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press release
INSTITUTO NACIONAL DE ESTATÍSTICA
STATISTICS PORTUGAL

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Resident Population Projections
2018-2080

Resident population in Portugal could decrease from the current 10.3 million to 8.2 million in 2080. However, in the Área Metropolitana de Lisboa and Algarve the resident population may increase

Between 2018 and 2080, according to the projected *central scenario*:

- Portugal will lose population, from the current 10.3 to 8.2 million people.
- The number of young people will decrease from 1.4 to around 1.0 million. Even admitting increases in the total fertility rate, it still results in a decrease in the number of births, as a consequence in the decrease of women at childbearing age, and of the low fertility levels recorded in previous years.
- The number of elderly people (65 and over) will increase from 2.2 to 3.0 million.
- The aging ratio in Portugal will almost double, from 159 to 300 elderly people for every 100 young people, in 2080, as a result of the decrease in the young population and the increase in the elderly population. The most aged region in 2080 will be the Região Autónoma da Madeira, with this ratio reaching 429 elderly people for every 100 young people, and the least aged region will be the Algarve, with an ratio of 204.
- In Portugal, the aging ratio will tend to stabilize only around 2050, when generations born in a context of fertility levels below the generation replacement threshold will be in the age group 65 and over.
- The working age population (15 to 64 years old) will decrease from 6.6 to 4.2 million people.
- The potential sustainability ratio (ratio between the number of people aged 15 to 64 and the number of people aged 65 and over) may decrease sharply, in view of the decrease in the working age population, together with the increase of the elderly population. This ratio will decrease from 259 to 138 people of working age, for every 100 elderly people, between 2018 and 2080.

The main results of the resident population projections exercise presented in this Press Release are based on hypotheses of future evolution of the demographic components of fertility, mortality and migration. These assumptions did not underlie the impact that the current situation determined by the Covid-19 pandemic may have on future demographic trends. In any case, the information available today is useful to establish a reference to assess future developments.

Statistics Portugal publishes the results of the most recent Resident Population Projections exercise – published every three years – broken down by sex and age, for Portugal and NUTS 2 regions.

This exercise of 'Resident population projections 2018-2080' followed the cohort-component method and was based on the provisional estimates of resident population as at 31st December 2018.

Four population projection scenarios were defined: *low scenario*, *central scenario*, *high scenario*, and *no migrations scenario*, based on alternative assumptions on the future evolution of each demographic component - pessimistic, central, and optimistic assumptions for **fertility** and for **mortality**; and pessimistic, central, and optimistic assumptions for **migrations**, to which was added an assumption of no migrations.

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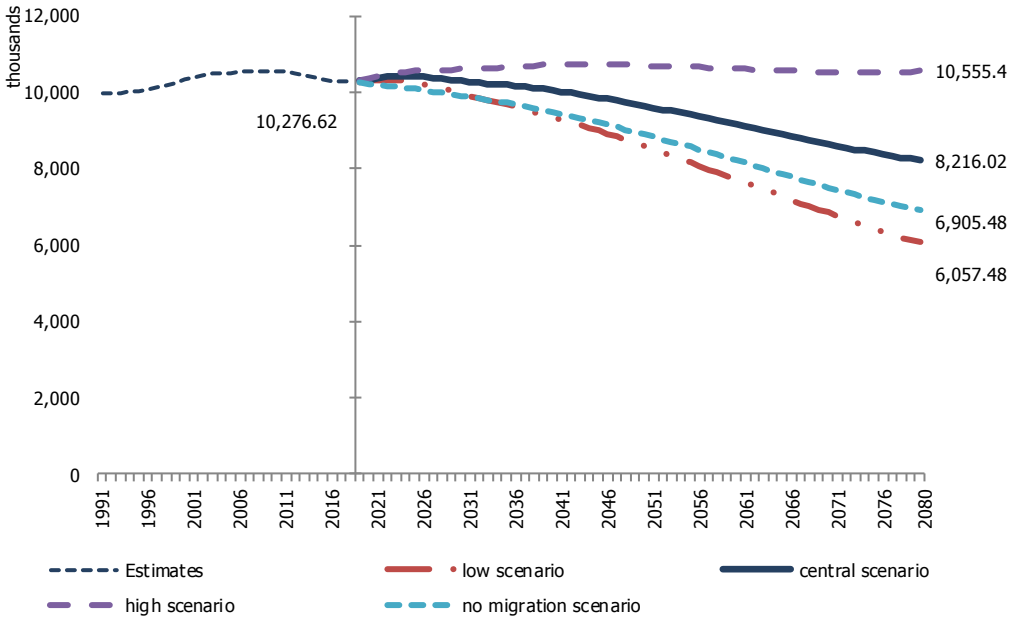
The results obtained should not be understood as forecasts, but rather read as conditional "***if-then***" scenarios, since they are conditioned by: i) the volume and structure of the population at the starting point (2018) and ii) different patterns of behaviour considered in each scenario for the fertility, mortality, and migrations components over the projection period[1].

In the *central scenario*, the population residing in Portugal will tend to decrease

According to the results obtained in the *central scenario*, Portugal will lose population by 2080, going from the current 10.3 million to 8.2 million residents.

In this scenario, the population would be below the threshold of 10 million inhabitants by 2042 (9,978,226) and 9 million in 2064 (8,949,105).

Figure 1 - Resident population, Portugal, 1991-2080 (estimates and projections)



In the *low scenario*, the population loss will be even more accentuated, as a result of the persistence of low fertility levels and negative net migration, with the resident population in Portugal reaching 6.1 million in 2080.

However, in the *high scenario* the population may increase, mainly due to a more accentuated recovery in fertility levels in combination with positive and high net migration, with a projected resident population of 10.6 million for 2080.

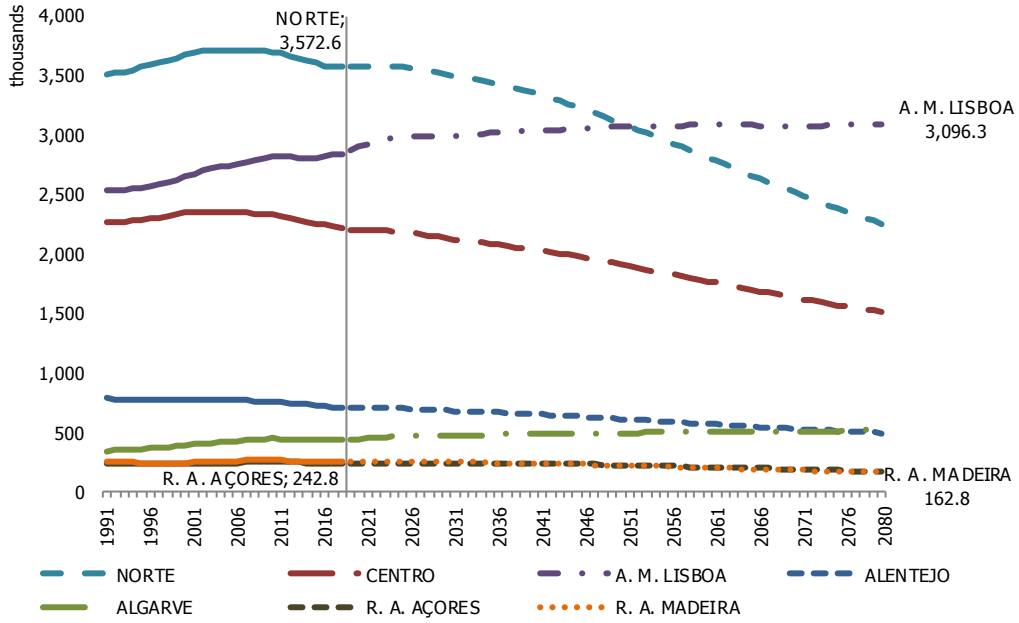
In the *no migration scenario* – where the assumptions of the evolution for fertility and mortality are those adopted in the *central scenario*, and which assumes the (unlikely) possibility of absence of migration flows – a population of around 6.9 million people would be expected in 2080.

[1] For further details see the methodological note included at the end of this press release.

The decrease in population between 2018 and 2080 will not be a trend across all NUTS 2 regions in the *central scenario*, with exceptions in the Área Metropolitana de Lisboa and the Algarve regions.

As a result, the NUTS 2 Norte region would no longer be the region with the largest resident population by the earlies 2050s, with the Área Metropolitana de Lisboa becoming the most populous region.

Figure 2 - Resident population, NUTS 2, 1991-2080 (estimates and projections – *central scenario*)



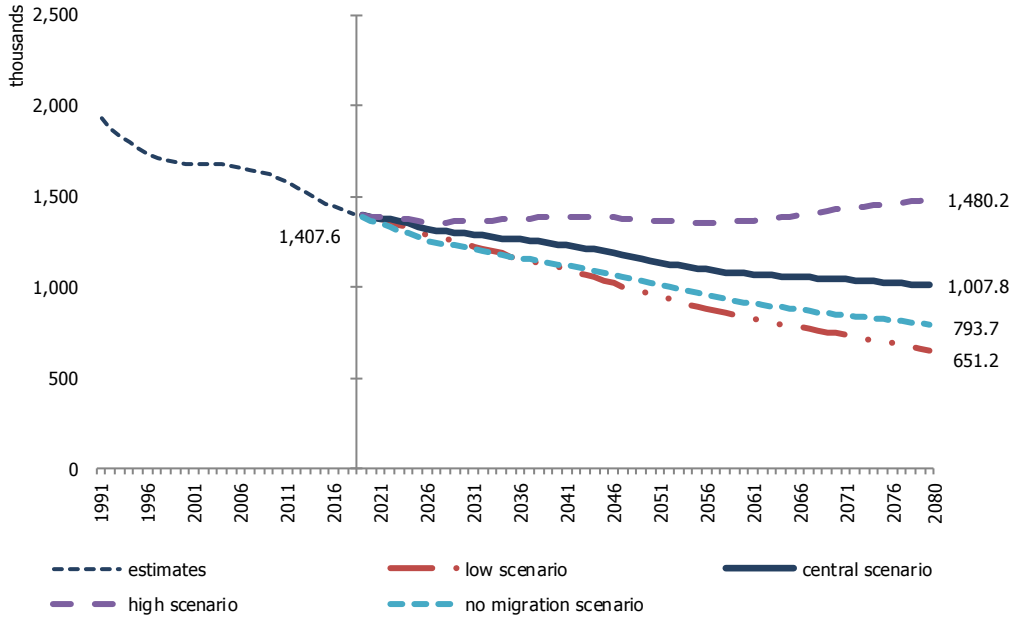
Young population trend

The population under 15 years of age residing in Portugal will decrease, in the *central scenario*, between 2018 and 2080, from the current 1.4 million to around 1 million.

Still in this scenario, the young population would be below the threshold of 1.3 million in 2030 (1,296,310), below 1.2 million in 2045 (1,196,652) and below 1.1 million in 2056 (1,094,830).

Even considering, in this scenario, an increase in fertility as well as a change to positive net migration, the reduction of women within childbearing age (15-49), observed since 2003, will inevitably result in a decrease in the number of births and, consequently, in the young population in the coming years, a process that spreads over the projected period.

Figure 3 - Resident population, 0–14 years age group, Portugal, 1991-2080 (estimates and projections)



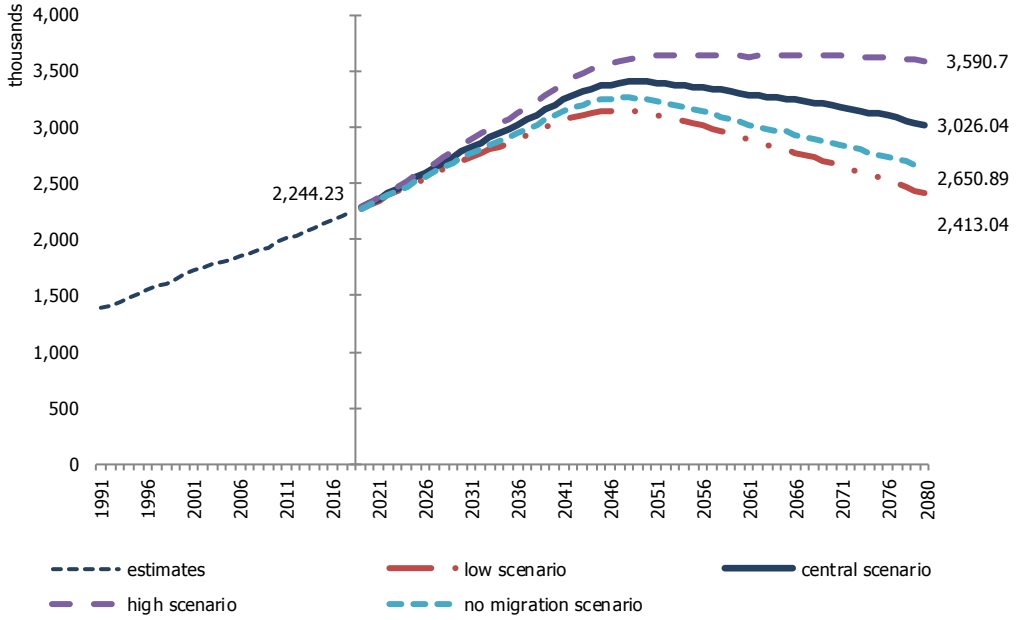
The young population may vary between 1.5 million, in the *high scenario*, and 0.7 million, in the *low scenario*, in 2080. The differences in the trends observed in this age group are mainly related to the influence of net migration, fertility levels and the combination of both, in the different scenarios.

Increase in the elderly population

The population aged 65 and over residing in Portugal will increase from 2.2 to 3.0 million people in the *central scenario* between 2018 and 2080.

However, the number of elderly population will reach the highest value in the early 2050s, when it will begin to decline. This situation is due to the fact that smaller generations enter this age group, already born in a context of fertility levels, below the generation replacement threshold.

Figure 4 - Resident population, 65 and over age group, Portugal, 1991-2080 (estimates and projections)



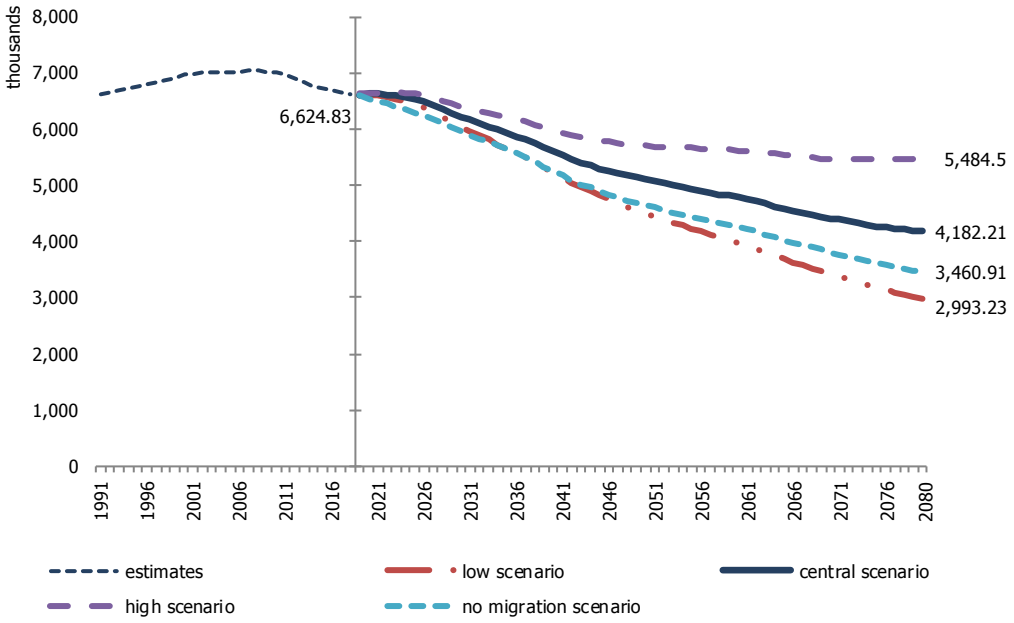
In 2080 the elderly population may reach between 3.6 million, in the *high scenario*, and 2.4 million, in the *low scenario*. The accentuated increase in the *high scenario* is mainly the result of a higher increase in life expectancy considered in this scenario.

Decline of the working age population

The working age population (15 to 64 years of age) residing in Portugal will decline from 6.6 million in 2018 to 4.2 million in 2080, in the *central scenario*.

In this scenario, the working age population would fall below the threshold of 6.0 million (5,993,231) in 2034, and below the threshold of 5.0 million (4,974,590) in 2054.

Figure 5 - Resident population, 15–64 years age group, Portugal, 1991-2080 (estimates and projections)



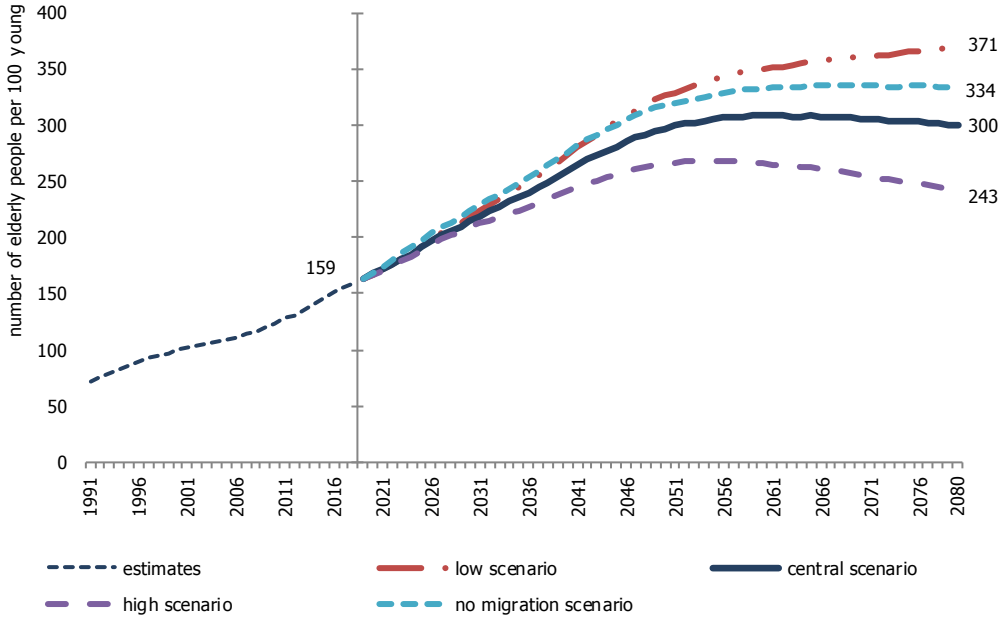
In 2080, the working age population may reach 5.5 million, in the *high scenario*, and around 3.0 million in the *low scenario*.

Population ageing will increase

In Portugal, in the *central scenario,* the ageing ratio could almost double between 2018 and 2080, from 159 to 300 elderly people for every 100 young people.

It should also be noted that the population aging process will tend to stabilise somewhat, when the generations already born in a context of fertility levels below the replacement level enter the 65 and over age group.

Figure 6 - Ageing ratio, Portugal, 1991-2080 (estimates and projections)



The aging ration may reach 371 elderly people for every 100 young people in the *low scenario*, or increase, though less sharply, from the 159 estimated in 2018 to 243 elderly people for every 100 young people in the *high scenario*.

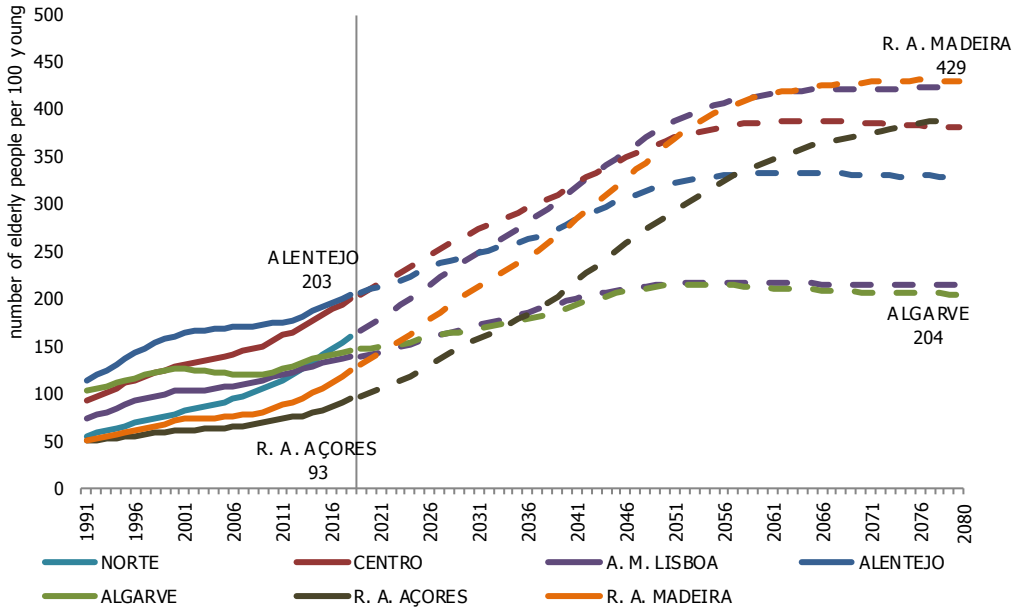
The combination of positive net migration and higher fertility levels, albeit associated with higher life expectancy as envisaged in the *high scenario*, although not sufficient to halt the pace of population ageing, would allow for its mitigation.

Although population ageing will eventually occur in all NUTS 2 regions, it may be more accentuated in the autonomous regions of Açores and Madeira, currently less aged regions.

In the *central scenario*, the aging ratio in the NUTS 2 Região Autónoma dos Açores was, in 2018, 93 elderly people for every 100 young people, increasing to 390 elderly people for every 100 young people in 2080 (more than quadrupling). In the NUTS 2 Região Autónoma da Madeira, the aging index was, in 2018, of 124 elderly people for every 100 young people, increasing to 429 elderly people for every 100 young people in 2080 (more than tripling).

The most aged region in this scenario, in 2080, will be the NUTS 2 Região Autónoma da Madeira (in 2018 it was the Alentejo region), and the less-aged region will be the Algarve (in 2018 it was the Região Autónoma dos Açores).

Figure 7 - Ageing ratio, NUTS 2, 1991-2080
(estimates and projections – *central scenario*)

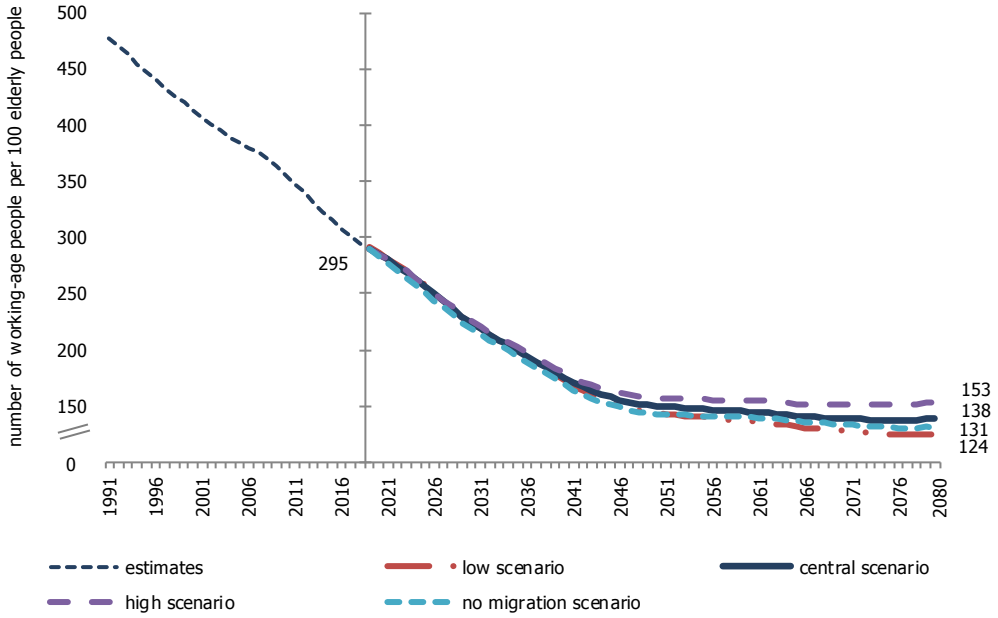


The potential sustainability ratio may decrease to less than half

Given a decrease in the working age population (15 to 64 years of age), together with an increase in the elderly population (aged 65 and over), the potential sustainability ratio (the ratio between the number of persons aged 15-64 and the number of persons aged 65 and over) may decline sharply until the 2050s, stabilising thereafter.

In Portugal, in the *central scenario*, this ratio will be less than half the present value, dropping from 295 in 2018 to 138 persons within the working age group for every 100 elderly persons, in 2080.

Figure 8 - Potential sustainability ratio, Portugal, 1991-2080 (estimates and projections)



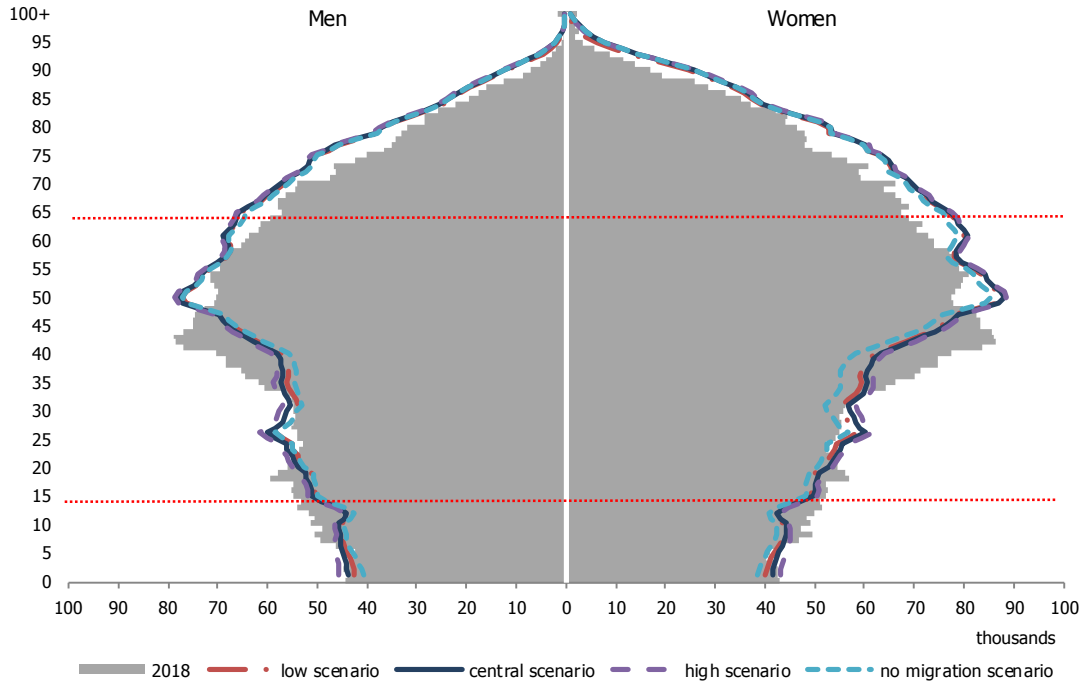
The values of the potential sustainability ratio in the different scenarios remain very close, ranging, in 2080, between 124 and 153 persons in the working age group for every 100 persons aged 65 and over, respectively in the *low* and *high* scenarios.

The result of the combination of downward trends and population ageing is noticeable through the evolution of the age pyramids for Portugal over the projection period.

In 2025 and in the central scenario, the resident population in Portugal will be 10.4 million

In 2025, the resident population in Portugal may change between 10.3 million, in the *low scenario*, and 10.6 million, in the *high scenario*. The effects of the different scenarios, when compared to the 2018 population, are not yet significant.

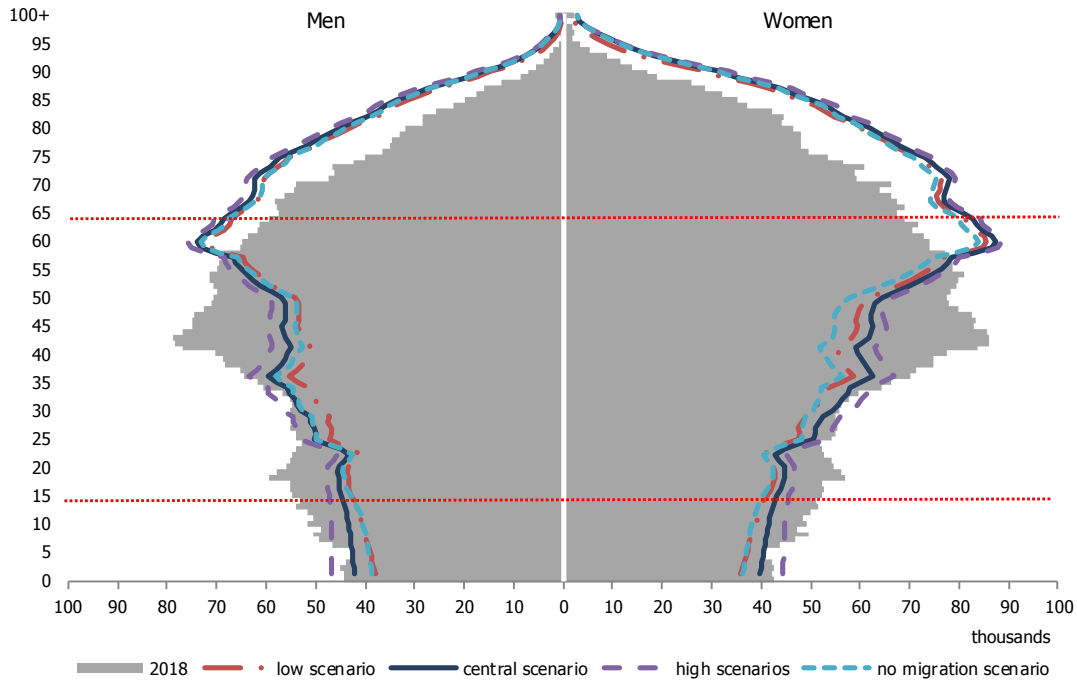
Figure 9 - Age pyramid, Portugal, 2018 (estimates) and 2025 (projections, by scenario)



In 2035 and in the *central scenario*, the resident population in Portugal will be 10.2 million

In 2035, the resident population may change between 9.7 million, in the *low scenario*, and 10.7, in the *high scenario*. The differences between scenarios are now also evident at almost all ages, with a further increase in the elderly population.

Figure 10 - Age pyramid, Portugal, 2018 (estimates) and 2035 (projections, by scenario)



In 2055 and in the *central scenario*, the resident population in Portugal will be 9.4 million

In 2055, the population may change between 8.2 million, in the *low scenario*, and 10.7 million, in the *high scenario*. The differences between scenarios are accentuated. There is an increasingly aging population, with the base of the pyramid narrowing, particularly in the *low scenario* and less underlined in the *high scenario*; the top of the pyramid widens quite clearly and the reduction and aging of the working age population is accentuated.

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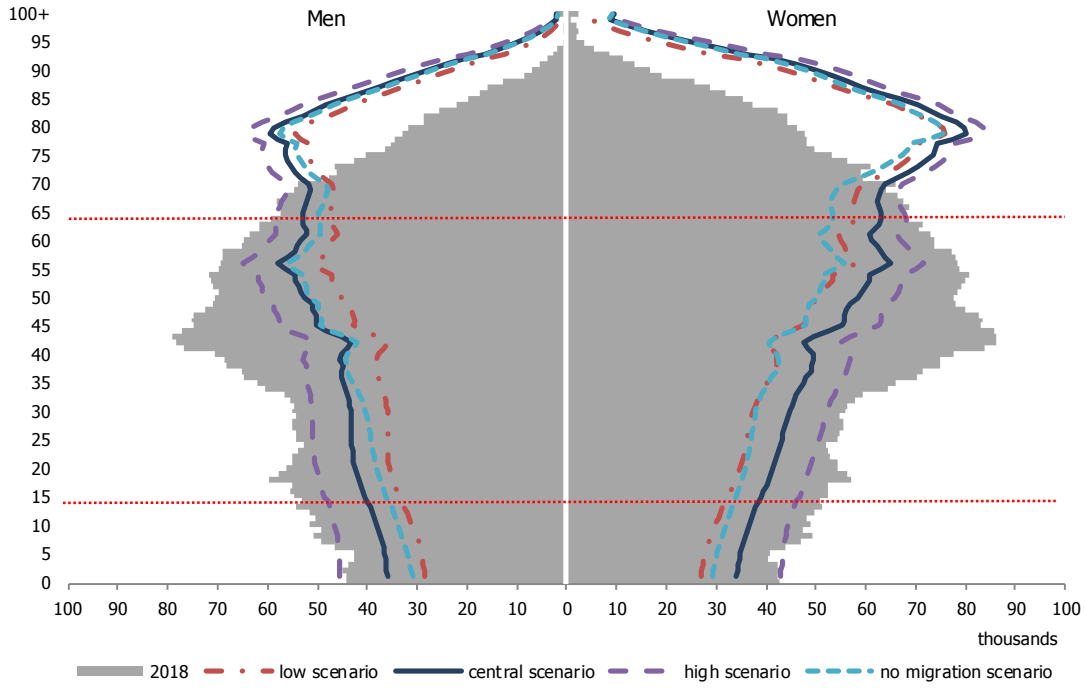
Figure 11 - Age pyramid, Portugal, 2018 (estimates) and 2055 (projections, by scenario)



In 2080 and in the *central scenario*, the resident population in Portugal will be 8.2 million

In 2080, the population may change between 6.1 million, in the *low scenario*, and 10.6 million in the *high scenario*. Whatever the analysed scenario, the population will be very aged.

It should be noted that, in 2080, although the *high scenario* shows the largest number of elderly people, this scenario presents the lowest aging ratio, which is explained by higher birth levels.

Figure 12 - Age pyramid, Portugal, 2018 (estimates) and 2080 (projections, by scenario)

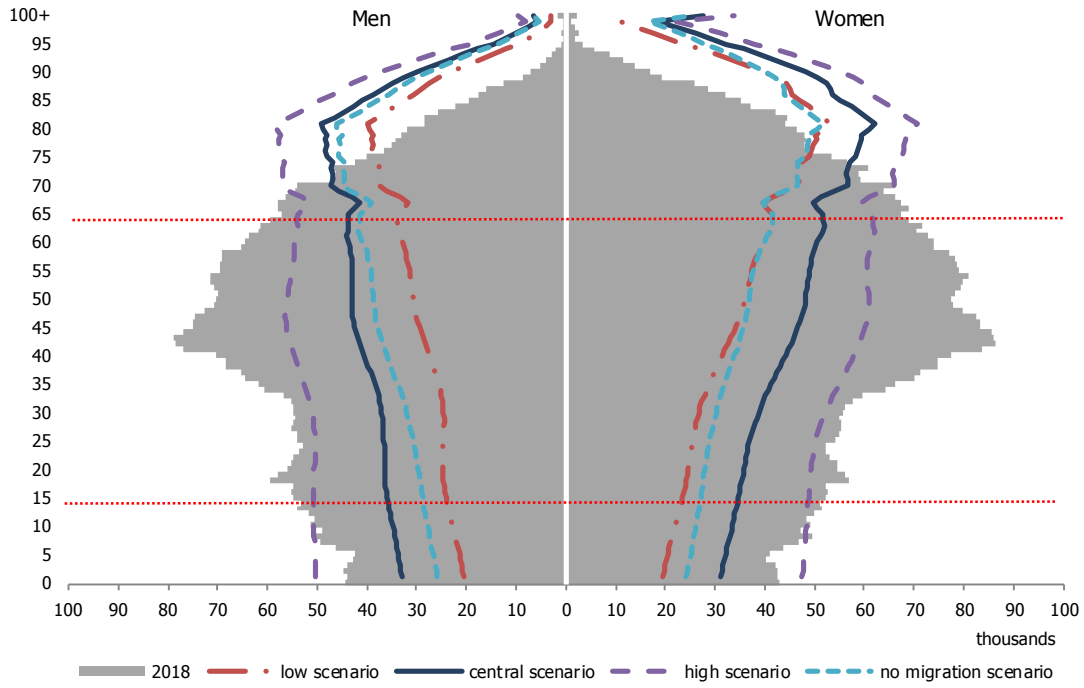


Figure 13 - Main results, Portugal and NUTS 2, 2018 (estimates) and 2080 (projections)

Portugal and NUTS 2 regions	Projection scenarios	Total population		Population 0-14 years		Population 15-64 years		Population 65 years and older		Ageing index		Potential Sustainability Index	
		2018	2080	2018	2080	2018	2080	2018	2080	2018	2080	2018	2080
		no.											
Portugal	*Low*	10,276,617	6,057,479	1,407,566	651,215	6,624,826	2,993,225	2,244,225	2,413,039	159.4	371	295.2	124
	Central		8,216,015		1,007,772		4,182,206		3,026,037		300		138
	High		10,555,447		1,480,200		5,484,499		3,590,748		243		153
	No migration		6,905,483		793,690		3,460,908		2,650,885		334		131
Norte	*Low*	3,572,583	1,588,708	458,203	126,653	2,383,191	695,311	731,189	766,744	159.6	605	325.9	91
	Central		2,255,131		227,316		1,064,058		963,757		424		110
	High		2,983,862		365,460		1,480,952		1,137,450		311		130
	No migration		2,190,714		213,347		1,051,986		925,381		434		114
Centro	*Low*	2,216,569	1,071,048	270,525	92,780	1,407,071	495,953	538,973	482,315	199.2	520	261.1	103
	Central		1,515,938		160,646		743,707		611,585		381		122
	High		1,996,929		250,476		1,015,215		731,238		292		139
	No migration		1,278,254		125,324		612,282		540,648		431		113
A. M. Lisboa	*Low*	2,846,332	2,414,065	452,344	324,271	1,772,221	1,310,140	621,767	779,654	137.5	240	285.0	168
	Central		3,096,272		450,757		1,681,434		964,081		214		174
	High		3,849,535		621,621		2,086,849		1,141,065		184		183
	No migration		2,328,801		324,873		1,235,390		768,538		237		161
Alentejo	*Low*	705,478	375,970	88,445	37,988	437,365	183,177	179,668	154,805	203.1	408	243.4	118
	Central		495,189		57,634		247,953		189,602		329		131
	High		619,745		83,133		316,223		220,389		265		143
	No migration		431,980		48,545		215,698		167,737		346		129
Algarve	*Low*	438,864	381,136	65,810	51,033	278,101	206,870	94,953	123,233	144.3	241	292.9	168
	Central		519,766		77,557		283,674		158,535		204		179
	High		661,032		107,026		362,221		191,785		179		189
	No migration		349,727		49,673		185,467		114,587		231		162
R. A. Açores	*Low*	242,846	131,962	38,013	11,600	169,456	63,632	35,377	56,730	93.1	489	479.0	112
	Central		170,969		17,739		83,971		69,259		390		121
	High		208,670		24,463		104,100		80,107		327		130
	No migration		173,657		17,969		87,130		68,558		382		127
R. A. Madeira	*Low*	253,945	94,590	34,226	6,890	177,421	38,142	42,298	49,558	123.6	719	419.5	77
	Central		162,750		16,123		77,409		69,218		429		112
	High		235,674		28,021		118,939		88,714		317		134
	No migration		152,350		13,959		72,955		65,436		469		111

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Methodological note

Population projections show how the volume and structure of a population may hypothetically evolve in the future. Their main goal is to help understand population dynamics and contribute to debate on possible societal changes.

The population projections are made according to various scenarios entailing future change, resulting from the combination of hypotheses of change in the components of population. Their calculations are based on assumptions about developments in fertility, mortality and migration. Starting from different scenarios and assumptions, projections show the population changing in different and often diverging ways. As such, population projections are a type of 'what-if' analysis: they illustrate possible trajectories of population change, the results being conditioned both by the structure and composition of the starting population and by the different hypotheses of evolution of fertility, mortality and migrations over the projection period.

Population projections are not forecasts: a population forecast shows what producers identify as the most probable development of a future population, while 'what-if' population projections are calculated based on assumptions, and possibly their variants, about future change. Moreover, projections can include seemingly realistic and plausible, but also implausible (like 'No migration' scenarios) 'what-if' developments.

Generally, projections by various producers (e.g. statistical offices of EU and Eurostat) differ not only in the selection of scenarios and assumptions, but also regarding the methods applied, and consequently they have different outcomes. Users are invited to consult the details of the methodologies presented on specific websites and in publications, and to take into account the high degree of uncertainty applicable. Further to the inherent uncertainty of future demographic changes, which increases with the time-span, events like the present COVID-19 pandemic, war, and medical breakthroughs – to name just a few of the events that can change the demographic course – are impossible to anticipate.

This Resident Population Projections 2018-2080 exercise follows the cohort-component method. In this method, the initial or starting population is grouped by sex and cohorts, defined by the year of birth, and continuously updated according to the scenarios resulting from different combinations of alternative evolution hypotheses on the future levels of the components of demographic change – fertility , mortality and migration – and by the natural annual aging, until the last year of the projection period (2080) is reached.

The provisional estimates of resident population as at 31st December 2018, calculated by Statistics Portugal and published on June 2019, are the base or starting population for population projections, calculated up to 31st December 2080, and are therefore called "Resident population projections, by sex and age, Portugal and NUTS 2, 2018-2080".

Assumptions on the future evolution of the fertility, mortality and migration components were based on the observation, analysis and modelling of the past trends of each component, including the latest trends, and on expert judgement on their future evolution based on the information available to date. The analysis of past behavior focused on the period from 1980 to 2018.

Three assumptions of evolution were considered for each component, since the future levels of fertility, mortality and migration cannot be accurately forecasted. These alternative assumptions aim to illustrate a domain of possible future results, although there is no certainty about any future results, or that future results necessarily fall within that domain of values.

It should be noted that the assumptions and modelling of evolution of each component only took into account the temporal dynamics of demographic indicators, with no other type of exogenous variables being incorporated into the models.

Finally, it is important to underline that since the results are conditioned by the structure and composition of population at the starting point and by the different patterns of behavior of fertility, mortality and migration established in each of the assumptions over the projection period, considered in each of the scenarios, with a different starting population and the assumptions now outlined taking into account the latest demographic information, the results obtained in this exercise are different and are not directly comparable with the results of other previous exercises.

Bearing in mind the conditional nature of the results, these should not be understood as forecasts, but rather read "***if-then***" scenarios.

In addition, the longer the projection period, the greater the associated uncertainty, and thus the reading of results in the long term should be handled with increased caution.

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Fertility

The projection of the fertility component was multi-stage. At first, the Schmertmann model (2003, 2005) was applied to Portugal to the specific fertility rates observed in the 1980-2018 period. To the estimated parameters for the referred period, a Vector Auto-regressive Model (VAR) was applied for modeling and forecasting, which, combined with the Schmertmann model, allowed to obtain age-specific fertility rates and projected total fertility rates. In a second step, the plausibility analysis of the fertility curves projected for Portugal was carried out based on an expert judgment assessment.

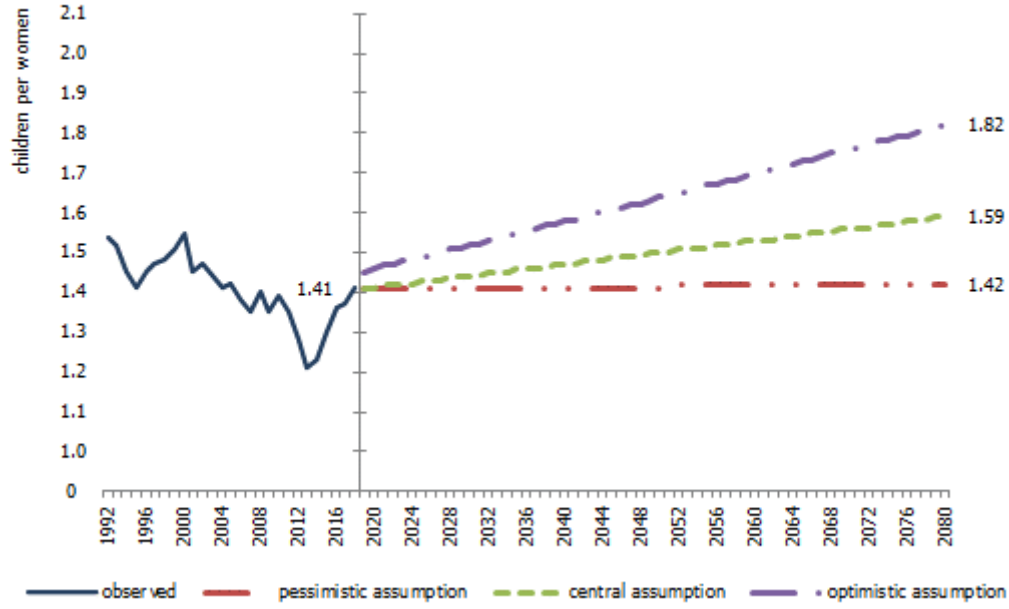
Three assumptions for the future evolution of fertility in Portugal were considered:

(1) *Central assumption* – in this assumption a moderate recovery of future fertility levels is expected, with the Total Fertility Rate (TFR) reaching 1.59 children per woman in 2080 (1.41 in 2018).

(2) *Optimistic assumption* – in this assumption a more pronounced recovery of future fertility levels is expected, with the TFR reaching 1.82 children per woman in 2080.

(3) *Pessimistic assumption* – in this assumption TFR values are expected to persist around 1.42 children per women until 2080.

Figure A1 - Total fertility rate, Portugal, 1992-2080 (observed and assumptions)



Following to the procedure applied to Portugal, for NUTS 2 regions the Schmertmann model (2003, 2005) was applied in the first stage to the specific fertility rates observed by region in the period 1992-2018, obtaining time series for the estimated parameters of the model. In a second stage, specific fertility rates were projected by region, assuming that, even though each of the regions have a different starting level of fertility (equal to the values observed in 2018), the projected trajectory for the model parameters at national level is followed by all regional levels.

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Mortality

In the projection of the mortality component, the Poisson Lee-Carter model (Lee and Carter, 1992; Bravo, 2007; Brouhns, Denuit and Vermunt, 2002) was applied to the probabilities of dying estimates for Portugal for the period 1980-2018, obtained based on the data of deaths observed in three consecutive years and the estimate of the respective population exposed to the risk of death. As a procedure to close the life tables and to extrapolate the behavior of the probability of dying at advanced ages (over 85 years), the method developed by Denuit and Goderniaux (2005) was applied.

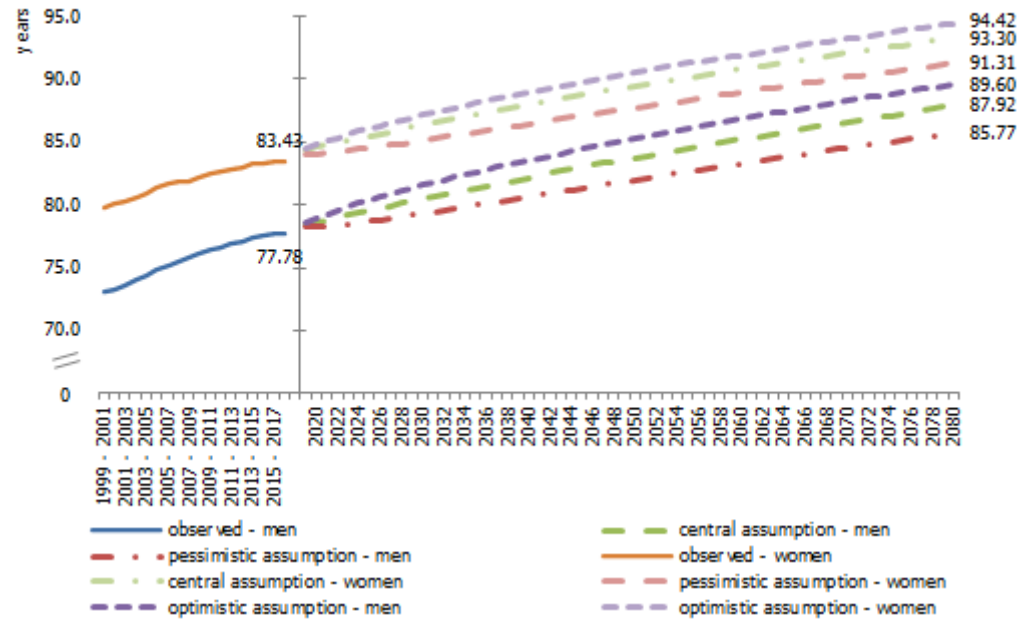
The assumptions focus on the expected evolution of mortality in Portugal, in particular on future levels of life expectancy at birth for men and women. Three assumptions were considered for the evolution of longevity in Portugal:

(1) *Central assumption* – in this assumption, recent trends of improvements in mortality are expected to continue and the pace of growth in life expectancy will be kept, with life expectancy at birth reaching 87.92 years for men and 93.30 years for women in 2080.

(2) *Optimistic assumption* – in this assumption, compared to the central assumption, a more pronounced increase in life expectancy at birth is expected, reaching 89.60 years for men and 94.42 years for women in 2080.

(3) *Pessimistic assumption* – in this assumption, compared to the central assumption, a less marked increase in life expectancy at birth is expected, reaching 85.77 years for men and 91.31 years for women in 2080.

Figure A2 - Life expectancy at birth, by sex, Portugal, 1999-2080 (observed and assumptions)



For the NUTS 2 regions, relational models (Brass, 1971, 1973) and non-parametric methods were applied, within the framework of the generalized linear models, considering the probabilities of dying estimated for the period 1991-2018, in the age range between 0 and 90 years, and taking as a reference population for each NUTS 2 the prospective mortality tables derived by the Poisson Lee-Carter method for Portugal. The idea behind the application of this methodology is to find a simple relationship that associates the mortality characteristics of the country and the NUTS 2 regions. Once this relationship is established, which we assume to be stable over time, it allows us to obtain the projected probabilities of dying for each NUTS 2 region from the projected probabilities for the Portuguese population.

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International migrations

In the projection of international immigration and emigration flows, coherent functional time series models for Portugal were adopted, following the method proposed by Hyndman *et al.* (2013), applied to immigration and emigration flows for the period 1991-2018.

The assumptions focus on possible developments in international migratory flows, computed independently for immigration and emigration. The projected net migration is obtained by the difference between the projected number of immigrants and the projected number of emigrants.

Four assumptions were considered for Portugal:

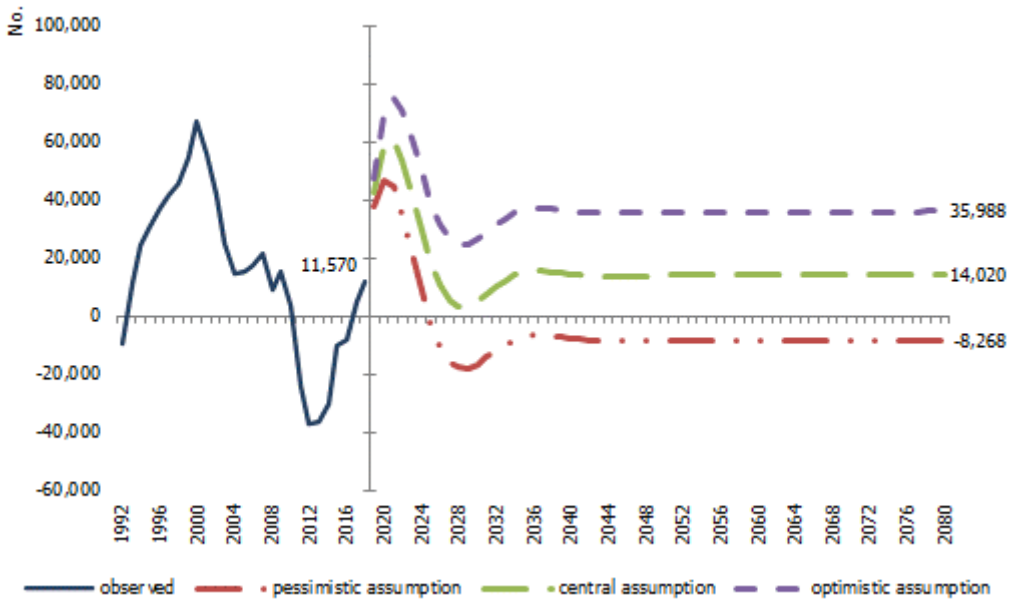
(1) *Central assumption* – in this assumption, trends in immigration and emigration are expected to continue, with the maintenance of positive annual international net migration over the projection period, reaching a net migration of 14,020 in 2080 (11,570 in 2018).

(2) *Optimistic assumption* – in this assumption, the possibility of a reduction in the number of emigrants and an increase in the number of immigrants is considered higher than the values established in the central assumption, reaching in 2080 a positive net migration 35,988.

(3) *Pessimistic assumption* – in this assumption, the possibility of increase in the number of emigrants and of a reduction in the number of immigrants in relation to the values of the central assumption is considered, reaching a negative migratory balance of 8,268 in 2080.

(4) *No migration assumption* – a fourth assumption was also considered, in which the possibility of the absence of international migratory flows was admitted, which, despite its improbability, allows to evaluate the influence of migratory flows in the demographic dynamics.

Figure A3 - Net migration, total, Portugal, 1992-2080 (observed and assumptions)



The projection of migratory flows to the NUTS 2 regions was carried out in two stages. In a first step, the model by Hyndman *et al.* (2013) is applied to the number of emigrants and immigrants from each region for the period 1991-2018. Annual estimates for the number of emigrants and immigrants by NUTS 2 regions for each projection year are used to determine the weight of each region in the respective national flows. The projection by sex and age is obtained based on the assumption that the evolution of the structure by age and sex of migratory flows is identical to the one projected for Portugal.

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Scenarios

The combination of alternative assumptions related to the future evolution of each component allows the definition of multiple scenarios of population projection. Within the scope of this exercise, four scenarios were defined for Portugal and NUTS 2 regions:

- CENTRAL SCENARIO – in this scenario central assumptions for all three components of demographic change – fertility, mortality and migrations – were considered.
- LOW SCENARIO – in this scenario pessimistic assumptions for all three components of demographic change – fertility, mortality and migrations – were considered.
- HIGH SCENARIO – this scenario is a result of the combination of optimistic assumptions for all three components of demographic change – fertility, mortality and migrations.
- NO MIGRATION SCENARIO – this scenario is identical to the central scenario, but with no migrations.

Figure A4 - Population projection scenarios, according to the assumptions of evolution of components, Portugal and NUTS 2, 2018 (last year observed) and 2080 (last year of projection)

Portugal and NUTS 2 regions	Projection scenarios	Total Fertility Rate		Life expectancy at birth				Net migration	
		2018	2080	2016-2018		2080		2018	2080
				Men	Women	Men	Women		
		No.		Years				No.	
Portugal	*Low*	1.41	1.42	77.78	83.43	85.77	91.31	11,570	-8,268
	Central		1.59			87.92	93.30		14,020
	High		1.82			89.60	94.42		35,988
	No migration		1.59			87.92	93.30		
Norte	*Low*	1.25	1.27	78.25	83.77	85.66	91.16	4,077	-6,958
	Central		1.48			87.41	92.57		133
	High		1.73			88.98	93.79		7,097
	No migration		1.48			87.41	92.57		
Centro	*Low*	1.26	1.28	78.16	83.74	85.90	91.22	-2,371	-1,792
	Central		1.48			87.63	92.59		3,043
	High		1.73			89.16	94.02		7,808
	No migration		1.48			87.63	92.59		
A. M. Lisboa	*Low*	1.72	1.73	77.99	83.49	85.79	91.10	11,640	1,828
	Central		1.88			87.66	92.50		8,487
	High		2.17			89.35	94.20		15,077
	No migration		1.88			87.66	92.50		
Alentejo	*Low*	1.43	1.45	77.31	82.90	85.53	91.00	-1,394	-707
	Central		1.63			87.42	92.42		513
	High		1.89			89.05	93.67		1,716
	No migration		1.63			87.42	92.42		
Algarve	*Low*	1.71	1.73	76.46	83.14	85.25	91.06	204	442
	Central		1.93			87.14	92.50		1,798
	High		2.15			88.84	93.77		3,141
	No migration		1.93			87.14	92.50		
R. A. Açores	*Low*	1.29	1.32	74.26	81.31	82.82	89.41	-974	-415
	Central		1.52			84.86	90.98		-68
	High		1.69			86.71	92.33		270
	No migration		1.52			84.86	90.98		
R. A. Madeira	*Low*	1.15	1.19	74.34	81.44	83.15	89.48	388	-666
	Central		1.38			84.98	91.01		114
	High		1.60			86.84	92.50		897
	No migration		1.38			89.98	91.01		

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Comparison with the 2015-2080 Resident Population Projections exercise

In March 2017, Statistics Portugal released the 2015-2080 Resident Population Projections exercise, built based on a set of four scenarios, resulting from the combination of demographic assumptions about the future evolution of fertility, mortality and migration components, which were computed based on demographic indicators relative to 2015, a period when the lowest ever total fertility rates were registered in Portugal, as well as negative net migration values.

The results that are now published in this press release constitute a new exercise of Resident Population Projections for Portugal and regions 2018-2080, which includes methodological changes and also incorporates more recent information, revealing improvements in the different demographic components in recent years:

- A total fertility rate of 1.41 in 2018, whereas in 2015 it was 1.30.
- A life expectancy at birth of 77.78 years for men and 83.43 years for women in 2016-2018, whereas in 2013-2015 the values were 77.36 years for men and 83.23 for women.
- A positive net migration of 11,570 in 2018, whereas in 2015 it was of 10,481.

As such, even though the two exercises are not directly comparable, results of the central scenario of the 2018-2080 Resident Population Projections exercise, which are now published, indicate, in relation to the central scenario of the 2015-2080 fiscal year, that:

- the trend of population decline persists, albeit slightly attenuated, resulting in in an increase of 700 thousand inhabitants in 2080 when compared with the 2015-2080 exercise.
- the population ageing trend remains, although slightly less pronounced: in the 2015-2080 exercise the estimated ageing ration for 2080 was 317 elderly people for every 100 young people, decreasing to 300 in the latest projection exercise.

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Detailed methodological information available at **www.ine.pt**: Products, Metadata System.

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