Comparative analysis of existing major population projections in eight South-East European countries

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Content

Executive summary

The database of the most important population projections was created within the framework of SEEMIG Project and it is built on the data from all the countries that were part of this project. This database contains the data from the last national projection, from the Eurostat projection Europop 2010 - convergence scenario, and from the UN World Population Prospects, the 2010 revision – medium variant, for eight countries: Austria, Bulgaria, Hungary, Italy, Romania, Serbia, Slovakia and Slovenia. Thus each country provided three prognoses for this database, except of Serbia for which the Eurostat projection is not available, and with the exception of Slovenia, that does not have national projection and so uses the projection prepared by the Eurostat for the official purposes. Each projection in this database contains the input data and the main results for years 2015 to 2060.

The main goal of a comparative analysis is to evaluate compiled data in two directions: to compare the differences in the expected development among the individual countries for each prognosis and also to compare the differences among all available prognoses for the same country. Since all prognoses were prepared by using a cohort-component methodology, which is the most frequently used method for demographic prognoses at the national level it is obvious that found differences are not caused by selected methodological background.

The differences among individual countries within the same prognosis are caused by different population development in these countries. The analysis solves also the differences between the projections for each country. These are caused especially by different approach of the authors of individual projections to composing of prognostic scenarios.

The input parameters for the projections calculated by the cohort-component methodology are fertility, mortality and migration. For each projections there is one characteristic for each of these input parameters, that comparative analysis focuses on. In the case of fertility, it is the total fertility rate, in the case of mortality it is the life expectancy at birth and in the case of migration it is the net migration. Regarding results the database contains data about the population number, total increase of population, mean age and ageing index that are the object of comparative analysis.

The basic assumption in all projections regarding fertility is halted decrease of fertility and its gradual increase. Individual projections differ from each other mainly in their estimation of the breaking point and following tempo of increase of fertility.

The decrease of mortality – maintaining tendency in whole Europe is taken into account in all three projections for all countries, which will mean for both sexes the increase of life expectancy at birth.

The complexity of migration projection is obvious when comparing individual projections. Given the projections of fertility and mortality, the projected development of migration is less equal and there are quite significant differences between projections.

The basic trend in expected development of the population number in all eight countries is the decrease of population number. The only difference is when this decrease shall occur as well as its intensity. In Bulgaria, Romania, Hungary and Serbia population will decrease during the whole projected period, in other four countries there will be a turnover in development of the population between 2025 and 2050. More intensive population decrease is expected in Bulgaria, Romania, Hungary and Slovakia. On the contrary in Austria, Italy and Slovenia the population would not have to decrease if we compare the year 2060 with the present.

Even in the development of total increase of population the Europe-wide trend is confirmed i.e. decrease of total population increase and its gradual change into total decrease of population.
Irreversibility of the process of population ageing in following decades manifests through stable trend in all countries and differences between individual projections are not so significant either. An important feature of population ageing in all countries is the intensive ageing in the first half of the 21st century and gradual slowdown of this process around 2050.

1. Introduction

The database of the most important population projections was created within the framework of the SEEMIG Project and it is built on the data from all the countries that were part of this project. This database contains data from the last national projection, from the Eurostat projection Europop 2010 - convergence scenario, and from the UN World Population Prospects, the 2010 revision – medium variant, for eight countries: Austria, Bulgaria, Hungary, Italy, Romania, Serbia, Slovakia and Slovenia. Thus, each country provided three prognoses for this database, except for Serbia, for which the Eurostat projection is not available, and with the exception of Slovenia, which does not have its own national projection and so uses the projection prepared by Eurostat for official purposes. The national projection for Serbia is available only until the year 2050. As for the case of Serbia, it is important to specify the methodological difference between the UN and the national projections. UN projection refers to Serbia including Kosovo and Metohija, while the national projection refers to Serbia excluding these two territories.

Each projection in this database contains the input data and the main results for years 2015 to 2060. Also, special software was developed for the requirements of the SEEMIG project that enables evaluation and comparison of any data in the above-mentioned database.

The main goal of a comparative analysis is to evaluate compiled data in two directions: to compare the differences in the expected development among the individual countries for each prognosis, and also to compare the differences among all available prognoses for the same country. Since all prognoses were prepared using a cohort-component methodology, which is the most frequently used method for demographic prognoses at the national level, it is obvious that observed differences are not caused by the selected methodological background.

The differences among individual countries within the same prognosis are caused by different population development in these countries. The differences in the actual population development in individual countries that are taking part in SEEMIG project are sufficiently known. For instance, they were mapped also by the analysis presented at the launch conference in September 2012 in Bratislava (Population development in SEE countries).

In this analysis, there were certain noticeable differences among individual projections for the same country. The analysis solves the differences between the projections for each country too. These are caused especially by a different approach of the authors to individual projections in composing prognostic scenarios.

2. The Analysis of the Input Parameters of the Projections

The input parameters for the projections calculated by the cohort-component methodology are fertility, mortality and migration. For each projection, there is one characteristic for each of these entry parameters that comparative analysis focuses on. In the case of fertility, it is the total fertility rate; in the case of mortality, it is the life expectancy at birth (separately for men and for women; and in the case of migration, it is net migration.

2.1. The expected development of fertility

Estimating the development of fertility is a decisive part of the demographic projection. The basic assumption in all three compared projections – the Eurostat projection, the UN projection and the national projections of countries participating in the SEEMIG project – is to halt the decrease of fertility and encourage its gradual increase. Projections differ from each other mainly in the rate of fertility growth.

According to the projection of Eurostat, in the most probable medium variant, the most significant growth of the total fertility rate is expected in Hungary and Romania (figure 1). In Hungary, the total fertility rate is expected to increase from 1,34 in 2015 to 1,51 in 2060. As for Romania, the increase is from 1,39 to 1,55 during the same projected period of time. According to the projection of Eurostat, Bulgaria shall reach the highest fertility rate by the end of the projected period (1,67) as well as Slovenia (1,65). Among all countries participating in the SEEMIG project, the above mentioned ones have higher fertility rate across the whole projected period than others. The projection of the UN expects, by the year 2060, an increase in the fertility rate in all participating countries with much higher intensity or with faster growth (figure 2). Fertility rates for each country are significantly higher in the projection of the UN (approximately in 16–21%) and at the end of the projected period they reach values of total fertility rate from 1,86 in Austria to 1,97 in Bulgaria. According to this projection the fastest increase of fertility will be in Austria (from 1,36 in 2015 to 1,86 in 2060) and Slovakia (from 1,47 in 2015 to 1,92 in 2060). Values of this indicator will also increase quite intensively in Romania and Hungary (in both cases up to 1,93 in 2060). The UN projection compared to the one made by Eurostat as well as to national projections of each compared country greatly overestimates the expected fertility growth in these countries. All national projections also expect an increase of the total fertility rate level (figure 3). The expected rate of fertility growth is similar to the one in the projection of Eurostat. When comparing individual national projections we can observe the fastest growth of the total fertility rate in Serbia (from 1,50 in 2015 to 1,80 in 2050) and in Romania (from 1,50 in 2015 to 1,80 in 2060). An interesting development of fertility is expected in Hungary where a significantly intensive increase is expected from the start of the projected period until 2030 and then its stagnation on 1,50 until the end of the projected period. In comparison, a slower tempo of growth of the fertility rate according to national projections is expected in Bulgaria and Austria. In the case of national projection of Bulgaria, the total fertility rate shall increase until the end of the projected period to 6% and in Austria,

an 8% projected increase is expected. Fertility growth during the projected period until 2060 in other compared countries increases to more than 10%, and in Serbia it is even more than 20%. When comparing all three projections in more detail (Eurostat, UN and national projections), we can observe that in the majority of cases the values of estimated development of fertility are between the expected values of the UN and Eurostat projections (figures 4-11). At the same time, the UN projection anticipates a faster increase of fertility and meanwhile the values are much higher than in national projections and the Eurostat one. Except for Bulgaria, where the values of predicted fertility development in the national projection are lower than those expected in the Eurostat projection and the UN projection[1]. In the cases of Italy (figure 7) and Austria (figure 4), the fertility development expected in the national projection is almost the same as in the projection of Eurostat.

2.2. The expected development of mortality

Generally speaking, the development of mortality is favorable in all countries we are comparing. All the circumstances suggest that these positive trends will be maintained in the projection period 2015 -2060. In all three projections (Eurostat, UN and national projections) mortality is expected to decrease, which shall have an impact on both genders as an increase of life expectancy at birth.

The Eurostat projection expects an increase of life expectancy at birth of males in 7 compared countries of 8,5 years in average (figure 12). The highest increase of this indicator is expected in the projection of Eurostat in Romania – from 71,4 years in 2015 to 81,8 years in 2060. According to this projection, life expectancy at birth of males shall increase by10 years in Hungary and Bulgaria. In contrast, in Italy the life expectancy at birth of males shall increase the least – from 79,7 years in 2015 to 85,5 years in 2060. The UN projection also anticipates an increase of life expectancy at birth of males but at a slower rate (figure 13). On average, the value of the indicator itself shall increase in the compared countries by5,8 years. Like the projection of Eurostat, the one made by the UN assumes the highest increase of life expectancy at birth of males in Romania (from 71,7 years in 2015 to 78,2 years in 2060)then in Bulgaria (from 71,9 years in 2015 to 78,3 years in 2060) and in Hungary (from 71,1 years in 2015 to 84,5 years in 2060). Like in the Eurostat projection, the UN's one also expects the highest increase of life expectancy at birth of males in Romania (from 71,7 years in 2015 to 78,2 years in 2060), then in Bulgaria (from 71,9 years in 2015 to 78,3 years in 2060) and in Hungary (from 71,1 years in 2015 to 77,4 years in 2060). According to the UN's projection it shall be the life expectancy at birth of males in Austria which will increase the most slowly (from 79,3 years in 2015 to 84,5 years in 2060). According to the national projections of the countries participating in the SEEMIG project an increase in life expectancy at birth of males is expected in the order of 7,4 years (figure 14). The most intensive increase of life expectancy at birth of males during the projected period of time is expected in the national projection of Bulgaria (from 71,5 years in 2015 to 83,3 years in 2060), of Hungary (from 72,2 years in 2015 to 82,6 years in 2060) and

[1] Serbia is not a member of the EU. Only data from national projection and UN projection are available for comparison. As for Slovenia there are data from Eurostat and UN projections available for comparison.

Slovakia (from 72,9 years in 2015 to 82,6 years in 2060). By contrast, the slowest increase of life expectancy at birth of males during the projected period from 2015 to 2060 is expected in the national projections of Italy and Serbia. In both countries, the value of the indicator itself shall increase by5,9 years. In Italy it shall increase up to 86,2 years by2060 and in Serbia up to 78,8 years by2050. In the whole projected period and across all three projections, Italy and Austria have the highest life expectancy at birth of males. After detailed comparison of Eurostat, UN and national projections, it is obvious that in most compared countries the tempo of growth of life expectancy at birth of males is higher in national projections. Except for Hungary, where the increase of this indicator in national projections almost copies the one in the Eurostat projection (figure 17). As for Slovakia, until 2025, the expected increase of life expectancy at birth of males is identical in all three projections. But in the next projected period there is a change – the national projection of Slovakia expects a little less intensive increase of this indicator when compared to the Eurostat and UN projections (figure 21).

On average, women live longer than men. The values themselves of expected development of life expectancy at birth of women are, in all countries participating in the SEEMIG project, higher by 5 – 6 years on average during the whole projected period in all three compared projections. According to the Eurostat projection, the indicator of life expectancy at birth of women shall increase at a steady pace without fluctuations in all compared countries by6,8 years on average (figure 23). The projection of Eurostat expects the most intensive increase of life expectancy at birth of women, as it is for men, in Romania (increase of 8,2 years to 86,7 years in 2060), in Bulgaria (increase of 8,1 years to 86,6 years in 2060) and in Hungary (increase of 7,9 years up to 87,4 years in 2060). According to this projection the slowest growth of life expectancy at birth of women shall be in Italy (increase of 4,9 years up to almost 90 years in 2060). The UN projection anticipates a slightly slower increase of life expectancy at birth of women – about 5,2 years on average (figure 24). According to UN projections, the highest increase of this indicator is expected in Hungary (from 79,2 years in 2015 to 85,1 years in 2060), then in Bulgaria and Serbia. In both countries, the expected increase of life expectancy at birth of women is 5,6 years – in Bulgaria up to 83,4 years in 2060 and in Serbia up to 83,3 years in 2060. Like the projection of Eurostat, the one made by the UN also expects the slowest increase of life expectancy at birth of women will be in Italy, an increase of 4,7 years, up to 89,9 years in 2060. According to the national projections prepared in the countries involved in the SEEMIG project, an increase of life expectancy at birth of women of 6,5 years on average is expected in all of them (figure 25). Values of the above mentioned indicator shall increase the most rapidly in Hungary (from 79,7 years in 2015 to 88,8 years in 2060). The life expectancy at birth of women in Slovakia shall significantly increase as well by the end of the projected period (an increase of 6,9 years, up to 86,8 years in 2060). After a more detailed comparison of the expected development of life expectancy at birth of women according to each projection (Eurostat, UN and the national ones), a similar development of this indicator in Bulgaria (figure 27) and Slovakia (figure 32) is obvious in Eurostat and national projections while the projection of the UN is little below that estimate. According to Eurostat and UN projections, development of life expectancy at birth of women in Italy (figure 29) and Austria (figure 25) are almost

identical while national projections both expect a faster tempo in its increase. As for Slovenia, the expected development of life expectancy at birth of women is almost the same according to Eurostat projection and the one of the UN (figure 33).

2.3. The expected development of migration

A number of non-demographic factors have an impact on migration in a fundamental way and that is the reason why it is so difficult to estimate its future development to some extent. Migration of people from less developed into more developed countries is a global trend and it concerns all countries participating in the SEEMIG project. It is assumed that net migration over the projected period shall affect that part of the population which will look for better living conditions in more developed countries as well as immigrants from underdeveloped or developing countries. It can be assumed that, if a more favorable situation and standard of living is in a particular country, fewer inhabitants leave, while more foreigners move in.

According to Eurostat projections, in most countries we can observe from about half of the projected period a gradual decreasing trend of net migration (figure 34). According to the Eurostat projection, net migration (calculated per 1000 population) is expected to be reduced by the end of the projected period in comparison to its beginning in Austria, Hungary, Slovakia, Italy and Slovenia. The most significant fall in net migration is expected in Slovenia (from 4,1 per 1000 population in 2015 to 1,9 per 1000 population by2060) The projection of Eurostat anticipates a significant decrease in net migration in Italy too (from 5,7 per 1000 population in 2015 to 3,9 per 1000 population by2060). Specific development of net migration is expected in Bulgaria. Eurostat projects in the first third of the projected period a gradual increase of net migration from negative values and approximately in 2033 they should overpass the zero limit and reach positive values. However by the end of the projected period the value of net migration in Bulgaria shall approach zero again. Nevertheless according to the Eurostat projection, Bulgaria is a country where the highest increase of net migration is expected during the projected period (from -1,5per per 1000 population in 2015 to 0,1 per 1000 population by 2060). At the end of the projected period according to Eurostat projections the highest net migration is expected in Italy (3,9 per 1000 population) and Austria (2,8 per 1000 population). In comparison, the lowest net migration, except for the aforementioned Bulgaria (0,1 per 1000 population), is expected as well in Romania (0,2 per 1000 population). The UN projection (figure 35) anticipates, during the entire projected period, a steady development of net migration without fluctuations in three countries – Slovakia, Romania and Serbia. As for Romania and Serbia, the UN projection expects values of net migration at zero limit; in the case of Slovakia, it is between the interval 0,6-0,7 per 1000 population. Even in other compared countries – Austria, Italy, Slovenia and Hungary – a steady development of net migration is expected, but only up to the year 2045. From 2045, there is a significant decrease of net migration until the end of the projected period. In the above mentioned countries, the values of net migration are the highest in the entire projected period. During the whole period the UN projection expects a decrease of net migration in Bulgaria. In Bulgaria from 2050 a positive change is expected in the development of this indicator when there should be a gradual

reduction of its negative values of net migration. The expected development of net migration according to national projections of countries (figure 36) which participate in SEEMIG project is different when compared to Eurostat and UN projections. Romania and Serbia significantly differ from the trend of expected development of net migration according to national projections. Despite the negative values of the indicator in the projected period, net migration in Romania increased the most (from -3,8 per 1000 population in 2015 to -1,0 in 2060). In contrast, a national projection of Serbia expects a significant increase of net migration in comparison to other countries. While at the beginning of the projected period of time net migration of 0,6 per 1000 population is expected, by 2050 it is expected to be 10,0 per 1000 population. Bulgaria, according to national projection, expects a slight increase of net migration until 2030 and a subsequent stabilization to 0,7-0,8 per 1000 population by the end of the projected period. A national projection for Hungary also expects a steady development of net migration (1,6-1,8 per 1000 population) during the projected period. A slight increase of net migration at the beginning of the projected period and its subsequent stabilization at 2,3-2,4 per 1000 population is expected as well in the national projection of Slovakia. In contrast national projections for Austria and Italy expect a slight decrease of net migration despite both countries being amongst those with the highest net migration during the entire projected period. From a detailed comparison of the expected development of net migration according to Eurostat, UN and national projections in countries involved in SEEMIG project, it arises that assumed development of the indicator shows significant differences (figures 37-44). The UN projection significantly underestimates the expected development of net migration in the majority of countries when compared to Eurostat and national projections, except for two countries – Hungary and Romania. In Hungary (figure 39), the expected development of net migration according to national projections, is similar to the one according to the UN projection until the year 2045. From 2045, national projection for Hungary expects the continuation of increasing trend of net migration until the end of the projected period. On the other hand, the UN projection anticipates its gradual decrease. In comparison, the Eurostat projection expects significantly higher values for Hungary during the entire projected period. In the case of Romania (figure 41), the national projection assumes a significant increase of net migration even if in negative values, while the UN projection expects a stabilized trend of net migration development around zero per 1000 population and the Eurostat projection expects a decreasing trend in the interval of positive values 1,3-0,6 per 1000 population by the end of the projected period in Romania. The case of Serbia is also very interesting (figure 42). While the UN projection assumes zero net migration during the entire projected period, a national projection for Serbia expects its significant increase and subsequent stabilization at around 10 per 1000 population from 2040. In the cases of Italy (figure 40) and Austria (figure 37), all three projections expect a decreasing trend of net migration especially from2040. In Bulgaria (figure 38), the assumed trend of net migration according to national projection is similar to the UN projection from 2035. But the UN projection expects its development in negative values from -1,7 to -1,4 per 1000 population by2060 and the national projection of Bulgaria is in positive values in the interval of 0,6-0,8 per 1000 population. As for Slovenia (figure 44), Eurostat and

UN projections are available for comparison. Eurostat assumes a significant decrease of the net migration trend until 2035, whereas the UN expects a steady, stabilized net migration at the beginning of the projected period. From2040, both projections expect a very similar decreasing trend of net migration until the end of projected period. In Slovakia (figure 43), according to national projections, an intensive increase of net migration is expected until 2030 and then it stabilizes at 2,3-2,4 per 1000 population. The UN projection assumes a stabilized net migration at 0,7 per 1000 population until 2040 in Slovakia and a one-off increase in 2045 with a gradual slightly-decreasing tempo to 0,6 per 1000 population by2060. Eurostat projection expects fairly uneven development of net migration in Slovakia – a significant increase of the indicator at the beginning of the projected period and its stabilization approximately at 1,5 per 1000 population in the middle of the projected period. By the end of the projected period it assumes a slight increase of values of net migration followed by a significant decreasing trend until the end of the projected period.

3. The Analysis of the Main Results of the Projection

The projections calculated by cohort-component methodology enable us to obtain information about the expected development of the number of the total increase and of the age structure of populations. The database contains the data about the population number, total increase, the mean age and the ageing index that are the object of comparative analysis.

3.1. The development of the total number of population until 2060

The analysis of input parameters of the projection is a basis to assume expected development of number of the population. Development trend of population in countries participating in SEEMIG project according to all three projections - Eurostat, the UN and national projections is very similar. The differences between the three mentioned projections in terms of the development of the number of inhabitants are in the intensity and different levels of indicator values. In all compared countries a decrease of the population is expected during the projected period.

The difference lies in timing – when this decrease should occur; the exception is Slovenia (figure 52). In Slovenia the projection of Eurostat, as well as the one made by the UN, expect the stable development of number of population, which will probably remain during the entire projected period at 2,0 -2,2 million. An intensive decrease of population right from the beginning of the projected period is expected in Bulgaria, Romania and Hungary. All three projections – of Eurostat, the UN and national projections of the concerned countries confirm it. In Bulgaria (figure 46) Eurostat projections and national projections expect a decrease of the population of approximately 33%; the UN assumes a decrease of population of as much as 45% in Bulgaria. In the case of Romania, it is a national projection which expects the highest decrease of population of 46% during the projected period. The Eurostat projection and the UN one expect a decrease of population lower (by half) than the national projection. The expected decrease of the total number population in Hungary should be the same according to all three projections (figure 47). Only by the end of the projected period – from2045 the decrease of the

number of the population shall be more intensive according to the national projection which assumes a decrease of 16%. Just for comparison, Eurostat projects a decrease of the population number of 12% in Hungary and UN a decrease of 9%. Population decrease is expected also in Serbia even though not in such intensive tempo as in previous cases[2]. In other countries – Italy, Austria and Slovakia– the number of inhabitants is expected to increase at the beginning of the projected period and then to decrease. The turnover point is different in each country as well as is the intensity with which the number of inhabitants shall decrease until the end of the projected period. An intensive increase of population is expected in Austria according to the national projection during the whole projected period (figure 45). The number of the population should increase by almost 9% up to 9,4 million in 2060. The projection of Eurostat assumes an increasing trend in the development of the population in Austria until 2045 when it shall reach 9 million. From this year a slight decrease is expected during the following period. Eurostat projects in Austria an increase in the population during the projected period 2015-2060 of 4,5% to 8,9 million. The UN projection expects the increase of the population in Austria in a shorter time – by2035. Then the number of inhabitants shall steadily decrease until the end of the projected period. The UN assumes that during the whole projected period the population of Austria shall decrease by about 3% to 8,2 million. A similar development of the population is expected also in Italy (figure 48). According the national and Eurostat projections, an increase in the population is expected until 2045 in Italy. During the next period until 2060, the number of inhabitants in Italy should decrease slowly. Despite this projection the number of inhabitants in Italy shall increase during the projected period of time 2015-2060. The national projection assumes it should be a minimal increase of about 1%. Eurostat projects a population increase in Italy of almost 5% to 65 million inhabitants. The UN projection expects a decreasing tendency in the development of population in Austria during the entire projected period. The size of the population shall decrease by almost 7% to 57,4 million in 2060. An interesting population development is expected in Slovakia (figure 52). The increase in population in Slovakia shall stop in 2025 according to Eurostat and the UN, and according to the national projection it shall stop a bit later, in 2030. All three projections assume in the next development that the population in Slovakia shall decrease until the end of the projected period. Eurostat expects in Slovakia a decrease in population of 7,7% between 2015-2060, while the UN expects a decrease of almost 9%. In both cases the total population in Slovakia shall reach 5,1 million. The Slovak national projection expects a lower decrease in population only by 2% - from an initial 5,4 million to 5,3 million of population by 2060.

[2] *UN projection refers to Serbia including Kosovo and Metohija, while the national projection refers to Serbia excluding Kosovo and Metohija.*

3.2. The development of total increase of population

The expected development of total increase of population, which reflects better the changes in intensity of compared projections, gives another point of view on the development of population in countries participating in the SEEMIG project. The total increase is calculated as the average per 1000 population in a country during five years.

According to the Eurostat projection, the total increase of population decreases in all compared countries (figure 53). Except for Bulgaria, where in spite of negative values of total population increase across the entire projected period a gradual increase is expected between the years 2025 and 2040, followed by the stabilization at -5,4 per 1000 population (2040-2050) and then again a slight decrease until 2060 to the same level as at the beginning of the projected period. The total population increase according to Eurostat's projection shall decrease the most in Slovakia from 2,3 per 1000 population in 2020 to -4,5 per 1000 population by2060 and in Slovenia from 3,4 per 1000 population in 2020 to -3,1 per 1000 population by2060. They assume also a significant decrease of total population increase in Italy from 3,5 per 1000 population in 2020 to -1,8 per 1000 population in 2060 and in Romania from -2,4 per 1000 population in 2020 to -7,4 per 1000 population in 2060. Like in Eurostat's projection, national projections (figure 55) expect during the whole projected period a decrease of the total population increase as well. Only in the case of Austria will total population increase remain in positive values in accord with the national projection but it shall decrease anyway from 3,5 per 1000 population in 2020 to 0,4 per 1000 population by 2060. According to national projections, a positive total increase of population at the beginning of the projected period is expected in Slovakia and Italy. In Slovakia it is expected that the total increase shall turn into a declineby2035. From this year on, a gradual increase of the total population decrease to -2,7 per 1000 population by2060 is expected. In Italy this change of total population increase shall turn into a decrease later according to the national projection, in 2045 to -0,1 per 1000 population. It is expected that the total decrease of population shall reach -2,6 per 1000 population by the end of the projected period. In Hungary and Bulgaria, a total decrease is expected during the entire projected period according to national projections, although its development does not decrease dramatically in every five-year interval. The biggest total decrease according to the national projection is expected in Romania where it shall reach -10,2 per 1000 population by the end of the projected period. According to a national projection the development of total decrease in Serbia is quite interesting. Between the years 2020 and2040, a decrease of the total population decrease is expected from -3,9 per 1000 population to -0,7; however it will increase again to -1,3 per 1000 population until 2050. According to the UN projection (figure 54), the development of the total increase in compared countries is similar. There is a total decrease of population in all compared countries during the projected period. In Bulgaria and Hungary, the UN projection expects the total decrease of population during the whole projected period which will evolve unequally. At the beginning of the projected period – approximately by2035– the UN projection expects that the total decrease shall further deepen

in the above mentioned countries. In the following years, it shall stop temporarily and it shall even decrease for a short period. In Hungary, the reduction of total decrease between the years 2040-2050 is evident. By the end of the projected period it is expected that the total decrease will increase again in both countries at a moderate pace. The projection of the UN assumes that the total decrease of population shall increase in Hungary between the years 2020-2060 from its initial value -1,6 per 1000 population to -2,0. In Bulgaria an increase of the total population decrease from -7,2 to -9,4 per 1000 population is expected. In Austria, Slovenia, Italy, and Slovakia, the UN expects that the total increase of population shall turn into an overall decrease during the projected period. In Italy, this turnover is expected to happen right at the beginning of the projected period in 2020. In the following years the total decrease of the population in Italy shall slowly deepen at first, then after 2045 it shall deepen even more intensively until it reaches the value of -3,3 per 1000 population by2060. In Austria, the total increase of the population shall probably reach the zero value in 2035 from its initial value of 1,2 per 1000 population from 2020. In the following years, the UN projection expects only the total decrease of the population in Austria. In Slovakia and Slovenia, the total increase of the population will turn into a decrease already by2025. Then, in both countries, the total decrease of population shall deepen further, in Slovakia more intensively than in Slovenia. Meanwhile, Slovakia is also the country where the UN projection expects the most significant decrease of total increase of population in the projected period (from 1,4 per 1000 population to -3,9per 1000 population).

The results of the comparison of all three projections (the Eurostat, the UN and the national projection) for each country separately are also interesting. Despite the decreasing tendency of total increase in Austria, the national projection expects that values of this indicator shall maintain above zero value during the projected period (figure 56). However in 2060, the assumed total increase of the population in Austria shall get close to 0 per 1000 population. The projection of Eurostat expects a continuous decrease of total population increase in Austria, while after 2045 it expects a turnover in its development into an overall decrease, down to -1,2 per 1000 population in 2060. The UN projection assumes the turnover of total increase into total decrease after 2035, and in 2060 the total decrease of population shall reach -2,2 per 1000 population in Austria. A similar scenario in the development of total increase of population is expected in Italy as well (figure 59). The national projection, just as the Eurostat projection, expects a continuous and steady decrease of total increase of population in Italy. According to the national projection, the total increase shall fall during the projected period from 2,8 per 1000 population in 2020, to 0,4 in 2040, and in 2060 even to -2,6per 1000 population. The projection of Eurostat assumes in Italy a decrease of total increase from 3,5 per 1000 population in 2020 to 1,6 in 2040, and then to -1,8 in 2060. Actually the UN projection expects a total decrease of population in Italy right from the start. A moderate pace of deepening of population decrease will become even more intensive by the end of the projected period according to the UN, when the total decrease shall reach the value of -3,3 per 1000 population. In Slovakia, the national projection assumes in 2020 a total increase of 2,0 per 1000 population and the Eurostat at 2,3 per 1000 population. But according to the national

projection, the rate of progressive decrease of values of total increase is slower (figure 62). A turnover of total increase into decrease is expected in 2035, when it reaches the value of -0,3 per 1000 population. In the same year, Eurostat projection expects the decrease of total population increase even to -1,8per 1000 population. Until the end of the projected period, the total decrease in Slovakia shall deepen even more according to the national projection, by reaching assumed value of -2,7 per 1000 population. The projection of Eurostat assumes that in 2060 the total decrease shall be at -4,5 per 1000 population. Compared to the Eurostat projection and the national one, the UN projection expects in the case of Slovakia a more intensive increase of total decrease. The total decrease of population in Slovakia shall deepen until it reaches -3,9 per 1000 population in 2060. A very similar development of total increase is expected in Slovenia (figure 63). The Eurostat projection assumes a deep fall of total increase in Slovenia at the beginning of the projected period. They expect that in 2030 it reaches already the zero value and in the following years it shall only move in negative values. According to Eurostat, in 2060 the total decrease should reach the value of -3,1 per 1000 population. The UN projection expects a slightly smaller decrease of population at the end of the projected period (-2,6 per 1000 population). As we have already mentioned here above in four countries – Bulgaria, Hungary, Serbia and Romania – according to all three projections, a total decrease of population is expected during the whole projected period. The highest values of total decrease are expected in Bulgaria and Romania. The national projection of Bulgaria (figure 57) expects a continual fall of total decrease at the beginning of the projected period until 2030 when it should reach -6,6 per 1000 population. Subsequent stabilization in the development of this indicator is expected next, with a small reduction of the total decrease to -6,3 per 1000 population in 2050. By the end of the projected period the total decrease of population shall further deepen to -6,8 per 1000 population in 2060 according to this national projection. Eurostat projects an absolutely different development of the total decrease in Bulgaria. The initial increase of the total population decrease at the beginning of the projected period from -7,7 per 1000 population in 2025 will probably stop, and then until 2045 a reduction of total decrease is expected to -5,4 per 1000 population. From2045 the Eurostat projection expects again an increase of the total population decrease to the same level at which it was at the beginning of the projected period which means a value of -6,8 per 1000 population in 2060. The UN assumes an intensive increase of the total population decrease in Bulgaria until 2030, later the total decrease shall stop even reducing. At the end of the projected period in 2060, the UN expects that the total decrease shall reach -9,4 per 1000 population.

The development of the total decrease of population in Romania (figure 60) is very similar according to the Eurostat projection and the one prepared by the UN when both are compared to the national projection. Starting from initial almost identical values in 2020, which are -2,4 per 1000 population according to Eurostat, and -2,6 per 1000 population according to the UN, both projections assume a steady increase of total decrease in Romania to a final figure of -7,4 per 1000 population (the Eurostat projection) or -6,6 per 1000 population (the UN projection). Until the mid-point of the projected period, total decrease of population will probably progressively increase in Hungary (figure 58). In 2035, a decreasing tendency of total

population decrease in Hungary according to the UN and the Eurostat projections shall become stabilized shortly. From2045 approximately, Eurostat expects that the negative development shall continue, which means the total decrease of population shall increase up to -3,8 per 1000 population. By way of contrast, the UN projection expects a more optimistic scenario after 2040, the reduction of total population decrease to a value of-2,0 per 1000 population in 2060. In 2060, the total decrease of population shall reach the value of -4,1 per 1000 population according to the national projection. In Serbia (figure 61), we can compare national projections (only until 2050) and the UN projection[3]. While the projection of the UN expects an equally continuous increase of the total population decrease during the entire projected period, the national projection expects a positive reduction of the total decrease of population until the mid-point of the projected period. According to the national projection, the total decrease in Serbia shall increase from -3,9 per 1000 population in 2020 to -0,3 in 2040. However after 2040 the national projection assumes a rather significant increase of total population decrease again of nearly half of the value from the beginning of the projected period, to -2,0 per 1000 population.

3.3. Population ageing

Besides an overall decrease in the population, ageing will be the second major feature of the future development of population in countries involved in the SEEMIG project. With its importance it is clearly the most serious consequence of the current development of population. Expected development of mean age as well as ageing index is the proof.

The Eurostat projection expects the slowest increase of the mean age (figure 64). According to Eurostat, mean age should increase an average of 6,7 years in all compared countries during 2015-2060. The most intensive increase of the mean age is expected at the beginning of the projected period. Approximately from 2045, the development of mean age in compared countries starts to differ. The Eurostat projection expects a continual and intense increase of mean age until 2060 in four countries – Romania, Bulgaria, Hungary and Slovakia. In the case of Austria, Italy and Slovenia after the initial increase of mean age, the decrease of tempo in development of mean age is expected approximately from the second half of the projected period and finally we can speak even about stabilization at the end of projected period. A similar scenario of the mean age development is expected in all national projections. (figure 66). Except for Romania, where the development of mean age by national and Eurostat projection is completely different from 2030. It means a faster tempo of growth of mean age at the beginning of the projected period in all compared countries. In the second half of the projected period, moderation of increasing tempo of mean age is expected in some countries –

[3] *UN projection refers to Serbia including Kosovo and Metohija, while the national projection refers to Serbia excluding Kosovo and Metohija.*

Austria, Italy and Slovenia. In Hungary and Slovakia, an intensive increase of mean age shall continue until the end of the projected period and in Serbia it is even expected to decrease in the period 2040-2045. According to national projections, mean age in compared countries shall increase approximately by 5,5 years on average. It is the national projection of Slovakia which expects the highest increase of this indicator from 2015-2060 (increase of 9,2 years) as well as the one of Hungary (7,5 years). On the other hand, the lowest increase is expected in the national projection of Serbia (an increase of 0,7 years between 2020-2050) and the national projection of Austria (4,5 years).

The UN projection expects an increase of mean age of 4,7 years on average in compared countries (figure 65). In comparison to the projection of Eurostat, the UN projects not so variable a development of mean age. It shall increase most intensively in all countries until 2035 (in Slovakia till 2040 and in case of Serbia even till the end of the projected period). Afterwards the increase of mean age shall slow down until the end of the projected period. In four countries (Austria, Italy, Bulgaria and Slovenia) even a short small decrease of mean age is expected between 2050 and 2060. According to the UN projection during the entire projected period 2015-2060, mean age shall increase the most in Serbia (increase of 6,4 years) and in Slovakia (6,3 years). They are followed by Romania (5,7 years) and Austria (4,7 years). Among all compared countries, it is expected that Italy and Austria shall reach the highest value of mean age – in Italy 48 years and in Austria 47,6 years. By comparison, the lowest mean age at the end of the projected period is expected in Hungary (44,7 years).

After detailed comparison of the national projections with Eurostat and the UN projections, we can observe more or less the same value of mean age in Austria in 2015, which means 42,6-42,8 years (figure 67). The UN and Eurostat projections, as well as the national one, expect a steady increase of the mean age of the population in Austria until about 2045. In the following time horizon, a slowdown of this increasing tempo is expected to 47,1 years in case of the national projection and to 47,6 years in case of the UN projection.

In Bulgaria (figure 68) a more intense increase of mean age is expected according to national and Eurostat projections. According to both mentioned projections, the mean age in Bulgaria shall increase by 5,5-5,8 years during the entire projected period to almost 49 years in 2060. Projections of the UN expect a slower tempo of increase of the mean age. According to the UN projection, the mean age in Bulgaria should increase by 3,5 years to 46 years in 2060. It is interesting to compare the assumed development of mean age in Italy (figure 70). All three compared projections have the same “starting level” of the mean age – 44 years in the first year of the projected period. While the national projection expects a steady increase of mean age values across the projected period to almost 50 years, the projections of the UN and Eurostat expect, from 2040, a stabilized development of the mean age around 48 years in Italy.

As for the development of mean age in Romania, all three projections expect a very similar scenario. They start from almost the same level of the mean age at the beginning of the projected period – 41 years (figure 71). Almost the same intensity of growth of mean age is assumed by national and by the UN projections, with its stabilization at the level of 46,5 years by the end of projected period. By comparison, the Eurostat projection assumed a continuous

increase of mean age up to 50 years by 2060. In the case of Hungary too, all three compared projections have the same starting point – just under 42 years (figure 69). National and Eurostat projections expected the same development of mean age in Hungary. According to these projections, the mean age in Hungary shall increase by 7-7,5 years to nearly 50 years in 2060. The expected development of the mean age in Slovakia during the period 2015-2060 has the same character as in previous cases (figure 73). All three projections expect the same starting point: around 40 years. The Eurostat and the national projections assume an almost identical development of the mean age in Slovakia during the projected period. According to the two mentioned projections, the intensity of the increase shall rise equally until the end of the projected period. The difference between the mean age values at the end of the projected period in both projections is minimal, only 0,3 years. According to the UN projection, the stabilization of mean age at the value of about 46 years is assumed after 2040, which is lower by 3 years in comparison to national and Eurostat projections.

In case of Serbia and Slovenia, we only have data from two projections. The UN projection expects in Serbia (figure 72), during the entire projected period, a continuous increase of the mean age without any fluctuations in its development trend. The UN projects the increase of mean age in Serbia from 39,6 years at the beginning of the projected period to 46 years by 2060. According to data from the national projection the mean age shall increase at a significantly slower rate until 2040 when it should reach 44,6 years. In the following years the national projection expects a decrease in the mean age value of about one year to 43,5 years. It shall practically remain at this level until the end of the projected period (until 2050). In Slovenia, the projections of the UN and Eurostat expect a steady and continual increase of the mean age between 2015 - 2040. After 2040 the UN projection expects a halt of mean age increase, followed by stabilization at 47 years until 2060. In contrast, the Eurostat projection expects a slight increase of the mean age to a final figure of 47,9 years (figure 74).

The next relative indicator – the ageing index – also proves the process of population ageing in compared countries. An increase of the aging index is expected in all three compared projections. A steady development is expected until the mid-point of the projected period. In the second half of the period, the increasing tempo of the aging index shall slow down in most of the countries, except for a continuing intensive increase of the aging index in Romania and Slovakia according to Eurostat (figure 75). Their projection assumes that the aging index in Romania shall reach the value 300% in 2060. It means that there will be 300 persons aged 65 and over per 100 persons aged 0-14 in 2060. When compared to the first years of the projection, it represents an increase of 65%. An even higher increase of 67% is expected in Slovakia according to Eurostat's projection, where the aging index shall reach 270% in 2060. The increase of the ageing index is expected to be more than 50% in Hungary where by 2060 there will be 260 seniors per 100 persons in pre-productive age. In Italy and Austria, the development of ageing index in the last third shall stabilize according to the projections of Eurostat. In these countries, the smallest percentage increase is expected during the projected period (around 39%). When compared to the projection of Eurostat, the UN projection assumes a significantly slower increase of the ageing index and in most of the countries they even

expects its decrease in the last third of the projected period (figure 76). During the whole projected period the ageing index shall increase the most – by 54% – only in Serbia. In 2015 there will be approximately 87 persons aged over 65 years per 100 persons aged 0-14 years in Serbia and by 2060 only 189 persons. The next country where, according to the projection of the UN, a significant increase of ageing index is expected is Slovakia. From the initial value of almost 89 persons aged 65 and more per 100 persons aged 0-14 years in 2015, the ageing index shall increase up to 187 persons aged 65+ per 100 persons aged 0-14 in 2060. The smallest increase of the ageing index during the projected period is expected in Italy, only 27,5%, and in Hungary, only 27,7%. Italy and Austria are the countries with the highest ageing index among the compared countries. By 2060, according to the projection of the UN, there will be 211-212 seniors per 100 persons in pre-reproductive age in Italy and Austria. Bigger differences in the expected development of the ageing index can be seen in national projections (figure 77). Slovakia is the country where the highest increase of the ageing index is expected during the projected period. According to the national projection, an increase of the ageing index in Slovakia is expected between 2015-2060. From an initial value of the ageing index – 93 % in 2015, up to 260 % in 2060. In other words, there will be 260 persons in post-productive age per 100 people in pre-productive age by 2060. The ageing index shall increase by 55% in Hungary according to the national projection. There will be, in 2060, 274 persons aged 65 and over per 100 people aged 0-14. According to the national projection, in 2060, the ageing index shall cross the 250% limit also in Italy and Bulgaria. By 2060 the ageing index shall surpass the 200% limit in Austria, where there shall be 209 persons in post-productive age per 100 persons in pre-productive age. The ageing index shall get just below the mentioned limit by the end of the projected period in Romania, where there will be 199 people in post-productive age per 100 people in pre-productive age, except for in Serbia. The smallest increase of the ageing index is expected in Serbia until 2050 – only at 11%. According to the national projection, the increase of the ageing index to the value of 163% is expected by 2030 in Serbia. In the following years the national projection expects a decrease of the ageing index to 140% by 2045. Until 2050, the ageing index shall increase a little again to its final value of 147 persons aged 65+ per 100 persons aged 0-14 in Serbia.

After detailed comparison of all three projections, separately, for each country participating in the SEEMIG project, it is obvious that the development of the ageing index according to the national projection and Eurostat projection is very similar in most of the countries. The projection of the UN compared to Eurostat and national projections is more optimistic when it comes to the development of the ageing index. The expected increase of the ageing index in compared countries is slower according to the UN projection and it assumes the achievement of much lower values of this indicator at the end of the projected period (see figures 78-80 and 84). A different situation is expected in Romania (figure 82). In the case of Romania, the same increasing tempo of the ageing index is expected in both national and Eurostat projections only until 2030. In the following projected years, the Eurostat projection expects a continuing intensive increase of the ageing index while the national projection expects a smaller increase of this indicator until the end of the projected period. On the other hand, the projection of the

UN expects a slower tempo of increase of the ageing index in Romania. In Italy the national projection, as well as the one prepared by Eurostat, expect the same development of the ageing index (figure 81). The projection of the UN expects the ageing index in Italy to increase only until 2040, then they assume its progressive decrease. In the cases of Serbia and Slovenia, there are only two projections available[4]. In Serbia, the national projection expects an intense increase of the ageing index only in the short interval at the beginning of the projected period (2015-2025). Between 2025 and 2040, a stabilized development of the ageing index around 160-163% is expected in Serbia, according to the national projection. In 2045, there is an interesting unique temporary decrease of the ageing index in Serbia, followed by an expected continuing moderate increase of the ageing index (figure 83). In Slovenia, after an initial short intensive increasing trend of the ageing index expected by the UN projection, the tempo of the increase of this indicator will slow down temporarily (2035-2050). The projection of the UN expects continued development at a slower rate with a slight decrease of value of the ageing index until 2060. After the intensive increase of the ageing index until 2040, the projection of Eurostat expects also the continued development at a moderately increasing rate (figure 85).

[4] *UN projection refers to Serbia including Kosovo and Metohija, while the national projection refers to Serbia excluding Kosovo and Metohija.*

4. Conclusion

Information from projections saved in the database provide sufficient quality data for the evaluation of input assumptions and results, i.e. projected scenarios relating to the development of fertility, mortality and migration as well as of expected development of the number, total increase and age structure of the population. Besides differences of a demographic nature, this information allows us to compare different approaches of individual projections´ authors.

The basic assumption in all projections regarding fertility is a halt in the decrease of fertility and its gradual increase. Individual projections differ from each other mainly in their estimation of the breaking point and the following tempo of an increase of fertility. National projections of fertility are somewhere between the UN projection and Eurostat, however closer to Eurostat. According to the projection of the UN, fertility in all countries shall reach significantly higher values than the other two. According to the projection of Eurostat, differences in fertility levels among countries during the entire projected period shall not change significantly, and, according to the UN projection, they will even reduce until 2060. National projections expect the least equal evolution of fertility and the biggest changes in differences among countries.

The decrease of mortality – maintaining tendency in whole Europe is taken into account in all three projections for all countries, which will mean for both sexes an increase of life expectancy at birth. Projections by Eurostat expect the highest increase of life expectancy at birth and a reduction of disparities between countries. The projections of the UN are the least optimistic regarding the decrease of mortality and while maintain actual differences between countries. National projections assume a slightly lower decrease of mortality than the projections of Eurostat, and they expect steady development in all countries except for Serbia and Romania after 2040.

The complexity of migration projection is obvious when comparing individual projections. Given the projections of fertility and mortality, the projected development of migration is less equal and there are quite significant differences between projections. The projections of Eurostat expect the reduction of differences in net migration of countries until 2040 followed by a steadily decreasing tendency. The projections of the UN maintain actual level of net migration until 2040 and then they expect the reduction of differences between countries. National projections (except for Austria and Italy) significantly differ from projections of both international institutions.

Input assumptions of projections saved in our database were not so different to be able to change basic trends in development of number, total increase and age structure of the population in each country. However the impact of these differences is reflected in the timing and intensity of individual changes.

The basic trend in expected development of the population number in all eight countries is the decrease of population number. The only difference is when this decrease shall occur as well as

its intensity. In Bulgaria, Romania, Hungary and Serbia, the population will decrease during the whole projected period, in the other four countries there will be a turnover in development of the population between 2025 and 2050. A more intensive population decrease is expected in Bulgaria, Romania, Hungary and Slovakia. By comparison in Austria, Italy and Slovenia the population would not have to decrease if we compare the year 2060 with the present. In most countries it is the UN projection which expects the lowest number of inhabitants due to very low expected net migration that cannot be compensated either by an optimistic evolution of fertility. The smallest difference in the projected number of inhabitants according to individual projections (in percentage) is in Slovenia, the biggest in Romania and Serbia.

Even if the evolution of the total increase of the Europe-wide trend is confirmed i.e. decrease of total population increase and its gradual change into total decrease of population, national projections are more optimistic than the projections of the international institutions and they expect a smaller population decrease. According to Eurostat, there will be a decrease of population in all countries from 2050, and in 2060 it shall reach the value from 2 to 10 per 1000 population. Projections of the UN expect the decrease of population in all countries even before 2040 and total decrease shall move into the range of values at the end of the projected period as in the projections of Eurostat. Despite the more moderate pace of total increase, national projections also expect the decrease of the population in every country after 2045. The only exception is Austria, which should maintain low total increase until the end of the projected period.

The irreversibility of the process of population ageing in the following decades manifests itself through stable trends in all countries and differences between individual projections are not so significant either. An important feature of population ageing in all countries is the intensive ageing in the first half of the 21st century and the gradual slowdown of this process around 2050. Projections of Eurostat expect stagnation of population ageing before 2050 only in Austria; in other countries the population ageing should continue with reduced intensity until the end of the projected period. The mean age of the population exceeds very slightly the value of 50 years in Romania only. According to the projections of the UN, the process of population ageing should stop in all countries except for Serbia before 2050 and the mean age should not exceed 48 years. This is a consequence of relatively optimistic projection of fertility development. The most intensive population ageing is expected in national projections. Only Serbian, Romanian and Austrian projections expect population ageing to stop before 2060. Other projections expect population ageing until the end of the projected period while the value of mean age should approach 50 years. The differences in mean age in 2060 between individual projections vary from - 1 year (Italy) to 4,1 years (Hungary).

In general we can conclude that in the case of input scenarios, with certain exceptions, the projections of Eurostat agree rather well with national projections and both differ from the projection of the UN. The cause may be found in the primary focus of the UN projection on multinational entities, which manifests itslef by the creation of scenarios for groups of countries; in consequence, certain details pertaining to individual countries disappear. On the other hand, the similarity of Eurostat projections with national ones is caused, among other

reasons, by the fact that experts from these countries participate as consultants during the preparation of Eurostat projections.

Differences in inputs indicate of course differences in outputs. But the impacts are not so direct and clear. First, some differences in input assumptions seem to be adverse and weaken each other and, at the same time, the impact of input assumptions onto results of the projection is modified by the existing condition of the population mainly by its age structure.

Annex 1 - Tables 1-8

Table 1
Country: Austria

Indicator	Year									
	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Eurostat projection - assumptions 1)										
Total fertility rate	1,41	1,43	1,44	1,46	1,48	1,49	1,51	1,52	1,54	1,56
Life expectancy at birth-males	78,4	79,2	80,0	80,7	81,5	82,2	82,9	83,5	84,2	84,8
Life expectancy at birth-females	83,7	84,4	85,0	85,6	86,3	86,9	87,4	88,0	88,5	89,1
Net migration/1000 population	3,1	4,0	4,1	4,0	3,6	3,2	3,1	3,0	2,9	2,8
Eurostat projection - results										
Total population (mil)	8,5	8,6	8,7	8,8	8,9	9,0	9,0	9,0	8,9	8,9
Total increase/1000 population		2,8	3,2	2,7	1,9	1,0	0,2	-0,4	-1,0	-1,2
Mean age	42,5	43,4	44,2	44,9	45,6	46,2	46,7	47,0	47,1	47,1
Ageing index	132,0	141,8	155,6	174,8	194,2	206,0	210,5	214,2	214,2	215,7
UN projection - assumptions 2)										
Total fertility rate	1,36	1,43	1,51	1,58	1,64	1,69	1,74	1,79	1,82	1,86
Life expectancy at birth-males	79,3	80,1	80,8	81,4	81,9	82,4	82,9	83,5	84,0	84,5
Life expectancy at birth-females	84,2	84,7	85,3	85,9	86,4	86,9	87,5	88,0	88,5	89,0
Net migration/1000 population	2,4	2,3	2,3	2,3	2,3	2,3	2,4	2,1	1,9	1,7
UN projection - results										
Total population (mil)	8,5	8,5	8,6	8,6	8,6	8,6	8,5	8,4	8,3	8,2
Total increase/1000 population		1,2	1,1	0,7	0,0	-0,7	-1,3	-1,8	-2,2	-2,2
Mean age	42,8	44,0	45,0	45,9	46,6	47,2	47,6	47,8	47,8	47,6
Ageing index	135,1	149,6	167,6	188,1	205,9	215,1	217,9	218,8	215,6	211,4
National projection - assumptions										
Total fertility rate	1,43	1,46	1,48	1,49	1,50	1,51	1,52	1,53	1,54	1,55
Life expectancy at birth-males	79,0	80,2	81,2	82,2	83,2	84,1	85,0	85,8	86,6	87,3
Life expectancy at birth-females	84,2	85,1	85,9	86,7	87,5	88,2	88,8	89,5	90,1	90,6
Net migration/1000 population	3,9	3,3	3,2	3,2	3,1	3,0	2,9	2,8	2,7	2,7
National projection - results										
Total population (mil)	8,6	8,7	8,9	9,0	9,1	9,2	9,3	9,3	9,4	9,4
Total increase/1000 population		3,5	3,4	3,0	2,4	2,0	1,6	1,0	0,6	0,4
Mean age	42,6	43,4	44,2	44,9	45,6	46,2	46,7	47,0	47,1	47,1
Ageing index	131,7	139,5	152,3	170,4	187,5	197,9	203,6	207,7	208,4	208,8

1) www.opendatastatistics.org/eurostat/proj_10c2150a

2) World Population Prospects, the 2010 Revision

Table 2
Country: Bulgaria

Indicator	Year									
	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Eurostat projection - assumptions 1)										
Total fertility rate	1,57	1,58	1,59	1,60	1,61	1,63	1,64	1,65	1,66	1,67
Life expectancy at birth-males	71,6	72,9	74,2	75,4	76,5	77,6	78,7	79,7	80,7	81,7
Life expectancy at birth-females	78,5	79,6	80,5	81,5	82,4	83,3	84,2	85,0	85,8	86,6
Net migration/1000 population	-1,5	-2,1	-1,4	-0,5	0,8	0,9	0,8	0,7	0,5	0,1
Eurostat projection - results										
Total population (mil)	7,4	7,1	6,9	6,6	6,4	6,2	6,1	5,9	5,7	5,5
Total increase/1000 population		-6,8	-7,7	-7,4	-6,4	-5,5	-5,4	-5,8	-6,2	-6,8
Mean age	42,6	43,5	44,6	45,6	46,4	47,0	47,4	47,8	48,1	48,4
Ageing index	131,2	139,9	158,2	182,7	200,7	211,6	220,6	229,6	243,3	249,4
UN projection - assumptions 2)										
Total fertility rate	1,62	1,69	1,74	1,79	1,83	1,87	1,90	1,93	1,95	1,97
Life expectancy at birth-males	71,1	71,8	72,6	73,4	74,2	74,9	75,6	76,2	76,8	77,4
Life expectancy at birth-females	77,8	78,4	79,1	79,8	80,5	81,1	81,7	82,3	82,8	83,4
Net migration/1000 population	-1,4	-1,5	-1,5	-1,6	-1,7	-1,7	-1,8	-1,7	-1,6	-1,4
UN projection - results										
Total population (mil)	7,3	7,0	6,7	6,5	6,2	5,9	5,7	5,5	5,2	5,0
Total increase/1000 population		-7,2	-7,9	-8,6	-8,7	-8,4	-8,4	-8,7	-9,2	-9,4
Mean age	42,5	43,2	43,9	44,7	45,3	45,7	46,0	46,1	46,2	46,1
Ageing index	129,1	132,1	143,6	157,7	170,1	178,7	186,7	187,6	194,0	191,7
National projection - assumptions										
Total fertility rate	1,52	1,54	1,54	1,53	1,54	1,55	1,58	1,60	1,61	1,61
Life expectancy at birth-males	71,5	73,1	74,6	76,0	77,3	78,7	79,9	81,1	82,2	83,3
Life expectancy at birth-females	78,3	79,3	80,3	81,2	82,2	83,1	83,9	84,7	85,4	86,2
Net migration/1000 population	0,1	0,3	0,5	0,7	0,7	0,7	0,6	0,6	0,7	0,8
National projection - results										
Total population (mil)	7,2	7,0	6,7	6,5	6,3	6,1	5,9	5,7	5,6	5,4
Total increase/1000 population		-6,0	-6,4	-6,6	-6,6	-6,4	-6,3	-6,3	-6,5	-6,8
Mean age	43,4	44,2	45,0	45,9	46,7	47,3	47,7	48,1	48,5	48,9
Ageing index	146,1	153,1	169,5	188,6	207,4	221,7	230,2	236,9	250,6	255,9

1) www.opendatastatistics.org/eurostat/proj_10c2150a

2) World Population Prospects, the 2010 Revision

Table 3
Country: Hungary

Indicator	Year									
	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Eurostat projection - assumptions 1)										
Total fertility rate	1,34	1,36	1,38	1,40	1,42	1,44	1,46	1,47	1,49	1,51
Life expectancy at birth-males	71,8	73,0	74,3	75,5	76,7	77,8	78,9	80,0	81,0	81,9
Life expectancy at birth-females	79,5	80,5	81,5	82,4	83,3	84,2	85,0	85,9	86,6	87,4
Net migration/1000 population	2,7	2,8	2,4	2,3	2,5	2,9	2,6	2,5	2,4	2,2
Eurostat projection - results										
Total population (mil)	10,0	9,9	9,8	9,7	9,6	9,4	9,3	9,2	9,0	8,9
Total increase/1000 population		-1,2	-1,6	-2,4	-2,7	-2,8	-2,7	-3,0	-3,3	-3,8
Mean age	41,8	42,7	43,6	44,6	45,6	46,4	47,0	47,7	48,3	48,9
Ageing index	121,3	136,8	152,4	163,1	178,3	197,1	220,3	233,0	246,2	259,9
UN projection - assumptions 2)										
Total fertility rate	1,51	1,59	1,65	1,71	1,76	1,81	1,84	1,88	1,90	1,93
Life expectancy at birth-males	71,9	72,8	73,6	74,4	75,2	75,8	76,5	77,1	77,7	78,3
Life expectancy at birth-females	79,2	80,0	80,7	81,4	82,1	82,7	83,4	84,0	84,6	85,1
Net migration/1000 population	1,5	1,5	1,5	1,6	1,6	1,6	1,6	1,5	1,3	1,2
UN projection - results										
Total population (mil)	9,9	9,8	9,7	9,6	9,5	9,4	9,3	9,2	9,2	9,1
Total increase/1000 population		-1,6	-1,7	-2,0	-2,4	-2,4	-2,1	-1,7	-1,7	-2,0
Mean age	41,7	42,3	42,9	43,4	44,0	44,4	44,6	44,7	44,8	44,7
Ageing index	117,6	126,9	132,3	133,6	140,4	151,4	164,6	164,9	163,8	162,6
National projection - assumptions										
Total fertility rate	1,29	1,36	1,43	1,50	1,50	1,50	1,50	1,50	1,50	1,50
Life expectancy at birth-males	72,2	73,4	74,6	75,7	76,9	78,1	79,3	80,4	81,6	82,6
Life expectancy at birth-females	79,7	80,8	81,8	82,9	83,9	84,9	85,9	86,9	87,8	88,8
Net migration/1000 population	1,6	1,5	1,6	1,6	1,6	1,6	1,7	1,7	1,7	1,8
National projection - results										
Total population (mil)	9,9	9,8	9,7	9,5	9,4	9,2	9,0	8,9	8,7	8,5
Total increase/1000 population		-2,4	-2,5	-2,8	-3,2	-3,5	-3,7	-3,7	-3,7	-4,1
Mean age	41,9	42,9	43,9	44,8	45,7	46,5	47,3	48,0	48,8	49,4
Ageing index	123,4	140,7	157,7	164,3	176,3	195,1	222,8	241,5	258,7	273,6

1) www.opendatastatistics.org/eurostat/proj_10c2150a

2) World Population Prospects, the 2010 Revision

Table 4
Country: Italy

Indicator	Year									
	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Eurostat projection - assumptions 1)										
Total fertility rate	1,44	1,45	1,47	1,48	1,50	1,51	1,53	1,54	1,56	1,57
Life expectancy at birth-males	79,7	80,4	81,1	81,8	82,4	83,1	83,7	84,3	84,9	85,5
Life expectancy at birth-females	84,8	85,4	86,0	86,6	87,2	87,7	88,2	88,8	89,3	89,7
Net migration/1000 population	5,7	5,5	5,3	5,3	5,1	4,9	4,5	4,2	4,1	3,9
Eurostat projection - results										
Total population (mil)	61,8	62,9	63,7	64,5	65,2	65,7	66,0	65,9	65,6	65,0
Total increase/1000 population		3,5	2,7	2,3	2,1	1,6	0,8	-0,2	-1,1	-1,8
Mean age	44,1	44,9	45,8	46,5	47,2	47,7	48,2	48,6	48,8	48,9
Ageing index	153,6	164,7	181,0	202,5	222,8	238,6	247,4	250,9	253,1	253,9
UN projection - assumptions 2)										
Total fertility rate	1,56	1,63	1,70	1,75	1,80	1,84	1,88	1,91	1,93	1,96
Life expectancy at birth-males	79,8	80,4	80,9	81,5	82,0	82,6	83,1	83,6	84,1	84,6
Life expectancy at birth-females	85,2	85,7	86,3	86,8	87,4	87,9	88,4	88,9	89,4	89,9
Net migration/1000 population	2,3	2,2	2,2	2,2	2,2	2,2	2,2	2	1,8	1,6
UN projection - results										
Total population (mil)	61,2	61,3	61,1	60,9	60,5	60,2	59,7	59,2	58,4	57,4
Total increase/1000 population		0,2	-0,6	-0,9	-1,0	-1,2	-1,5	-2,0	-2,8	-3,3
Mean age	44,3	45,3	46,2	47,0	47,6	48,1	48,3	48,4	48,3	48,0
Ageing index	154,0	163,9	178,9	199,4	218,5	231,4	231,6	228,7	220,6	212,5
National projection - assumptions										
Total fertility rate	1,44	1,46	1,47	1,49	1,51	1,53	1,55	1,56	1,58	1,60
Life expectancy at birth-males	80,3	81,2	82,0	82,8	83,5	84,2	84,7	85,3	85,8	86,2
Life expectancy at birth-females	85,3	86,5	87	87,7	88,4	89,1	89,6	90,2	90,6	91,1
Net migration/1000 population	4,5	4	3,7	3,5	3,3	3,2	3,1	3,1	3	2,9
National projection - results										
Total population (mil)	61,6	62,5	63,1	63,5	63,8	63,9	63,8	63,5	63,0	62,2
Total increase/1000 population		2,8	1,9	1,3	0,8	0,4	-0,1	-0,9	-1,8	-2,6
Mean age	44,2	45,2	46,1	47,0	47,8	48,5	49,1	49,5	49,8	49,8
Ageing index	154,0	165,9	183,6	207,1	230,9	249,5	259,6	262,8	263,7	262,7

1) www.opendatastatistics.org/eurostat/proj_10c2150a

2) World Population Prospects, the 2010 Revision

Table 5
Country: Romania

Indicator	Year									
	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Eurostat projection - assumptions 1)										
Total fertility rate	1,39	1,41	1,43	1,45	1,46	1,48	1,50	1,51	1,53	1,55
Life expectancy at birth-males	71,4	72,8	74,1	75,3	76,5	77,6	78,8	79,8	80,8	81,8
Life expectancy at birth-females	78,5	79,6	80,6	81,6	82,5	83,4	84,3	85,1	86,0	86,7
Net migration/1000 population	0,4	0,5	0,3	0,2	1,0	1,1	1,3	1,2	1,0	0,6
Eurostat projection - results										
Total population (mil)	21,3	21,0	20,7	20,3	19,9	19,4	19,0	18,5	17,9	17,3
Total increase/1000 population		-2,4	-3,3	-4,1	-4,0	-4,3	-4,8	-5,4	-6,0	-7,4
Mean age	40,6	41,8	43,0	44,4	45,7	46,8	47,8	48,7	49,5	50,2
Ageing index	103,9	117,3	137,7	154,3	185,1	210,9	236,2	257,7	287,5	300,3
UN projection - assumptions 2)										
Total fertility rate	1,51	1,59	1,66	1,71	1,76	1,81	1,84	1,88	1,91	1,93
Life expectancy at birth-males	71,7	72,6	73,5	74,3	75,0	75,7	76,4	77,0	77,6	78,2
Life expectancy at birth-females	78,8	79,5	80,2	80,9	81,5	82,1	82,6	83,2	83,7	84,2
Net migration/1000 population	-0,2	0	0	0,1	0,1	0,1	0,1	0	0	0
UN projection - results										
Total population (mil)	21,2	21,0	20,7	20,3	19,9	19,5	19,0	18,5	18,0	17,4
Total increase/1000 population		-2,6	-3,0	-3,7	-4,1	-4,4	-4,7	-5,2	-5,9	-6,6
Mean age	40,7	41,7	42,7	43,7	44,6	45,4	45,9	46,3	46,5	46,5
Ageing index	103,8	114,0	126,5	133,4	155,3	170,9	188,3	190,8	201,1	196,2
National projection - assumptions										
Total fertility rate	1,50	1,50	1,50	1,50	1,70	1,70	1,70	1,80	1,80	1,80
Life expectancy at birth-males	70,7	71,8	73,0	73,6	74,1	74,7	75,3	75,9	76,3	76,7
Life expectancy at birth-females	77,3	78,1	79,0	79,6	80,1	80,7	81,3	82,0	82,3	82,5
Net migration/1000 population	-3,8	-3,3	-2,9	-2,4	-2,0	-1,7	-1,5	-1,3	-1,2	-1,0
National projection - results										
Total population (mil)	18,7	17,9	17,2	16,6	16,0	15,4	14,8	14,1	13,5	12,8
Total increase/1000 population		-8,0	-8,4	-7,9	-7,5	-7,7	-8,4	-9,2	-9,8	-10,2
Mean age	41,0	42,2	43,4	44,4	45,3	45,8	46,2	46,4	46,6	46,4
Ageing index	100,7	116,8	141,0	155,1	168,7	180,0	190,4	195,6	203,0	198,9

1) www.opendatastatistics.org/eurostat/proj_10c2150a

2) World Population Prospects, the 2010 Revision

Table 6
Country: Serbia[5]

Indicator	Year									
	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Eurostat projection - assumptions 1)										
Total fertility rate	*	*	*	*	*	*	*	*	*	*
Life expectancy at birth-males	*	*	*	*	*	*	*	*	*	*
Life expectancy at birth-females	*	*	*	*	*	*	*	*	*	*
Net migration/1000 population	*	*	*	*	*	*	*	*	*	*
Eurostat projection - results										
Total population (mil)	*	*	*	*	*	*	*	*	*	*
Total increase/1000 population	*	*	*	*	*	*	*	*	*	*
Mean age	*	*	*	*	*	*	*	*	*	*
Ageing index	*	*	*	*	*	*	*	*	*	*
UN projection - assumptions 2)										
Total fertility rate	1,54	1,55	1,59	1,63	1,67	1,72	1,76	1,79	1,83	1,86
Life expectancy at birth-males	73,1	73,8	74,5	75,2	75,9	76,6	77,2	77,8	78,3	78,9
Life expectancy at birth-females	77,7	78,3	79,0	79,7	80,4	81,1	81,7	82,2	82,8	83,3
Net migration/1000 population	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
UN projection - results										
Total population (mil)	9,8	9,7	9,6	9,5	9,3	9,2	9,0	8,8	8,6	8,4
Total increase/1000 population		-1,8	-2,3	-2,7	-3,0	-3,5	-4,0	-4,5	-4,9	-5,2
Mean age	39,6	40,5	41,4	42,4	43,2	44,0	44,6	45,2	45,6	46,0
Ageing index	86,7	102,2	115,1	126,6	136,8	147,0	164,5	170,9	182,6	188,7
National projection - assumptions										
Total fertility rate	1,45	1,50	1,56	1,61	1,67	1,73	1,80	1,80	*	*
Life expectancy at birth-males	72,9	73,8	74,7	75,6	76,6	77,6	78,2	78,8	*	*
Life expectancy at birth-females	78,1	78,9	79,7	80,5	81,3	82,2	82,3	82,5	*	*
Net migration/1000 population	0,6	5,1	6,5	7,8	9,1	10,4	10,0	10,0	*	*
National projection - results										
Total population (mil)										
Total increase/1000 population	7,0	6,9	6,8	6,8	6,7	6,7	6,7	6,6	*	*
Mean age		-3,9	-2,4	-1,8	-1,5	-0,3	-1,1	-2,0	*	*
Ageing index	42,9	43,5	44,1	44,5	44,7	44,6	43,5	43,6	*	*
	131,6	149,9	161,0	163,4	160,9	158,8	139,9	147,3	*	*

1) www.opendatastatistics.org/eurostat/proj_10c2150a

2) World Population Prospects, the 2010 Revision

[5] *UN projection refers to Serbia including Kosovo and Metohija, while the national projection refers to Serbia excluding Kosovo and Metohija.*

Table 7
Country: Slovakia

Indicator	Year									
	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Eurostat projection - assumptions 1)										
Total fertility rate	1,43	1,44	1,46	1,48	1,49	1,51	1,52	1,54	1,55	1,57
Life expectancy at birth-males	72,8	74,0	75,1	76,2	77,3	78,4	79,4	80,3	81,3	82,2
Life expectancy at birth-females	80,1	81,0	81,9	82,7	83,6	84,4	85,2	86,0	86,7	87,4
Net migration/1000 population	2,0	1,8	1,5	1,5	1,5	1,9	1,9	1,8	1,6	1,3
Eurostat projection - results										
Total population (mil)	5,5	5,6	5,6	5,6	5,5	5,5	5,4	5,3	5,2	5,1
Total increase/1000 population		2,3	0,8	-0,7	-1,8	-2,2	-2,4	-2,9	-3,6	-4,5
Mean age	39,7	40,9	42,3	43,8	45,2	46,3	47,1	47,8	48,5	49,2
Ageing index	88,8	103,2	122,6	147,6	171,3	195,0	217,2	234,2	252,3	270,2
UN projection - assumptions 2)										
Total fertility rate	1,47	1,55	1,62	1,68	1,74	1,78	1,82	1,86	1,89	1,92
Life expectancy at birth-males	72,9	73,9	74,7	75,4	76,1	76,7	77,3	77,9	78,5	79,0
Life expectancy at birth-females	80,2	80,9	81,5	82,1	82,6	83,2	83,7	84,2	84,7	85,2
Net migration/1000 population	0,7	0,7	0,7	0,7	0,7	0,7	0,8	0,7	0,6	0,6
UN projection - results										
Total population (mil)	5,5	5,5	5,6	5,5	5,5	5,4	5,3	5,2	5,2	5,1
Total increase/1000 population		1,4	0,7	-0,6	-2,2	-3,0	-3,2	-3,1	-3,3	-3,9
Mean age	39,7	40,9	42,0	43,1	44,2	45,0	45,6	45,9	46,0	46,0
Ageing index	89,1	102,1	115,2	128,4	142,1	160,5	182,8	186,5	188,3	187,3
National projection - assumptions										
Total fertility rate	1,49	1,52	1,54	1,55	1,57	1,58	1,60	1,61	1,63	1,64
Life expectancy at birth-males	72,9	73,9	75,0	76,2	77,5	78,9	80,1	81,1	81,9	82,6
Life expectancy at birth-females	79,9	80,6	81,5	82,4	83,4	84,2	85,0	85,7	86,3	86,8
Net migration/1000 population	0,7	1,6	2,2	2,3	2,3	2,4	2,4	2,4	2,4	2,4
National projection - results										
Total population (mil)	5,4	5,5	5,5	5,6	5,6	5,5	5,5	5,5	5,4	5,3
Total increase/1000 population		2,0	1,4	0,5	-0,3	-0,7	-0,9	-1,3	-1,9	-2,7
Mean age	40,0	41,3	42,6	44,0	45,3	46,4	47,2	47,9	48,6	49,2
Ageing index	92,6	107,9	126,5	149,9	172,1	196,3	216,7	231,4	246,3	260,4

1) www.opendatastatistics.org/eurostat/proj_10c2150a

2) World Population Prospects, the 2010 Revision

Table 8
Country: Slovenia

Indicator	Year									
	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Eurostat projection - assumptions 1)										
Total fertility rate	1,55	1,56	1,57	1,58	1,59	1,60	1,61	1,63	1,64	1,65
Life expectancy at birth-males	76,8	77,7	78,5	79,4	80,2	81,0	81,8	82,5	83,3	84,0
Life expectancy at birth-females	83,0	83,7	84,4	85,1	85,8	86,4	87,0	87,6	88,2	88,8
Net migration/1000 population	4,1	2,9	2,6	2,6	2,5	2,6	2,6	2,4	2,1	1,9
Eurostat projection - results										
Total population (mil)	2,1	2,1	2,2	2,2	2,1	2,1	2,1	2,1	2,1	2,1
Total increase/1000 population		3,4	1,2	0,0	-0,6	-0,7	-0,9	-1,6	-2,4	-3,1
Mean age	42,3	43,2	44,3	45,4	46,3	47,0	47,3	47,5	47,7	47,9
Ageing index	119,3	130,4	149,8	176,7	201,3	213,0	217,7	220,3	226,0	230,6
UN projection - assumptions 2)										
Total fertility rate	1,56	1,63	1,69	1,74	1,79	1,83	1,86	1,89	1,92	1,94
Life expectancy at birth-males	76,8	77,5	78,1	78,7	79,3	79,9	80,5	81,0	81,6	82,1
Life expectancy at birth-females	83,5	84,1	84,7	85,2	85,8	86,3	86,9	87,4	87,9	88,4
Net migration/1000 population	2,1	2,1	2,1	2,1	2,2	2,2	2,2	2,0	1,8	1,6
UN projection - results										
Total population (mil)	2,1	2,1	2,1	2,1	2,0	2,0	2,0	2,0	2,0	1,9
Total increase/1000 population		1,3	0,1	-0,8	-1,4	-1,6	-1,7	-1,8	-2,3	-2,6
Mean age	42,8	43,8	44,8	45,7	46,5	46,9	47,1	47,1	47,0	46,9
Ageing index	127,2	140,1	157,7	178,5	194,8	203,6	205,6	204,3	201,9	197,5
National projection - assumptions										
Total fertility rate	*	*	*	*	*	*	*	*	*	*
Life expectancy at birth-males	*	*	*	*	*	*	*	*	*	*
Life expectancy at birth-females	*	*	*	*	*	*	*	*	*	*
Net migration/1000 population	*	*	*	*	*	*	*	*	*	*
National projection - results										
Total population (mil)	*	*	*	*	*	*	*	*	*	*
Total increase/1000 population	*	*	*	*	*	*	*	*	*	*
Mean age	*	*	*	*	*	*	*	*	*	*
Ageing index	*	*	*	*	*	*	*	*	*	*

1) www.opendatastatistics.org/eurostat/proj_10c2150a

2) World Population Prospects, the 2010 Revision

Annex 2 Figures 1-44

The Assumptions of Projections

Figure 1. Total fertility rate, Eurostat projection (convergence scenario)

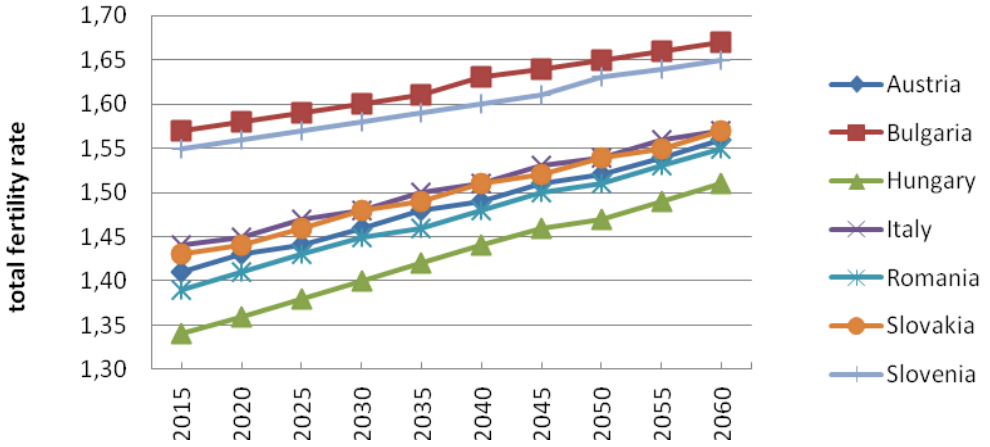


Figure 2. Total fertility rate, The UN projection (medium variant)

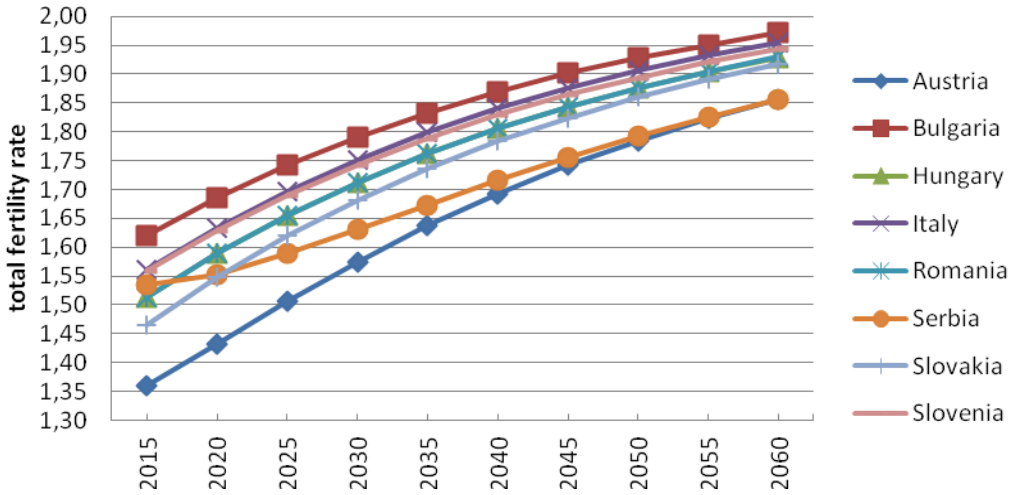
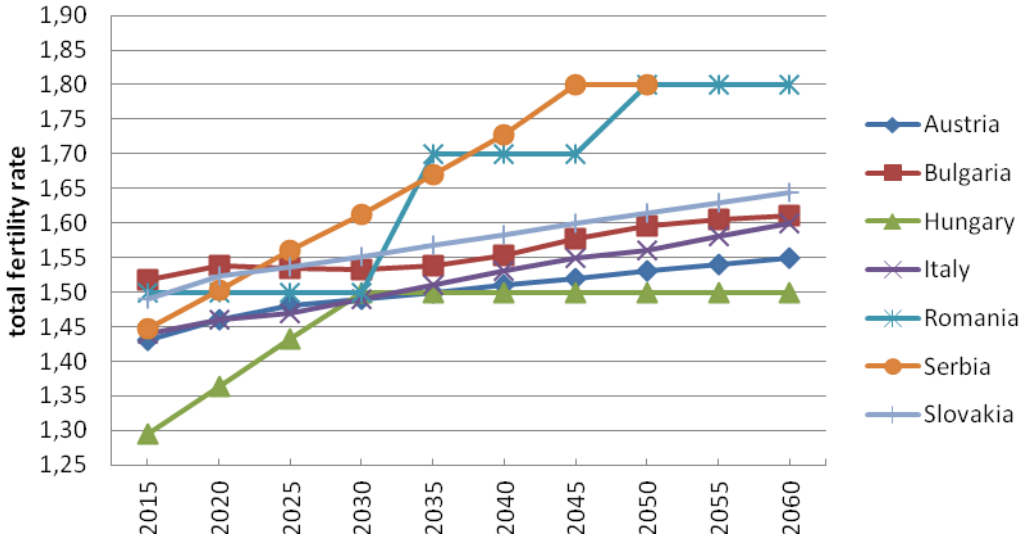


Figure 3. Totalf ertility rate, national projections (medium variant)



4. Total fertility rate in Austria

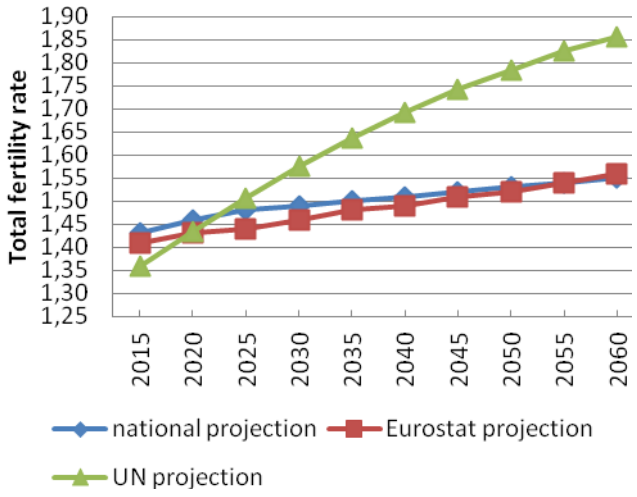


Figure 5. Total fertility rate in Bulgaria

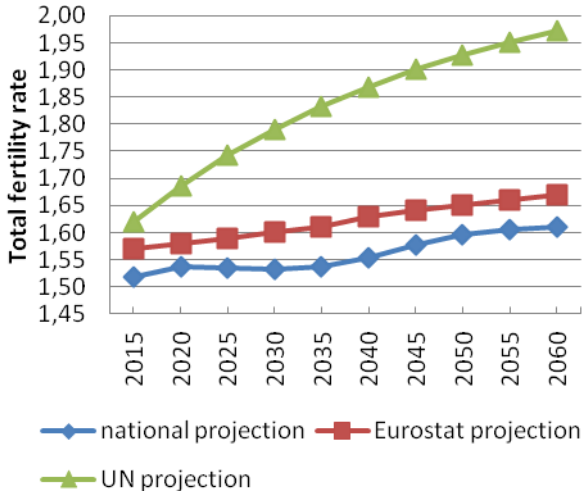


Figure 6. Total fertility rate in Hungary

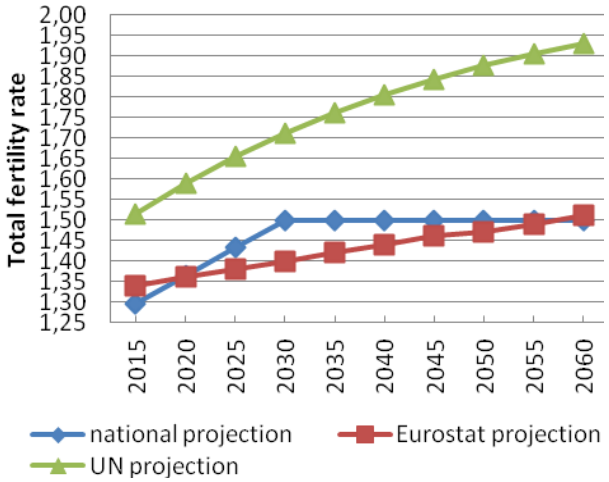


Figure 7. Total fertility rate in Italy

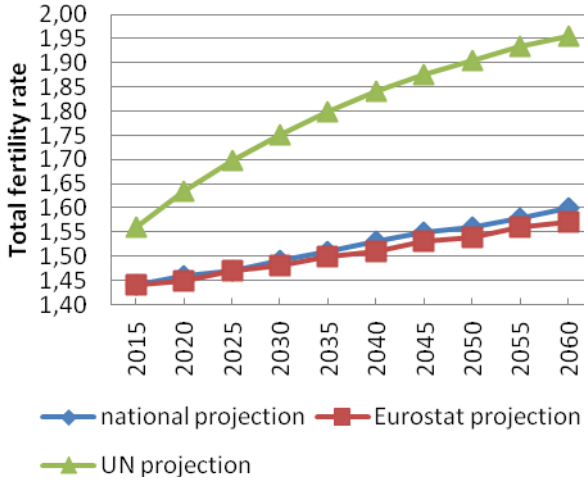


Figure 8.. Total fertility rate in Romania

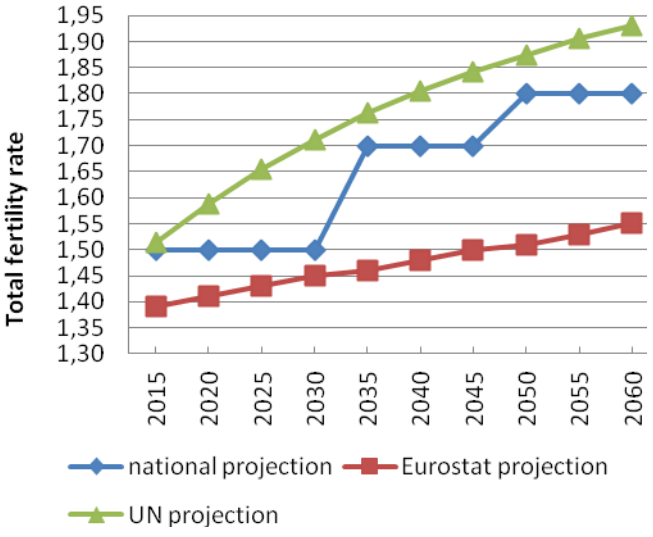


Figure 9. Total fertility rate in Serbia

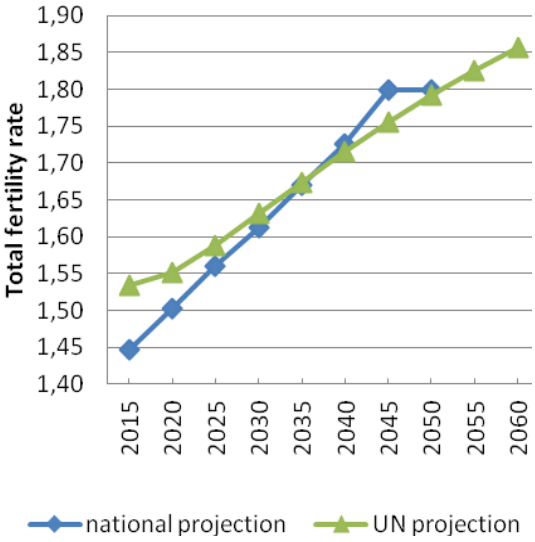


Figure 10. Total fertility rate in Slovakia

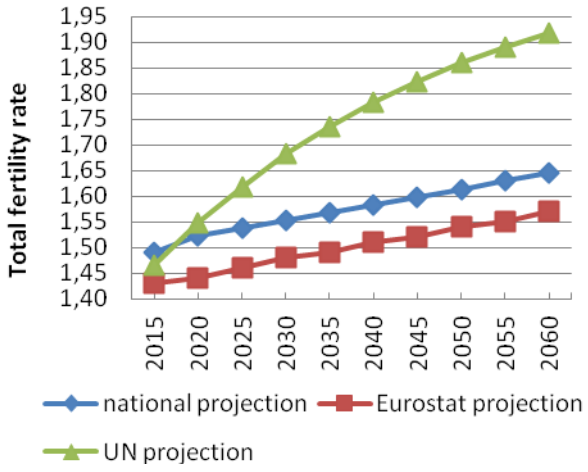


Figure 11. Total fertility rate in Slovenia

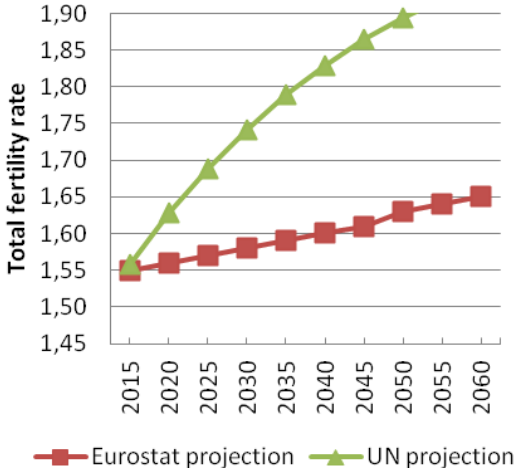


Figure 12. Live expectancy at birth of males, Eurostat projection (convergence scenario)

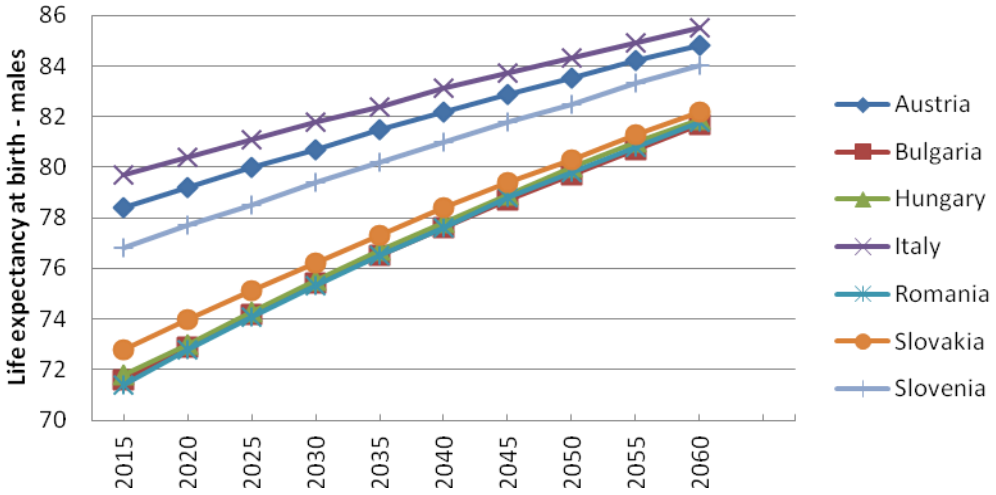


Figure 13. Live expectancy at birth of males, The UN projection (medium variant)

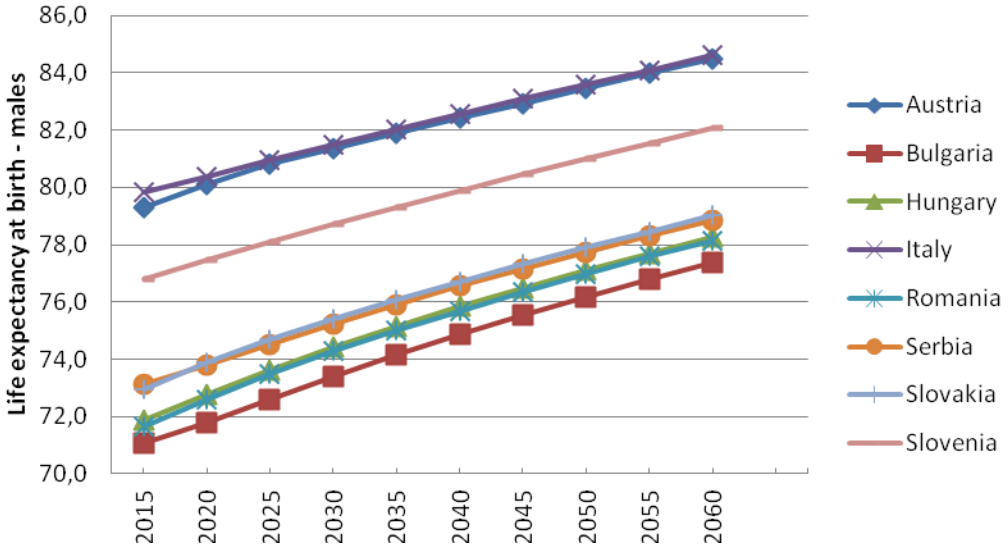


Figure 14. Live expectancy at birth of males, national projections (medium variant)

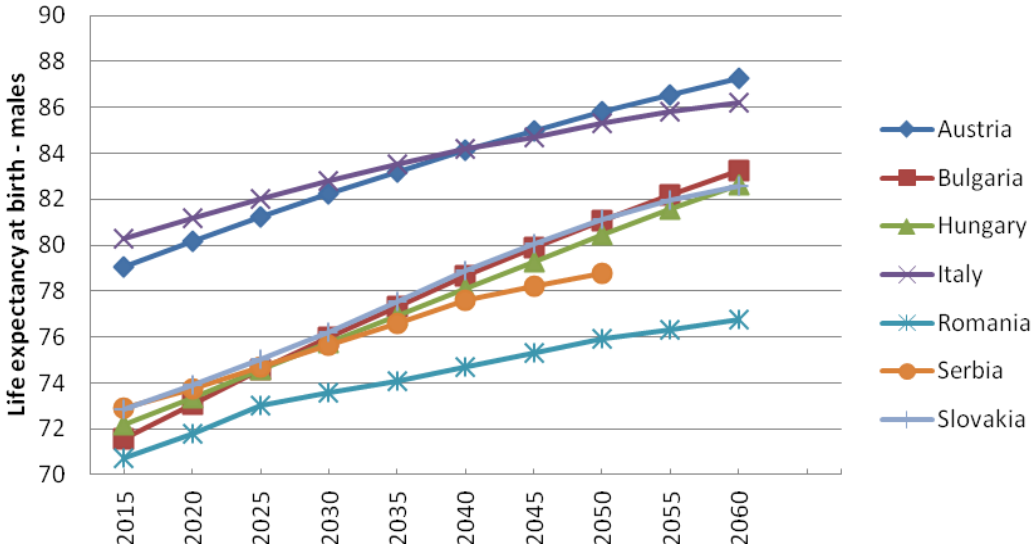


Figure 15. Live expectancy at birth of males in Austria

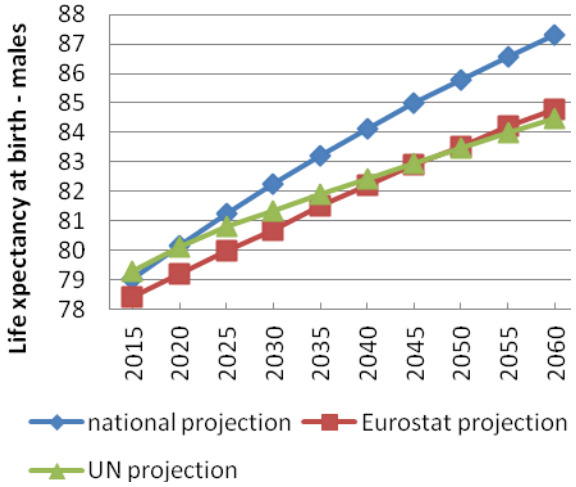


Figure 16. Live expectancy at birth of males in Bulgaria

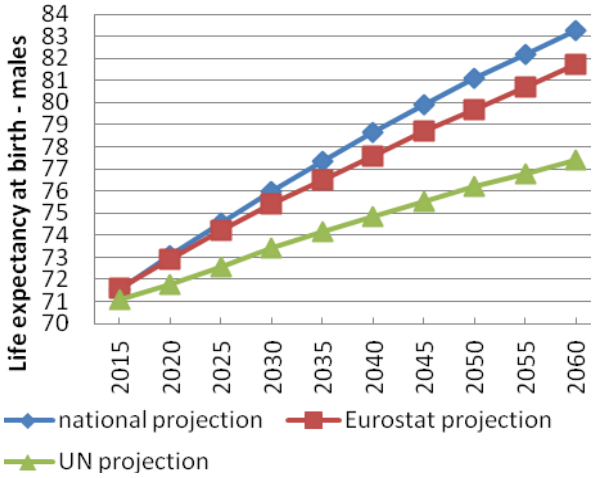


Figure 17. Live expectancy at birth of males in Hungary

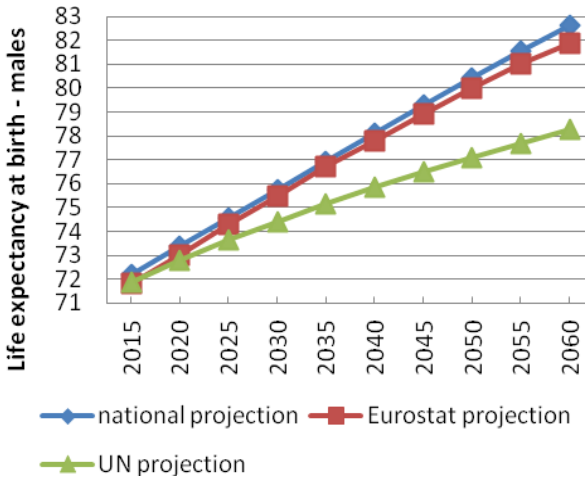


Figure 18. Live expectancy at birth of males in Italy

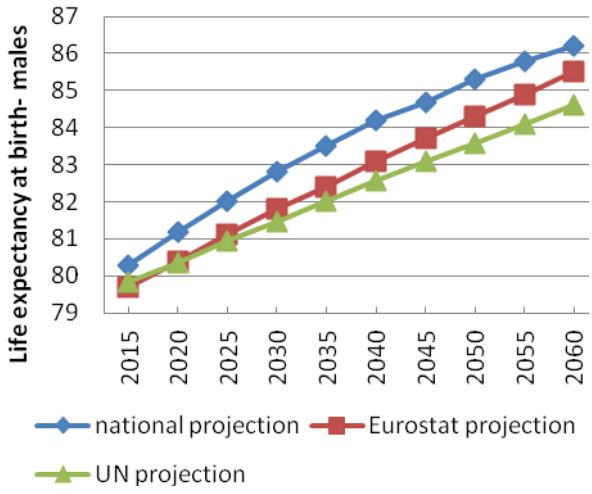


Figure 19. Live expectancy at birth of males in Romania

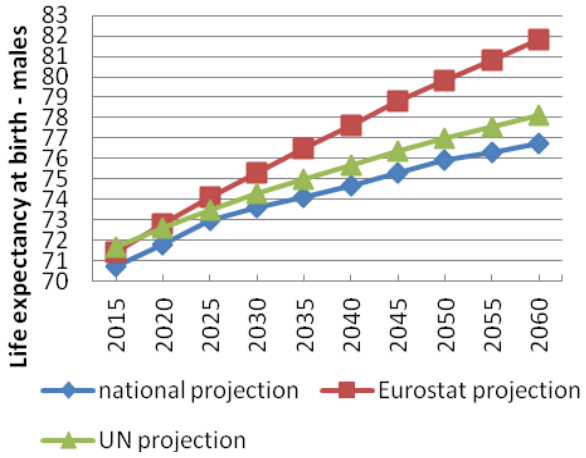


Figure 20. Live expectancy at birth of males, of in Serbia

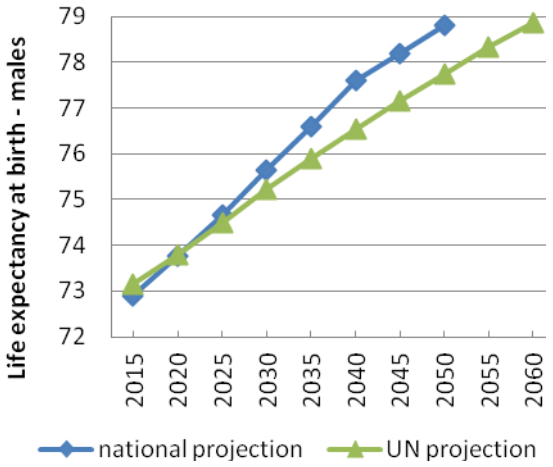


Figure 21. Live expectancy at birth of males in Slovakia

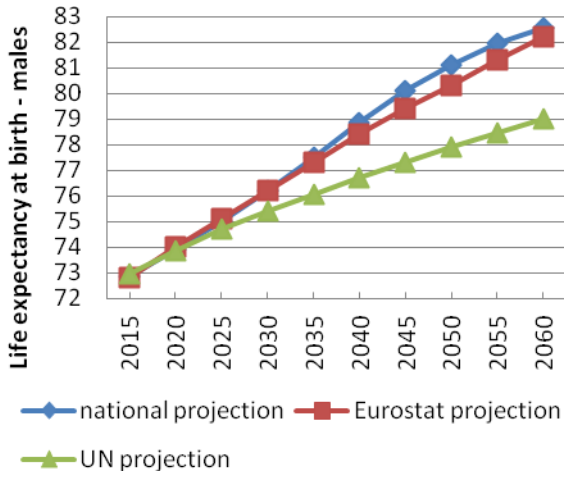


Figure 22. Live expectancy at birth of males in Slovenia

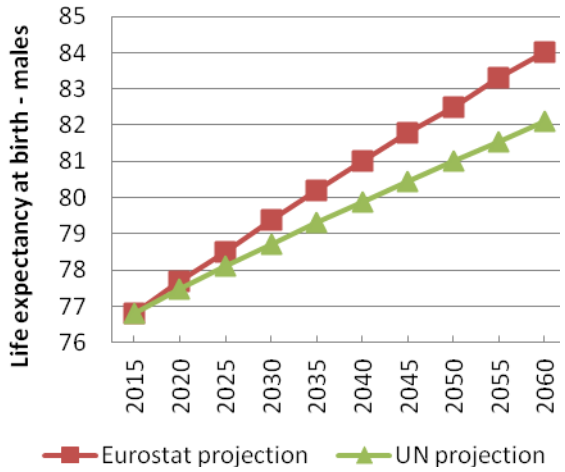


Figure 23. Live expectancy at birth of females, Eurostat projection (convergence scenario)

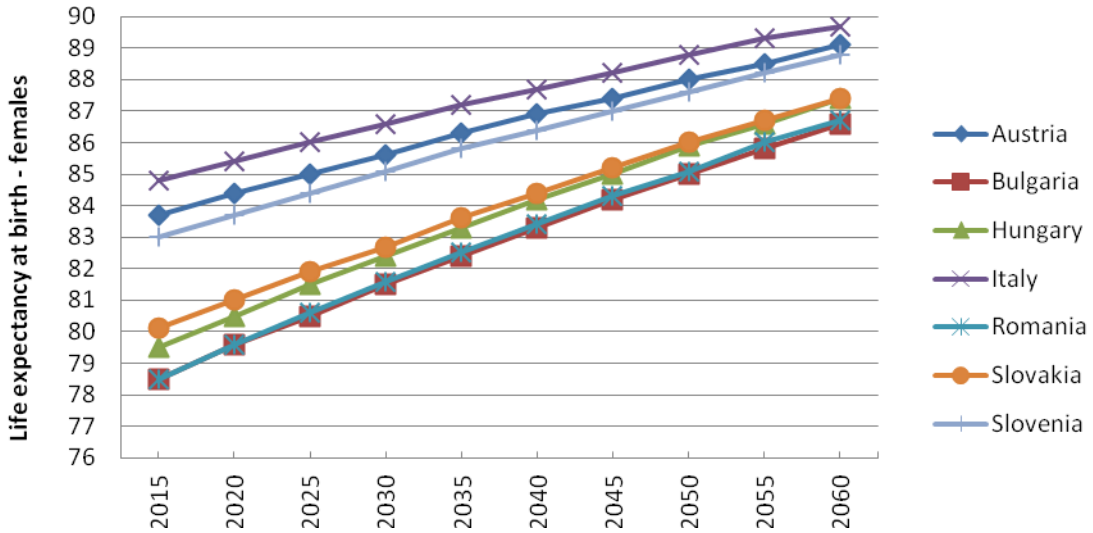


Figure 24. Live expectancy at birth of females, The UN projection (medium variant)

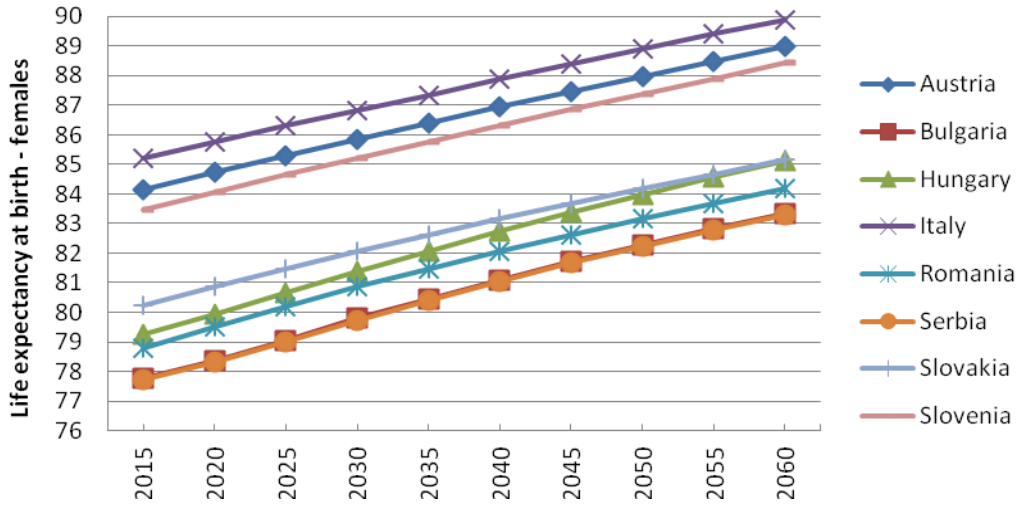


Figure 25. Live expectancy at birth of females, national projections (medium variant)

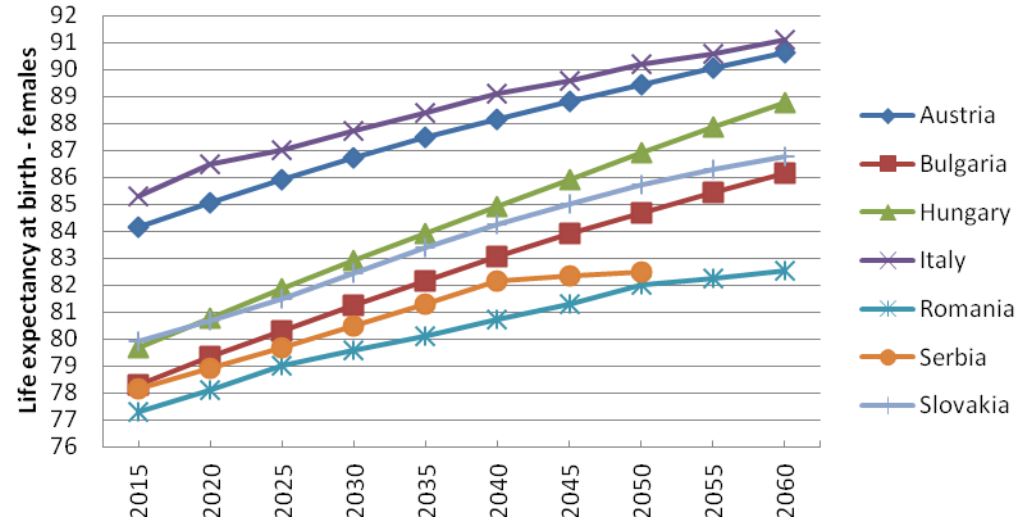


Figure 26. Live expectancy at birth of females in Austria

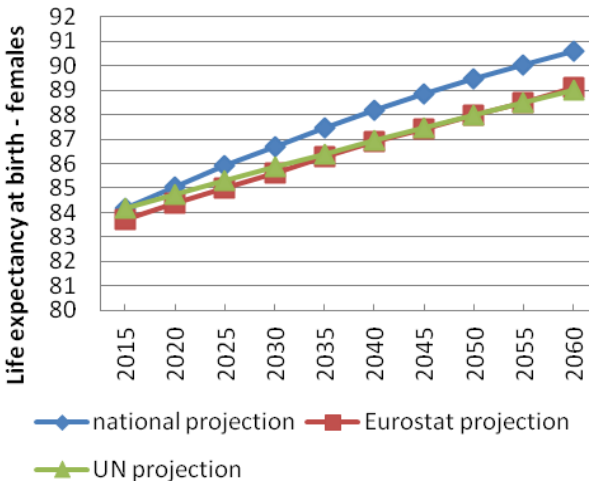


Figure 27. Live expectancy at birth of females in Bulgaria

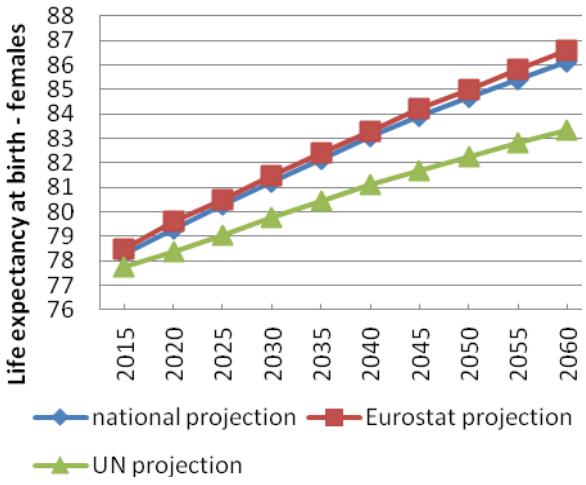


Figure 28. Live expectancy at birth of females in Hungary

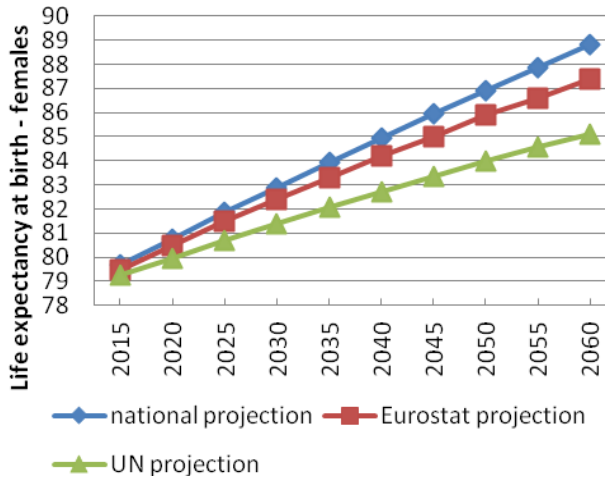


Figure 29. Live expectancy at birth of females in Italy

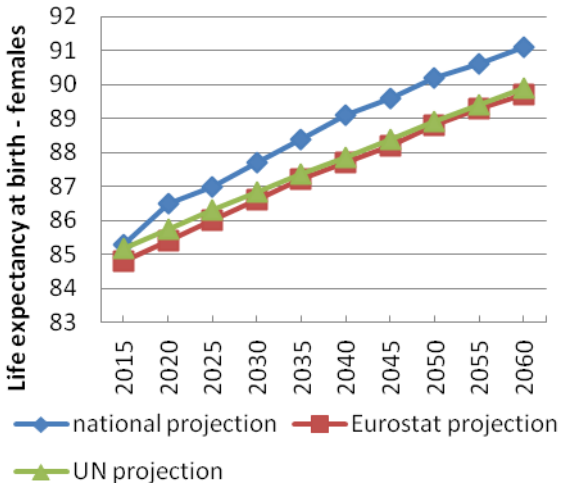


Figure 30. Live expectancy at birth of females in Romania

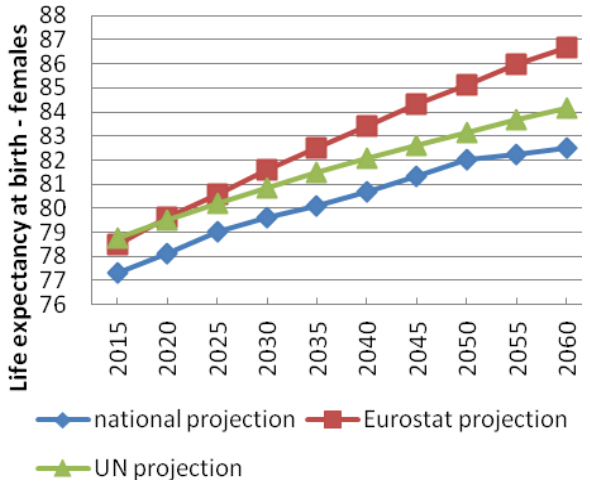


Figure 31. Live expectancy at birth of females in Serbia

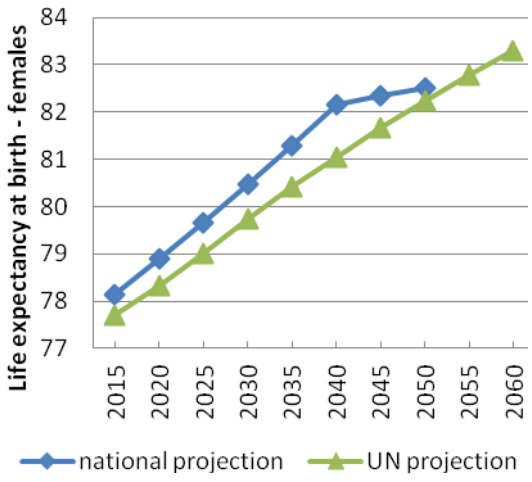


Figure 32. Live expectancy at birth of females in Slovakia

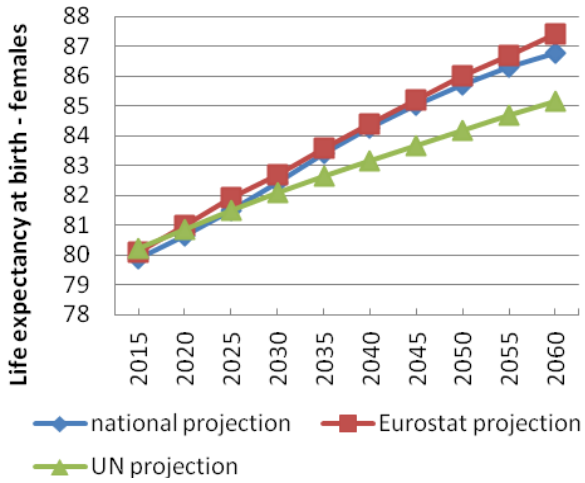


Figure 33. Live expectancy at birth of females in Slovenia

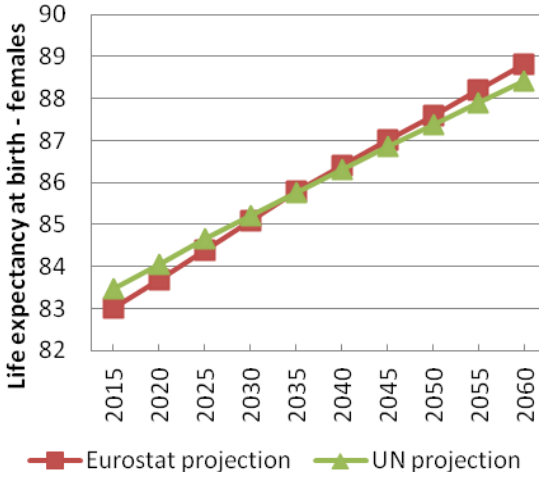


Figure 34. Net migration rate, Eurostat projection (convergence scenario)

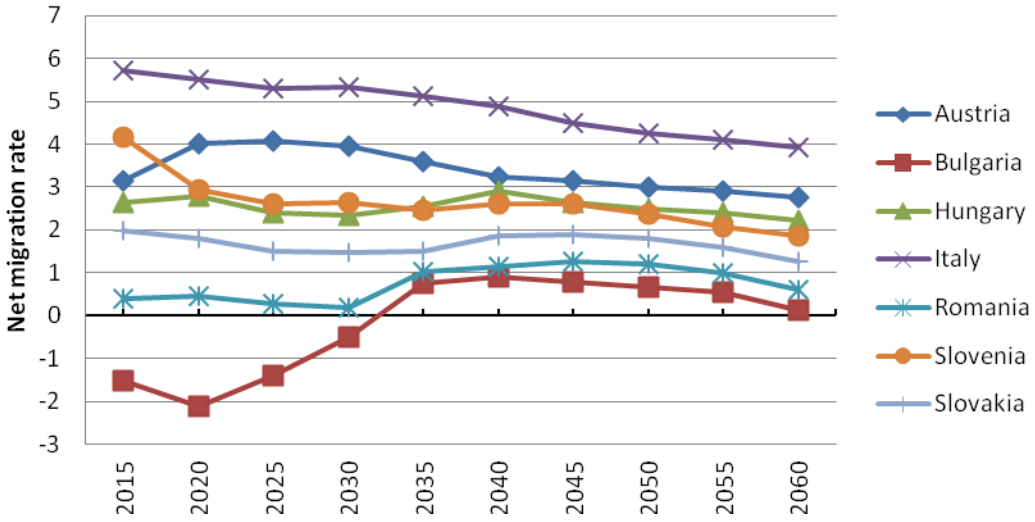


Figure 35. Net migration rate, The UN projection (medium variant)

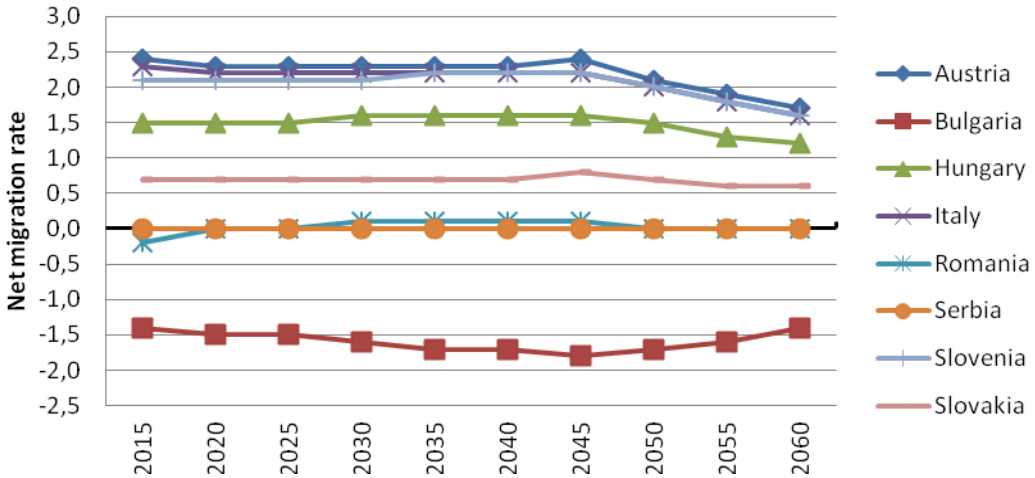


Figure 36. Net migration rate, national projections (medium variant)

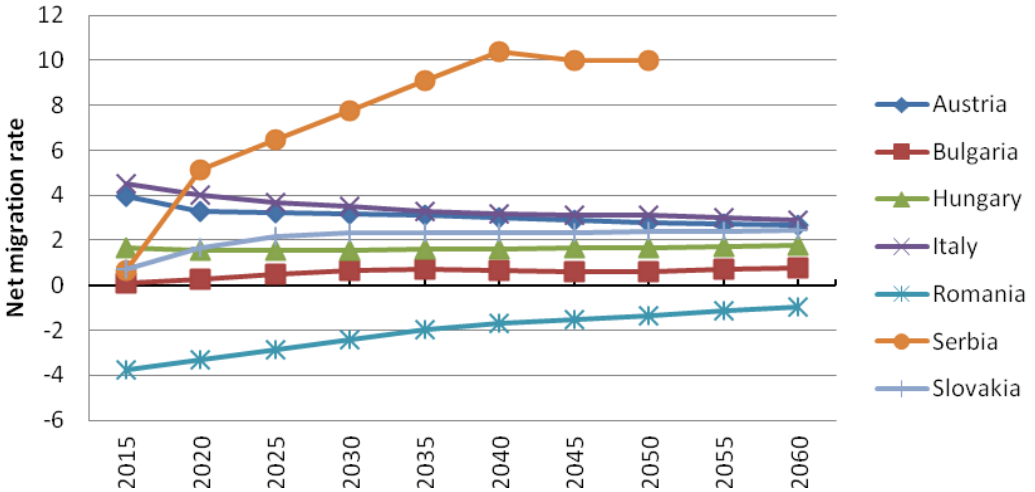


Figure 37. Net migration rate, national projection in Austria

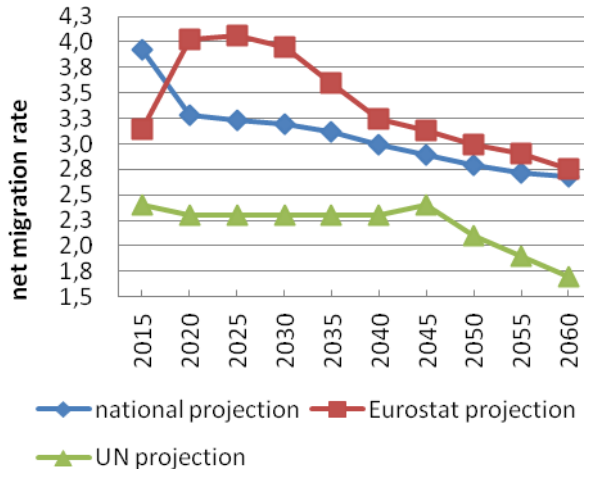


Figure 38. Net migration rate, national projection in Bulgaria

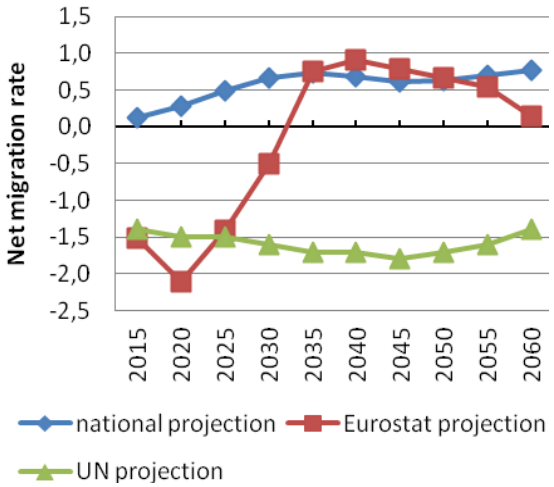


Figure 39. Net migration rate, national projection in Hungary

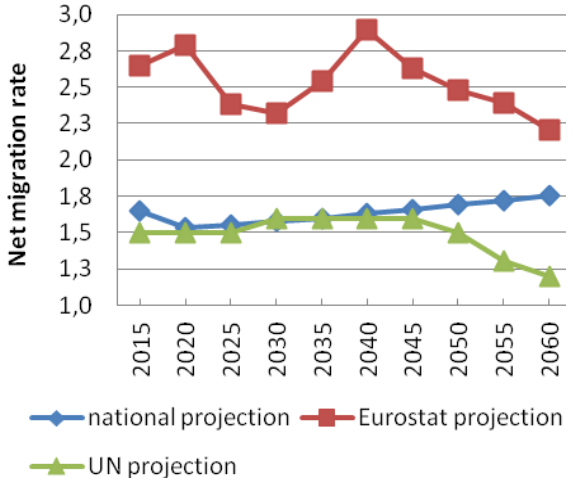


Figure 40. Net migration rate, national projection in Italy

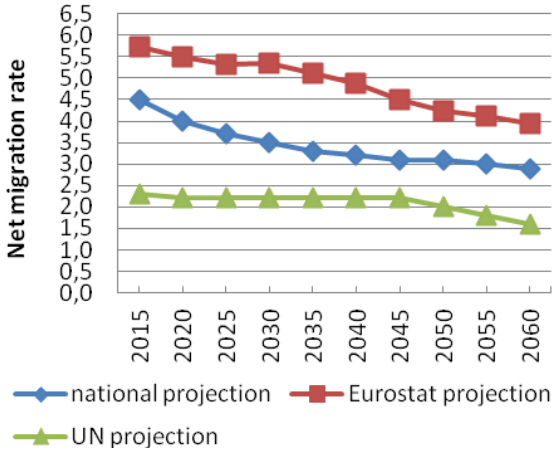


Figure 41. Net migration rate, national projection in Romania

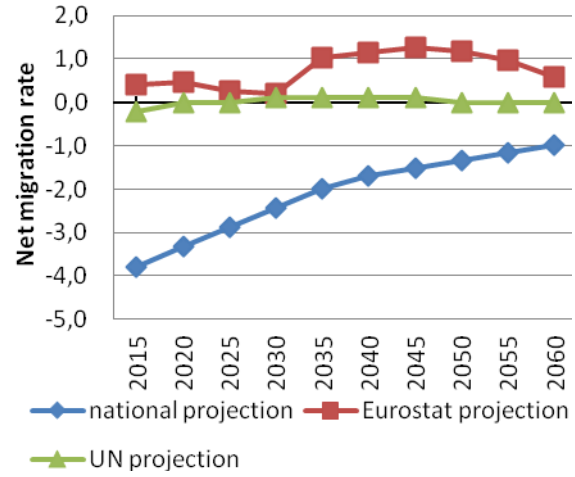


Figure 42. Net migration rate, national projection in Serbia

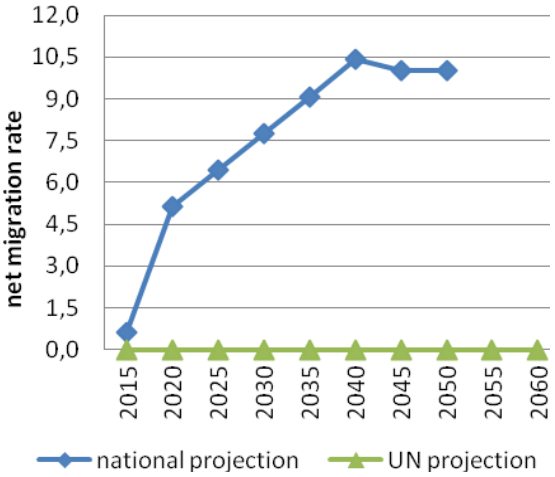


Figure 43. Net migration rate in Slovakia

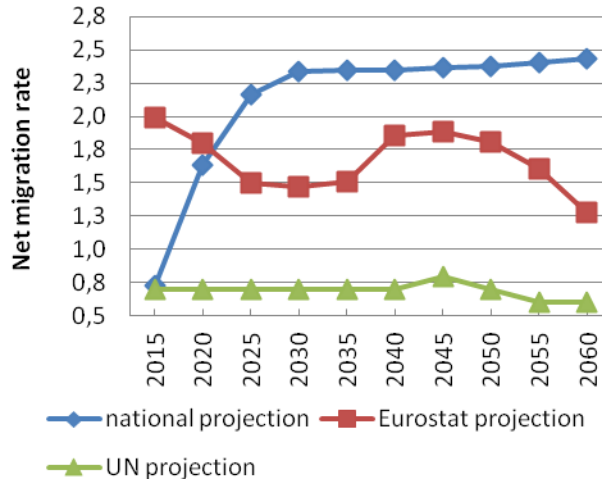
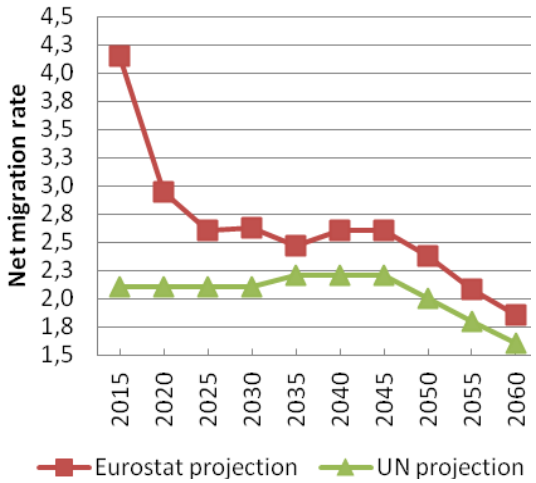


Figure 44. Net migration rate in Slovenia



Annex 3 Figures 45-85

The Results of Projections

Figure 45. Total number of population in Austria

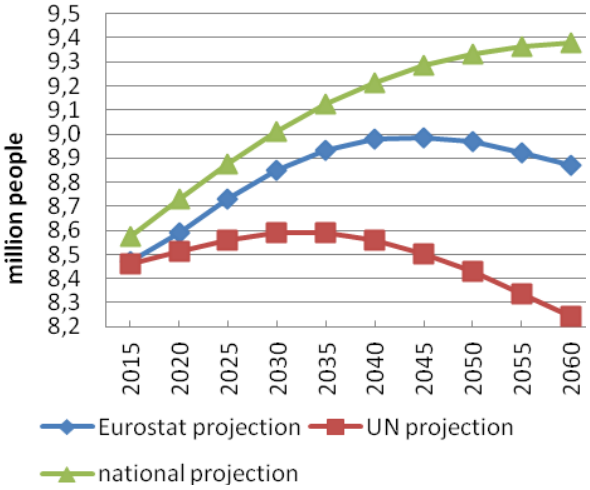


Figure 46. Total number of population in Bulgaria

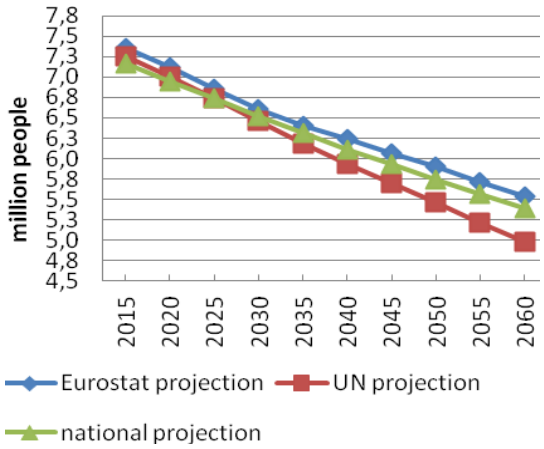


Figure 47. Total number of population in Hungary

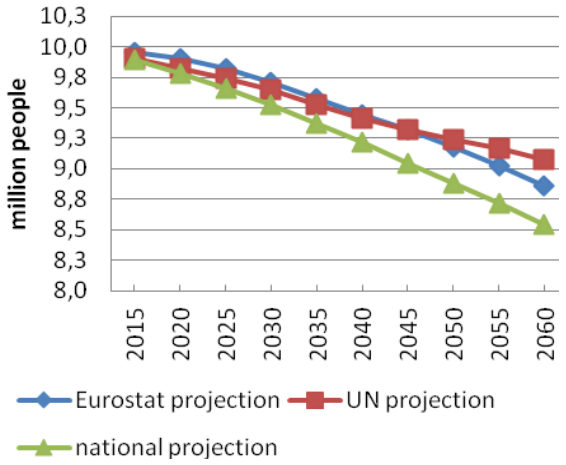


Figure 48. Total number of population in Italy

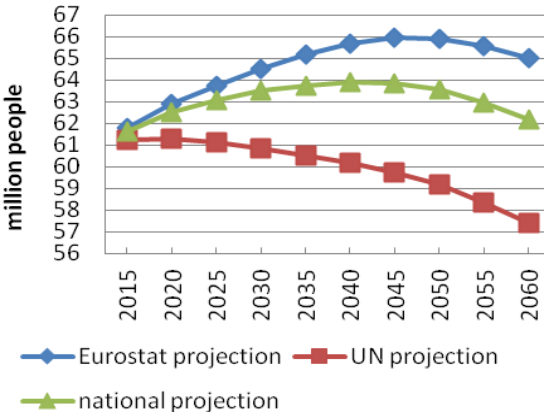


Figure 49. Total number of population in Romania

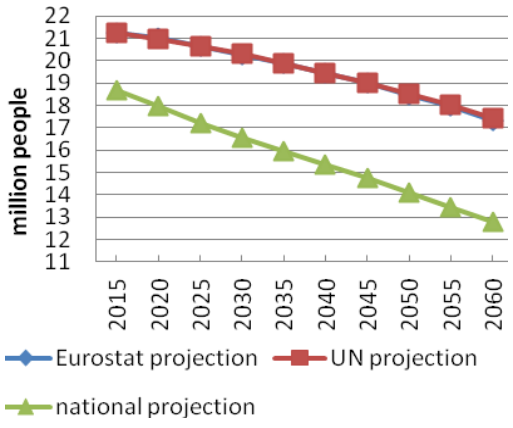
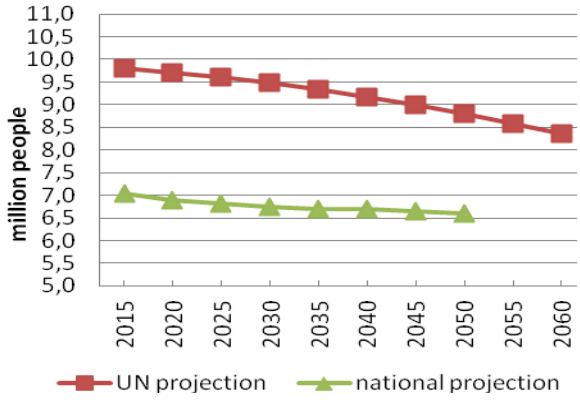


Figure 50. Total number of population in Serbia[6]



[6] *UN projection refers to Serbia including Kosovo and Metohija, while the national projection refers to Serbia excluding Kosovo and Metohija.*

Figure 51. Total number of population in Slovakia

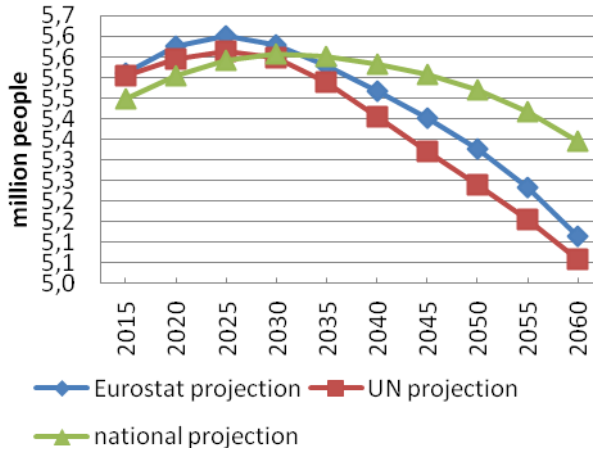


Figure 52. Total number of population in Slovenia

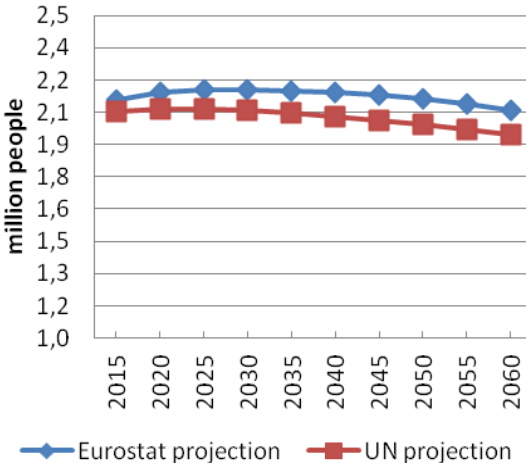


Figure 53. Total increase, Eurostat projection (convergence scenario)

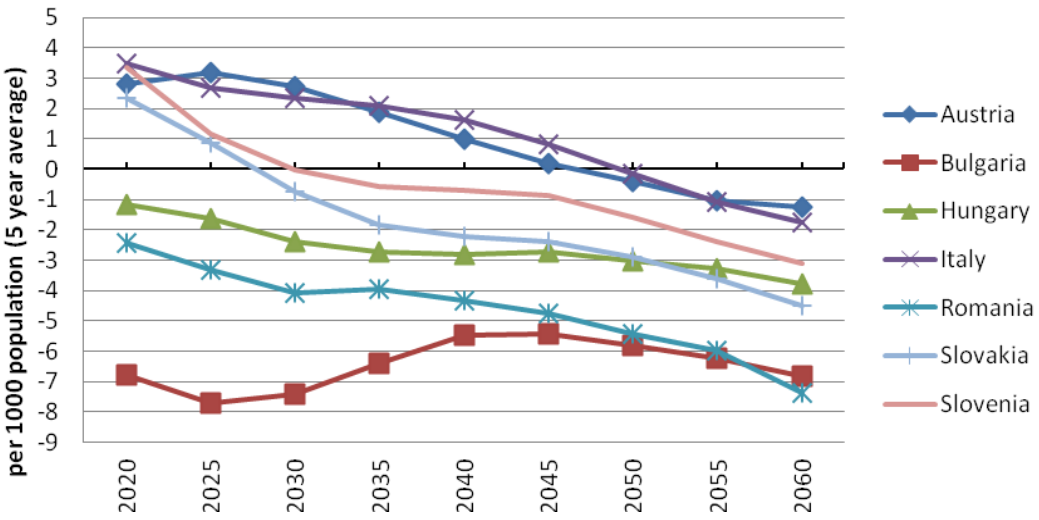


Figure 54. Total increase, The UN projection (medium variant)

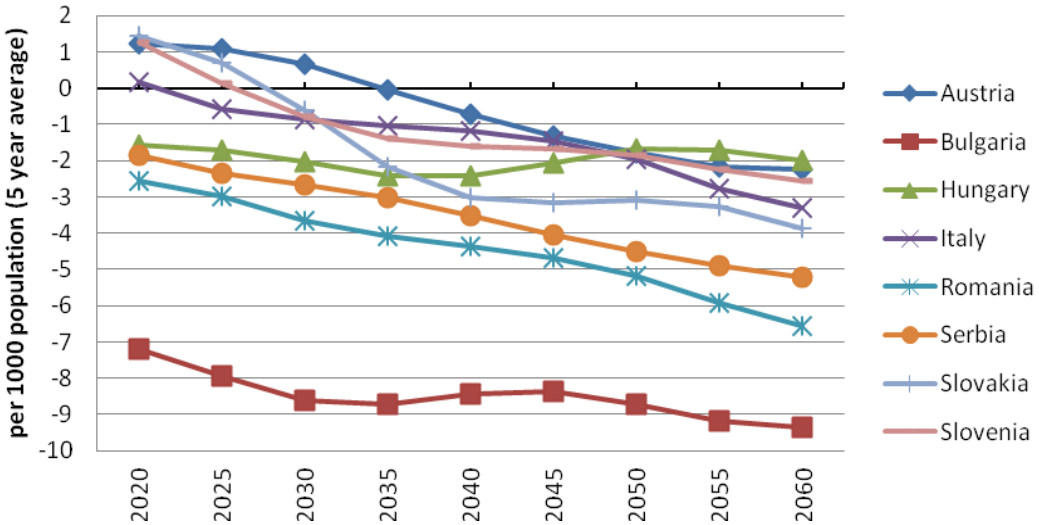


Figure 55. Total increase, national projections (medium variant)

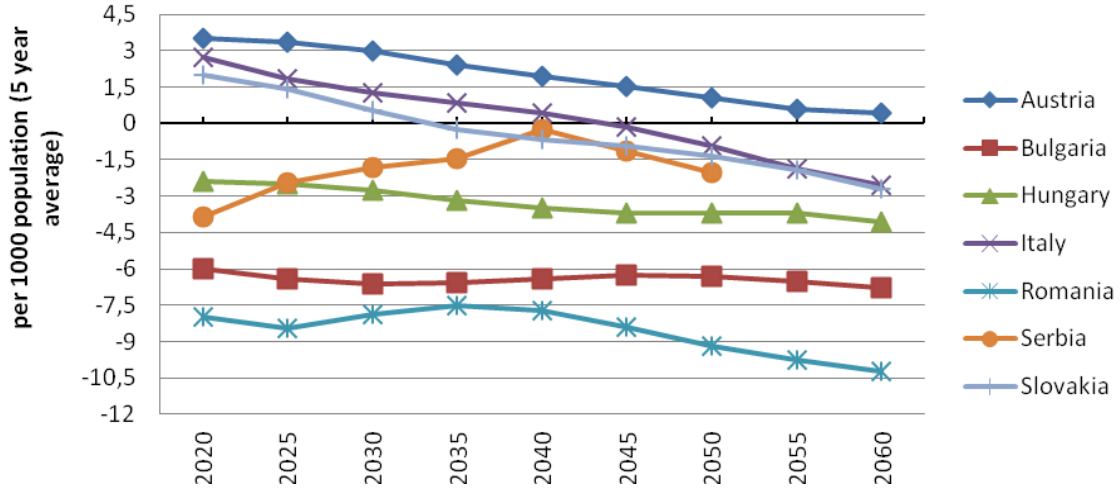


Figure 56. Total increase of population in Austria

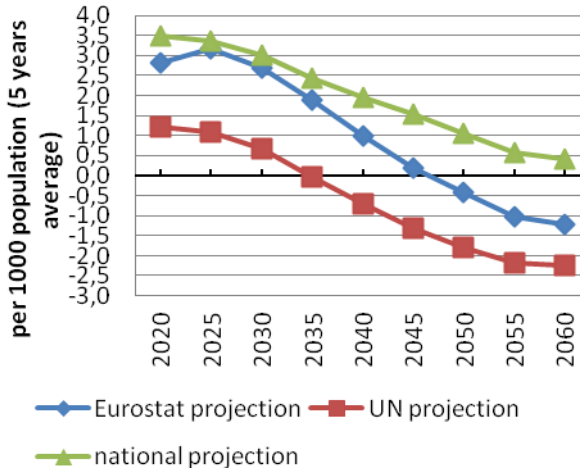


Figure 57. Total increase of population in Bulgaria

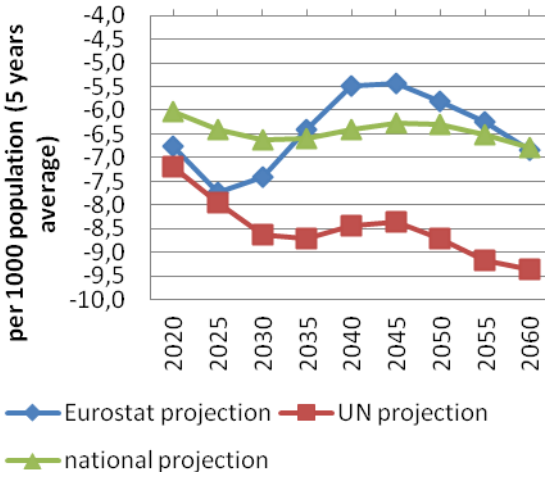


Figure 58. Total increase of population in Hungary

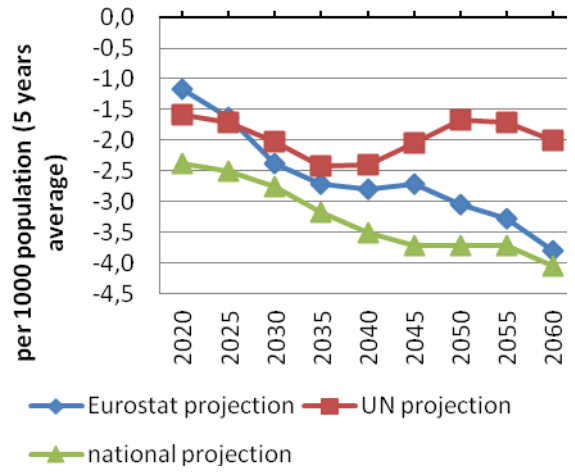


Figure 59. Total increase of population in Italy

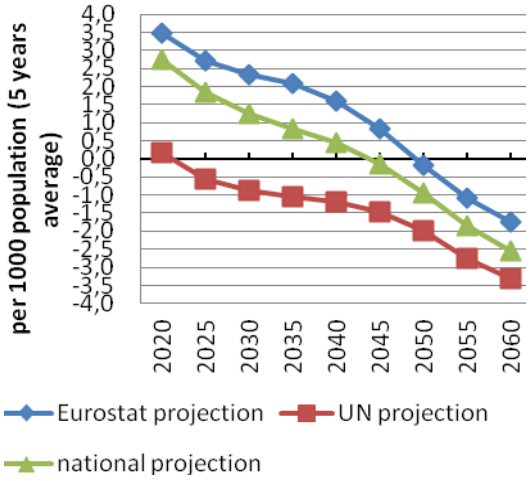


Figure 60. Total increase of population in Romania

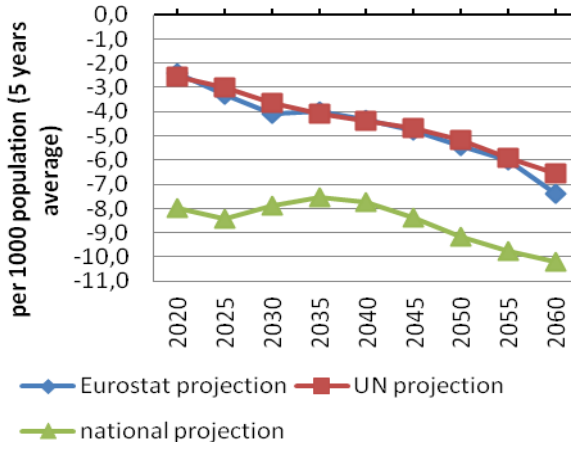


Figure 61. Total increase of population in Serbia[7]

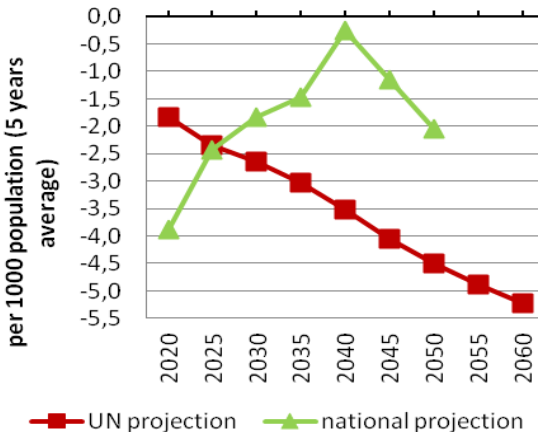


Figure 62. Total increase of population in Slovakia

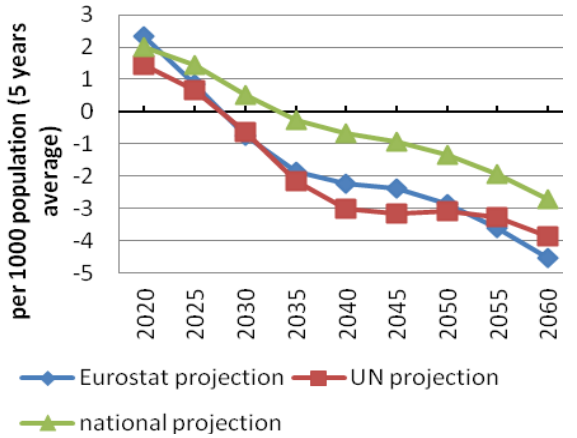


Figure 63. Total increase of population in Slovenia

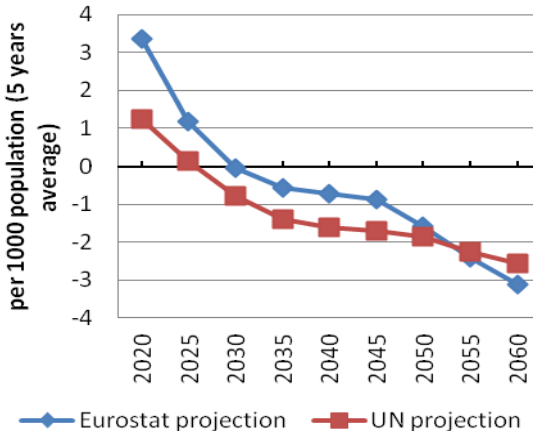
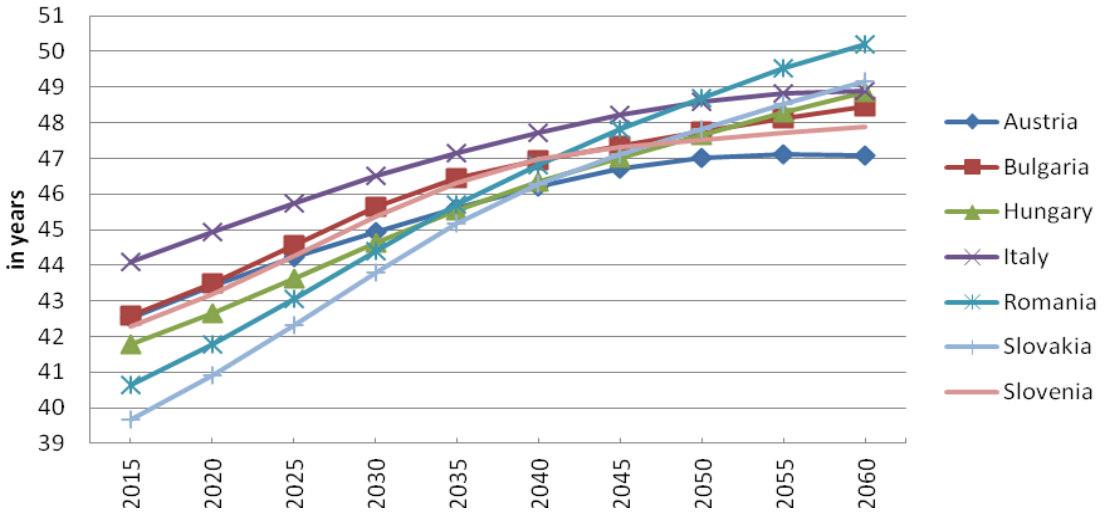


Figure 64. Mean age of total population, Eurostat projection (convergence scenario)



[7] *UN projection refers to Serbia including Kosovo and Metohija, while the national projection refers to Serbia excluding Kosovo and Metohija.*

Figure 65. Mean age of total population, The UN projection (medium variant)

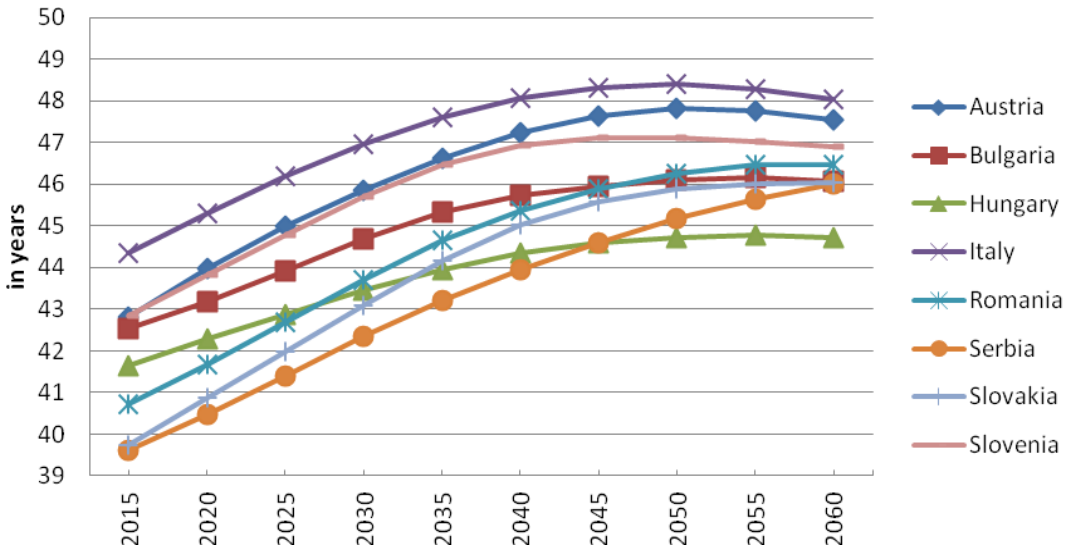


Figure 66. Mean age of total population, national projections (medium variant)

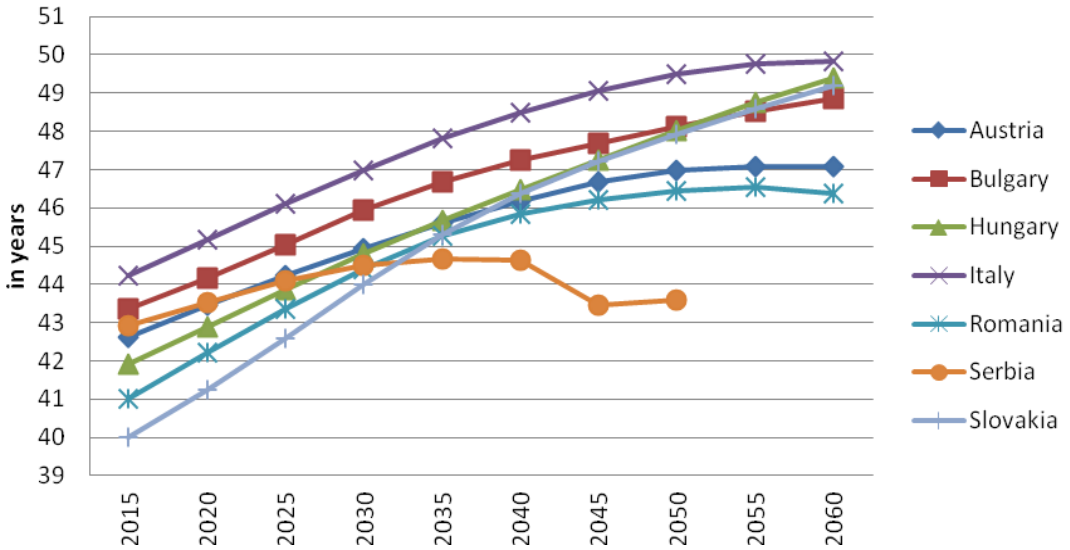


Figure 67. Mean age of total population in Austria

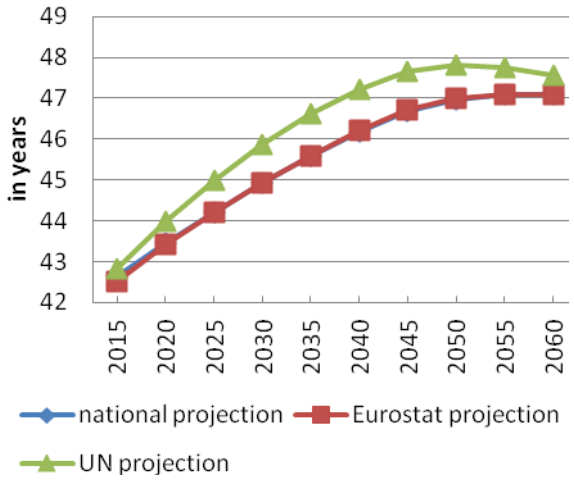


Figure 68. Mean age of total population in Bulgaria

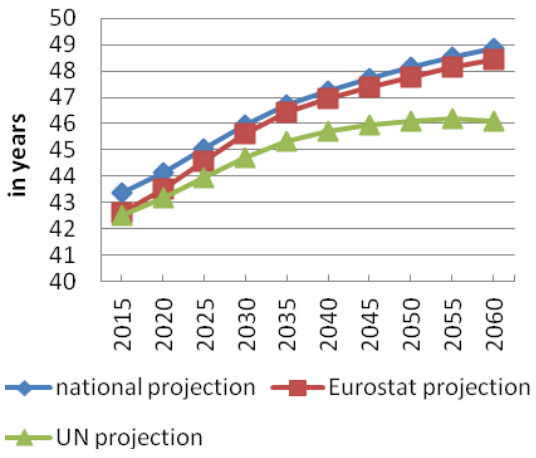


Figure 69. Mean age of total population in Hungary

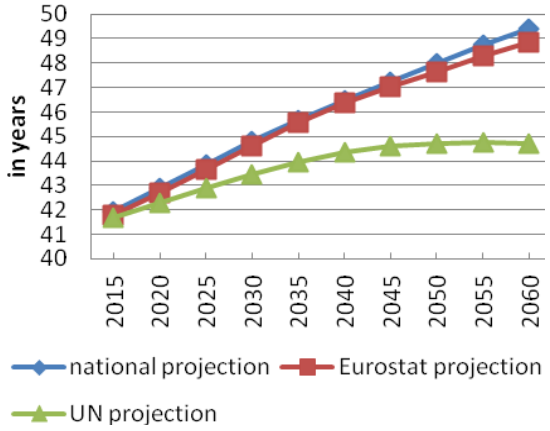


Figure 70. Mean age of total population in Italy

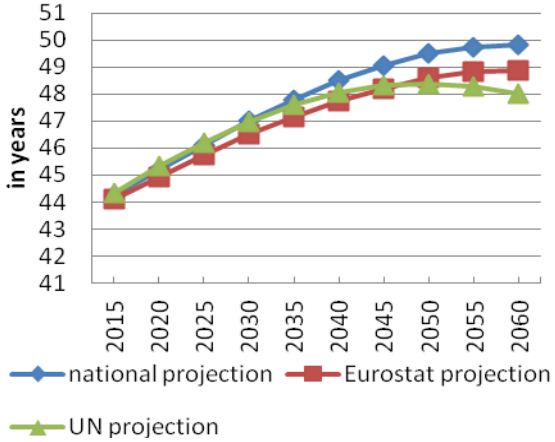


Figure 71. Mean age of total population in Romania

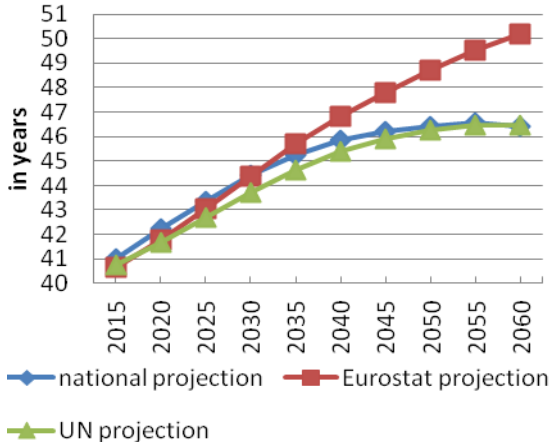


Figure 72. Mean age of total population in Serbia[8]

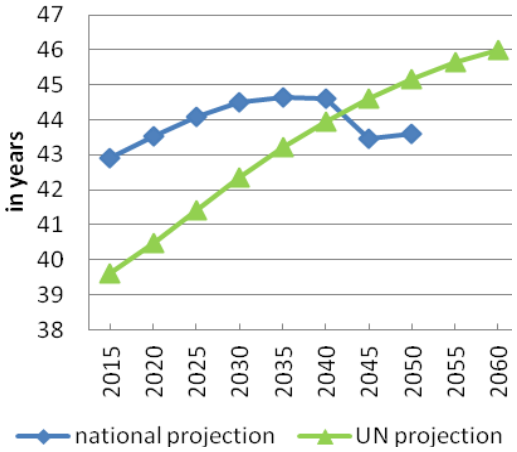


Figure 73. Mean age of total population in Slovakia

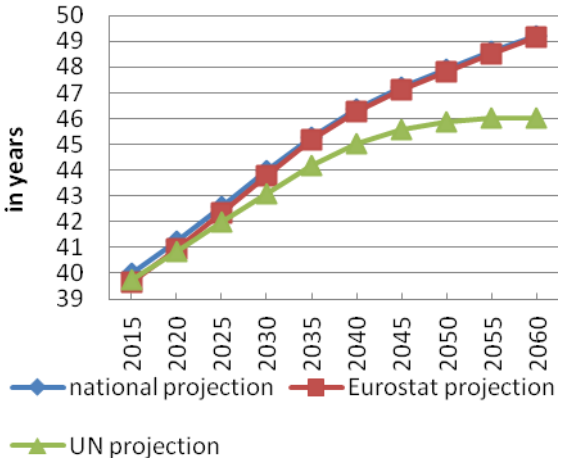
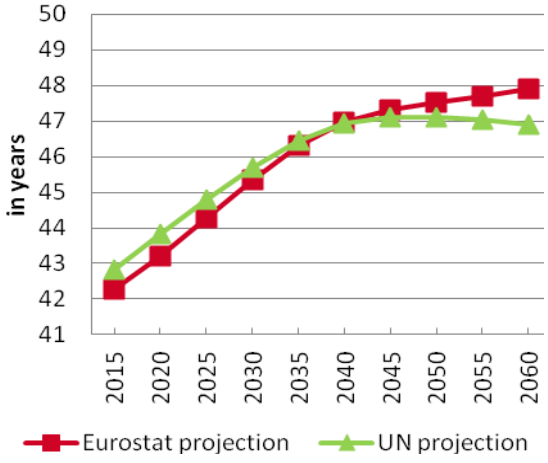


Figure 74. Mean age of total population in Slovenia



[8] *UN projection refers to Serbia including Kosovo and Metohija, while the national projection refers to Serbia excluding Kosovo and Metohija.*

Figure 75. Ageing index, Eurostat projection (convergence scenario)

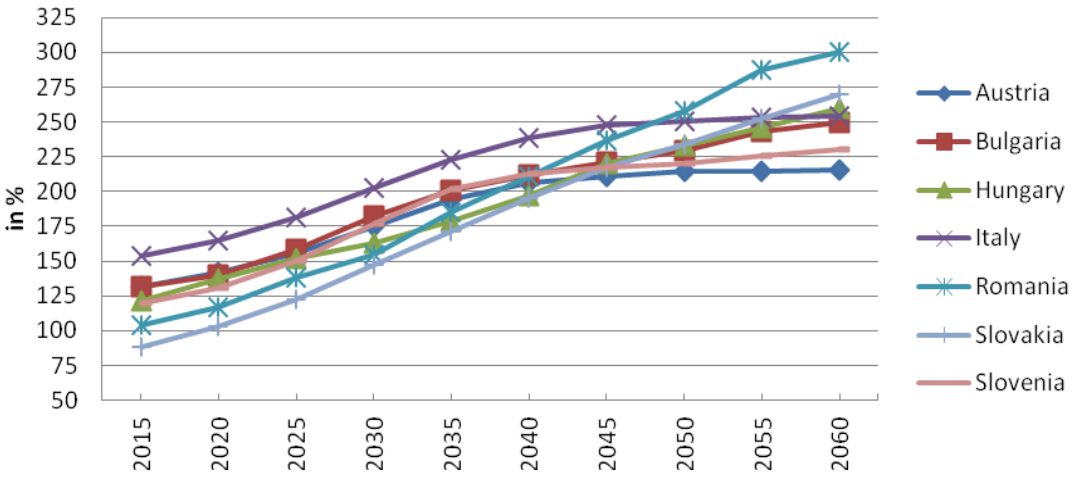


Figure 76. Ageing index, The UN projection (medium variant)

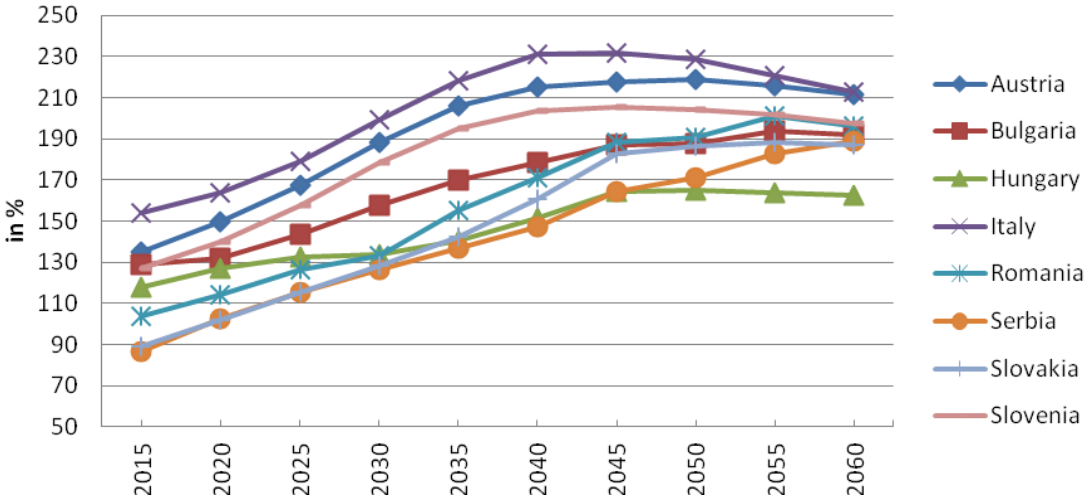


Figure 77. Ageing index, national projections (medium variant)

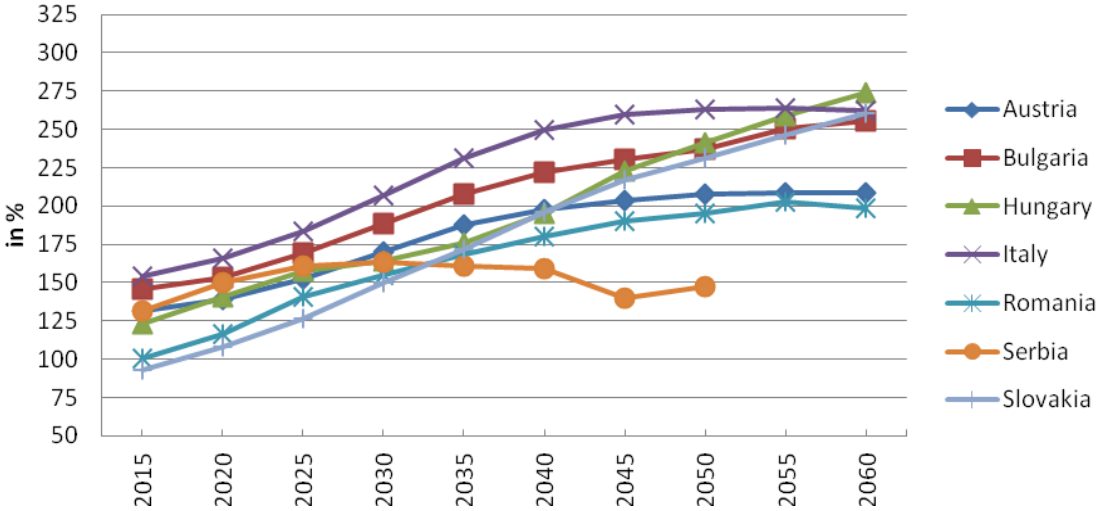


Figure 78. Ageing index in Austria

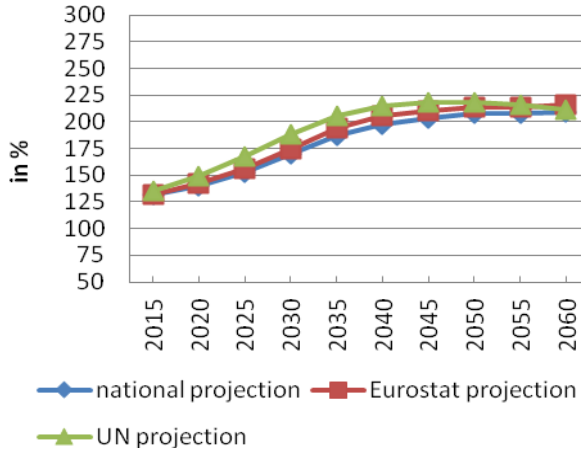


Figure 79. Ageing index in Bulgaria

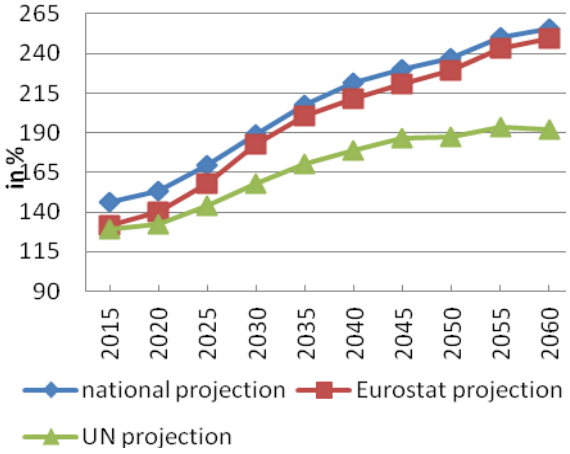


Figure 80. Ageing index in Hungary

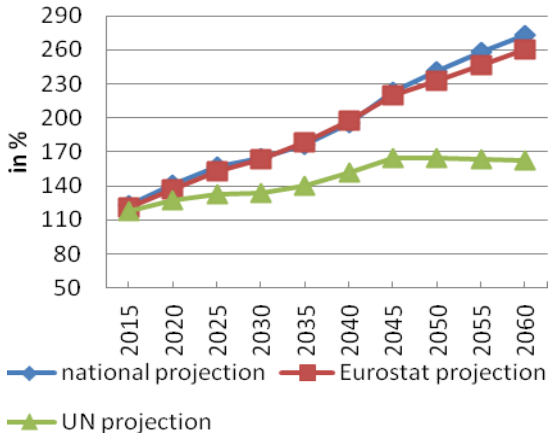


Figure 81. Ageing index in Italy

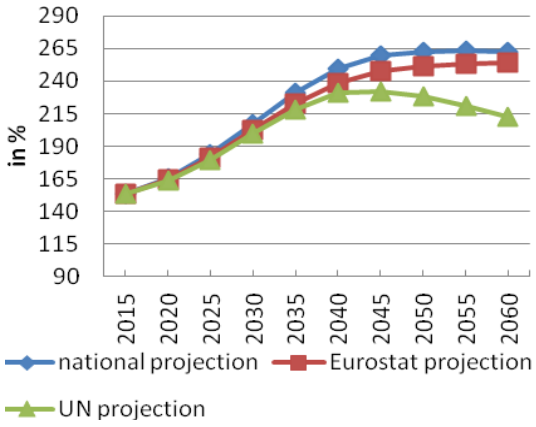


Figure 82. Ageing index in Romania

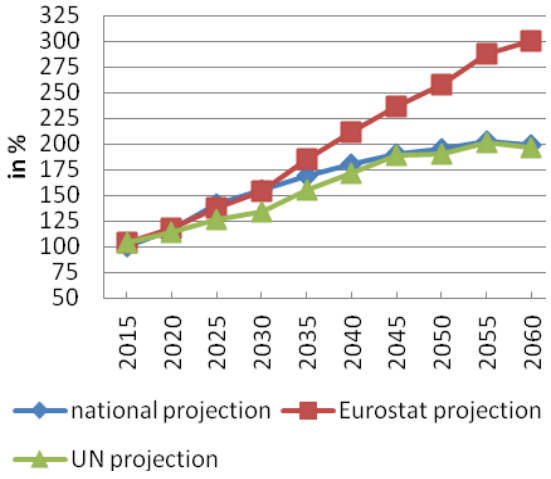
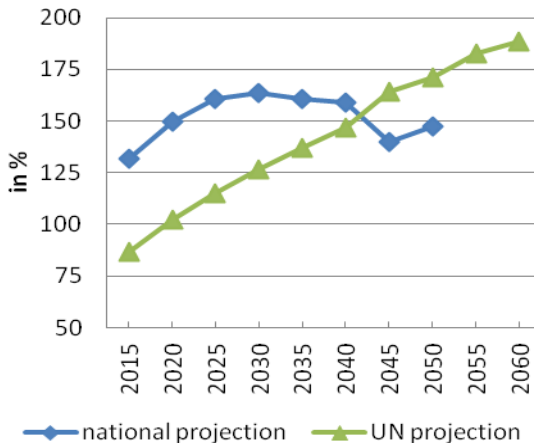


Figure 83. Ageing index in Serbia[9]



[9] *UN projection refers to Serbia including Kosovo and Metohija, while the national projection refers to Serbia excluding Kosovo and Metohija.*

Figure 84. Ageing index in Slovakia

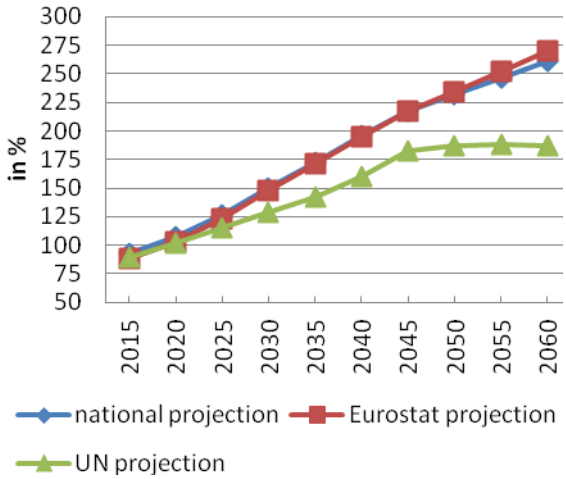


Figure 85. Ageing index in Slovenia