Socio-Economic Effects of the Demographic Ageing in Poland

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The purpose of this paper is the presentation of the influence of the demographic ageing on the social and economic situation in Poland during recent years, and some long-term prediction of changes at this area.
The paper consists of the following sections:

- demographic characteristics of the population
- the population structure and economic activity
- social insurance system and its effects on the state budget
- impact of the demographic ageing on the economic growth
- instruments of government policy and perspectives of social and economic development
Vital statistics in 1990-2006

Live births  Total deaths

1990  550
1995  450
1996  400
1997  350
1998  300
1999  250
2000  200
2001  150
2002  100
2003  50
2004  50
2005  50
2006  50
• The birth fertility in Poland in 2005 was (1.25 children per the woman in the fertility age) the lowest among The European Union, but fortunately now is increasing (in 2006 was equal 1.267).

• We can also observed the change of the most fertility period, which is now located between 25 -29 years, while before was located between 20 – 24 years old and even before 20 years old.

• The median of the women age – giving the first birth was 22.8 in 1995, and increased to 25.7 in 2005.

• The last two years were characterized by increasing number of births, as the results of the great births number in1981-1982 period and achieving now the high fertility age.
Expectation of life (life expectancy at age 0)
• The life expectancy at age 0 was 67.6 for males and 76.4 for females, in 1995, and increase to 70.9 and 79.6 in 2006 respectively, as the results of decreasing infant deaths, better living conditions and health care.

• Also the life expectancy for women and men 60 years old is still growing and now is equal 22.84 for women and 17.65 for men.
### Pre-working, working and non-working age population (as of 31.XII)

<table>
<thead>
<tr>
<th>Specification</th>
<th>Years</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in thousand</td>
<td>in percent</td>
</tr>
<tr>
<td>Population in age</td>
<td>38031</td>
<td>38256</td>
</tr>
<tr>
<td>pre-working</td>
<td>11125</td>
<td>9488</td>
</tr>
<tr>
<td>working</td>
<td>22064</td>
<td>23149</td>
</tr>
<tr>
<td>of which of mobility age</td>
<td>15238</td>
<td>15224</td>
</tr>
<tr>
<td>of which of non-mobility age</td>
<td>6826</td>
<td>7925</td>
</tr>
<tr>
<td>post-working</td>
<td>4841</td>
<td>5619</td>
</tr>
</tbody>
</table>
We can observed the decreasing tendency of children and youth shares, increasing tendency of old people share, and slowly increasing share of the active age group, as the result of high birth rate in the beginning of 80-ties. The demographic ageing process will be much stronger in the future, especially after 2030 year.
Age structure of population in %

- Pre-working (0-17 years)
- Working (18-59/64 years)
- Post-working (60/65 years and more)
Population aged 0-14 and 65 and more
• It is worth to stress, that number of working-age people is not equal the number of working. The rate of unemployment, number of students, and job emigration must be taken into account. So, from the point of view of funds which are inflowing to the social security system, from the economic activity persons is crucial.

• The unemployment rate was very high in Poland at the beginning of XXI century, and now (since 2006) is decreasing - not only that Polish economy is in the cycle of growth and new working places are created – but also due to the tremendous job emigration.
Unemployment rate and activity coefficient
• The structure of unemployment is also very important. As the result of inflow exceed in number cohorts of population in active age, we can observed the increasing share of young people in total unemployment, and also increasing share of people 45 and more years old. In 2005 the share of persons 45 and more years old was twice more than in 1995 and share of women increased from 11.1 to 25.1 in total unemployment.

• The high rate of unemployment among young people is one of the reasons of job emigration, while the great difference between wages in Poland and old EU countries is the second. The unemployment concerning population 45 and more age old, especially elder women is usually long-term unemployment, because of low demand for that labor offers.
The number of emigrants

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Europe</th>
<th>UE(25)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Number of emigrants and unemployment rate

- Number of emigrants:
  - 2002: 786
  - 2004: 1000
  - 2005: 1450
  - 2006: 1950

- Unemployment rate (w%):
  - 2002: 20
  - 2004: 19.1
  - 2005: 17.6
  - 2006: 14.9
The rent and pensions system in Poland is mainly “pay as you go”, which after the reform provided in 1998 includes also part from the capital system. It is obvious, that “pay as you go” system is very sensitive to the demographic factors and unemployment rate, because the revenues of the system consist from the contributions paid by workers, entrepreneurs and institutions to the system. If the number of workers is relatively - to the retired persons - small, the state budget must adds the rest. Sometimes it creates the conflict between generations, because young generations should pay too much to the system providing the retirement pay and pensions. Additionally, in Poland the pensions and rents of farmers are funded mostly from state budget.
Average number of retirees and pensioners receiving retirement pay and pensions (in thous.)

![Graph showing the average number of retirees and pensioners receiving retirement pay and pensions from non-agricultural social security system and farmers from 1990 to 2006.](image-url)
The revenues of the social insurance fund

<table>
<thead>
<tr>
<th>Year</th>
<th>Contributions</th>
<th>Allocations from the State Budget</th>
<th>Other Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>83,78</td>
<td>14,27</td>
<td>1,94</td>
</tr>
<tr>
<td>2000</td>
<td>78,28</td>
<td>18,19</td>
<td>2,68</td>
</tr>
<tr>
<td>2001</td>
<td>75,00</td>
<td>22,32</td>
<td>2,06</td>
</tr>
<tr>
<td>2002</td>
<td>70,68</td>
<td>27,26</td>
<td>1,83</td>
</tr>
<tr>
<td>2003</td>
<td>70,56</td>
<td>27,62</td>
<td>1,83</td>
</tr>
<tr>
<td>2004</td>
<td>68,14</td>
<td>20,90</td>
<td>10,95</td>
</tr>
<tr>
<td>2005</td>
<td>69,90</td>
<td>17,86</td>
<td>12,24</td>
</tr>
<tr>
<td>2006</td>
<td>66,75</td>
<td>19,76</td>
<td>13,49</td>
</tr>
</tbody>
</table>
The revenues of the pension fund

<table>
<thead>
<tr>
<th>Year</th>
<th>Contributions</th>
<th>Allocations from the State Budget</th>
<th>Other Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>0.1</td>
<td>93.3</td>
<td>6.6</td>
</tr>
<tr>
<td>2000</td>
<td>1.0</td>
<td>93.7</td>
<td>5.2</td>
</tr>
<tr>
<td>2001</td>
<td>0.5</td>
<td>94.0</td>
<td>5.6</td>
</tr>
<tr>
<td>2002</td>
<td>0.3</td>
<td>93.8</td>
<td>5.9</td>
</tr>
<tr>
<td>2003</td>
<td>0.3</td>
<td>93.2</td>
<td>6.4</td>
</tr>
<tr>
<td>2004</td>
<td>0.4</td>
<td>92.8</td>
<td>6.8</td>
</tr>
<tr>
<td>2005</td>
<td>0.6</td>
<td>92.6</td>
<td>6.8</td>
</tr>
<tr>
<td>2006</td>
<td>0.4</td>
<td>92.2</td>
<td>7.5</td>
</tr>
</tbody>
</table>
• It is obvious also that the elderly people are the beneficiaries of the health care in greater degree than other groups of adults.

• The public expenditures on the health care grew from 33092.5 mln zlotych in 2004 to 39501.1 in 2005, while private expenditure grew from 17663.2 mln zlotych to 18015.1.

• The total expenditures on the health care and another – connected with health care were equal 94482.2 mln zlotych in 2004 and 99065, 3 in 2005, what represents 10,1 % of GDP.
• There is a significant difference between the expenditures on the health care between the households of retirees and pensioners and another type of households.

• The average monthly expenditure per person in the households total on outpatient health care, in the last quarter of 2006 was equal 40.45 zlotych, while after excluding the households of retirees and pensioners was 29.92 zlotych.
• Still growing is the number of residents at stationary social welfare facilities for aged persons.
• In 1995 the ratio of such residents per 10 thousand population was equal 20, while in 2000 - 21.1; in 2005 – 24.5 and in 2006 - 24.8.
• The number of aged residents living at stationary facilities increased from 11500 in 1995 to 16673 in 2006.
• The decreasing cohorts of population in economic activity age means fewer contributions to the social insurance system, while the allocations from state budget to the social insurance fund and other social benefits funds are increasing, due to more numerous aged population.

• It induces the shortage of funds allocated from state budget on the education, science, infrastructure, environment, human capital what means the reduction of widely meaning investments. It can also lead up to the growing budget state debts. So, as the result - the growth of economy may be reduced in a great degree.
Expenditure structures of employees and retirees households

- Food and non-alcoholic beverages: 31%
- Alcoholic beverages, tobacco and narcotics: 23.4%
- Clothing and footwear: 7.4%
- Housing, water, electricity, gas and other fuels: 5.3%
- Furnishing household equipment: 5.1%
- Health: 4.5%
- Transport: 6.3%
- Communication: 19%
- Recreation and culture: 10.8%
- Education: 7.1%
- Miscellaneous goods and services: 6.7%
- Restaurants and hotels: 5%
- Miscellaneous goods and services: 10%
- Food and non-alcoholic beverages: 5%
- Alcoholic beverages, tobacco and narcotics: 15%
- Clothing and footwear: 20%
- Housing, water, electricity, gas and other fuels: 25%
- Furnishing household equipment: 30%
- Health: 35%
Share of elderly persons in population total and coefficient of dependency

in %

coefficient  working (18-59/64 years)