ages of 15 and 64 will be about 30 percent in the United States, 40 percent in France and the United Kingdom, nearly 50 percent in Germany and Japan (Triest, 1997: 14).

Table 6: Demographic Trend in Selected Countries

Country	Population under age 15 (%)		Population aged 65 and older (%)	
	2005	2015	2005	2015
Japan	13.9	12.5	19.7	26.2
Italy	14.0	13.5	19.7	22.1
Germany	14.4	12.9	18.8	19.9
United Kingdom	18.0	17.2	16.1	18.1
Bulgaria	13.8	13.5	17.2	19.2
Greece	14.3	13.7	18.3	19.9
Spain	14,4	15.4	16.8	18.3
Portugal	15.7	15,3	16.9	18.5

Source: UNDP, Human Development Report 2007/8, pp.243-245

According to the United Nations Human Development Report 2007/2008, if present trends

continue between 2005 and 2015, aged 65 or over population will increase dramatically in developed countries. According to this projection, Japan had 19.7 percent elderly population and if indicators do not change and trends continue, the population will become 26.2 percent. Briefly, in the future because of aged 65 and over population increasing and under age 15 decreasing, dependency rates will increase.

4.3. Unemployment

The income security for the unemployed is a major problem for countries at all levels of developments. Recently not enough jobs have been created to stop increases in unemployment because of structural technological changes and economic policies. Structural adjustment policies have increased unemployment in developing countries. On the other hand, all over the world, three-quarters of unemployed persons have no unemployment insurance (ILO, 2001: 15).

Most unemployed who receive benefits are in industrialized countries. There had, however, been a tendency to reduce unemployment benefits over the past decade. On the other hand, unemployment insurance schemes in developing countries have rather limited coverage. There, the chief form of income maintenance consisted of labor-intensive infrastructure programs which provided low-wage employment to otherwise unemployed persons (ILO, 2001: 15).

Due to the first oil crisis, technologic transformation and economic stagnation after the 1970s, the unemployment rate increased. The meaning of increasing unemployment is less premium payer for retirement systems. In addition, long-term unemployment is an important factor for the retirement crisis because long term unemployed persons cannot contribute to retirement systems in the long term.

In the 1990s, the average unemployment rate was 8.4 in Australia, 7.2 in Denmark, 7.8 in Germany and 5.6 in the United States. The unemployment rates affected pension and unemployment insurance systems (OECD, 2001).

5. Global Pension Reform

There are two ways in order to provide for a secure old age. People can save part of their wages each week and draw on the accumulated funds after they retire to buy goods produced by younger people. This is the principle underlying funded pension plans. Or people can obtain a promise from their children or our government that after people retire they will be given goods produced by others. This is broadly the way pay-as-you-go (PAYG) systems, with pension paid out of tax revenues, and are organized. Both types of pension plans thus exchange current production, but there is a considerable debate about which is the better choice.

The largest financial problem faced by many aging societies is how to support their older, retired members. Countries face a choice among three broad alternatives in reforming their public retirement systems: increasing taxes to pay for a larger retired population, curtailing benefits to keep retirement programs affordable, or moving away from pay as you go financing toward advance funding of future retirement obligations (Bosworth and Burtless, 1997: 244).

The story of the new pension reform begins in Chile in the early 1980s. Chilean reformers advised many other governments and the Chilean model became a template for reform, particularly in Latin America. The reform created a personal pension plan. It replaced Social Insurance Scheme organized Social Insurance Funds which provided a wide range of benefits for broad categories of workers. According to the new scheme, workers contribute 10 percent

of their monthly earning to an Individual Retirement Account with a private Administradora de Fondos de Pensiones (AFP). The AFP, in a range of permitted assets, invests the contributions, and the returns are credited to the account. The pension system explicitly avoids any redistributive features

At retirement, the worker uses the accumulated fund to purchase an annuity pension benefit from annuity pension benefit of the Insurance Company, or to arrange a Scheduled Withdrawal Programmed with an AFP. In addition to the 10 percent contribution rate, workers pay an additional contribution to cover the costs of administration and of disability and survivor pension insurance coverage (Barrientos, 1996: 311-312).

In this new system, the government provides a minimum pension guarantee, which is available to those workers whose accumulated savings, are insufficient to generate a pension benefit above the minimum pension level.

Like Chile, Sweden introduced a “notional defined contribution” scheme in 1998. The state pension is financed by a social insurance contribution of 18.5 percent of earnings, of which 16 percent goes into the public scheme. The account attracts a notional interest rate reflecting average income growth. A person’s pension is based on his or her national sum at retirement and on projections about life expectancy and future output growth. There is a safety-net pension for people with low lifetime earnings, and periods spend caring for children carry pension rights. (Barr, 2001).

In particular, the Swedish plan adopted an interesting mix of design choices that can now be evaluated based on three years of post implementation experience.

The new Mexican system is also a defined contribution system, with workers mandated to contribute at least 6.5 percent of their labor earnings to their account and the government making a social contribution equivalent to 5.5 percent of minimum wage earnings to each worker’s account. The accounts will be managed by private pension fund administrators, and regulated and supervised by a government agency.

The U.K system has a basic tier consisting of a universal flat retirement benefit financed on a pay as you go basis. Because the benefit amount has been indexed to prices since 1982 and average wages in the U.K. have risen at an annual rate of 1.5 to 2 percent faster than prices over the same period, the benefit amount has fallen as percentage of average wages. The second tier in the U.K. system consists of a defined benefit pension financed by a payroll tax (Triest, 1997: 10).

Australia is also undergoing a transition to reduce reliance on government-provided retirement pensions. Australia provides a means-tested pension, financed out of general tax revenue, with a basic benefit set at 25 percent of average weekly earnings for individuals. Starting in 1986, Australia has required that employers provide private pension coverage for their employees.

Several nations are now reforming their retirement programs, including such diverse countries as Australia and Mexico, England and China, Chile and Sweden. The focus by governments around the world on social insurance pension reform is driven in part by the realization that the aging of their populations implies that the tax rates required to fund social insurance benefits will raise rapidly if the programs are not changed (Feldstein, 2005: 1-2).

On the other hand, spending increases may be greater when we take into account that per capita medical costs are highest and accelerating most rapidly for the “very old” (over 80) age group, which will grow fastest during this period.

In many countries with large state pay as you go systems, introducing voluntary private savings can start the process of familiarizing people with the concept of individual private pension accounts (Diamond and Orszag, 2004:137).

Conclusion

Today’s world has been experiencing a new transformation of population. The transformation brings new problems and challenges to societies all over the world. The increasing of the elderly population causes profound issues on public pension systems.

According to the new trends, reforms cause longer work life, more expensive systems, less payments for retirees. On the other hand, the transformation of the world population affects health care systems and fighting against poverty. Governments must allocate more budgets for the elderly. Especially, developed countries will experience big challenges on this issue.

In many countries, the World Bank had advocated privatization and pre-funding of pensions as a means of averting an “old-age crisis” in social security financing. However, this proved ineffective and had produced many problems. These included high administrative charges for private pension management.

It is showed that in order to sustain the social and economic system, developed countries have to design and revise their social security systems from top to bottom. It seems that these subject matters will be discussed in the 21st century.

References

- Armando Barrientos (1996), "Pension Reform and Pension Coverage in Chile: Lessons for Other Countries," *Bulletin of Latin American Research*, Vol.15, No. 3.
- Barry Bosworth., Gary Burtless, "Social Security Reform in A Global Context," Conference Series 41 *Social Security Reform: Links to Saving, Investment, and Growth*, Federal Reserve Bank, Boston- June 1997.
- Charles Zastrow (2000), *Introduction to Social Work and Social Welfare*, Wadsworth Publishing Company, Seventh Edition, The United States.
- Cary S. Kart (1997), *The Realities of Aging*, Allyn Bacon, Fifth Edition, The United States.
- Encyclopedia Britannica, Aging, <http://www.britannica.com/EBchecked/topic/9171/aging>, Accessed April 2008.
- Gerard F. Anderson., Peter Sotir Hussey (2000), "Population Aging: A Comparison Among Industrialized Countries, *Health Affairs*, and May/June.
- Global Action on Aging, www.globalaging.org, Accessed March 2008.
- International Labor Office (2001), *Social Security A New Consensus*, Geneva.
- James William Coleman., Donald R. Cressey (1999), *Social Problems*, Longman, Seventh Edition, The United States.
- Kenneth J. Neubeck, Mary Alice Neubeck (1997), *Social Problems*, WCB/ McGraw Hill, Fourth Edition, The United States.
- Margaret S. Gordon (1963), *The Economics of Welfare Policies*, Columbia University Press, The United States.
- Martin Feldstein (2005), "Rethinking Social Insurance," *The American Economic Review*, Vol.95, No.1, pp.1-24.
- Mitchell A. Orenstein (2005), "The New Pension Reform as Global Policy," *Global Social Policy*, Vol 5.
- Nancy Hooyman., H. Asuman Kiyak (1999), *Social Gerontology*, Allyn and Bacon, 5th Edition, The United States.
- OECD (2002), *Fiscal Implications of Ageing: Projections of Age-Related Spending*, Economics Department Working Papers No: 305.

P.A. Diamond and P.R. Orszag (2005). "Saving Social Security," *The Journal of Economic Perspectives*, Vol. 19, No.2, pp. 11-32.

Population and Development Review (2004), "Alan Greenspan on the Economic Implications of Population Aging," Vol. 30, No.4, pp. 779-783.

Robert C. Atchley (1991), *Social Forces and Aging*, Wadsworth Publishing Company, California.

Robert K. Triest (1997), "Social Security Reform: An Overview," Conference Series 41, *Social Security Reform: Links to Saving, Investment, and Growth*, Federal Reserve Bank, Boston.

Social Security Administration USA, *A Brief History*,
<http://www.ssa.gov/history/pdf/2007historybooklet.pdf>, Accessed June 2008.

Tuncay Guloglu and Gokhan Guder (2007), "Poverty and Income Inequality in Turkey: Toward Accession to European Union," *Rethinking Turkey EU Relations*, Edit. Kenan Dagci and Gul Tugba Dagci, MV Wissenschaft, Germany.

United Nations, Population Divisions, Data Retrieval, P
<http://www.un.org/esa/population/unpop.htm>, Accessed, May 2008.

United Nation, Human Development Report 2007/2008.
http://hdr.undp.org/en/media/hdr_20072008_en_complete.pdf, Accessed March 2008.

Wikipedia, The Free Encyclopedia,
http://en.wikipedia.org/wiki/Main_Page, Accessed 30 March 2008.