

THE POPULATION OF GREECE IN THE HORIZON 2050: MAIN FINDINGS

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ABSTRACT

- *Evolution of the resident population*

The reduction of the resident population during the next thirty five years is expected to be -regardless scenarios- constant, yet with differentiated per scenario /period decline rates. The total six created scenarios obviously lead to clearly differentiated results, both in terms of the number of expected permanent resident population and of its distribution by sex and age.

In particular, they give total populations:

- at the end of the next twenty years (2035) from 10.41 to 9.51 MM over 10.86 MM in 2015, namely reductions from 0.44 up to 1.4 MM at absolute rates (4.1 -12 , 4%).
- at the end of the projective period (2050) ranging from 10.0 and 8.3 MM over 10.86 MM in 2015, i.e. reductions at absolute rates from 0.8 up to 2.5 MM (7.3 to 23.4%).

In particular, the natural balances (births-deaths) in all scenarios /five-years are expected to be negative -though with large fluctuations- while, in four of the six scenarios, the net indirect migration (entries - exits) per five year periods is positive (though with significant fluctuations) and negative in two of the scenarios. As shown by the juxtaposed **Tables A and B**, the balances of migration are expected to play a significant role, as, in case of zero (or even worse, in case of negative signs) the expected population of our country will be both in 2035 and 2050 even smaller.

Table A: Population en 2035 /scenario

| Scenarios | Pop 1/1/2015 (.000) | Pop. 1/1/2035 (.000) with migration | Variation % 2015-2035 | Net migration 2015-35 (.000.) | Pop. 2035 (.000.) zero migration | Variation % 2015-35 zero migration |
|-----------|---------------------------|---|-------------------------------|--|--|---|
| | (1) | (2) | $3 = \frac{(1)-(2)}{1} * 100$ | (4) | (5) | $(6) = \frac{(1) - (5)}{(1)} * 100$ |
| 1 | 10858,0 | 10128,1 | -6,72 | 168,92 | 9959,2 | -8,28 |
| 2 | | 10414,6 | -4,08 | 398,92 | 10015,7 | -7,76 |
| 3 | | 9514,5 | -12,37 | -78,33 | 9436,2 | -13,09 |
| 4 | | 9788,5 | -9,85 | 151,67 | 9636,8 | -11,25 |
| 5 | | 9523,2 | -12,29 | -78,33 | 94444,9 | -13,01 |
| 6 | | 9805,5 | -9,69 | 151,67 | 9653,8 | -11,09 |

Table B: Population 2050 /scenario

| Scenarios | Pop 1/1/2015 (.000) | Pop. 1/1/2050 (.000) with migration | Variation % 2015-2050 | Net migration 2015-50 (.000.) | Pop. 2050 (.000.) without migration | Variation % 2015-50 without migration |
|-----------|---------------------------|---|-------------------------------|--|--|--|
| | (1) | (2) | $3 = \frac{(1)-(2)}{1} * 100$ | (4) | (5) | $(6) = \frac{(1) - (5)}{(1)} * 100$ |
| 1 | 10858,0 | 9526,4 | -12,26 | 358,3 | 9168,0 | -15,56 |
| 2 | | 10063,9 | -7,31 | 758,3 | 9305,6 | -14,29 |
| 3 | | 8315,1 | -23,42 | -18,3 | 8296,8 | -23,58 |
| 4 | | 8819,8 | -18,77 | 381,7 | 8438,2 | -22,29 |
| 5 | | 8542,4 | -21,33 | -18,3 | 8524,1 | -21,49 |
| 6 | | 9105,6 | -16,14 | 381,7 | 8723,9 | -19,65 |

Per scenario, in addition to the differences at absolute rates of the total population, significant changes are expected in its age structure. Specifically, depending on the scenario, the mean age of 43.45 years in 2015 is expected to increase from 3.7 up to 5.5 years in 2050, and the median from 43.95 years in 2015 to 3.7 and 5.7 years (and, respectively, between 2015 and 2035, the mean age from 4.5 to 3.6 years, and the median from 5.5 to 7.1 years). These per scenario differences obviously result from the differences occurring in large age groups (0-14 / 15-64 / 65 + years).

So (Table C):

- In 2035 the proportion of > 65 years and > 85 years of the total population (20.9 and 2.8% in 2015) is expected to range from 27.9% -27.2% for the former and 4.1% - 4.5% for the latter, while the percentage of young people (0-14 years and 0-18 years) from 11.0% to 12.4% for the former and 15.8% - 14.2% for the latter respectively, and
- In 2050 the proportion of > 65 years and > 85 years of the total population (20.9 and 2.8% in 2015) is expected to range from 33.1% -30.3% for the former and 6.5% - 4.9% for the latter, while the percentage of young people (0-14 years and 0-18 years) from 14.8% to 12.0% for the former and 19% - 15.4% for the latter respectively.

In this frame (Table C), a faster increase on the 85+ year olds compared with that of 65+ ones, draws special attention. Their number, almost tenfold between 1951 and 2015, is for one more time expected to show a significant increase in the next thirty-years (from +106 to + 45.6%).

Table C: Total population, population 65+ & 85+ (1951/2015/ 2020, 2025....., 2050)/ scenario

| Scenarios | | Total population | Pop. 65+ | 65+ % of total population | Pop. 85+ | 85+ % of total population | 85+, % 65+ |
|-----------|----------------------|------------------|---------------|---------------------------|--------------|---------------------------|-------------|
| | 1951 (Census) | 7629,7 | 522,4 | 6,8 | 30,8 | 0,4 | 5,9 |
| | 1/12015 | 10858 | 2269,1 | 20,9 | 303,2 | 2,8 | 13,4 |
| 1 | 01/01/2035 | 10128,1 | 2812,9 | 27,8 | 455,9 | 4,5 | 16,2 |
| | 01/01/2050 | 9526,4 | 3149,8 | 33,1 | 619,7 | 6,5 | 19,7 |
| 2 | 01/01/2035 | 10414,6 | 2828,7 | 27,2 | 458 | 4,4 | 16,2 |
| | 01/01/2050 | 10063,9 | 3178,7 | 31,6 | 624,2 | 6,2 | 19,6 |
| 3 | 01/01/2035 | 9514,5 | 2654,3 | 27,9 | 391,3 | 4,1 | 14,7 |
| | 01/01/2050 | 8315,1 | 2721,3 | 32,7 | 441,4 | 5,3 | 16,2 |
| 4 | 01/01/2035 | 9788,5 | 2669,4 | 27,3 | 393,1 | 4,0 | 14,7 |
| | 01/01/2050 | 8819,8 | 2747,5 | 31,2 | 444,7 | 5,0 | 16,2 |
| 5 | 01/01/2035 | 9523,2 | 2659,6 | 27,9 | 391 | 4,1 | 14,7 |
| | 01/01/2050 | 8542,4 | 2734,2 | 32,0 | 441,5 | 5,2 | 16,1 |
| 6 | 01/01/2035 | 9805,5 | 2674,7 | 27,3 | 392,8 | 4,0 | 14,7 |
| | 01/01/2050 | 9105,6 | 2760,5 | 30,3 | 444,7 | 4,9 | 16,1 |

Therefore, demographic aging is not only inhibited, but its pace is expected to accelerate over the next thirty years. Thus, while the percentage of the over 65 years increased from 13% in 1980 to 21% in 2015 (+ 8%), this figure is expected to increase again, depending on the scenario, from 6.5 to 7.0% between 2015 and 2035, and from 9.5 to 12.5% between 2015 and 2050. This increase, in all scenarios, is mainly due to the progressive entry of the persons belonging to the rather populous generations of the first postwar period (1950-1980, 150.5 thousand births per year on average) into the age group of 65 and over during the next thirty five years.

Finally, we should note that a) as we move away from the starting year (2015), the expected changes in population structures in the coming decades (even more by 2035) are largely influenced by the size and structure of our population in the starting year (2015). Specifically, women, who in the next decades will be at the peak of reproductive age (25-40 years), have already been born, and we know their number with relative precision, as we know with relative precision the number of people who are in the same decades will be at an age of high mortality (i.e. the number of people who will be over 50 years; 95% of deaths per year involving people of this age class).

By extension, the capabilities of any intervention on population events mainly focus on migration, as, for example, any significant changes in reproductive behaviors (see possible fertility increase) will minimally affect the size and age population distribution of our country in the next two decades. Therefore, those having the responsibility for the planning and decision-making should firstly consider the probable aforementioned developments in short-medium time as given, assess their impact, and take them into account in the planning and taking of any policy measures, and secondly and at the same time, if they regard that such developments are undesirable for medium and long-term, start thinking about measures which, if taken today, will "yield" after decades.

- ***Evolution of the potential population at various levels of the education system***

Individuals at integration age in the five levels of our educational system (Early Childhood, Primary, Secondary, Higher Tertiary) is expected, in all scenarios, to be clearly less in 2050 than the starting year (2015). Trends in all scenarios are common, although the expected populations of five examined age groups differ significantly at the end of the projective period and in the intermediate sections (2020,25,30, 45). At the same time, it can be said that, most likely, with small variations per scenario, the fluctuations of the school-aged population will be particularly sharp in the next thirty five years: Periods of decline will be followed by periods of reversal of prior trends and again by a new contraction period without coinciding times. ***Therefore, the planning of any educational policy (infrastructure, human resources) presents special difficulties till mid-XXI century.***

- ***Evolution of the working-age population and the economically active population***

The total population decline recorded in all scenarios as well as its continued aging is obviously expected to have also a direct impact on the working age population, which is constantly declining (Table D). Specifically, the 15-64 age group from (7.0 MM in 2015) is expected to range from 5.8 to 6.3 MM in 2035, and, according to the respective scenarios, the 20-69 age group (7.1 MM in 2015) from 6.6 to 6.1 MM. At the end of the projective period (2050), the 15-64 age group will range from 4.6 to 5.5MM, and, in the respective scenarios, the 20-69 age group from 4.8 to 5,7 MM. By extension, the working-age population will decline. More particularly, ***in 2035 the rate of the 15-64 years of age in the total population (65% in 2015) will fluctuate from 60.2% to 61.4% and at the end of the projective period (2050) from 56.5% to 54%.*** This reduction of the working-age people over the next thirty five years, in all scenarios, will be accelerated after 2030, and this is mainly due to two reasons: the progressive entry of the less populous generations > 2010 into the working-age population, and the progressive exit of the populous generations of the 60's and 70's from this group.

The reduction will obviously affect the economically active population (4.7 MM in 2015), which in 2035 will be lower than that of 2015 by 0.6-1 M, and by 1.1 - 1,7 MM in 2050. ***The above anticipated changes in this population are partially possible to be mitigated, only if the participation per age rates of the working-age population in the economically active population increase.***

