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## THE CONSEQUENCES OF AGEING SOCIETY IN POLAND

### Abstract

The aim of the article is to present the phenomenon of ageing of the Polish society and discuss its consequences for the economy and the pension system. The article describes the ageing process of the Polish society which is the result of decline in fertility and lengthening of life expectancy. Moreover, the article presents the economic consequences of ageing of the Polish society. The supplement of the article is the presentation of the effects of demographic changes for the pension system.

**Keywords:** demographic changes, ageing of society, pension system

### Introduction

Nowadays the ageing of the population is considered to be a severe problem of many countries. Over the last dozens of years also in Poland we observe significant changes in the age structure of its inhabitants. The ageing process of the Polish society is the result of decline in fertility and extension of life expectancy. Rapid progress in the field of medicine that allows earlier and more accurate diagnosis of diseases, and thus more effective treatment, as well as a healthier lifestyle affect the improvement of the health of Poles and their longer life (Leśna-Wierszołowicz, 2017, p. 160).

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The growing life expectancy and the increase in the share of older people in the society have certain economic consequences, which include the increase in public expenditure on health care and retirement benefits. This burden may pose a threat to the sustainability of public finances and, above all, to the sustainability of pension systems. The low birth rate and the prolonging life of the Polish society cause, therefore, significant changes for the economy, the labour market and the social security system.

The aim of the article is to present the phenomenon of the ageing of the Polish society and to discuss its consequences for the economy and the pension system. The research method is based on the analysis of the impact of the aging of the Polish society on the economy and the pension system.

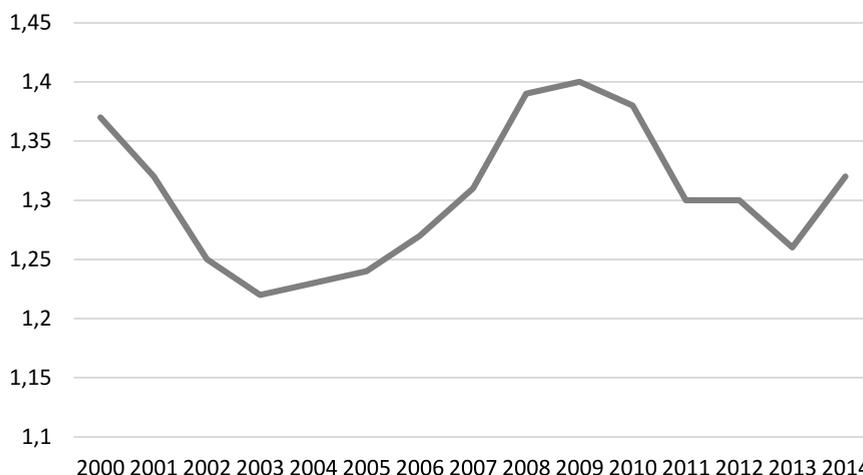
## **1. Demographic changes in Poland**

In Poland, since the transformation of the political system, a progressive aging process of the population can be observed, which is the result of decline in fertility and lengthening of life expectancy.

Against the background of the European Union, Poland is one of the countries with the lowest fertility rate. In 2014, the fertility rate for Poland was 1.32, and lower fertility rate was noticed only in Portugal (1.23), Greece (1.3) and Cyprus (1.31). However, the best situation in terms of fertility takes place in the countries of western and northern Europe – France (2.01), Ireland (1.94), Sweden (1.88) and the United Kingdom (1.81) (GUS, 2017, p. 8). The fertility rate in Poland in the years 2000–2014 presents Figure 1.

Since the year 2000, the fertility rate takes values from the range from 1.2 to 1.4, while the optimal value – described as beneficial for stable demographic development – is 2.10–2.15 (GUS, 2015, p. 5). The main causes of low fertility rate include, above all: changing attitudes and the system of values among young people, increasing the importance of women in the labour market, delaying the age of getting married, postponing the decision on parenthood and lengthening of the childbearing age of the first child.

Figure 1. The fertility rate in Poland in the years 2000–2014



Source: own elaboration based on GUS (2015), p. 22.

The longer the fertility stays at a low level, the lower chance of increasing its level. Three components affects that situation (GUS, 2014, p. 53):

- demographic – lower fertility means a smaller number of born children, which in turn leads to a decrease in the percentage of young people in the population; the consequence of this is increasing social benefits for older people, worsening the economic situation of young people and, as a result, low fertility,
- sociological – low fertility causes that there are more and more families with a small number of children; this leads to a change in the ideal family pattern in relation to the number of children and increasing future consumer aspirations (the decisive impact on economic aspirations are the conditions in which the individual was brought up – in smaller families they are usually better),
- economic – when economic aspirations increase and the possibility of meeting them decreases, some potential parents do not decide to bear the costs of having children or postpone them for a later date,

The new demographic situation also results from the prolongation of the average life expectancy of the human being resulting from the following factors (GUS, 2014, p. 79):

- decrease in the intensity of deaths due to: cardiovascular diseases in all age groups, cancers among people under 45 years old and among men aged 45–59, as well as external causes, such as: accidents, injuries, poisoning,

- uninterrupted – throughout the post-war period – decrease in infant mortality,
- positive changes in health-related behaviors of the population: changes in the way of eating to limit the consumption of unhealthy food and alcohol, increase in physical activity,
- increasing access to medical and care services, as well as improving the quality of these services,
- constant development of medical technologies,
- greater popularity of prophylactic examinations, such as mammography, cytology, blood sugar tests,
- favorable changes in the level of education – people with higher education are more aware of the need to care for their health, and thus live longer than less educated people,
- an increasing number of effective and safe drugs to stop or slow down the development of many diseases.

According to the predictions of GUS, the aging of the Polish society will systematically progress over the years. In the following years, a significant increase in the percentage of people aged over 65 is forecasted. By 2030, the share of people in the discussed age group will amount to 22.6%, while in 2050 – 29.7%. This means that Polish society will be one of the fastest ageing societies in the European Union (Russel, 2016, p. 2). Long-term forecasts show that by 2050 the percentage of people aged over 80 will also increase significantly. While in 2013 the share of people in the discussed age group accounted for less than 4% of the total population, in 2050 it will be 10.4% (GUS, 2014, p. 164). In 2050, with unchanged conditions of population extinction, men will live an average of 83 years, while women will live for 88.4 years (table 1).

Table 1. The average duration of human life in Poland in the years 2015–2050

Year	Men	Women	Year	Men	Women
2015	73.5	81.5	2035	79.1	85.6
2020	74.9	82.5	2040	80.3	86.5
2025	76.3	83.6	2045	81.6	87.4
2030	78.0	84.8	2050	83.0	88.4

Source: GUS (2014), p. 78.

The increasing access to medical and care services, as well as the improvement of the quality of these services, will therefore influence further systematic extension

of the population's life. Among European countries, Poland is a relatively "young" demographically, however, the aging process of the population has been observed for years. In 2013, the median age of Poles was 37.4 years for men and 40.9 for women, while in 1990 it was lower by 6.5 years for men and 7.2 years for women (30.9 and 33.7 years, respectively). The way to deal with the problem of an aging population is, on the one hand, to pursue a pro-family policy with a widely developed system to help families, especially large families, on the other hand progress in medicine and ensuring equal access of all citizens to comprehensive, modern medical care in the field of diagnosis, treatment and rehabilitation (GUS, 2014, p. 81).

## **2. The economic consequences of aging of the Polish society**

The existing demographic trends are reflected in the change in the size and structure of the labour force, which are one of the main factors of economic growth. On the one hand, as a result of the low birth rate, the number of people creating the labour force decreases, and on the other hand, due to the prolongation of life and the decrease in mortality, the dynamics of aging of the workforce increases. These phenomena carry significant economic consequences. The decline in the number of young people entering the labour market implies a decrease in the workforce, which may lower the GDP growth rate. On the other hand, aging labour resources are less susceptible to adaptation to rapidly changing conditions on the labour market. There is a negative correlation between the employees' age and their mobility and flexibility (Niewiadomska, 2013, p. 103).

The demographic situation also affects the level of social savings. There is a close relationship between the demographic structure in a given country and savings. Generally, for a population with a dominance of working-age population, a high degree of saving is characteristic, and the aging process of the population leads to a gradual decrease in savings. As specific reasons, the so-called age effect (different decisions at different ages), time (changes in the structure of assets under the influence of their varied profitability) and the cohort effect (resulting from a rapid change in household functioning caused by external causes).

The vast majority of seniors is a group of low-income consumers, so they are inclined to actively manage them on the market to a limited extent, and they also have a conservative approach to consumption because their habits are too strongly grounded. With age, human needs and consumption behaviors evolve, which certain-

ly entails changes in the structure of demand. Older consumers are not susceptible to adverts, they make decisions too slow, which means that they are time-consuming clients. A low level of income is usually associated with low demand for some goods or services, which ultimately is not indifferent to the dynamics of production. At the same time, it should be emphasized that on the part of the more affluent seniors the demand for luxury services increases, mainly in the health industry (such as plastic surgery, new generation cosmetics), automotive, tourism or catering branch (Szopa, 2016, pp. 30–31).

### 3. The consequences of demographic changes for the pension system

The changes that occur in the structure of the population's age cause that the number of people receiving retirement benefits increases, while the number of people paying contributions decreases. Demographic burden by population at post-working age will increase from 28 people in 2013 to 52 in 2050 – table 2.

Table 2. Age dependency ratios\* in 2013–2050  
(according to the Pension Act in force since 1.1.2013)

Demographic burden by population at age	2013	2014	2015	2020	2025	2030	2035	2040	2045	2050
Non-working	57	57	57	60	63	63	62	62	69	78
Pre-working	29	28	28	28	28	26	25	24	25	26
Post-working	28	29	29	32	35	37	37	38	44	52

\* Age dependency ratio is the ratio of the number of people in non-working age to the number of people in working age. As a non-working age most commonly is defined as the age 0–17 (pre-working age) and 60 years and more for females and 65 years and more for males (post-working age); working age refers to 18–59/64 years (18–59 – for females and 18–64 – for males).

Source: GUS (2014), p. 150.

What's more, extending the average life expectancy of a person means a longer period of receiving retirement benefits. Pension systems based on intergenerational solidarity, with declining contributory income and rising pension expenditure, will not be able to guarantee adequate pensions.

The aging of the population is a significant threat to the stability of the pension system and the guarantee of payment of future retirement benefits. Nowadays

in Poland, the balance of the Social Insurance Fund from which pensions are paid out is negative, and subsidies from the state budget guaranteeing the continuity of payment of benefits exceed PLN 50 billion (Szczepański, 2016, p. 744). In order not to lower the pensions paid and not to increase debt, many countries decide to increase the retirement age. Decisions on raising the retirement age are met with resistance from the public, but according to economists, this is the only way to preserve the financial stability of the pension system.

Population forecasts indicate that the phenomenon of aging will be deepening. This will further increase the demographic load of professionally active people. Such a dependence means that two solutions would be necessary to maintain a balanced pension system based on the principle of pay-as-you-go: the first is to increase pension contributions, the second to lower the amount of benefits (Jurek, 2012, p. 102). None of these solutions is a suitable method to maintain a stable pension system, therefore in the future, thorough and radical transformations of the entire pension system will be necessary. The main directions of activities in the field of adaptation of pension systems to the new demographic situation were set in February 2012 by the European Commission in *The White Paper: An Agenda for Adequate, Safe and Sustainable Pensions* (European Commission, 2012, p. 9). The most important goals of pension system reforms include: linking retirement age to a further average life expectancy, reducing early retirement, equalizing the retirement age of women and men, and developing voluntary pension schemes. From the point of view of achieving the goals set out in the White Paper, the most effective instrument should be the professional activation of people in pre-retirement age, supported by a reliable educational campaign on demographic trends and their economic effects (Bielawska, 2014, p. 113). These actions should affect the higher adequacy of benefits for the insured and the financial stability of the pension system.

## Conclusions

Most developed world countries have accepted the chronological age of 65 years as a definition of old person. There are many phenomena, usually accompanying old age, such as deterioration of health and physical fitness, communication difficulties, decreasing adaptability, reduction of social bonds or change of social roles.

The unfavorable demographic trends in Poland for over a dozen years include the decline in the number of births and the extension of the average life expectancy. The extension of life expectancy is the consequence of limitation of consumption of

unhealthy food and alcohol, increase in physical activity, greater access to medical services, as well as the improvement of the quality of these services and the greater universality of preventive examinations.

The ageing of the population, the costs of supporting the elderly and the way pension plans are financed have an important impact on the performance of the economy, as they influence saving behaviour, labour force behavior, technological progress and productivity. The ageing of the population tends to reduce labour supply, as labour force participation among the elderly is lower than among youngsters. One cause of lower participation is an increased willingness to retire on grounds of health, worsening labour market opportunities for the less skilled elderly and higher valuation of leisure time (Kuné, 2009, pp. 232–233).

In the future, negative demographic trends will exert significant changes in the production, consumption, savings and investment models, as well as the condition of the labour market, types of services provided and budget expenditure. Aging of the population will lead to a drop in GDP *per capita*, investments and will increase budget expenses for purposes related to financing benefits for a large post-working age population. A low employment rate of older people leads to lower productivity of the society, lower tax revenues and a smaller number of people paying premiums for health and social insurance.

In societies, which are affected by the phenomenon of demographic aging, the spirit of entrepreneurship and tendency to risk disappear, and they are replaced by a new feeling: a desire for security (Jurek, 2012, p. 65). The aging of the society in the long run may pose a real threat not only to the domestic labour market, but also to the economy. Stiffening of labour supply and lack of professional flexibility, promotion of conservative attitudes of employees, as well as lack of acceptance of changes may affect the slowdown in economic growth and the limitation of development of new techniques and technologies (Gubernat, 2011, pp. 51–52).

The aging process of the world's population, including the Polish one, is inevitable and irreversible, determined by many elements and causing various consequences. They are not limited to the need to adapt social policy to the requirements of an aging society, but more often require modification of the development strategies of entire countries and regions, in which the number of older people can be dominant compared to young and active ones. First of all, they force changes in social security systems, including retirement, health care, in the consumption model and in social relations. The programs or specific strategies prepared in many countries in response to the effects of the aging process can be divided into three (Szopa, 2016, p. 36):

- one-sided adjustment – based on the projection of the needs of an aging society and their inclusion in activities, but with minor adjustments in the principles of intergenerational division of labour and income,
- comprehensive adjustments – boiling down to preparing the society for its longer duration through appropriate education policies, using redistribution to sustain intergenerational solidarity,
- active preventive actions – aimed at changing the demographic structure of the population through procreative and immigration policies.

Aging of the society results in increased spending and reduced income to the pension system. A decreasing number of employed people are financing pensions for a constantly increasing number of beneficiaries. This means that the amount of funds available to the Social Insurance Fund is decreasing, which makes it necessary to subsidize from the state budget. This burden may pose a threat to the sustainability of public finances and, above all, to the sustainability of pension systems.

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## KONSEKWENCJE STARZENIA SIĘ SPOŁECZEŃSTWA W POLSCE

### Streszczenie

Celem artykułu jest przedstawienie zjawiska starzenia się społeczeństwa polskiego oraz omówienie jego konsekwencji dla gospodarki oraz systemu emerytalnego. W artykule opisano proces starzenia się społeczeństwa polskiego, będącego wynikiem spadku dzietności oraz wydłużania średniej długości życia. Co więcej, przedstawiono ekonomiczne skutki starzenia się społeczeństwa polskiego. Uzupełnieniem artykułu jest przedstawienie skutków przemian demograficznych dla systemu emerytalnego.

**Słowa kluczowe:** przemiany demograficzne, starzenie się społeczeństwa, system emerytalny  
**Kod JEL:** J1