

THE ECONOMIC CONSEQUENCES OF AGEING SOCIETY IN POLAND

Katarzyna Bałandynowicz-Panfil*

ABSTRACT

This paper investigates the relationship between demographic change and economic growth and confirms that the process of society ageing effects the economy. The impact is transmitted through social security, healthcare and, the most important, labour market. Ageing society results in the growing number of older workers and older customers. There is a strong need to adapt products, services and procedures to the new expectancies of this older society. Nevertheless, the mentioned challenges should be treated more as a threat for public finances. In Poland, the process of ageing society is running. Combined with economic transition, which is not finished yet, it is becoming one of the major barriers in Polish way to achieve global competitiveness. There are several examples of political decisions, which indicate the growing concerns of this demographic change. However, there is much more to be done in that matter, and new channels must be created in order to solve this problem.

Keywords: *Demographic Change, Ageing Society, Economics of the Elderly, Public Finances, Retirement Policies, Labour Force, Employment*

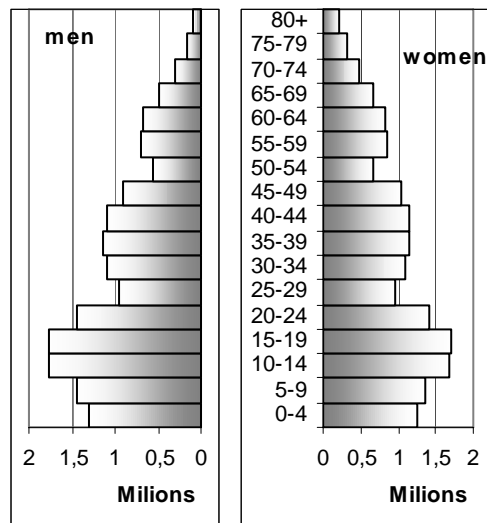
THE ECONOMIC CONSEQUENCES OF AGEING SOCIETY IN POLAND

DEMOGRAPHIC BACKGROUND

Population in Poland is ageing. This process is not new and unexpected. However, solutions are created a little bit too late. That is why, there is a need to consolidate and integrate decisions to achieve sooner and more spectacular results. The process of society ageing in Poland is quite specific. Figure 1 illustrates its dynamic, prolonged and wavy shape, which was caused by two baby-booms (in mid fifties, and in late seventies and early eighties).

* University of Gdańsk, Institute of International Business, Sopot, Poland, E-mail: balandynowiczka@wp.pl

(a) Year 1970



(b) Year 2006

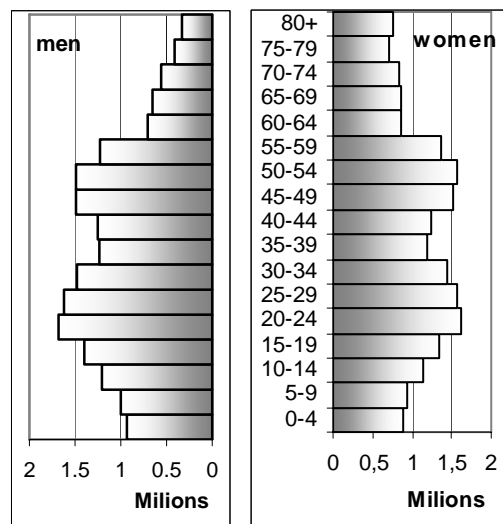


Figure 1: Age Pyramids for Poland Population in 1970, 2006 and 2050

Source: Author's calculation based on: ("World Population Prospects," 2004; Eurostat, 2006)

The Economic Consequences of Ageing Society in Poland

(c) Year 2050

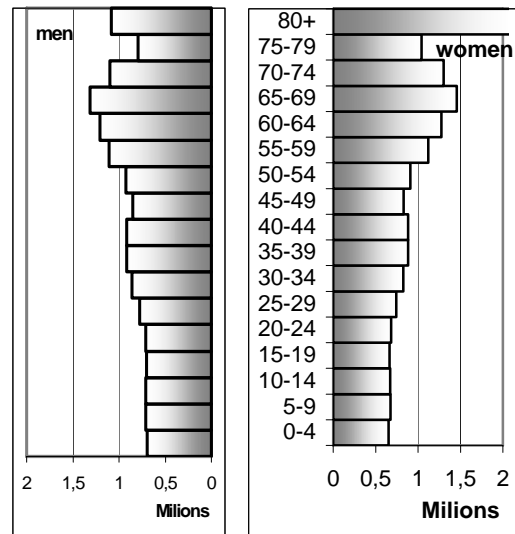


Figure 1: Age Pyramids for Poland Population in 1970, 2006 and 2050 (Cont'n)

Source: Author's calculation based on: ("World Population Prospects," 2004; Eurostat, 2006)

The first baby-boom was the consequence of after-war feelings of stability and safety. It could be recognized on the Figure 1(a) as the lowest and the biggest wave of a strong increase in teenage population. Analysing the 2006 year age pyramid, the first baby-boom is going older, and has become the part of working age population 50+. In a few years they will become pensioners. The second wave was a result of fertility of the first baby-boomers. Those people are now a young cohort of working-age population and they, because of their unemployment, are one of the major problems of labour market in Poland. However, there are no signs of third wave, and baby-boomers create growing share of elderly population. Changes in age cohorts determine the future of educational and pension systems, especially through the size and structure of labour supply.

ECONOMIC IMPACT OF DEMOGRAPHIC CHANGE

According to given formula¹, the dependency ratio can be described as a ratio between: the sum of a number of people pre-working and post-working age, and the working-age population.

$$I_{dr} = [(p_{0-14} + p_{60+F, 65+M}) / p_{15-59F, 15-64M}] \times 100$$

The dependency ratio shows how many people in non-working age fall on one representative of working-age group. When a demographic transition occurs the index numerically changes. Another variant of this index shows the impact of ageing society only by comprising the elderly population with that in working-age (see Table 1). Till 2050 the share of the elderly population will increase two times to almost 10 million people. Moreover, 25% of them will be 80 years old and more (Central Statistical Office, 2007).

The factor which speeds up the dynamics of ageing process is the decline of the total population number. In 2006 Polish society amounted to 38 millions, however the 12% decline in this number is expected by the year 2050, to the level 33.7 millions. The estimation is comparable with EU10 countries (but much higher than the average for EU25). The main reason of Polish population decline is the decrease in fertility rate, which is well below the natural replacement rate of 2.1 children per woman. The Polish fertility rate is considered to be between 1 and 1.3, which is also a lower number than the rate for EU25 (i.e. 1.5) (Carone et al., 2005; Central Statistical Office, 2007). Consequently, countries with decreasing percentage of working-age people, experience the increasing share of the oldest group in the society altogether.

The economic impact of demographic change has been highly investigated. Several researches confirmed the thesis that quantity, age and sex balance of population influence the economy. In 2004 the International Monetary Fund announced results of panel data research covering 115 countries in period 1960-2000. The results of the relationship between demographic change, share of working-age population, elderly population and basic economic indicators are displayed in Table 2.

¹ Where: I_{dr} – dependency ratio index, p_{0-14} - population aged 0-14 (young population), $p_{15-59F, 15-64M}$ - women age 15-59 and men 15-64 (working-age population), $p_{60+F, 65+M}$ - women age 60+ and men 65+ (elderly population). In Poland dependency ratio index is more complicated because of the difference between retirement age of man (65 years old) and woman (60 years old).

The Economic Consequences of Ageing Society in Poland

Table 1: Main Demographic Assumptions for Poland

Year	2005	2010	2020	2030	2050
Population (million)	38.1	37.8	37.1	36.5	33.7
Share of the young population (% of total)	16.7	14.7	14.5	14.2	13.0
Share of the working-age population (% of total)	70.2	71.8	67.3	63.3	57.6
Share of the elderly population (% of total)	13.1	13.5	18.2	22.6	29.4
Share of the very old (80+) population	2.5	3.2	4.2	5.4	8.8
Dependency ratio	42.5	39.3	48.6	58.0	73.5
Old age dependency ratio	18.7	18.8	27.1	35.7	51.0

Source: Based on: ("The Impact of Ageing,", 2006)

Ageing process, as it was mentioned before, changes relative shares of young, working-age and elderly people in population. Table 2 shows that impact of demographic change on the economy is distinctly one-way correlated. It is closely connected with elderly dependency ratios. Ageing society leads to an increase of the population average age, in the same time however it leads to a decline in the share of the working-age population, as a consequence of low fertility rate. As a result the economy experiences slower GDP growth per capita, and lower saving and investment ratios.

The impact can be described through the relationship between a demographic change and private savings. This behaviour is generally explained by life-cycle model. According to this paradigm, people try to smooth their lifetime consumption path, which is highly connected with saving and dissaving process during life income periods. People save more when the income is high and spend accumulated money when income is insufficient. Process of ageing society means that the share of the elderly is increasing. In this perspective, there are relatively fewer people in a working-age period, which are expected to accumulate savings. As a consequence of savings and investments changes in life income periods, a negative impact on the rate of GDP growth can be

Katarzyna Bałandynowicz-Panfil

expected (Mc Morrow & Roeger, 1999). Economic growth in Poland is estimated to slow down over the coming decades. During 2004-2010 period it is expected to achieve 4.6%, but in 2011-2030 it will fall to the level of 3.2% and at last in 2031-2050 period the growth rate will achieve only 0.9%. Ageing society and projected slow down of labour productivity growth are main reasons of decline of GDP growth ("The Long-Term Sustainability," 2006).

Table 2: Economic Impact of Demographic Change

Indicators: / Impact of:	Share of working-age population (15-64 years old)	Share of elderly population (65 years and more)
Growth in real GDP per capita Through the productivity of labour force (investment in human capital), saving and investment channel.	Positively correlated	Negatively correlated
Saving/GDP According to the life-cycle hypothesis of saving, people try to stabilize their level of consumption through a lifetime. Relatively higher incomes create higher savings for future.	Positively correlated	Negatively correlated
Investment/GDP Through the impact of savings amount on the level on investments.	Positively correlated	Negatively correlated
Current Account/GDP There is no obvious channel, however the results show the statistical significant correlation between savings, investments and current account balance.	Positively correlated	Negatively correlated
Budget Balance/GDP Through government budget, expenditures on pension, health care, long-term residential care and tax revenues.	Positively correlated	Negatively correlated

Source: Based on ("World Economic Outlook," 2004)

The Economic Consequences of Ageing Society in Poland

BUDGETARY CONSEQUENCES OF AGEING SOCIETY

In Poland, the most important problem, which stands in the way of economic growth is increased burdens in government budget. There are several sources of this accelerated public expenditures problem: costs of pensions, health care and social protection. Negative impact of demographic change on public finances is enhanced by unsuccessful reforms of the fields mentioned above. The current condition of medical, social and pension systems are briefly presented below.

The elderly population spend more on medical care than younger groups, because of higher needs in later years in terms of ambulatory, treatment and long-term chronic care. To solve this problem, there are two main approaches adopted: imposing global budget constraints on health spending, or altering producers and users of medical care incentives ("World Economic Outlook," 2004). In Poland the first solution is mostly adapted, in which, the state is the main health care provider and regulations contain health care and drugs refunding procedures.

The Polish Health Care System is not optimal. Reforms, initiated parallel to those in the national economy in 1989, were focused on establishing a regulated market for public medical services. In 1999 general health insurance act was enforced, which brought a new insurance-budgetary model of health care funding. The Health Insurance Organizations (HIO), compounded from non-profit bodies, were established to ensure services in case of sickness, child-birth, confinement, prevention and etc. Medical service providers were contracted to secure this issue. Notwithstanding, this solution was not optimal too, especially because of a difference in the number and quality of services in particular regions of the country. In 2003, new reforms introduced National Health Fund (NHF), which replaced HIO. One of their major tasks was to clarify the protection system by developing principles of contracting and pricing for each health service. New rules' intention was to attenuate unjustified differences. However, implemented solutions were not standing in accordance with the Polish Constitution and improvements were necessary.

There are three main sources of finance to secure health services. The state and self-governments' budgets are being used very rarely, only in specific cases like: covering the costs of health services for not insured persons, or necessity of treatment, diagnosis abroad and health protection abroad. The major part is financed by NHF from contributions paid by insured persons. NHF finances typical medical care and hospitality (Ministry of Health, 2007).

In experience of almost every transition economy health care system is not founded enough. The consequences are the insufficient number of hospitality places, long period of waiting on the specialists or a lot of unsolved problems with civilization diseases (Bloom, Canning & Sevilla, 2001). The contracting system of health prevention services has

Katarzyna Bałandynowicz-Panfil

several disadvantages. Contracts between NHF and medical care institutions are signed once a year. However, the scarce level of funding, which is not comparable with financing needs, leads to the conflicts between institutions and extends the contracting process. As a result, the sufficient number of medical services is not ensured.

SPECIFIC ROLE OF PENSION SYSTEM

In the perspective of ageing society, the pension system is the most important factor of public budget deterioration. The *pay-as-you-go* pension system solution has been in Poland for over 50 years in force. In that kind of system, the pension benefits are determined by the salary and number of working years. The biggest disadvantage of this system is that current pensions of retired are financed from current revenues of workers. Because of the increase of ageing societies' dependency ratios, the balance between benefits and payments cannot be achieved. The decreasing number of working-age people and the increasing share of elderly population with longer life expectancy alongside, create fiscal problems. There are several possibilities to solve them. The conventional one includes raising payroll taxes to finance pensions. This solution has been adopted by advanced countries, however in the future ageing society will demand even higher taxes, thus reducing consumption and that is why it could be difficult to continue this direction. Because of that new solutions were initiated e.g.: pension privatisation, individual accounts pension schemes, increasing the official retirement age, pension indexation along with consumer prices and not with wages and salaries, reducing pension benefits or the impact of the factors encouraging to pension ("World Economic Outlook," 2004).

Over time, the pension system in Poland has evolved. The newest changes brought Act on pensions and disability pensions paid from the Social Insurance Fund (Journal of Laws, 1998) which came into force on 1 January 1999. The basic rule of the established new regime is that the future pensioners would receive pensions from two or more financial sources, i.e. from the Social Insurance Institution (SII) and from open pension funds (OPF). New system consists of an old national *pay-as-you-go* scheme and private funded defined contribution scheme. The old pension system secured pension benefits only from the SII and no one was allowed for any other kind of insurance. The rules for granting pension benefits depend on the date of birth of insured person. It is closely connected with demographic changes and poor finance condition of the SII (see Table 3).

The oldest part of workforce, who could not collect adequate part of their pensions till their retirement age, receives their contribution from the Social Insurance Institution. Those who were born after 1968 have an obligation to join the one of the open pension funds. Persons born between 1949 and 1969 had to choose whether they wanted to join to

The Economic Consequences of Ageing Society in Poland

the new system or stay in the old one. Obviously the choice depended on income and age of the person.

Table 3: New Pension System Rules

Date of birth: System:	Before 1 January 1949	Between 1 January 1949 and 1 January 1969	After 31 December 1968
Old system (only SII)	√	C H O I C E	
New system (SII + OPF)			√

The insured person and the employer pay equal parts of the contribution (19.52% of base of contribution rates). One third of the total contribution is transferred by the SII to an OPF (Whitehouse, 2007; Ministry of Labour and Social Policy, 2007). Nowadays the minimum pension is PLN 597.46 per month (Social Insurance Institution, 2007), that is about 12% higher than five years ago (Whitehouse, 2007).

Nowadays, there is a strong debate about future of the new pension scheme, because it is not clear, what kind of institutions will be responsible for doing payments to the retired. First pensions from commercial funds should be recumulated in 2009. There are several options of payments. One, advocated by Minister of Labour and Social Policy, suggests that payments should be done by new Pension Institution, which could be a part of SII. Advantages of this solution are connected with lower costs of creating new institutions and reduction of marketing costs of commercial competitiveness. Furthermore, this proposal could be relatively easy to prepare and would guarantee greater safety for pensioners. However there are more voices concerned about the monopoly of this part of a pension system. Since a new scheme was created to diversify and give insured person a possibility to choose the fund, it should be also continued in a recumulation stage. The pensions could be paid by lifetime insurance institutions, especially in the first period of payments, when a small number of pensioners would not encourage commercial organisations. World Bank, Polish Financial

Katarzyna Bałandynowicz-Panfil

Supervision Authority and Ministry of Finance do recommend this proposal. Recently, Ministry of Labour and Social Policy have decided that pension benefits would be paid both by commercial institutions and SII to give pensioners their right to choose, but it is still unconfirmed information.

Next challenge is the age of entitlement to the pension, which in Poland is comparable with other European countries: for woman it is 60 years and for man it is 65. Effective age of retirement is even more important for public finance system and the level of participation rates than official one. In Poland it remains well below the entitled levels, where man workers withdraw from the labour market about four years earlier and woman - about two years. That places Poland in a group of countries with the lowest effective age of retirement, especially for women ("Live Longer," 2006). There are several reasons for this situation. Firstly, some employee groups are entitled to receive an earlier pension. Those are: women in age 55 and men in age 60 in special demands according contributory and non-contributory periods and persons, who have documented work under special conditions for specified number of worked years or work of special nature² (Ministry of Labour and Social Policy, 2007).

Earlier retirement comes along with shorter contribution time and increased longevity. It leads to the considerable increase in the number of years that workers are expected to spend on retirement. In Poland men are expected to live more than sixteen years after withdrawal from the labour market, which is shorter than average in OECD countries (18 years). For women those projections are higher. They can live almost 24 years on their retirement (average OECD – 22.5 years) ("Live Longer," 2006). Because of life expectancy rising in future, this problem is going to foster. That is why, there are many suggestions of rethinking the retirement age and the structure of pension system. To help reduce negative economic consequences of ageing, the individual accounts should be combined with increasing savings or productivity. In the other case the pension system will stay unbalanced ("World Economic Outlook," 2004).

In Poland according to projections the age-related spending³ will fall by 6.7% points of GDP between 2004 and 2050. The main reason lies in lowering public expenditure on pensions by almost 6% of GDP in this period. It is a result of the pension reform described above and it copes with ageing society problems. On the other hand, an increase in expenditure on health care (1.4% of GDP) and long-term care (only 0.1% points of GDP) are projected. The latter number is the smallest

² Earlier retirement is possible also only for those pensioners who were born before 1 January 1969.

³ This group includes expenditures on pensions, health care, long-term care, education and unemployment benefits.

The Economic Consequences of Ageing Society in Poland

among the EU countries. Achieving balanced state budget would enable to cope with the pension costs. Taking into considerations current budgetary position and the projected changes in age-related costs, Poland is classified as a low-risk country ("The Long-Term Sustainability," 2006).

RECOMMENDATIONS

Several research sources emphasize that if countries, both advanced or developing ones, want to respond to demographic changes they need to boost labour supply, savings and productivity. One example of that are five core policy directions of Commission of the European Communities (Table 4).

The most important policy directions in all European Union Member States which take the demographic change as an opportunity are mentioned above. The special interest is putting on absorbing negative consequences of decline in the labour supply. That is why there is a strong need to increase the participation rate in employment. Not only it is important to create better environment to improve the productivity and competitiveness of national economies, but also to put forward budgetary consolidation by increasing tax revenues. It is a matter of great importance, especially when some projections are taken into account. According to DG ECFIN⁴ calculations the growth rate in Poland will decrease to less 1% a year in 2050 as a consequence of decrease in productivity growth and negative employment growth (Carone et al., 2005).

The share of the working-age population can be constant in ageing societies by raising the retirement age, immigration or increase in fertility. However, a better solution is probably to increase participation rates, particularly among women and older people. There are a few recommendations to improve labour market's flexibility, better education and training to absorb working-age population into workforce. An important policy change in this area should be creating more job opportunities for older workers. It could be achieved by promoting this group of a workforce as highly productive and by reducing stereotypes about them, since they are considered as much more costly than the younger employees.

⁴ The Directorate General for Economic and Financial Affairs.

Table 4: Directions of Response to the Demographic Changes in EU

Policy directions	Short description
Promoting demographic renewal in Europe	Helping people in balancing their private, family and working live. It can be achieved by reduced inequality, universal access to assistance services for parents and flexible working hours. It should encourage people to have as many children as they want.
Promoting employment in Europe: more jobs and longer working lives of better quality	Increasing the rate of employment, especially among people aged 55+, reducing the segmentation of the labour markets and implementation of "flexicurity" guidelines (flexibility of labour markets, lifelong learning, active labour market and social security policies). "Active ageing" need a range of additional tools like more flexible retirement schemes or improving public health care services.
A more productive and dynamic Europe	To improve the productivity of all ages Europeans at work there is a need to bring structural reforms through deepening the internal market, implementing competition rules, prioritising the quality of regulation and social cohesion policy. Respond to the needs of an older customer by creating new markets for goods and services.
Receiving and integrating immigrants in Europe	Net immigration into Europe will continue. National policies should create optimal condition for legal immigration, particularly for work purposes in order to satisfy requirements of the labour markets and transition towards full freedom of movement for work force within EU.
Sustainable public finances in Europe: guaranteeing adequate social security and equity between the generation	The budgetary consolidation can be achieved by several complementary tools, e.g. pension reforms, increasing participation rate in employment, development of private savings and capital (to increase an autonomy in determining the level of retirement-age income).

Source: Based on: ("The Demographic Future in Europe," 2006)

Nowadays, negative economic consequences of ageing society are highly investigated. The main areas of interests are macroeconomic indicators, public finances, productivity and the condition of labour market. However, there is too little attention given to positive economic implications of increased share of elderly in population, their contribution

The Economic Consequences of Ageing Society in Poland

to society and economic growth. Older people are important group of societies presently. They are customers, social security clients and voters. One of the major tasks is encouraging companies to incorporate needs of the new clients group into their innovation strategies. A special concern should be put on new technologies, transport, financial services and tourism offers.

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Katarzyna Bałandynowicz-Panfil

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