Current trends in the demographic development of municipalities in Bulgaria

Nikolay Tsekov

Abstract. For more than three decades depopulation and ageing have been the main trends in the demographic development of Bulgaria at both national and regional levels. In the regional aspect, however, the emergence and deepening of the processes of depopulation and demographic ageing in many settlements and entire municipalities have been observed since the 1930s, as is the case with rural depopulation in North-western Bulgaria. Along with the analysis of the current demographic development of Bulgarian municipalities, it is clearly emphasized that depopulation and ageing are not temporary crisis phenomena in the country's demographic development, but are key indicators of a long and irreversible transition. Its main result is the replacement of the relatively populous generations of the post-war baby-boom era with constantly shrinking and ageing populations. The subject of the study is the tracking of the spatial connections and dependencies between the indicators for the demographic structures and processes. The balance formed on their basis between natural and mechanical growth is one of the main indicators of the current demographic change. The task is to reveal key patterns between the studied factor and result characteristics, which outline the picture of the deepening demographic and socio-economic inequalities in the development of the 265 municipalities in the country during the first two decades of this century.

Keywords: demographic change, Webb classification, depopulation, over-aged population, cores of spatial depopulation

Introduction

The key challenges to Bulgaria's development in the coming decades will be the rapidly declining and ageing population and the growing disparities between living standards in major cities and the rest of the country. These findings are part of an extensive SWOT analysis of what Bulgaria has achieved over the past two decades, prepared by experts from the Organization for Economic Co-operation and Development (OECD) (OECD 2021). According to experts' opinions, a proof of the growing regional differences in Bulgaria's development is the fact that the purchasing power of the population in the Sofia

district is already comparable to the UK average, while the Northwest statistical region can be compared with the same indicator for the country from a Third World like Colombia for example. The lag in the development of Northern Bulgaria compared to the southern part of the country is also growing, OECD experts report. This statement is supported by the fact that in 2019, 35% of the Bulgarian population lived to the north of the Balkan Mountains, but the region generated only 25% of the country's national income.

The change in the tendencies of Bulgaria's demographic development, hereinafter referred to as "demographic change", is a constant companion to the changes in the demographic structures and processes, following, and in many cases predetermining the directions in the socio-economic development of the country and its regions. Demographic change is currently associated primarily with declining birth rates and rising rates of population ageing. Taken together, these factors contribute to the sustainability of the downward population dynamics at the national and regional levels. It is noteworthy that the sharp increase in the indicators that alert for the deterioration of the demographic situation in Bulgaria dates back to the early 1970s.

It should be emphasized that although the acceleration of the ageing and depopulation processes is typical for the whole of Eastern Europe, Bulgaria, Latvia and Moldova are the countries from the former Soviet camp most affected by the rapid deterioration of the demographic situation. Like most developed countries, the demographic ageing of the Bulgarian "baby boom" generations of the 1950s and 1960s in combination with the decrease in the annual number of live births, which was almost constant over the years, is the main reason for the rapid increase in the share of people aged 65 and older and the related increase in the average and median age of the Bulgarian population. Such a scenario of development of demographic change is closely linked by the declining dynamics of the population and the ageing process not only in Bulgaria but also in almost all developed countries. The big difference between Bulgaria and most countries in this group is the lack of the so-called substitute immigration, which would counteract anti-ageing and declining population (United Nations Population Division 2001).

The increase in life expectancy is also among the reasons for the deformation in the upper part of the age-sex pyramid of the Bulgarian population. The share of people aged 65 and more in 2017, according to current statistics of the National Statistical Institute (NSI), reached 21%, which defines the Bulgarian population as over-aged population. By the end of 2019, this share was already 21.6%. No less worrying than the data at the national level are the statistics on the increase of the administrative with an extremely over-aged population. As of 31 December 2019, the number of provinces and municipalities whose population aged 65 and over exceeding 21% was 21 (75% of all provinces) and 208 (78.5% of all municipalities), respectively. The deformation at the bottom of the pyramid is due to the effect of falling significantly below the minimum value to ensure simple reproduction of the replacement rate of generations of an average of 2.1 children born to one woman by the end of her fertile period (Lee 2003).

It should be noted that a number of publications have emerged over the last two decades that support the hypothesis that ageing and shrinking human populations, both at national and especially at regional level, are not a temporary crisis problem but part of a long and sustainable transition to the replacement of today's still relatively numerous and moderately obsolete generations with more sparse and aged populations (Prenzel 2017). In this sense, considering the ageing regions separately from the depopulated ones is methodologically incorrect, as in both cases it is a common engine of these negative processes and these are the dominant trends in demographic change and its dynamics in time and space. However, there is also the rule that the population of depopulated regions is ageing faster than the national average, while ageing regions will not necessarily become depopulated (National Statistical Institute 2021). Changes in regional demographic development, especially those related to depopulation and population ageing, play a significant role in shaping attitudes towards migration, especially among the active population (Abreu, Faggian, McCann 2015). Some authors, however, emphasize the difference between demographic ageing, which they perceive as a global phenomenon, and depopulation, which they see only as a local or regional problem (Hospers, Reverda 2015).

Demographic ageing in itself does not lead to a reduction in the number of population in a region. Losses due to negative natural growth can be offset by the influx of settlers. However, this mechanism does not help regions with a steady downward trend in population, as even the positive migration balance is no longer able to cover losses produced as a consequence of the number of deaths exceeding the number of live births. The advanced ageing process is among the factors that repel the influx of young and middle-aged people from regions and settlements with an ageing population and very old population. And it is that exactly such an inflow could slow down the tendency of deteriorating regional and local (settlement) demographic situation and the growing labour force shortage for the regional economy. The effect of repelling migratory flows from regions with superannuated population is well studied and affects all developed countries. It is associated with a large reduction in the influx of settlers to regions with superannuated population and settlements, which virtually erases the positive effect of substitute immigration for less developed and ageing regions in otherwise economically advanced countries such as Germany, Italy and Spain (Abreu, Faggian, McCann 2015).

Demographic change in both Bulgaria and most developed countries is much more diverse and divergent at the regional level than at the national level. The consequences thereof became increasingly readable in the first two decades of this century. It is exactly during this period in Bulgaria that a rapid increase in the differences in terms of population welfare and living standards between the small number of centres of economic growth and the rest of the country could be observed, as evidenced by the conclusions of the above-mentioned OECD analysis of Bulgaria in early 2021. The biggest contrasts in this regard are observed in the differences between the capital and the most backward regions of the country, the so-called periphery of growth, which is articulated by

multiple nuclei of demographic and economic stagnation (Borissova-Marinova et al. 2018). One of the main reasons for the increase and deepening of these differences is rooted in the characteristics of natural reproduction and attitudes to migration among local labour resources.

Data, methods and methodology

The main source of statistical information on the demographic structures and processes in the period 2001-2019 for the population of the existing 265 municipalities as of 31/12/2019 is the data from the population censuses conducted in 2001 and 2011, as well as the current statistics of NSI for the remaining years of the studied period. On this basis, the total share of natural and mechanical growth in the formation of the population of municipalities in 2001-2019 was calculated, as well as the values of indicators by municipalities such as the relative change in the population number, the share of people aged 65 and above, the shares of urban and rural population, the average population density, etc. The calculations were used to prepare two tables and a sketch map illustrating the results of the grouping of Bulgarian municipalities according to the classification of John Webb as described below. The aim is to summarize the demographic change indicators using the balance between the two main sources of changes produced in the population number by municipalities during the first two decades of this century.

The methodology of this study includes the application of the classification developed by the British researcher John Webb, which has been used for quite a long time in such type of developments (Webb 1963). Applying this method, the subnational territorial entities will be distributed in individual groups (types) according to the balance between the positive or negative impacts caused by the natural mechanical growth and spread over the population growth or reduction in the studied subjects over a certain determined period or in certain years included in the demographic change tracing period. The first task while applying the Webb classification will be to group the 265 Bulgarian municipalities according to trends in population growth or decrease throughout the period 2001-2019. What follows is making a distinction between the two groups thus received according to the contribution of the positive and negative natural and mechanical growth to the formation of the overall increase/decrease in the number of population by subnational territorial entities. In the end, all studied sites will be divided into eight types according to the predominance of positive or negative values of natural and mechanical growth in the formation of their population total for the studied period, i.e., a detailed description and distinction of the eight types in the Webb classification are contained in the first column of Table 1.

The grouping of municipalities in Bulgaria according to the Webb classification allows for a more detailed analysis of the demographic and geodemographic situation in the different groups of subnational territorial entities by comparing the available statistical information and the indicators of regional

174

demographic change in Bulgaria between 2001 and 2019. The comparison of the demographic and demogeographic characteristics of the population according to the eight types of municipalities distinguished by the Webb classification is a starting point for building hypotheses and expectations for the development of the regions in Bulgaria at least in a short-term perspective. However, for this purpose, it will be necessary to clarify the impact of the relationship between depopulation and population ageing by subnational territorial entities and the role of changes in the number and age structure of the population on the development potential of individual municipalities: demographic, labour and economic. Such an analysis would provide opportunities to assess the factors that repel or attract migrants, which is essential for the future of municipalities in areas of depopulation and accelerated ageing.

The impact of changes in the age structure of the population by regions on the intensity of external and internal migration flows can be summarized by the finding that migration accelerates the pace of regional demographic change much more than it helps reducing it. In this case, the emphasis lies on the role of settlements and relocations on the polarization in the territorial distribution of the population and the labour potential by regions and types of settlements. The tendency of young people in the most mobile age group between 18 and 35 years to avoid or leave regions and settlements inhabited by an over-aged population leads to further distortions of the age and gender structure of the local population in the direction of increasing the share of higher age groups. Narrowing of the base of the age-sex pyramid of the population in the affected regions leads to a rapid and lasting deterioration of the conditions, even for a very narrowed natural reproduction.

Classification of Bulgarian municipalities after J. Webb

The statistical data on the participation of the natural and mechanical growth in the formation of the total population growth by municipalities gives an idea of the sources of the demographic change in the country during the studied period. The comparisons between the key indicators for the demographic situation in the studied territorial units registered at the beginning and the end of this period give an idea of the direction of the changes and of the probability that these indicators would improve, stagnate or worsen. This is the exact purpose of the method formulated in 1963 by the British researcher J. Webb for classification by types of population by territorial units (countries and regions) according to trends in population dynamics (growth or depopulation) and the contribution of positive or negative natural and mechanical growth in the formation of the total growth of the increasing or shrinking populations by territorial lines over sufficiently long periods. Most often, such a classification is made in the medium term for periods between 15 and 30 years, which corresponds to the duration of the period between 2001 and 2019 adopted in the present study.

The eight types of subnational territorial entities, distinguished according to the classification of J. Webb, whose population dynamics is determined

by the combinations of participation of the positive and negative values of the natural and mechanical growth during the studied period, are analysed in two main directions. In terms of demographic change, population growth or decline is associated with indicators of demographic ageing, an indicator of which is the change in time and space of the share of people aged 65 and more. The other direction in the analysis of the results of the classification of J. Webb of the municipalities in Bulgaria is the analysis of the relationship between the type of demographic change and the indicators for the geodemographic situation such as population density and the degree of urbanization. These two indicators give an indirect idea of the economic profile of the studied subnational territorial entities, i.e., whether they are dominated by the branches of the industrial and service sector, or activities related to the agricultural economy.

The data shown in Table 1 and in the sketch map in Fig. 1 summarize the results from the classification of the Bulgarian municipalities by types made and their grouping for the studied 19-year period into the two main groups of demographically growing and depopulating subnational entities, applying the J. Webb's methodology. As noted above, each of these groups is divided into four types according to the balance in the quantitative contribution of the positive or negative total for the period values of natural and mechanical growth on the decrease or increase in the population of Bulgarian municipalities.

The main conclusion from the summary of data from the classification of J. Webb is that in total for the first two decades of this century nearly 70% of the population of Bulgaria lived in 252 intensively depopulated and rapidly ageing municipalities, occupying over 95% of the country. Compared to 2001, at the end of 2019 the population of this group of municipalities decreased by one fifth, which indicates almost twice as intense depopulation rate compared to the corresponding indicator for the country (see Table 1). The share of people aged 65 and more among the inhabitants of the 252 municipalities already makes 25%, i.e., by around 3 percentage points more than the indicator for Bulgaria in 2019, which characterizes their population as over-aged population. The dynamics of the ratio between the two sexes counts in favour of the advanced phase of demographic ageing, as the tangible predominance of the number of women in the older age groups over that of men due to the significant difference between the average life expectancy in the two sexes is among the indicators of deformities in any very ageing age-sex structure. In this case, the calculations show that in 2001 in the 252 municipalities with marked negative demographic development, there were 1,053 women per 1,000 men, while in 2019, this ratio changed to 1,072 women per 1,000 men.

Men still predominate in the age and gender structure of the municipalities least affected by depopulation with a predominantly ethnically mixed population dominated by Roma, Turks and Bulgarian Muslims: mainly in the Rhodopes, Ludogorie and South Dobrudzha. The municipalities most affected by the negative demographic processes along Bulgaria's border with Serbia feature over-aged local population, most of it rural, which in turn entails a growing serious disequilibrium in the gender ratio in favour of women.

176

Table 1. Summarized results from the application of the classification of J. Webb for the demographic change in Bulgaria by municipalities for the period 2001-2019

Types of demographic change according to the Webb classification	Number of municipalities	Share of the territory of Bulgaria (%)	Share of all municipalities (%)	Share of the population in 2019 (%)	Change in the number versus 2001 (%)	Share of the population aged 65 and more, 2019 (%)	Share of the urban population (%)
1. Municipalities with growing population	13	4.3	4.9	31.0	+10.6	18.1	93.8
1.1. With positive natural increase higher than the negative migration balance	-	-	-	-	-	-	-
1.2. With positive natural increase higher than the positive migration balance	1	0.1	0.4	0.1	+ 2.6	17.7	61.4
1.3. With positive migration balance higher than the negative natural increase	1	0.4	0.4	0.4	+50.6	20.2	69.2
1.4. With positive natural increase higher than the positive migration balance	11	3.8	4.2	30.5	+10.3	18.1	94.2
2. Municipalities with decreasing population	252	95.7	95.1	69.0	-19.3	23.2	64.8
2.1. With negative natural increase higher than the positive migration balance	52	18.5	19.2	13.5	-11.8	22.8	65.6
2.2. With negative natural increase higher than the negative migration balance	138	53.5	53.6	31.2	-24.3	25.4	63.1
2.3. With negative migration balance higher than the negative natural increase	56	21.6	20.0	23.1	-18.9	21.4	69.2
2.4. With negative migration balance higher than the positive natural increase	6	2.1	2.3	1.2	-6.1	15.8	28.5
TOTAL	265	100.0	100.0	100.0	-11.9	21.6	73.7

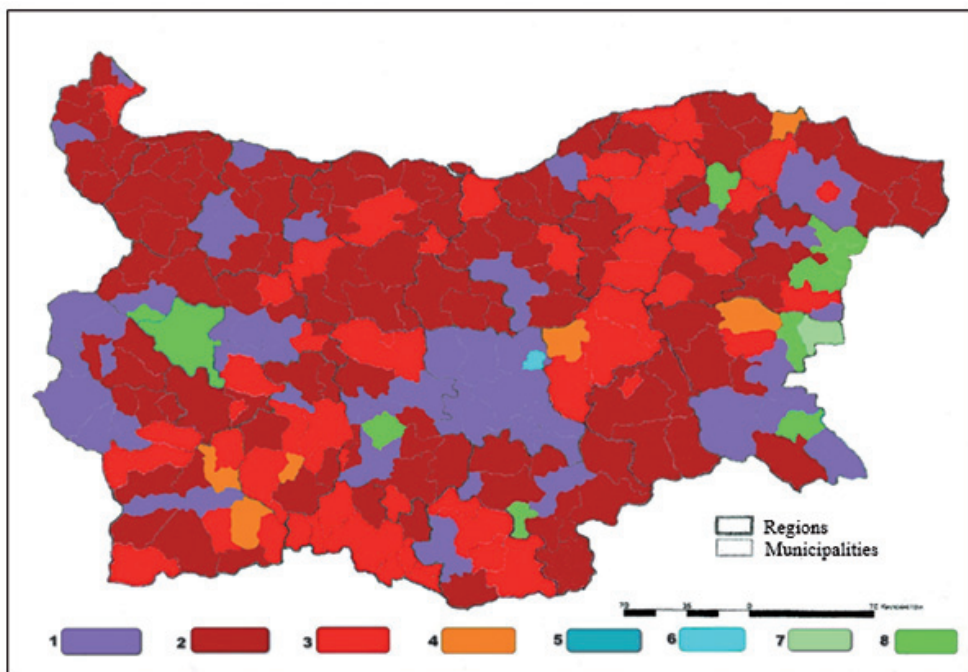*Source:* NSI-Infostat and author's own calculations.

Fig. 1. Summary of the results of the Webb classification of the municipalities
in Bulgaria according to the combinations of the participation of positive
or negative natural and mechanical growth in the total change in the number
of their population during the period 2001-2019

List of reference: **Municipalities with decreasing population:** 1: due to the predominance of the negative natural increase over the positive migration balance; 2: due to the predominance of the negative natural increase over the negative migration balance; 3: due to the predominance of the negative migration balance over the negative natural increase; 4: due to the predominance of the negative migration balance over the positive natural increase. **Municipalities with increasing population:** 5: due to the predominance of the positive natural increase over the negative migration balance; 6: due to the predominance of the positive natural increase over the positive migration balance; 7: due to the predominance of the positive migration balance over the positive natural increase; 8: due to the predominance of the positive migration balance over the negative natural increase.

Source: NSI-Infostat and author's own calculations.

The indicator of the share of urban population in depopulating municipalities is about 10 percentage points lower than the corresponding indicator for the country, and the population density is almost a quarter lower than the national indicator in 2019 (see Table 2). The last two indicators emphasize the distinct agrarian profile of the regional economy in most of the subnational territorial entities of the considered group, among which are the 47 out of a total of 49 municipalities with entirely rural population.

178

Table 2. Grouping of municipalities according to the trends in their geodemographic development in total for the period 2001-2019

Types of municipalities according to the trends in their geodemographic development	Number of municipalities	Share of the territory (%)	Share of the population in 2001 (%)	Share of the population in 2019 (%)	Change in the number of population versus 2001 (%)	Share of the population 65+ years in 2019 (%)	Density in 2019 (persons/ sq.km)	Share of the urban population in 2019 (%)	Change in the number of the urban population, 2001-2019 (%)	Change in the number of the rural population, 2001-2019 (%)
1. Municipalities with positive natural increase, total	10	3.0	1.7	2.0	-0.1	17.0	40.6	36.6	28.3	-20.2
2. Municipalities with positive natural, mechanical and general growth	1	0.4	0.2	0.4	51.6	20.2	68.9	69.2	84.2	3.3
3. Municipalities with positive natural increase but with negative mechanical and general growth	9	2.6	1.5	1.5	-8.5	16.1	36.6	28.0	7.2	-22.2
4. Municipalities with positive mechanical growth, total	64	22.7	38.4	44.6	+2.2	19.5	122.6	85.2	+5.6	-21.3

179

Table 2 (continued)

5. Municipalities with positive mechanical and general growth	13	4.3	24.7	31.0	+10.6	18.1	455.9	93.8	11.3	-11.0
6. Municipalities with positive mechanical and negative total growth	51	18.5	13.7	13.6	-12.9	22.8	46.0	65.6	-9.3	-24.8
7. Municipalities with positive natural, mechanical and general growth	1	0.4	0.2	0.4	51.6	20.2	68.9	69.2	84.2	3.3
8. Depopulating municipalities due to the negative natural and mechanical growth	195	75.2	60.4	54.2	-21.0	23.5	45.1	65.3	-16.2	-26.4
BULGARIA	265	100.0	100.0	100.0	-11.9	21.6	62.6	73.7	-6.1	-24.7

Source: NSI-Infostat and author's own calculations.

Among the group of 252 municipalities, whose population decreased in 2001-2019, 138 subnational territorial entities (52.1% of all municipalities) stand out with particularly unfavourable indicators for the demographic structures and processes among their population. The data obtained as a result of the application of the Webb classification shows that the descending dynamics in the number of population of the stated 138 municipalities is owed to the total of the negative natural and mechanical increase in their population's number where, if taken in absolute values, the negative contribution of the exceeding the number of the dead over the number of the new-born children is higher that the contribution of the negative migration balance. These are located mainly within the three main cores of regional depopulation in Bulgaria, i.e., Northwestern Bulgaria, Central Fore-Balkan and the extreme Southeast, i.e., mainly in the Strandzha-Sakar (a low mountain massif in the extreme Southeast of Bulgaria, *Translator's note)* region and the adjacent municipalities of Haskovo and Yambol region near the border with Turkey[1]. What is common about them are the very high depopulation rates observed over the last two decades, which have exceeded an average annual of 2% over the reference period. Any such population loss pace will lead to a threefold shrinking thereof in comparison with the same indicator for Bulgaria, which is 0.7%. Therefore, what has been observed over the reference period is a synergy effect of the two main sources of demographic change acting upon the expansion of the depopulation and ageing processes in Bulgaria's regions, which are the most dysfunctional demographically speaking. If taken in a spatial aspect, the action of this scheme of undermining the Bulgarian municipalities' demographic potential has been visible as a process of expansion and mutual merging of the regional nuclei of depopulation in the country.

In the 1990s, these nuclei were groups of several neighbouring municipalities with predominance of rural population that gradually expanded toward some of the neighbouring more urbanized subnational territorial entities. This phenomenon has been observed in all the six statistical regions in Bulgaria. The expansion of the nuclei of depopulation and accelerated ageing has gradually led to the emergence of larger and areas, which are more homogeneous from the perspective of the deteriorating demographic situation, where both shrinking of the population number and dissolution of the rural settlement network has also been observed. Such development is characteristic not only of the period of transition to democracy and market economy after 1989. It began with the start of the forced collectivisation and extensive industrialization after the Soviet model undertaken by the communist regime in the 1950s and 1960s. These have led to the emergence of emigration waves from the mainly agricultural areas of the country, which were dominant both in terms of population and size, to the expanding large cities with panel ghettos and emerging industrial concentrations that are unprecedented in the demographic history of Bulgaria (Tsekov 2015).

---

[1] In the sketch map in Fig. 1 the 138 fastest depopulating and ageing municipalities are coloured in brick red (colour no. 2).

The eight types of subnational territorial entities, 138 municipalities separated according to the Webb classification and featuring the most adverse trends in their demographic development occupy a little more than the half of Bulgaria's territory and are inhabited by one third of the country's population (see Table 1). The age-specific distribution of the population in the municipalities from the group under consideration defines it as the most aged in comparison with the inhabitants from the remaining groups of municipalities classified in accordance with the Webb classification method. The share of people aged 65+ in all those 138 subnational territorial entities exceeds 25%. This fact partly explains the large demographic losses, which in 2019 amounted to a quarter of the population available in 2001. The degree of urbanization is significantly lower than Bulgaria's average urban population share.

The second most common type of regional demographic change according to the Webb classification covers 56 municipalities, in which the population in the period 2001-2019 decreased faster due to the negative migration balance, which exceeds in absolute terms the demographic losses due to negative natural growth. This type of depopulation during the reference period was registered in 56 municipalities, which cover about a quarter of the territory and population of the country. The relative loss of their population during the reference period is about 6 percentage points lower compared to the sharp decrease in the number of inhabitants of the 138 municipalities already considered (see Table 1). The ageing of the population of these 56 municipalities, as well as the degree of urbanization are at levels close to the respective indicators for the country. Territorially, the municipalities with higher negative mechanical growth compared to their negative natural growth are scattered throughout the country with the exception of Northwestern Bulgaria (see Fig. 1[2]). In some of them, such as the municipalities in Sliven region, the highest birth rates for the country are maintained due to the massive presence of the Roma community. The situation is similar in the municipalities inhabited mainly by Turks and Bulgarian Muslims in Kardzhali, Smolyan and Pazardzhik provinces. The explanation for the more moderate rates of depopulation in the listed areas should be sought in the high share of minority ethnoreligious communities, which is usually associated with a higher share of children and young people in the age and sex structure of ethnically mixed areas. However, the relatively preserved demographic potential of the significantly less ageing ethnically mixed population in this case is a prerequisite for emigration of people of working age, which is still significant in scope. Young people continue to emigrate in search of better paid work and a standard of living in major cities and abroad. The reason for the widespread attitudes towards migration are the slow socio-economic development of the regions with ethnically mixed population, the low levels of wages, the lack of jobs in modern enterprises for production and services, the lagging behind the needs of the communal and transport infrastructure, and

---

[2] In the sketch map in Fig. 1, all 56 municipalities are coloured in bright red (colour no. 3).

the difficult access to education and health services. However, an increasingly more sensible reverse in the direction of the migration flows has been observed in some of these regions over the last few years. For example, in the Kardzhali province, a growing influx of Bulgarian citizens, mainly pensioners, returning from both Turkey and Western Europe has been registered every year. This tendency has caused an increasingly sensible impact over the dynamics in the number of population, i.e., the population number in the Kardzhali province has marked some growth, minute though, however reaching an average annual of some 2-3%. Thus, at the end of the second decade of the 21st century, Kardzhali and the City of Sofia have remained the only provinces in Bulgaria with no depopulation (National Statistical Institute 2021).

The third largest group of municipalities in the Webb classification, according to the roles of the sources of shaping the population number over the direction of the demographic change in Bulgaria in 2001-2019 has also been characterized by its negative natural increase, whole total for the period has exceeded as an absolute value the positive migration balance registered over the period. It concerns the 52 subnational territorial entities covering nearly 18.5% of Bulgaria's territory, which was inhabited by 13.5% of the country's population in 2019 (see Table 1 and Fig. 1). Geographically, these subnational entities may be localized in each of the six statistical regions (National Statistical Institute 2021).

The positive migration balance registered in 2001-2019 comes as a result of the better opportunities to find some better paid jobs in the nearby economic growth hubs over the period in question. This is why the nuclei of the group of municipalities considered are located in the hinterlands of the large cities: in the West and in the East immediately next to the City of Sofia province and in part of the subnational territorial entities in the vicinity of the municipality of Burgas. The Nuclear plant containing municipality of Kozloduy, its neighbouring municipalities belonging to the Vratsa province and the municipalities within the coverage of the East Maritsa Coal and electric power producing Basin (the Southern part of the Stara Zagora province) are of key significance for the Bulgarian electric power industry. This makes the basis for the opportunities to find qualified and highly paid jobs created a long time ago in these regions, and therefore to maintain a relatively balanced demographic development through the constant inflow of labour migrants. The predominance of settlements over relocations helps mitigate the depopulation levels and pace, which had emerged as a consequence of the negative natural increase. Ageing of the municipalities from the group under consideration stood at levels close to the national average in 2019 (see Table 1). The influx of people in working age, among whom the predominant part belongs to men, has been leading to some balancing of the age-sex structure despite the advanced process of ageing among the local population. For example, the values of the indicator called "women per 1,000 men" in the municipalities of Galabovo (East Maritsa Coal and electric power producing Basin) and Kozloduy in 2019 was 995 and 1,025, respectively, given the average for Bulgaria was 1,063 (National Statistical Institute 2021).

Only 11 municipalities fall into the group of subnational territorial entities with the most favourable indicators for demographic structures and processes in

183

Bulgaria in 2001-2019. The group includes the municipalities whose capitals are the largest cities in Bulgaria, i.e., Sofia, Varna and Plovdiv, some municipalities with a high share of the Turkish and Roma communities, such as Dzhebel in Kardzhali and Nikolaevo in Stara Zagora, as well as rapidly developing municipalities such as Nesebar in the Burgas province due to tourism and construction. According to the results of the Webb classification, they form an atypical for Bulgaria small group of demographically growing municipalities, occupying less than 4% of the country's territory (see Table 1). In addition to the ultra-high degree of urbanization (over 94% of their population is urban), which is general for the group, their characteristic feature is the significantly lower ageing of the population. In 2019, the share of people aged 65 and more in the relatively most prosperous demographically Bulgarian municipalities at present is nearly 4 percentage points lower than the corresponding indicator for the country (National Statistical Institute 2021).

Main conclusions

First, at the regional level the dynamics of demographic change in Bulgaria is significantly more intense than the changes in trends at the national level. However, in both cases it is not a question of exacerbating the "demographic crisis" that has been widely discussed in the present and in the past, but of a pattern in the deterioration of the parameters of population reproduction and labour resources observed in all developed countries. This is related to the replacement of the generations from the baby boom years, i.e., the 1950s and 1960s by increasingly low numbered and ageing populations. The deepening of this trend is a very serious challenge for the economy and social sphere in Bulgaria, because tackling or at least alleviating the problems arising from the general and spatial depopulation and the over-ageing of the nation requires adequate measures such as new policies to stimulate employment among people in pre-retirement age and retirement age, development of the system of professional retraining and lifelong learning, allocation of solid investments for increase of labour productivity and for development of the still archaic and weak system for providing long-term medical and social care, especially in the remote rural areas and areas of intensive depopulation.

The other main conclusion in outlining the main directions of demographic change in Bulgaria during the first two decades of the 21st century comes from one of the conclusions of the classification of municipalities in Bulgaria using the method of J. Webb, which connects the increasing polarization in population distribution across the country and the deepening of the differences between the demographic situation in the different regions. At the end of the day, these differences also shape part of the inequalities ensuing from the uneven socio-economic development of the country, viewed from a general and a regional perspective. Against the background of rapidly depopulating and rapidly ageing 254 out of 265 municipalities, 11 cores with centres in the capital, some of the largest cities, as well as some municipalities on the Black Sea coast and in ethnically mixed areas with relatively favourable trends in the development

of demographic structures and processes are emerging. These subnational territorial entities currently host nearly 1/3 of Bulgaria's population, with a degree of urbanization getting as high as 94%. It is not yet over-aged population, as is the population of Bulgaria as a whole, i.e., the share of people aged 65 and more is about 3 percentage points lower than the national indicator for 2019. The relative demographic prosperity of these 11 municipalities in Bulgaria is mainly due of the influx of labour migrants and their families due to the created new and better paid jobs in the unevenly created on the territory of the country during the studied period new centres of economic growth. The other main factor for demographic well-being not only in the period 2001-2019 is the high share of minority ethnoreligious communities, primarily Roma, Bulgarian Muslims and partly Turks among the population of municipalities with still preserved potential for at least very limited population reproduction. The problem of the regions with ethnically mixed population is in their underdevelopment, which leads to an increase in the intensity of emigration of people of active age to the growth centres in Bulgaria and to the labour markets in the other members of the European Union. This trend ultimately undermines their relatively well-preserved demographic potential for a relatively stable development, not just in the short term.

References

Abreu, Faggian, McCann 2015: M. Abreu, A. Faggian, Ph. McCann. Migration and inter-industry mobility of UK graduates. - Journal of Economic Geography, 15, 2015, 2, 353-385.

Borissova-Marinova et al. 2018: К. Борисова-Маринова, М. Атанасова, И. Белева, М. Д. Желязкова, Е. Таир, Н. Цеков, А. Христова, С. Николова, Х. Банов. Демографско развитие, работна сила и трудови ресурси в България. Т. 4. София: Издателство на БАН „Проф. Марин Дринов", 2018, 168-178. (K. Borissova-Marinova, M. Atanassova, I. Beleva, M. D. Jeliazkova, E. Tair, N. Tsekov, A. Hristova, S. Nikolova, H. Banov. Demografsko razvitie, rabotna sila i trudovi resursi v Bulagaria. T. 4. Sofia: Izdatelstvo na BAN "Prof. Marin Drinov", 2018.)

Hospers, Reverda 2015: G.-J. Hospers, N. Reverda. Managing Population Decline in Europe's Urban and Rural Areas. Cham, Switzerland: Springer Publishing House, 2015. Available from: http://ndl.ethernet.edu.et/bitstream/123456789/53706/1/239. pdf [Accessed: 14 March 2021].

Lee 2003: Lee, R. The demographic transition: Three centuries of fundamental change. - Journal of Economic Perspectives, 17, 2003, 4, 167-190.

National Statistical Institute 2021: НСИ-Инфостат. (NSI-Infostat.) Available from: https://infostat.nsi.bg/infostat/pages/reports/result.jsf?x_2=1537 [Accessed: 29 April 2021].

OECD 2021: OECD Economic Surveys: Bulgaria 2021: Economic Assessment. Paris: OECD Publishing, 2021. Available from: https://books.google.bg/books?id=zu YXEAAAQBAJ&printsec=frontcover&dq=regional+depopulation+and+age ing&hl=bg&sa=X&ved=2ahUKEwiPrOLwxpbvAhUDHHcKHcHeB_E4ggE Q6AEwBnoECAgQAg#v=onepage&q=regional%20depopulation%20and%20 ageing&f=false [Accessed: 12 February 2021].

Prenzel 2017: Prenzel, P. Regional Consequences of Demographic Change: Regional Development and Disparities in a Context of Ageing and Shrinking Population in Germany. PhD thesis, London School of Economics and Political Science (United Kingdom), 2017. Available from: http://etheses.lse.ac.uk/3705/ [Accessed: 11 January 2021].

Tivig, Frosch, Kühntopf 2015: T. Tivig, K. Frosch, S. Kühntopf. Mapping Regional Demographic Change and Regional Demographic Location Risk in Europe. Edition of Rostock Center for the Study of Demographic Change. Vol. 2. Rostock, 2015.

Tsekov 2015: Н. Цеков. Миграционният поток село - град като фактор за депопулацията на българското село. - Население, 2015, 2, 139-152. (N. Tsekov. Migratsionniyat potok selo - grad kato faktor za depopulatsiyata na balgarskoto selo. - Naselenie, 2015, 2, 139-152.)

United Nations Population Division 2001: United Nations Population Division. Replacement Migration: Is It a Solution to Declining and Ageing Populations? United Nations, 2001. Available from: https://www.un.org/en/development/desa/population/publications/pdf/ageing/replacement-cover.pdf [Accessed: 20 January 2021].

Webb 1963: J. Webb. The natural and migrational components of population changes in England and Wales, 1921-1931. - Economic Geography, 39, 1963, 2, 130-148.

Senior Assist. Prof. Nikolay Tsekov, PhD
Department of Demography
Institute for Population and Human Studies
Bulgarian Academy of Sciences
Acad. Georgi Bonchev Str., Bl. 6
1113 Sofia, Bulgaria
Email: nicktsekov@gmail.com