

## Portugal resident population estimates

2017

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### **Resident Population decline slowed down in 2017**

The resident population in Portugal at 31 December 2017 was estimated at 10,291,027 persons (18,546 fewer than in 2016). This results in a negative crude rate of total population change of -0.18%, maintaining the trend of population decline, despite its attenuation in comparison to recent years.

The slowdown of the population decrease in 2017 resulted from a positive net migration (+4,886) after six years of negative values. The natural increase remained negative (-23,432) and very close to that of 2016 (-23,409).

Demographic ageing in Portugal continues to rise: compared to 2016, the population under the age of 15 fell to 1,423,896 (-18,520), and the population aged 65 and over increased to 2,213,274 (+36,634), representing 13.8% and 21.5% of the total population, respectively; the oldest population (aged 85 and over) was estimated at 297,538 (+11,922).

In 2017, the mean age of the resident population in Portugal stood at 44.2 years, an increase of about 3.1 years in the last decade.

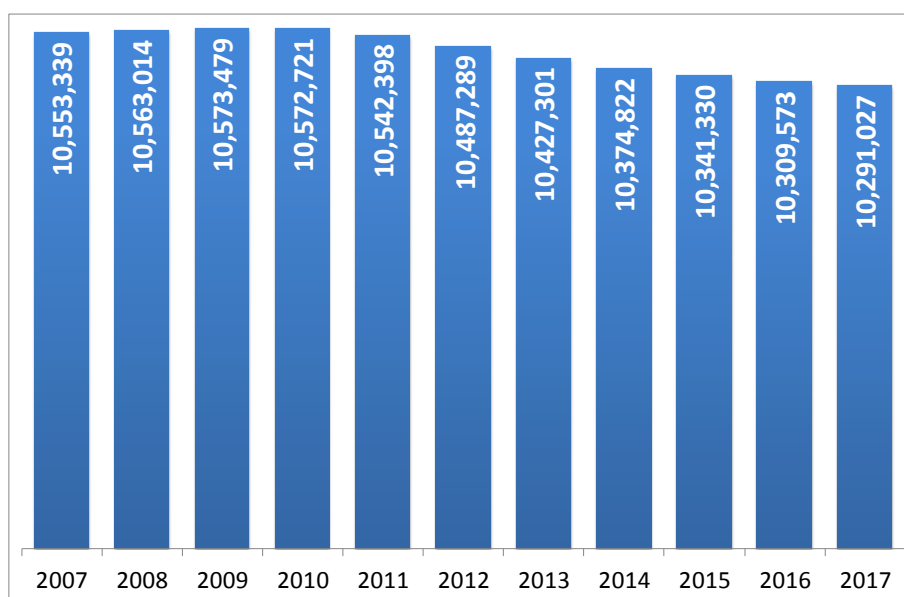
In the future, the demographic ageing will continue to increase and the population will keep declining. Portugal will lose population until 2080, from the present 10.3 to 7.7 million residents, falling below the threshold of 10 million in 2033. The population aged under 15 will decline from 1.4 to 0.9 million and the number of elderly will increase from 2.2 to 2.8 million.

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### **The resident population declined by 18.5 thousand**

In 2017, the resident population in Portugal was estimated at 10,291,027 persons – of which 4,867,692 were men and 5,423,335 were women –, accounting for a decrease in the resident population of 18,546 inhabitants from the previous year. The crude rate of total change remained negative (-0.18%), thus maintaining the downward trend observed since 2010, although it has been attenuated in 2017, especially in comparison with the last four years.

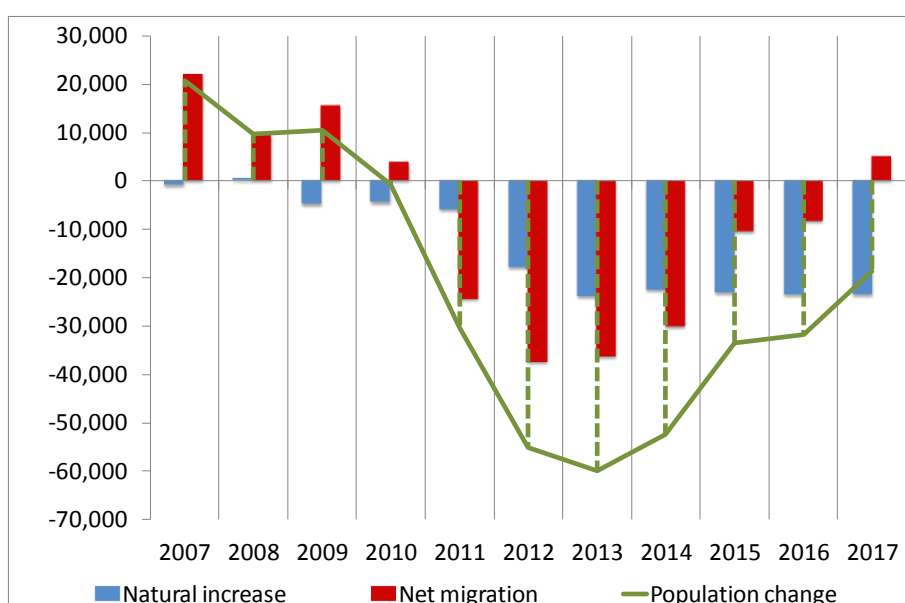
**Resident population (No.), Portugal, 2007-2017**



**Positive net migration in 2017**

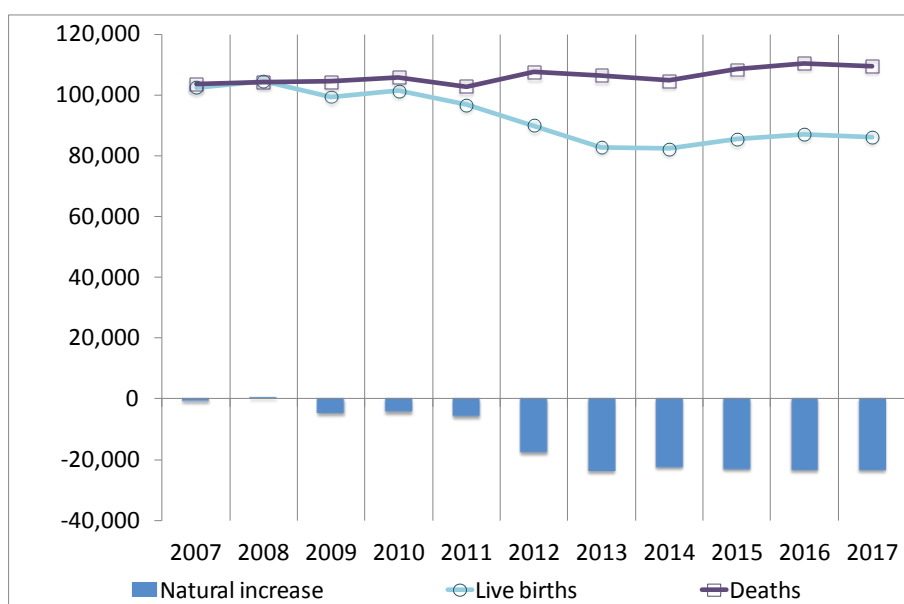
The slowdown in the population decline in 2017 is explained by a change from a negative to a positive net migration (+4,886), while the natural increase remained negative (-23,432). These balances translated into a positive net migration growth (0.05%) and a negative crude rate of natural increase (-0.23%).

**Population change and its components (No.), Portugal, 2007-2017**



Despite the reduction in the number of deaths of residents in Portugal to 109,586 (0.9% less than 110,573 in 2016), the decrease in the number of live births to mothers residing in Portugal to 86,154 (1.1% less than 87,126 in 2016) contributed to a negative balance (-23,432), very close to that of 2016 (-23,409).

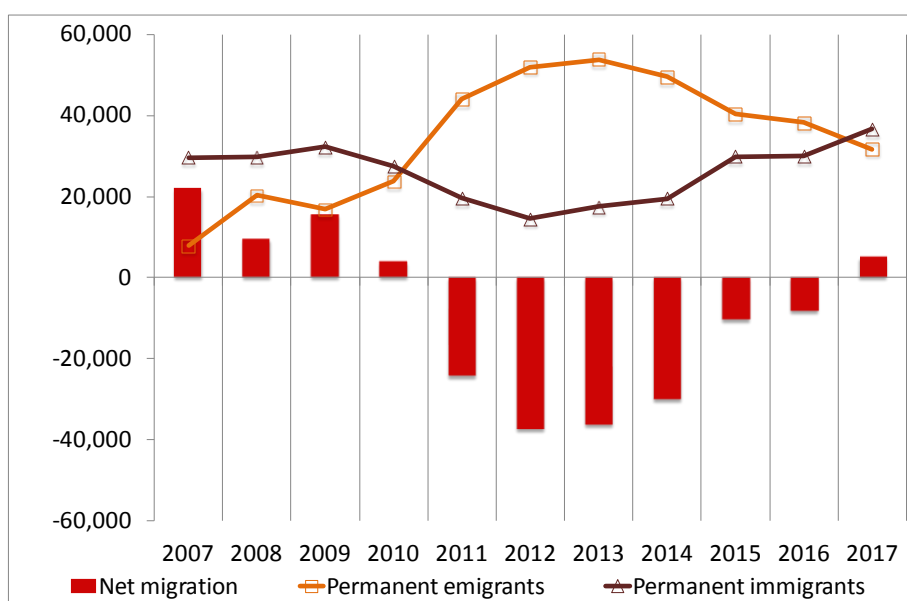
**Natural increase and components (No.), Portugal, 2007-2017**



By contrast, after six consecutive years of negative growth, the net migration displayed a positive value (+4,886) in 2017, as a result of a reduction in permanent emigration (31,753 emigrants compared to the estimated value for 2016: 38,273) and an increase in permanent immigration (36,639 immigrants, compared to 29,925 in 2016).

The estimated number of temporary emigrants continues to be higher than that of permanent emigrants, standing at 49,298, a 16.3% decrease from the value estimated for 2016 (58,878).

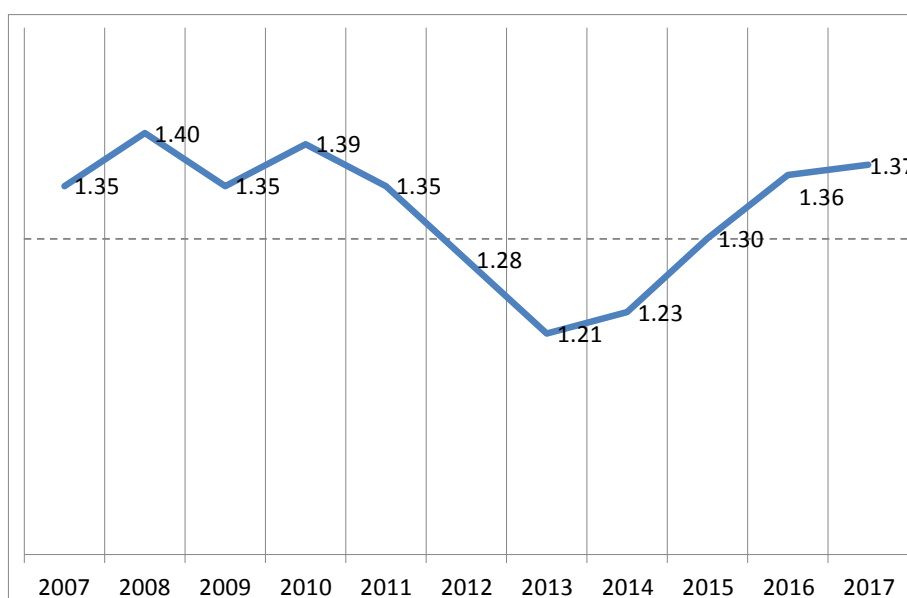
**Net migration and components (No.), Portugal, 2007-2017**



**The average number of children stood at 1.37**

In the 2007 to 2011 period, the total fertility rate oscillated between 1.35 and 1.40 and then declined until 2013, when it reached 1.21 children per woman. In 2017, it stood at 1.37 children per woman, slightly above the value observed in 2016 (1.36).

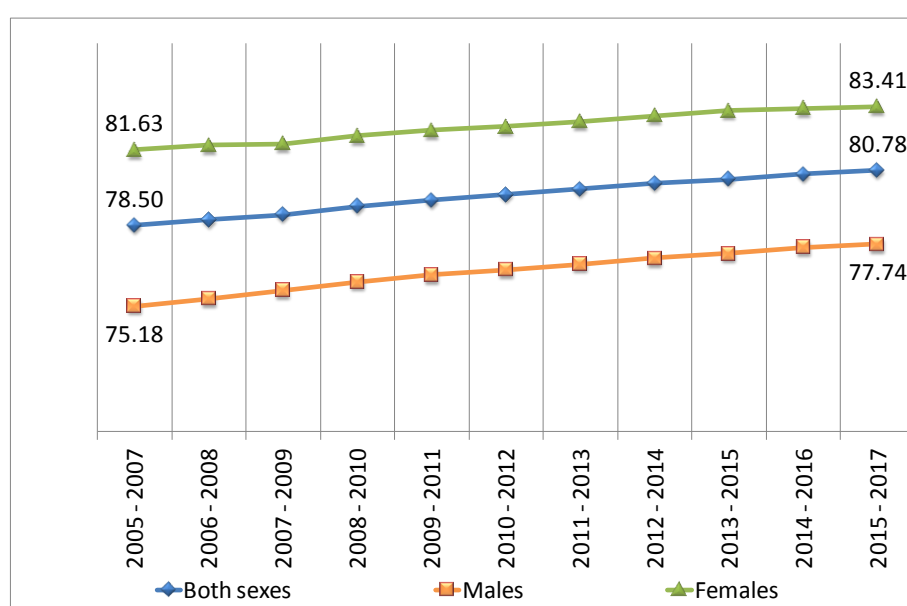
**Total fertility rate (No.), Portugal, 2007-2017**



### Life expectancy continued to increase

In 2015-2017, life expectancy at birth was estimated at 80.78 years for the total population, 77.74 years for males and 83.41 years for females. Although it continues to be higher for women, life expectancy at birth for males and females has been gradually closer, as a result of greater gains for men. Within a decade, there was a gain of 2.28 years of life for the total population, 2.56 years for men and 1.78 years for women and the gap has been gradually narrowing, from 6.45 years to 5.67 years.

**Life expectancy at birth (Years), Total and by sex, Portugal, 2005-2007 to 2015-2017**



### Proportion of elderly persons continued to rise

As a consequence of the decline in the birth rate, the increase in longevity and, more recently, the impact of emigration, changes in the size and composition of the Portuguese resident population, by gender and age, indicate that, in addition to the population decline observed in the past few years, the demographic ageing continues to rise.

Compared to 2016, the young population (under 15 years old) fell to 1,423,896 (-18,520) and the population aged 65 and over increased to 2,213,274 persons (+36,634), representing, in 2017, 13.8% and 21.5% of the total estimated population, respectively; the oldest population (aged 85 and over) was estimated at 297,538 (+11,922), corresponding to 13.4% of the population aged 65 and over.

Over the last ten years, a double demographic ageing became evident, as shown by the overlapping age pyramids: the base of the pyramid narrowed, while its top widened. In this period, the number of elderly (persons aged 65 and over) increased by 342,914, the young population decreased by 219,939, and the number of working age persons (those aged from 15 to 64) decreased by 385,287. The mean age of resident population increased from 41.1 in 2007 to 44.2 years in 2017, which reflects an increase of 3.1 years.

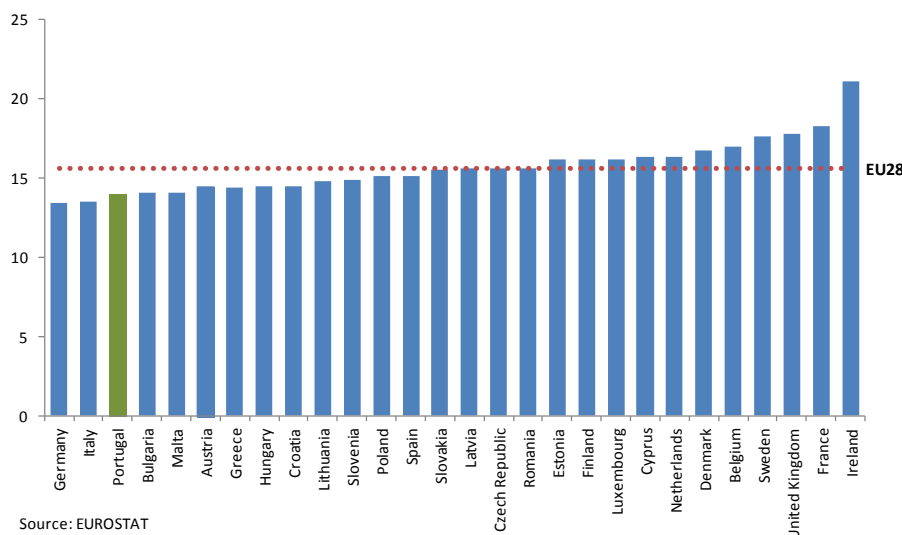
**Age pyramids, Portugal, 2007 e 2017**



Demographic ageing is transversal to all EU28 countries. In 2016, the most recent year for which comparable data are available from Eurostat, it was observed that the weight of young population in the population remained equal (15.6%) while the proportion of elderly people increased from 17.6% to 19.4%, compared to 2015.

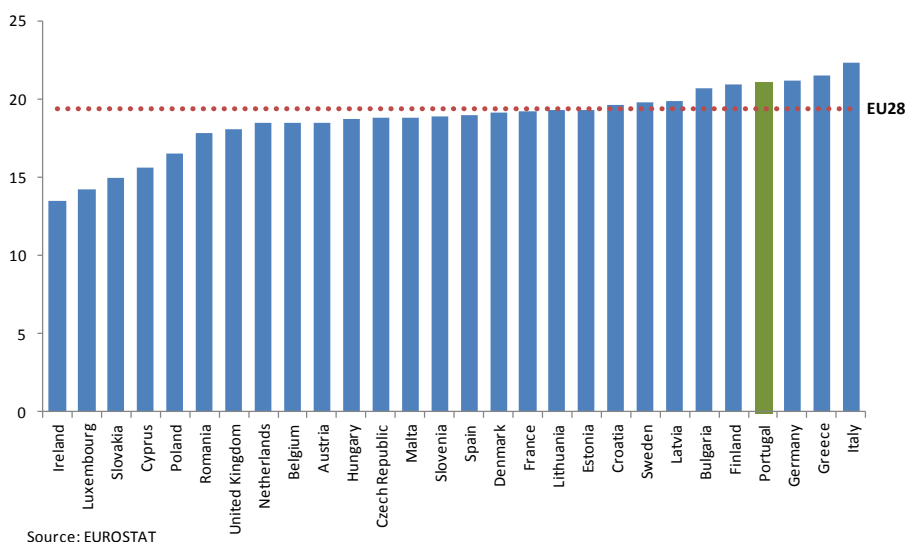
In 2016, within all of the EU28 countries, the largest proportion of young people in the population was observed in Ireland (21.1%), while the lowest percentage was observed in Germany (13.4%). Portugal displayed a lower proportion of young people than the EU28 average, the third lowest in Europe (14.0%).

**Proportion of population aged 0-14 (%), EU28, 2016**



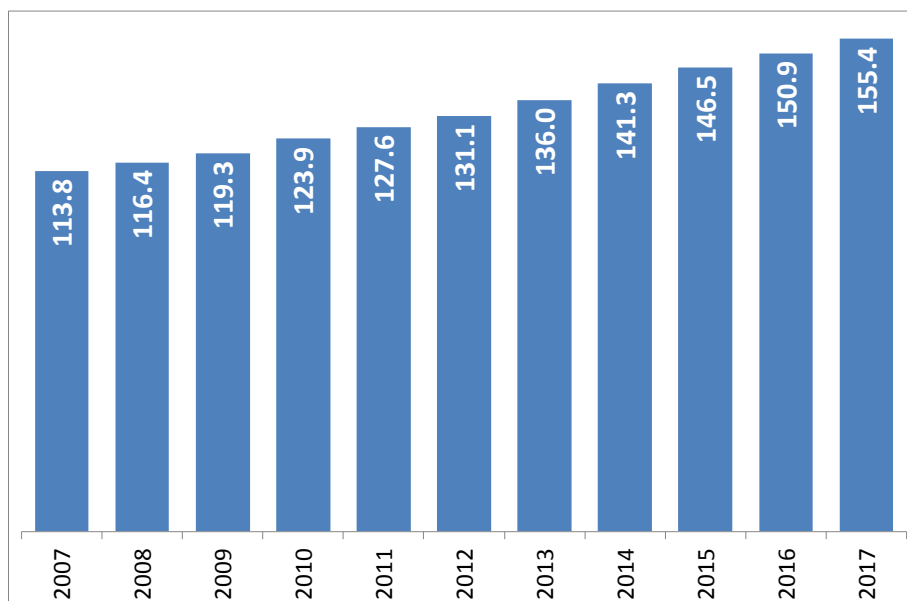
Concerning the elderly population, Italy presented the highest proportion of elderly (22.3%), in contrast to Ireland (11.5%). The proportion of older people in Portugal was higher than the European average, being the 4th country with the highest weight of older people, only surpassed by Germany, Greece and Italy.

**Proportion of population aged 65 and over (%), EU28, 2016**



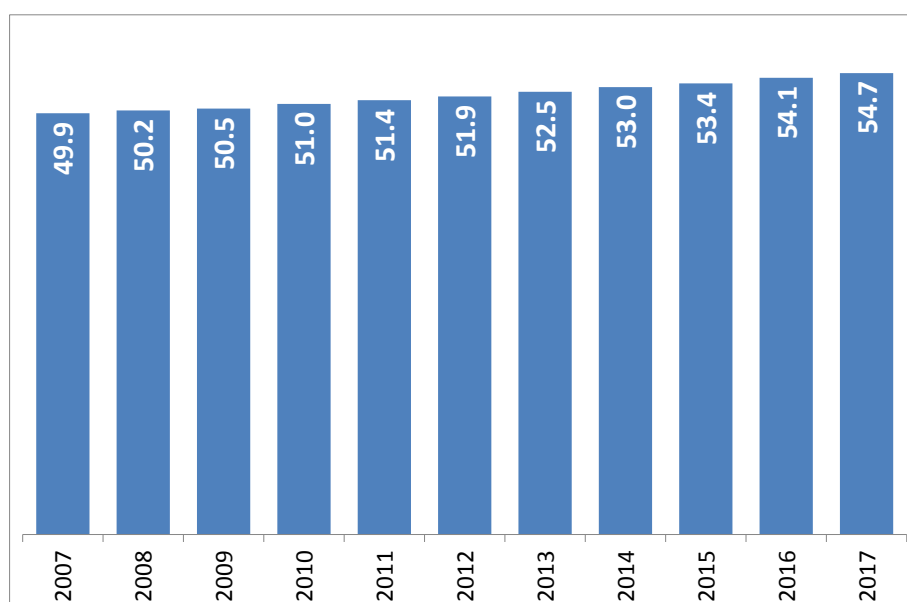
The evolution of summary ratios concerning the resident population's age structure supports the evidence of the demographic ageing in Portugal, as highlighted by the increase of the ageing ratio (number of elderly people per 100 young people). The number of older people has been higher than that of young people since 2000; in 2007, for every 100 youth there were 114 elderly residing in Portugal, a figure that rose to 155 in 2017.

**Ageing ratio (No.), Portugal, 2007-2017**



Likewise, the total dependency ratio (i.e., the ratio of the elderly plus the young population to working age population) also continued to increase, putting increasing demographic pressure on working age population. In 2007, for every 100 persons of working age there were 50 youth and elderly residing in Portugal, a figure that rose to 55 in 2017.

**Total dependency ratio (No.), Portugal, 2007-2017**



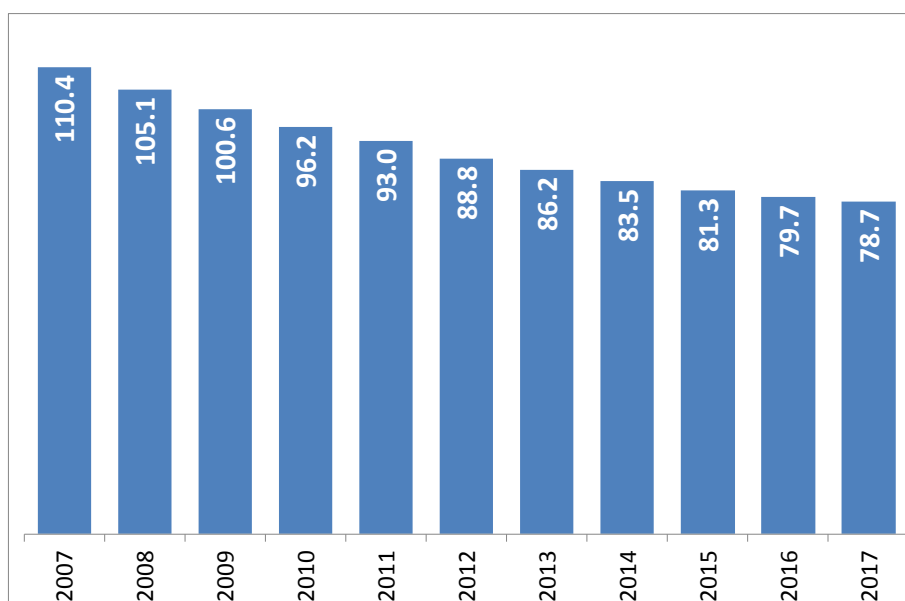


Working age population also aged, as shown by a decline in the working age population renewal ratio (number of people aged between 20 and 29 per 100 people aged between 55 and 64).

In 2007, for every 100 persons aged 55-64, there were 110 persons aged 20-29, a value that decreased to 79 in 2017.

Since 2010 that the number of persons of potential exit age from the labour market is not offset by the number of persons of potential entry age in the labour market.

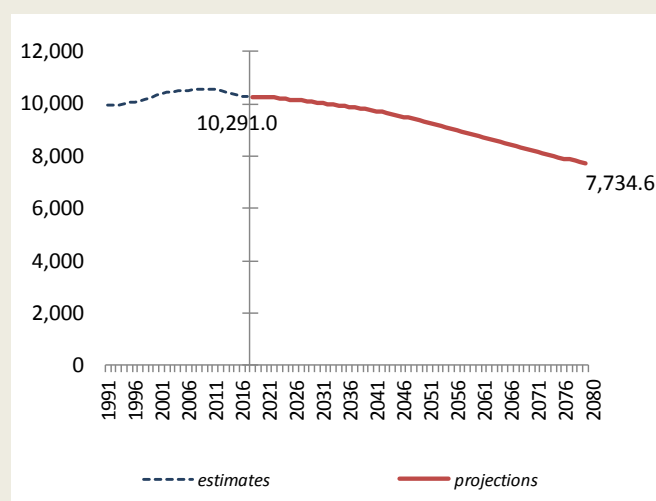
**Working age population renewal ratio (No.), Portugal, 2007-2017**



## Demographic ageing will continue to worsen in the future

Taking as reference the 2017 population estimates, Portugal could lose population until 2080, from the present 10.3 to 7.7 million residents, falling below the threshold of 10 million in 2033 (9,980,924).

### Resident population (thousands), Portugal, 1991-2080 (estimates and projections)



Over the projection period, the process of demographic ageing will become more marked, both by a reduction in the proportion of young people in the population and an increase in the proportion of the population aged 65 and over.

The ageing ratio could more than double between 2017 and 2080, from 155 to 309 elderly people for every 100 young persons.

## UPDATE OF THE 2015-2080 RESIDENT POPULATION PROJECTIONS' CENTRAL SCENARIO FOR PORTUGAL

In March 2017, Statistics Portugal released the Resident Population Projections exercise for the period 2015-2080, which had as its base population the provisional estimates of the resident population at December 31<sup>st</sup> 2015 and was based on a set of demographic assumptions about the future evolution of the fertility, mortality and net migrations components.

Two years on since the base population reference period and given that figures for deaths, live births and estimated net migrations for the years 2016 and 2017 were already available, as well as resident population provisional estimates at 31<sup>st</sup> of December 2017, Statistics Portugal considered relevant to update the central scenario of the 2015-2080 projections exercise, based on the new information and by maintaining the previous demographic assumptions, as well as the modelling and extrapolation methodological procedures.

In order to achieve that, the following assumptions and calculations were made:

- The starting population was updated for the resident population at 31<sup>st</sup> of December 2017;
- The starting values for fertility, mortality and net migration are those observed in 2017, that is:
  - . A total fertility rate of 1.37 (vs. 1.30 in 2015);
  - . A life expectancy of 77.74 years for men and 83.41 years for women (77.36 for men, 83.23 for women in 2013-2015);
  - . A positive net migration of 4,886 (against -10,481 in 2015).
- The evolution of the components was kept unchanged, as follows:
  - . A progressive increase of the total fertility rate, reaching 1.55 children per woman in 2080;
  - . The life expectancy growth rate remains unchanged, reaching in 2080 87.38 years for men and 92.10 years for women;
  - . Positive net migrations throughout the whole period, reaching 12,442 in 2080.

### The main results obtained in 2018 compared to the central scenario of the 2015-2080 resident population projection exercise can be summarized as follows:

- The population will continue to decline, although to a lesser extent, reaching 256,371 persons more in 2080 than in the 2015-2080 exercise;
- The trend towards demographic ageing remains, although slightly less pronounced: in 2080 the ageing ratio that was 317 in the 2015-2080 exercise changed to 309.

**Lastly, it should be noted that the projections results illustrate possible population trajectories and should not be understood as forecasts, since they are conditioned, on the one hand, by the dimension and structure of the base population and, on the other, by the different patterns of behaviour of fertility, mortality and net migration considered over the projection period.**

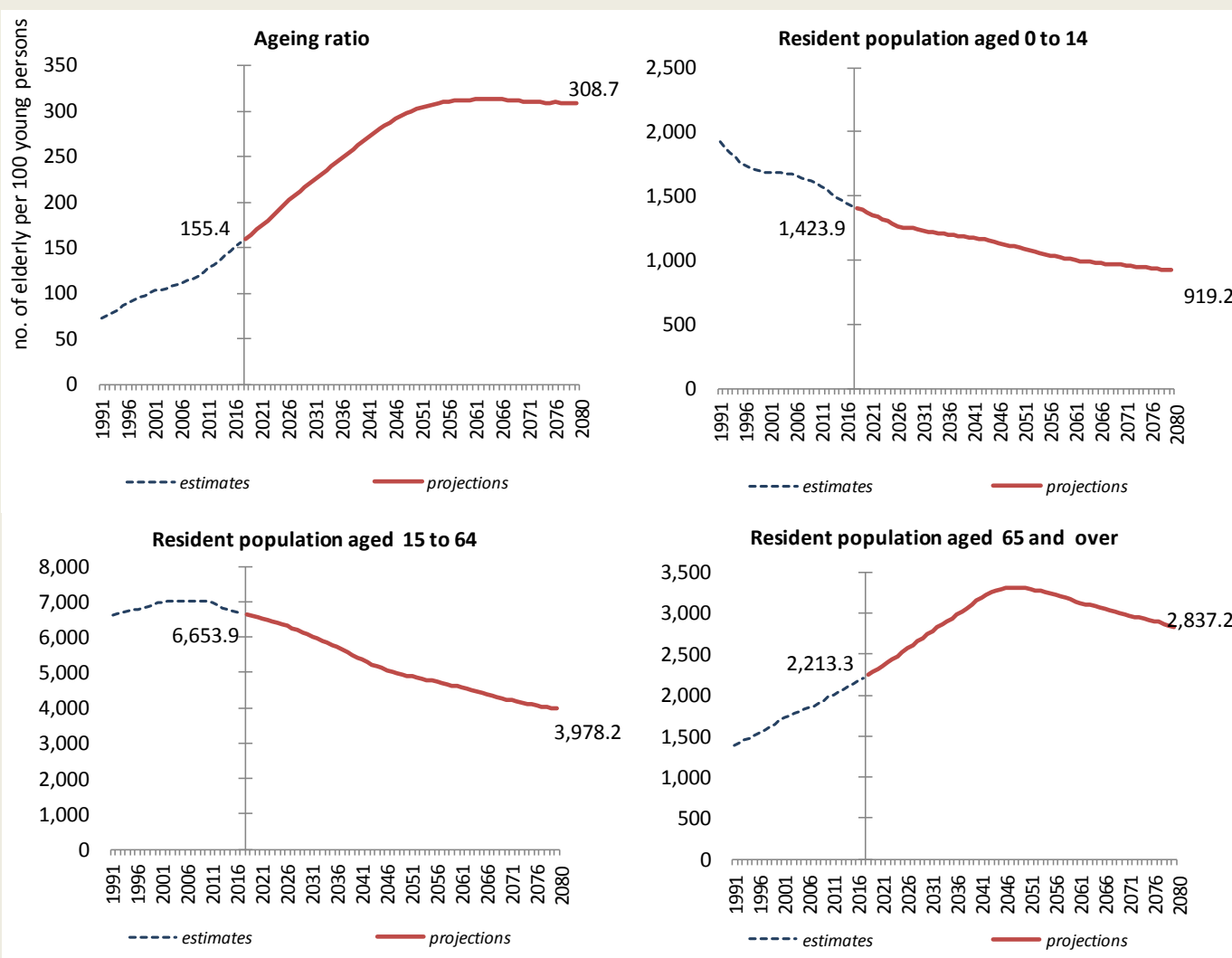
The older population, i.e., aged 65 and over, could increase from 2.2 to 2.8 million people, between 2017 and 2080. The number of elderly will reach the highest level by 2049, at which point it will begin to decline. This situation results from the fact that generations already born in a context of fertility levels below the replacement level enter this age group.

The population under 15 will decline between 2017 and 2080, from the current 1.4 million to less than 1.0 million in 2080.

The young population will be below the threshold of 1.4 million in 2019 (1,388,078) and the threshold of 1.0 million in 2062 (995,011).

The working age population (aged 15-64) will decline from 6.7 million in 2017 to 4.0 million in 2080. By 2032, it will be below the threshold of 6.0 million (5,960,826) and below 5.0 million in 2048 (4,982,281).

**Ageing Ratio and Resident Population (thousands), Portugal, 1991-2017 (estimates) e 2018-2080 (projections)**

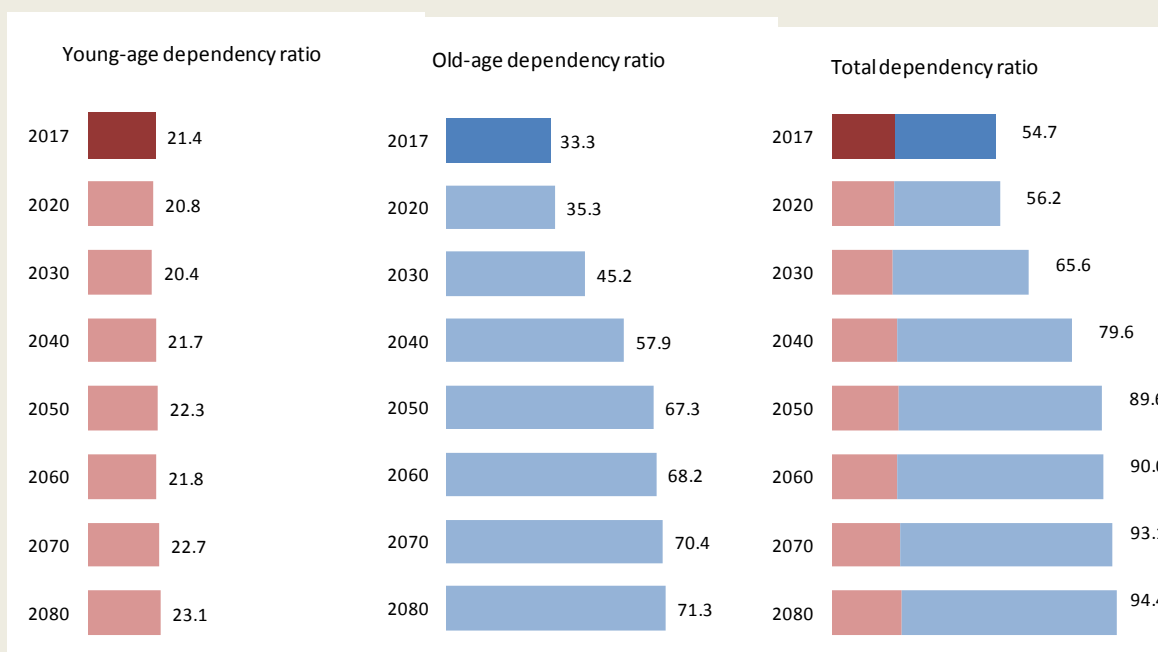


The old-age dependency ratio could more than double between 2017 and 2080, from 33 to 71 elderly people per 100 potentially active people.

The young-age dependency ratio, i.e., the number of young persons (aged 0-14) per 100 persons of working age (15-64), could increase from 21.4 in 2017 to 23.1 in 2080.

As for the total dependency ratio, the number of elderly and young people for every 100 persons of working age, that in 2017 was 55, could reach 94 in 2080.

**Dependency ratios (No.), Portugal, 2017 (estimates) and 2020-2080 (projections)**



## Technical note

### RESIDENT POPULATION ESTIMATES 2017

On this date, Statistics Portugal releases on its website, at [www.ine.pt](http://www.ine.pt), the 2017 resident population estimates as well as other demographic indicators.

Resident population estimates adopt the cohort component method, rely on the census concept of resident population, and are calculated by sex and age, up to the geographic breakdown level of municipality. Their calculation is based on the natural and migration demographic components and relies on information from other statistical operations of Statistics Portugal: live births, deaths, and emigration and immigration estimates.

With regard to live births and deaths, the information relies on the so-called vital statistics, using, for statistical purposes, facts that are subject to compulsory civil registration – live births and deaths. Hence, the natural balance was obtained from data on the number of live births and deaths, occurred in 2017 and obtained from information registered in civil registries up to March 2018.

Given that migration flows in Portugal are not subject to direct registration, the results of the latest general population censuses and information stemming from other statistical operations of Statistics Portugal – the outbound migration survey and the labour force survey – play a particularly important role in the estimation of migration flows, as well as in the analysis of information produced by the Portuguese Immigration and Borders Service.

In the calculation of resident population estimates, which is based on the concept of habitual residence, the values used for migration flows stem from annual estimates of permanent emigrants and annual estimates of permanent immigrants, with:

- 'Permanent emigrant' considered as 'a person (national or foreign) who, in the reference period, and after having remained in the country continuously for at least one year, left it with the intention of residing in another country for a continuous period of one year or more';
- 'Permanent immigrant' considered as 'a person (national or foreign) who, in the reference period, entered the country with the intention of remaining here for one year or more, having previously resided abroad continuously for one year or more'.

It should be noted that 'temporary emigrant', considered as 'a person (national or foreign) who, in the reference period, and after having remained in the country continuously for at least one year, left it with the intention of residing in another country for a period of less than one year', is nonetheless considered as Portuguese resident in the year in question. On the other hand, 'temporary immigrant', who is considered as 'a person (national or foreign) who, in the reference period, entered the country with the intention of remaining here for less than one year, having previously resided abroad continuously for one year or more', is not considered as Portuguese resident. Hence, these two categories are not accounted for in the annual migration balance.

For more details, see the methodological document available at <http://smi.ine.pt/DocumentacaoMetodologica/Detalhes/1074>.

### RESIDENT POPULATION PROJECTIONS 2015-2080 FOR PORTUGAL

For more details, see the methodological document available at <http://smi.ine.pt/DocumentacaoMetodologica/Detalhes/1463>.