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TERRITORIAL DISPARITIES IN LIVING STANDARD OF THE POPULATION IN BULGARIA – SITUATION AND EVOLUTION (2007-2012)

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Abstract: The paper presents the territorial disparities between the six NUTS 2 regions and between the 28 districts in Bulgaria in terms of the living standard. The living standard includes the following dimensions: income and expenditure; inequality in income and social inclusion; education; social services; health care system and migration. For the purpose of empirical analysis, a specific methodology based on the Bennett's method is developed and applied. The study concludes that: (i) the territorial disparities in the living standard of the population show an increasing trend in both for the regions and for the districts; (ii) the ranking of the regions and the districts based on the scores of analysed indicators shows significant changes] (iii) the territorial disparities by thematic fields show different development trend.

Key words: living standard, territorial disparities; households' incomes and expenditures; inequality in income and social inclusion; education; social services; health care system.

Introduction

In world literature, there is not a consentient opinion on the definition of the term "living standard". In general, living standard may be seen as a level of wealth, comfort, material goods and services that are available to a particular society, social class, individual, family or residents of a territorial unit. Usually empirical researches on living standards include a limited number of indicators reflecting the various aspects (thematic fields), such as income, consumption, education, health care system and others.

In this context, the *purpose* of the research is to design and approbate a scientific apparatus for investigating territorial disparities in Bulgaria in terms of living standard.

Subject of the analysis and evaluation are the disparities between the six NUTS 2 regions and between the 28 districts in Bulgaria in terms of different dimensions of the living standard. They are grouped in the following thematic

fields: income and expenditure; inequality in income and social inclusion; education; social services; health care system; migration; overall living standard.

The research tasks are: (a) to develop a methodology for reporting, analysing and evaluating the evolution of the territorial disparities in the living standard, including a system of indicators and statistical instruments; (b) to analyse and evaluate the state and the trends over time in different aspects (thematic fields) and the overall living standard of the disparities in living standard in the period 2007-2012.

1. Methodology for evaluating the territorial disparitiesin the living standard

1.1. Applied indicators

The research of the living standard focuses on selected indicators that may be ensured with accessible and regular statistical data of the National Statistical Institute (NSI). The indicators are grouped in thematic fields reflecting various aspects of the living standard, as follows:

Thematic field 1 – Income and Expenditure:

- Total household income per capita – lv.
- Income from labour of household per capita – lv.
- Income from entrepreneurship (until 2009) / Income from self-employment (after 2010) household per capita – lv.
- Household income from social transfers per capita (incl. pensions) – lv.
- Household total expenditure per capita – lv.
- Household expenditure for food per capita – %.
- Expenditure for housing, utility, furnishing and house maintenance – lv.
- Average monthly wage (of persons working on labour or service contracts) – lv.

The indicators of household income and expenditure per capita are among the key indicators for evaluating the living standard. They measure the general purchasing power of consumers. In particular, the structure of income is indicative of the role of different sources of income – wage labour, entrepreneurship or dependence of the population on social transfers. The average monthly wage, on the one hand, reflects the price of labour; on the other hand, it is essential for the quantitative and structural characteristics of household income. The share of food expenditure is indicative of the progressivity of the cost structure – a high share of these expenses (over 30-35%) is a sign of poor and deteriorating living standard. The share of utility costs is indicative of the social affordability of the prices of water, sewerage and electricity services, housing and house maintenance affordability, etc.

Thematic field 2 – Disparities in income and social inclusion:

- Relative share of the poor - %.
- Share of population living in material deprivation - %.
- Share of population living in households with low intensity of economic activity - %.

• Population at risk of poverty or social exclusion - %.
• Disparities in the distribution of incomes – Gini coefficient.

The indicators for inequality of income and social inclusion give an idea about the social stratification of the population. The selected indicators reflect different aspects of the inequality in terms of income, poverty, consumption, etc. The indicator "Relative share of the poor" shows how much of the population live below the poverty line. The share of the population experiencing material deprivation measures the share of the population that is not able to ensure of their own a normal level of consumption and living standard. The share of persons in households with low intensity of economic activity is an indicator of the level of intensity in job seeking. The indicator "Population at risk of poverty or social exclusion" is an aggregate indicator of the share of the population at risk of social exclusion. The Gini coefficient is illustrative for the level of inequality in the distribution of household income.

Thematic field 3 – Education:

Pre-school education:
• Number of kindergarten.
• Number of children in one kindergarten.
• Number of children visiting a kindergarten from total aged 3-6 years.
School education (1-12 grade):
• Number of general and special schools.
• Number of pupils in one school - general and special.
• Number of pupils in general and special schools from total population aged 7-19 years.
University education:
• Share of students from total population.

The indicators of the number of educational establishments (kindergartens, schools) show the territorial distribution of the respective educational network and the general provision of such establishments to the population. The derivative indicators – number of children in one kindergarten or number of pupils in one school – reflect the provision of educational services to direct beneficiaries in educational establishments and its complementarity. The indicators of share of pupils and students in the respective age groups illustrate the level of coverage of the age groups by the educational system. These are mostly quantitative indicators with their inherent weaknesses, but their advantage is that they can be ensured with information and data published by the NSI.

Thematic field 4 – Social services:

• Number of places per 1000 residents in specialized institutions for social services.
• Number of places per 1000 residents in units for social services in the community.

Those are quantitative indicators referring to the availability of social services in specialized institutions and in the community provided to the population. They reflect also the territorial distribution of the respective units of the

social units' network. The territorial distribution of specialized institutions for social services is still greatly dependent on the many decades policy of establishing such establishments for people with disabilities, for elderly, for mentally sick persons, etc. in distanced regions and settlements hardy depopulated in the last years. This practice has a direct impact on the "better provision" of such infrastructure in those settlements, however, this infrastructure is often of regional scope and importance.

Thematic field 5 – Health care system:

- Number of hospitals per 100 thousand residents.
- Number of beds in hospitals per 100 thousand residents.
- Number of doctors per 100 thousand residents.

The heuristic value of these indicators is similar to the value of the indicators in thematic field 3 - they are mostly quantitative (with all their disadvantages in the absence of qualitative indicators) and reflect the availability of health establishments and medical staff for the population. These indicators are affected (similar to the specialized institutions for social services) by the policy on territorial location of hospitals, respectively, by the processes of establishing or closing such health units as well as by the changes in population number in the relevant territorial unit. In case of faster depopulation and inertia in the closure of health establishments, the value of the indicators seems "more favourable" in regions more affected by depopulation.

Even more, for the purpose of the analysis and evaluation of the territorial disparities, a *coefficient of migration per 1000 residents* is included, as a separate indicator, reflecting the territorial differences in the conditions of life and living standard. The indicator is defined as the mechanical population growth in the relevant territorial unit.

The change of the mechanical growth as a balance between in-migrants and out-migrants in the relevant territorial unit is largely affected by the perceptions and preferences of people on where to live with a view of relatively better conditions of life and living standard. This indicator is subject of a separate analysis, but also participates as a key indicator in the calculation of the aggregate scores of territorial disparities.

1.2. Statistical measures of the disparities across the territorial units by individual indicators

Territorial disparities by selected individual indicators by thematic fields forming the living standard are derived from the popular statistical measures:

Range of variation – it measures the ratio (the range) between the maximum and the minimum value of an indicator (x) in the aggregate of the territorial units of the respective level (NUTS 2 regions, districts). It is calculated using the following formula:

$$d = x_{max} - x_{min}.$$

Coefficient of variation root mean square deviation - it measures the dispersion around an average arithmetical mean regardless of the level of variation of the respective units. It is defined using the formula:

$$V_\sigma = \frac{\sigma}{\bar{x}} \cdot 100,$$

where σ is mean square (standard) deviation.

The territorial disparities are assessed on the following scale: below 10% – very low variation; 11-29% – low variation; 30-59% – average variation; 60-80% – high variation; above 81% – very high variation.

By comparing the changes in these measures over the period after 2007, changes in territorial disparities of the respective "segment" (indicator) of the living standard are evaluated.

1.3.Summarized measures for reporting, analysing and evaluating the state and the evolution of territorial disparities in the living standard of the population

Two types of summarized measures (scores) are applied:

– *Specific* aggregate measures (scores) of disparities of territorial units by selected indicators in the respective thematic field of the living standard;

– *Integrated* aggregate measures (scores) of disparities of territorial units in the general living standard.

The integrated measures (scores) for the analysed years are calculated by taking the following key indicators – income per person, average monthly wage, share of population at risk of poverty, share of population at risk of poverty or social exclusion, coefficient of migration.

Both types of aggregate measures (scores) are calculated by applying the so-called method of Bennett [**Hristoskov, 2014**: 6-18]. The method consists in obtaining a common balance score L_j for the level of the living standard (or of a thematic field of the living standard) in the *j*-territorial unit as a not weighed average from the L_{ij}-individual scores by a *n* number of indicators. The formula of the calculations is:

$$L_j = \frac{1}{N} \Sigma L_{ij} \quad \text{for } j = 1 \ldots\ldots k, \text{ where}$$

$$L_{ij} = \frac{1_{ij}}{\text{Max}\, 1_{ij}} 100 \text{ where } \begin{matrix} i = 1. \ldots n \\ j = 1 \ldots k \end{matrix}$$

The method is adapted for the purpose of the research and its application goes through three steps.

First step – determination of the maximum value of the respective indicator. Three main options are possible here:

(a) the indicator has a value (e.g. household income per capita, in levs). In this case the maximum value is directly selected.

(b) the indicator is expressed in percentage, but all reported data are positive numbers (e.g. share of the population at risk of poverty). In this case the highest percentage is selected among the analysed aggregate of territorial units (e.g. districts, including average for the country). Then the indicator's values

for the individual units are "harmonized", calculating them as a difference to the highest value. Finally, the maximum value is chosen from the "harmonized" values.

(c) the indicator is expressed in percentage or permill but some reported data are negative numbers (e.g. coefficient of migration). In this case: (1) The lowest value of the indicator is selected among the analysed territorial units (e.g. districts, incl. country average) – in this case the lowest value is a negative number; (2) This negative value is transformed in positive by multiplying it by minus one; (3) The values of the indicator for each territorial unit are "harmonized" by summing with a value obtained in the previous recalculation; (4) Finally, the maximum value is chosen among all "harmonized" values.

Second step – bring the individual indicators into a single dimension (standardization). This happens by correlating them to the maximum value of the respective indicator obtained in the previous step. Thus, each indicator's rates are presented in percentages and the territorial unit with the highest rate receives 100%, and the rest – a percentage equal to the ratio of their value to the highest value. For example, if territorial unit X has a value of 20, while the highest value of this indicator belongs to territorial unit Y and is equal to 80, then territorial unit Y will get 100%, and territorial unit X - 25% (20:80).

Third step – calculation of aggregate (resp. integrated) scores. These scores represent the average arithmetical value of included standardized indicators expressed in percentages. Scores are in percentages and show the distance of a territorial unit (region or district) from a benchmark that summarizes the best values of the individual indicators. The territorial units are ranked as: a) if the highest value of the indicators (e.g. income and expenditure) is most favourable, the units are ranked in a descending order; (b) if the lowest value of the indicator (e.g. the indicators of poverty and social inclusion) is most favourable, the units are ranked in ascending order, i.e. the territorial unit with the highest value of the indicators is ranked at last place.

The application of this method gives the opportunity to rank and differentiate the territorial units into three groups based on the scores received on the rate of the living standard within the unit – first group comprises regions whose aggregate scores are over the country average; second group comprises regions whose aggregate scores are between the country average and the so-called "critical threshold" determined as a difference between the average score and the half of the difference between the lowest and the average score; third group – regions whose scores are below the critical threshold.

Because of the limited volume of the research, the analyses and the evaluations presented review only summarized measures by thematic fields and about the general living standard.

2. Territorial disparities in the living standard by thematic fields

As mentioned above in the methodological section, the territorial disparities in a respective thematic field (a) between NUTS 2 regions and (b) between the districts in the country, are evaluated firstly by using individual indicators based on the statistical measures "range of variation" and "coefficient of variation". Then, the disparities are evaluated and analysed based on the aggregate scores of the NUTS 2 regions and the districts in 2007 and 2012.

2.1. Income and Expenditure

The aggregate score in this field is determined by the use of following indicators: household income per capita, household expenditure per capita and average monthly wage. In their integrity and complementarity these three indicators reasonably reflect the basic parameters of this aspect of the living standard.

The evaluation of the disparities across NUTS 2 regions in terms of specific aggregate scores in 2007 and 2012 are presented in Table 1 and Table 2.

Table 1
Income and expenditure – specific aggregate scores by regions

	2007
South-West Region	100,0%
BULGARIA	**87.1%**
North-West Region	85.1%
South-East Region	84.5%
South-Central Region	79.8%
North-East Region	79.4%
North-Central Region	77.4%
Coefficient of Variation	**8.9%**

Table 2
Income and expenditure – specific aggregate scores by regions

	2012
South-West Region	100.0%
BULGARIA	**80.9%**
North-East Region	75.2%
South-East Region	71.9%
North-West Region	70.8%
North-Central Region	70.7%
South-Central Region	69.4%
Coefficient of Variation	**14.1%**

The analysis of the scores suggests the following conclusions:

• Over the two years under examination some changes have taken place in the arrangement of regions: some regions have undergone betterment, others – deterioration. Improvement is observed in NER and NCR, while the situation in NWR and SCR deteriorates. This shows that the evolution in the territorial development of incomes, expenditures and wages is significant and results in more obvious changes in the ranking of the regions.

• In 2012, deterioration is observed in all regions except for SWR, which keeps its position of an absolute leader (scoring 100% which means the same as "the benchmark" territorial unit). This increases the coefficient of variation as a measure of the scale of territorial disparities.

• At that territorial level, the impact of household income and expenditure on the aggregate score is more significant, which, together with the relatively even development of the average wage, is a factor for increased disparities between the regions in terms of the specific aggregate score.

The evaluation of the disparities of the regions on those indicators is presented in **Table 3** and **Table 4**.

Table 3

Income and expenditure – specific aggregate scores by districts

	2007
Sofia (capital)	100.0%
Vratsa	85.9%
Varna	79.7%
Burgas	79.4%
Gabrovo	79.3%
Ruse	79.2%
Pleven	78.6%
Pernik	77.3%
BULGARIA	**76.9%**
Stara Zagora	74.9%
Kardzhali	74.8%
Smolyan	74.8%
Lovech	74.3%
Pazardzhk	71.8%
Yambol	71.0%
Shumen	69.2%
Plovdiv	68.4%
Haskovo	68.4%
-Blagoevgrad	68.2%
Sofia (district)	67.5%
Sliven	65.6%
Veliko Tarnovo	63.8%
Kyustendil	63.5%
Montana	63.5%
Razgrad	62.9%
Vidin	62.6%
Dobrich	60.4%
Silistra	52.9%
Targovishte	49.2%
Coefficient of Variation	**14.1%**

Table 4

Income and expenditure – specific aggregate scores by districts

	2012
Sofia (capital)	100.0%
Varna	73.0%
Pleven	71.9%
Stara Zagora	**70.4%**
BULGARIA	70.4%
Pernik	69.4%
Gabrovo	68.8%
Vratsa	67.4%
Ruse	66.7%
Plovdiv	63.4%
Smolyan	63.2%
Blagoevgrad	62.0%
Shumen	61.4%
Sofia (district)	61.3%
Veliko Tarnovo	61.0%
Burgas	60.9%
Dobrich	60.3%
Kardzhali	57.2%
Yambol	57.0%
Vidin	56.4%
Haskovo	56.4%
Pazardzhk	55.7%
Sliven	54.6%
Silistra	53.2%
Razgrad	53.1%
Kyustendil	52.5%
Montana	51.2%
Lovech	50.5%
Targovishte	47.4%
Coefficient of Variation	**16.4%**

In evaluating the ranking of the territorial units at the district level the following findings should be taken into account:

o First, there are significant disparities between the districts by the indicator household income and expenditure per capita;

o Second, smaller changes are observed of the indicator average monthly wage and disparities at the district level are not changing significantly;

o Third, all included indicators participate with an equal weight in the aggregate score. Given the above two findings, this means that the disparities between the districts by aggregate scores in terms of income, expenditure and wage will be influenced mostly by household income and expenditure.

Considering the above findings, obtained results give grounds to make the following summarized conclusions:

• Significant changes are observed in the ranking in the two analysed years. The number of high ranked districts decreases significantly (from eight districts in 2007 to three – in 2012). In 2012 districts Sofia (capital), Varna and Pleven preserve their leading positions.

• At the bottom of the list rank districts with poor characteristics in all parameters included in the aggregate score. Their number increases significantly (from five in 2007 to 12 in 2012). Districts with low economic potential to generate high income as Vidin, Razgrad, Sliven, etc. belong to this group.

• In 2012, the differentiation of the districts increases, expressed in (a) increase in the coefficient of variation; (b) deteriorated values of the scores of all districts against the "benchmark" of 100%; (c) significant increase of the group of highly depressed districts (marked in a grey colour in the tables).

2.2. Inequality in income and social inclusion

The specific aggregate score in this field is determined based on the indicators: relative share of the poor, share of population at risk of poverty and inequality in income. Those indicators form the most important parameters of this aspect of the living standard. The common characteristic of all these indicators is that a lower score is more favourable, therefore the ranking of the territo-

Table 5

Poverty and inequality – specific aggregate score by regions

	2007
South-West Region	78.7%
North-East Region	83.3%
South-Central Region	86.7%
BULGARIA	**89.7%**
South-East Region	94.8%
North-West Region	95.8%
North-Central Region	98.2%
Coefficient of Variation	**8.0%**

Table 6

Poverty and inequality – specific aggregate score by regions

	2012
North-Central Region	78.6%
South-West Region	85.5%
BULGARIA	**93.0%**
North-West Region	93.5%
South-Central Region	96.4%
South-East Region	97.1%
North-East Region	97.3%
Coefficient of Variation	**7.7%**

rial units is in an ascending order, in contrast to the specific scores in the other thematic fields where the ranking is descendent.

The results of the performed evaluation of the disparities across the regions (**Table 5** and **Table 6**) in this thematic field give grounds to draw the following conclusions:

• The ranking of the regions differs in the two analysed years, showing better positions of some regions and deterioration of others. Improvement is observed in NCR and NWR, while the situation in NER and SCR worsens. SWR steps back by one place. This illustrates significant evolution in the territorial

Table 7

Poverty and inequality – specific aggregate score by districts

	2007
Blagoevgrad	47,7%
Gabrovo	52,2%
Targovishte	55,1%
Razgrad	57,7%
Varna	60,8%
Pernik	61,9%
Sofia (capital)	62,9%
Haskovo	63,2%
Plovdiv	63,3%
Stara Zagora	64,3%
Ruse	66,8%
Kyustendil	67,0%
Pleven	68,7%
Smolyan	69,2%
Sofia (district)	69,3%
Kardzhali	71,1%
Dobrich	71,2%
Bourgas	71,6%
Shumen	73,0%
Vidin	74,2%
Pazardzhik	74,2%
BULGARIA	**74,3%**
Silistra	74,9%
Lovech	75,2%
Yambol	80,5%
Sliven	82,0%
Vratsa	82,8%
Montana	85,4%
Veliko Tarnovo	87,3%
Coefficient of Variation	**13,9%**

Table 8

Poverty and inequality – specific aggregate score by districts

	2012
Blagoevgrad	53,5%
Kyustendil	54,4%
Gabrovo	56,2%
Ruse	57,2%
Yambol	60,2%
Pleven	61,0%
Dobrich	62,3%
Montana	63,0%
Silistra	64,4%
Smolyan	65,4%
Veliko Tarnovo	65,9%
Haskovo	67,0%
Plovdiv	67,5%
Sofia (district)	67,7%
Razgrad	69,0%
Sofia (capital)	69,7%
Burgas	69,8%
Targovishte	70,9%
BULGARIA	**72,8%**
Pernik	73,7%
Shumen	76,0%
Varna	78,0%
Kardzhali	78,5%
Vratsa	79,9%
Lovech	81,0%
Stara Zagora	83,6%
Sliven	84,9%
Vidin	86,7%
Pazardzhik	95,5%
Coefficient of Variation	**14,8%**

disparities in terms of income and social inclusion, leading to a more remarkable shift in the ranking of the regions.

• In 2012, the scores of most regions, except NCR and SWR, worsen. Nevertheless, the coefficient of variation as a measure of the scale of territorial disparities slightly decreases.

• At this territorial level, each one of included indicators exercises an impact on the diversification by aggregate score, and the more notable is the impact of the share of the poor.

The disparities between the districts, shown in **Table 7** and **Table 8**, suggest the following conclusions:

• In evaluating the ranking of the districts the following findings should be taken into account:

o First, with respect to the indicator relative share of the poor, in the two analysed years there is a trend of increasing disparities between the districts;

o Second, similar, but smaller disparities are observed in terms of the indicators relative share of population at risk of poverty and social exclusion and inequality in income, where the disparities are not changing significantly;

o Third, all included indicators participate with an equal weight in the aggregate score. Given the above two findings, this means that the disparities between the districts by aggregate scores for the situation in terms of poverty and social inclusion will be influenced by those changes.

• In this context, there are no significant changes in the ranking in the two analysed years. The number of leading districts slightly decreases (from 20 in 2007 to 18 in 2012). In 2012 the districts of Blagoevgrad and Gabrovo remain leaders.

• At the bottom of the ranking scale are the districts with poor characteristics in all parameters which form the aggregate score (marked in grey in the tables). Their number slightly decreases (from 4 in 2007 to 3 in 2012). This group comprises mostly districts with high share of the poor and social exclusion and large inequality in income.

• In 2012 the disparities between the districts slightly increases, which is expressed in (a) an increase of the coefficient of variation; (b) an increase of the gap between the lowest and the highest values of the scores of the districts.

2.3. Education

The specific aggregate score in this thematic field is determined based on the indicators: share of children in kindergartens of the population aged 3-6 years; share of pupils in general schools and specialized schools of the population aged 7-19 years; share of students in total population. From a practical viewpoint, the selected specific indicators demonstrate at a reasonable degree the key parameters of this aspect of the living standard.

The analysis of the disparities between NUTS 2 regions (Table 9 and Table 10) suggests the following conclusions:

• The ranking of the regions in the two analysed years is almost identical, only NCR improves its position at the expense of NER. This shows that the fluctuation in the territorial development of the education, respectively of the

Table 9
Education – specific aggregate score – by regions

	2007
South-West Region	98,2%
North-Central Region	89,9%
North-East Region	89,9%
BULGARIA	**82,8%**
South-Central Region	75,8%
South-East Region	68,3%
North-West Region	63,4%
Coefficient of Variation	**15.5%**

Table 10
Education – specific aggregate score – by regions

	2012
South-West Region	100,0%
North-Central Region	93,5%
North-East Region	87,8%
BULGARIA	**85,4%**
South-Central Region	79,0%
South-East Region	70,8%
North-West Region	67,5%
Coefficient of Variation	**14.1%**

coverage of children, pupils and students, has not been so important to produce significant changes in the ranking of the regions.

• In 2012, a slight improvement is observed in the scores of most regions (SWR, NCR, SCR, SER) and SWR is the absolute leader (score 100% which equals the benchmark territorial unit), followed by NCR. This results in a minimum decrease of the already low coefficient of variation as a measure of the scale of territorial disparities.

• At this territorial level, the impact of the share of students on the differentiation by aggregate score is lower, which, together with the relatively even development of the other education systems (pre-schools and schools) is also a factor for the low disparity between the regions as for the specific summarized score.

The disparities between the districts (**Table 11** and **Table 12**) give grounds to make the following conclusions:

• In evaluation the ranking of the districts, the following findings should be taken into account:

o first, there are no great differences between the districts in terms of the indicators share of children in kindergarten and share of pupils in general and specialized schools;

o second, much bigger are the disparities in terms of share of students in total population – the districts with towns that are university centres rank higher;

o third, all included indicators participate with an equal weight which given the above two findings means that the disparities between the districts by aggregate score in the field of education will be impacted by the differentiation of the share of students.

• In this context, the top positions in the ranking in the two analysed years are occupied by districts with better socio-economic development, including in

Table 11
Education – specific aggregate score by districts

	2007
Veliko Tarnovo	89 .4%
Sofia (capital)	88 .2%
Varna	82 .4%
Plovdiv	73 .8%
Gabrovo	72 .1%
Blagoevgrad	71 .5%
Shumen	69 .8%
BULGARIA	**68 .0%**
Bourgas	66 .2%
Ruse	65 .7%
Dobrich	62 .3%
Smolyan	61 .5%
Razgrad	60 .4%
Sofia (district)	60 .3%
Vratsa	59 .9%
Kardzhali	59 .2%
Vidin	58 .5%
Stara Zagora	57 .8%
Montana	56 .0%
Lovech	55 .7%
Targovishte	55 .7%
Silistra	55 .5%
Pernik	54 .6%
Kyustendil	54 .2%
Pleven	54 .0%
Haskovo	53 .7%
Yambol	51 .4%
Sliven	48 .4%
Pazardzhik	48 .1%
Coefficient of Variation	**20.7%**

Table 12
Education – specific aggregate score by districts

	2012
Veliko Tarnovo	95 .4%
Sofia (capital)	89 .2%
Varna	81 .4%
Plovdiv	75 .6%
Gabrovo	75 .2%
Blagoevgrad	75 .0%
Rousse	74 .1%
Shumen	73 .5%
BULGARIA	**72 .7%**
Smolyan	71 .3%
Burgas	67 .9%
Sofia (district)	67 .0%
Vratsa	66 .3%
Stara Zagora	64 .9%
Razgrad	64 .2%
Kardzhali	63 .5%
Lovech	63 .3%
Vidin	62 .3%
Dobrich	62 .2%
Pleven	62 .0%
Pernik	61 .4%
Kyustendil	61 .0%
Montana	60 .8%
Yambol	59 .8%
Silistra	59 .5%
Haskovo	59 .0%
Targovishte	57 .3%
Pazardzhik	55 .9%
Sliven	53 .6%
Coefficient of Variation	**16 .7%**

the education field (e.g. Sofia, Varna, Plovdiv), but also districts with well-known university centres (Veliko Tarnovo, Gabrovo, Blagoevgrad).

• At the bottom rank districts with poor characteristics of all parameters, included in the aggregate score – Sliven, Targovishte, Pazardzhik, Silistra.

• In 2012 the differentiation of districts decreases, which fact is expressed in: (a) a decrease of the coefficient of variation; (b) improved values of the scores of all districts against the "benchmark" 100%; (c) unchanged scope of the group of highly distressed districts (marked in grey colour in the tables).

2.4. Social services

The specific aggregate score in this thematic field is determined based on two indicators – number of places per 1000 residents in specialized social service establishments and number of places per 1000 residents in units for social services in the community.

The evaluation of the disparities between the districts (**Table 13** and **Table 14**) in 2010[1] and 2012 shows the following.

The disparities between the NUTS 2 regions suggest the following conclusions:

• The ranking of the regions at the top of the rank is identical in both analysed years. Only SCR improves its position at the expense of NER. This suggests that the scope of changes in the territorial development of the social service units have not been sufficient to produce serious shift in positions.

• However, in the crisis year 2012 the disparities between the regions increase – the coefficient of variation increases by over six percentage points, and only the score of SWR is much below the country average.

• In both analysed years NCR is the absolute leader (score 100% which means coincidence with the benchmark territorial unit), followed by NWR. The bottom of the ranking scale is invariably occupied by the most developed SWR. In this context, the important circumstance should be reminded again that may explain at some extent the picture: the territorial distribution of specialized establishments for social services are still very dependent on the policy implemented for decades of locating such establishments for people with disabilities, for elderly, for mentally ill, etc. in distant regions and settlements that are highly depopulated in the last years. This fact has a direct impact on the "better" provision of such infrastructure for the population in these regions, which has however, regional scope and importance. As seen in the analysis above (**Table 13** and **Table 14**), the territorial disparities in the development of social services in the

Table 13

Social services – specific aggregate score by regions

	2010
North-Central Region	100.0%
North-West Region	73.5%
South-East Region	67.8%
BULGARIA	**65.5%**
North-East Region	62.4%
South-Central Region	59.3%
South-West Region	42.1%
Coefficient of Variation	**26.0%**

Table 14

Social services – specific aggregate score by regions

	2012
North-Central Region	100.0%
North-West Region	75.0%
South-East Region	62.5%
South-Central Region	62.5%
BULGARIA	**50.5%**
North-East Region	50.0%
South-West Region	37.5%
Coefficient of Variation	**32.7%**

[1] For this thematic field, the baseline year is 2010 as data for 2007-2008 are from NSI, and after 2010 (incl.) – from the Social Assistance Agency, which does not ensure consistency of the data for the analyzed years 2007 and 2012.

community at NUTS 2 level are not so strong (31% coefficient of variation), as for the services provided in specialized social service establishments (42% coefficient of variation in 2012).

Disparities across districts consist in the following:

• The ranking of the districts in the two analysed years shows that the top places are occupied by districts traditionally less developed in socio-economic aspects (e.g. Vidin, Montana, Silistra). At the bottom of the list stands Sofia. To some extent the explanation for this "feature" was given above in the analysis of the regions; on the other hand, it definitely shows that the quantitative development of supply and provision of social services is not sufficiently in line with

Table 15

Social services – specific aggregate score by districts

	2010
Vidin	100.0%
Gabrovo	79.2%
Veliko Tarnovo	70.8%
Silistra	70.8%
Montana	66.7%
Vratza	58.3%
Sliven	58.3%
Yambol	58.3%
Pazardzhik	54.2%
Dobrich	50.0%
Kyustendil	50.0%
Ruse	50.0%
Smolyan	50.0%
Stara Zagora	50.0%
Shumen	50.0%
Razgrad	45.8%
Blagoevgrad	41.7%
Lovech	41.7%
Pernik	41.7%
Plovdiv	41.7%
Targovishte	41.7%
BULGARIA	**41.7%**
Varna	33.3%
Burgas	29.2%
Sofia (district)	29.2%
Haskovo	29.2%
Kardzhali	20.8%
Pleven	20.8%
Sofia (capital)	20.8%
Coefficient of Variation	**37.6%**

Table 16

Social services – specific aggregate score by districts

	2012
Vidin	91.7%
Montana	71.4%
Veliko Tarnovo	61.9%
Gabrovo	61.9%
Silistra	61.9%
Yambol	54.8%
Sliven	47.6%
Vratsa	46.4%
Razgrad	46.4%
Ruse	46.4%
Smolyan	46.4%
Shumen	46.4%
Pazardzhik	45.2%
Stara Zagora	39.3%
Blagoevgrad	38.1%
Kyustendil	38.1%
Lovech	38.1%
Sofia (district)	32.1%
Burgas	31.0%
Dobrich	31.0%
Targovishte	31.0%
Haskovo	31.0%
BULGARIA	**31.0%**
Pernik	29.8%
Varna	22.6%
Kardzhali	22.6%
Plovdiv	22.6%
Pleven	15.5%
Sofia (capital)	15.5%
Coefficient of Variation	**41.6%**

the concentration of the population. Regardless of the "scale effects" and the opportunities given by the territorial concentration of demand for services for improving the efficiency and the quality of supply and provision of services, it does not seem though logical and justified large urban centres such as Sofia or districts as Varna, Plovdiv, Burgas, to stand so far behind in terms of availability of infrastructure for social services.

• In the crisis 2012 the differentiation of districts increases, which is reflected in: (a) a coefficient of variation, which stays in the upper range of values, characterizing it as "average"; (b) a decrease of the value of the scores compared with the optimal "benchmark" of 100% and with 2010; (c) at this background – a decrease of the scope of the group of highly depressed districts (marked in grey colour in the tables). The more powerful factor is the more uneven development of the supply and provision of social services in the community, in which the coefficient of variation increases and is about 50% in 2012.

2.5. Health care system

The specific aggregate score in this thematic field is determined based on the indicators number of medical establishments per 100 thousand residents, number of beds in hospitals per 100 thousand residents, and number of doctors per 100 thousand residents. In its integrity and complementarity, these indicators reflect at a reasonable degree the key quantitative parameters of this aspect of the living standard.

The evaluation of the disparities between the regions and between the districts is presented in **Tables 17-20**.

The main conclusions from the analysis of the scores at NUTS 2 level suggest the following:

• There are changes in the ranking of the regions in the two analysed periods, expressed in improved position of some regions and deterioration of others. NWR and SCR improve their positions in the ranking while SWR and SER worsen their positions. SWR goes down two positions and concedes the

Table 17
Health – specific aggregate score by regions

	2007
South-West Region	100,0%
BULGARIA	**94,6%**
North-West Region	90,2%
South-East Region	87,6%
South-Central Region	87,2%
North-Central Region	83,5%
North-East Region	78,9%
Coefficient of Variation	**7,8%**

Table 18
Health – specific aggregate score by regions

	2012
North-West Region	97,7%
BULGARIA	**96,4%**
South-West Region	96,4%
South-Central Region	96,2%
South-East Region	88,1%
North-Central Region	83,7%
North-East Region	77,8%
Coefficient of Variation	**8,6%**

Table 19
Health – specific aggregate score by districts

	2007
Stara Zagora	89.4%
Sofia (capital)	86.9%
Sofia (district)	85.6%
Gabrovo	84.6%
Lovech	84.2%
Vratsa	82.3%
Smolyan	80.3%
Kyustendil	80.1%
BULGARIA	**74.3%**
Ruse	73.6%
Plovdiv	73.2%
Pleven	71.5%
Veliko Tarnovo	71.2%
Kardzhali	67.6%
Sliven	67.1%
Varna	66.4%
Burgas	65.1%
Haskovo	64.1%
Dobrich	63.7%
Pazardzhik	63.5%
Pernik	62.0%
Montana	61.7%
Shumen	61.6%
Blagoevgrad	59.0%
Targovishte	56.8%
Vidin	56.0%
Silistra	48.4%
Razgrad	44.3%
Yambol	39.3%
Coefficient of Variation	**18.7%**

Table 20
Health – specific aggregate score by districts

	2012
Vratsa	86.9%
Gabrovo	86.7%
Plovdiv	85.2%
Lovech	84.9%
Sofia (district)	84.3%
Stara Zagora	81.4%
Sofia (capital)	80.5%
Pleven	78.5%
BULGARIA	**74.2%**
Pazardzhik	73.8%
Kyustendil	72.2%
Veliko Tarnovo	68.9%
Ruse	66.4%
Varna	65.5%
Montana	64.0%
Burgas	63.9%
Sliven	63.1%
Targovishte	61.7%
Kardzhali	60.7%
Smolyan	60.7%
Haskovo	58.7%
Dobrich	54.9%
Blagoevgrad	54.7%
Shumen	50.6%
Yambol	48.8%
Vidin	48.1%
Razgrad	46.8%
Silistra	45.3%
Pernik	44.9%
Coefficient of Variation	**20.6%**

leadership to NWR. This, as mentioned in the previous analysis, can be explained mainly by the strong impact of the reducing number of population in the region on the values of the indicators included in the aggregate score for the provision of health services. There are no changes at the bottom of the ranking. This suggests that the fluctuations in the territorial disparities in terms of quantity of health infrastructure and doctors have been significant, which results in changes in the ranking of the regions.

• In 2012 compared with 2007, deterioration in the scores of SWR and NER is observed, and the other regions improve their positions. However, the coefficient of variation, as a measure of territorial disparities, is slightly increasing.

• At this territorial level, each indicator has an impact on the diversification of the aggregate scores, but the impact of the quantitative indicators number of hospitals and number of beds in hospitals may be considered as more influential.

The disparities between the districts suggest the following conclusions:

• In evaluating the ranking, the following circumstances should be taken into consideration:

o first, in the two analysed ye ars, regarding the indicator provision of hospitals, the disparities between the regions (measured with the coefficient of variation) remain practically at the same level of 29%;

o second, some, but still slight disparities are observed in the indicators for provision of beds in hospitals and doctors, and the disparities at district level are not significant for most districts;

o third, all included indicators participate with equal weight in the formation of the aggregate score – a fact that given the above two circumstances means that the disparities between the districts by aggregate score are affected by the changes mostly in the second and the third indicator.

• In this context, in the two analysed years more significant changes in the ranking relate to the following:

o The number of leading districts remains constant but their structure changes. In 2012, Pleven and Plovdiv jump in the group of leading districts. Changes are observed in the leadership as well (district Stara Zagora concedes the leadership to Vratsa).

o In 2012 at the bottom, the number of districts with relatively worse characteristics by all parameters which form the aggregate score (marked in grey colour in the tables) increases – from five in 2007 to nine in 2012. This category consists mostly of districts with low provision of hospitals and hospital beds.

• In 2012, districts differentiation increases, expressed in: (a) an increase of the coefficient of variation; (b) an increase of the disparities between the lowest and the highest values of the scores of all districts.

2.6. Coefficient of migration

The analysis of the disparities between the NUTS 2 regions in terms of this specific indicator shows the following (**Table 21** and **Table 22**):

• The disparities between the regions (measured by the coefficient of variation) are significant and almost unchangeable during the analysed period. This – together with the sustained rate of the range of variation – shows that the migration processes at region level have not had great potential to induce changes.

• The only region that preserves the positive value of the indicator is SWR. This is the region with best socio-economic development and logically has established itself as an attractive centre of migration flows.

• In all other regions the balance between in-migrants and out-migrants is negative, as in NER the positive value of the indicator in 2007 becomes negative at the end of the period.

Table 21
Disparities between regions by coefficient of migration (2007-2013)

Regions	2007	2008	2009	2010	2011	2012	2013	Change 2007/2013
Range of variation	6.76	8.10	6.82	10.16	5.16	6.33	8.57	1.27
Coefficient of Variation (%)	-370.7	-442.2	-103.2	-90.0	-149.5	-160.9	-335.8	0.91

Source: Values are calculated based on NSI data.

Table 22
Ranking of regions by coefficient of migration in 2012

	2007	2012
South-West Region	2.63	2.00
BULGARIA	**-0.18**	**-0.69**
South-East Region	-0.02	-0.77
North-East Region	1.37	-0.91
South-Central Region	-1.30	-1.28
North-Central Region	-2.62	-2.54
North-West Region	-4.13	-4.33

The inter-districts disparities by coefficient of migration are presented in **Table 23** and **Table 24**.

Table 23
Disparities between regions by coefficient of migration (2007-2013)

Regions	2007	2008	2009	2010	2011	2012	2013	Change 2007/2013
Range of variation	14.95	16.93	14.47	21.18	12.71	12.72	22.27	1.49
Coefficient of variation (%)	-190.4	-170.6	-97.8	-74.1	-106.8	-109.3	-150.9	0.79

Source: Values are calculated based on NSI data.

Table 24

Ranking of districts by coefficient of migration in 2012

District	2007	2012
Sofia (capital)	4.13	5.34
Stara Zagora	-2.13	1.91
Plovdiv	2.23	1.38
Shumen	-1.55	0.43
Burgas	7 .32	-0.21
Varna	6.79	-0.24
BULGARIA	-0.18	-0.69
Gabrovo	-0.73	-0.88
Sofia (district)	1.02	-1.22
Ruse	-2	-1.39
Pernik	3.26	-1.75
Silistra	-7.01	-2.36
Kardzhali	-4.56	-2.43
Dobrich	-3.41	-2.46
Haskovo	-3.28	-2.82
Veliko Tarnovo	-0.14	-3.05
Targovishte	-5.76	-3.14
Pazardzhik	-3.5	-3.26
Montana	-6.2	-3.4
Lovech	-2.99	-3.52
Vidin	-4.39	-3.8
Yambol	-7.63	-3.8
Pleven	-2.83	-4.39
Sliven	-6.01	-4.49
Blagoevgrad	-0.38	-4.77
Kyustendil	-1.09	-4.91
Razgrad	-6.5	-5.45
Vratza	-5.13	-5.88
Smolyan	-7.61	-7.38

The disparities between the districts (measured by the coefficient of variation) are characterized as "extremely high" and persistent as well. This is due to the fact that: (a) on one hand, there are several districts that provide relatively favourable conditions for labour, education, health and personal realization and therefore the number of people attracted in those districts is higher than the number of those who leave them in a given period. Such are the districts which rank highest with a positive migration coefficient – Sofia capital, Stara Zagora, Plovdiv, and the districts with almost zero coefficient – Burgas, Varna, and Gabrovo (to some extent); (b) on the other hand, mostly because of unfavourable conditions for living, which suggest a low living standard, the other districts are affected more or less by depopulation, and the most depressed in this sense in the last few years are Smolyan, Vratsa, Razgrad, Kyustendil, etc.

All those processes form negative migration trends at national level as well.

3. Territorial disparities in the living standard (overall picture)

The overall picture is drawn based on the analysis and the evaluation of the integrated measures (scores) of the living standard in the respective territorial units for 2007 and 2012. The calculation of the integrated scores includes the following **key indicators**: incomes per 1 person, average monthly wage, share of population at risk of poverty, share of population at risk of poverty or social exclusion, coefficient of migration. Together and separately, they reflect important quantitative, qualitative and structural parameters of the living standard, and the territorial disparities by each of those key indicators are analysed in detail in the previous section.

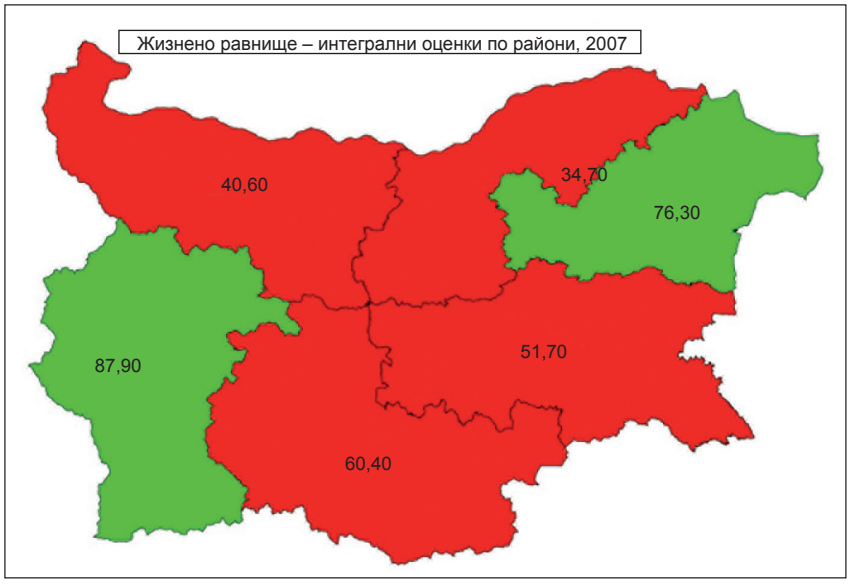
The integrated scores of the living standard at the regions level for 2007 and 2012 are presented in **Table 25**, **Table 26**, **map 1** and **map 2**.

Table 25
Living standard –
integrated score by regions

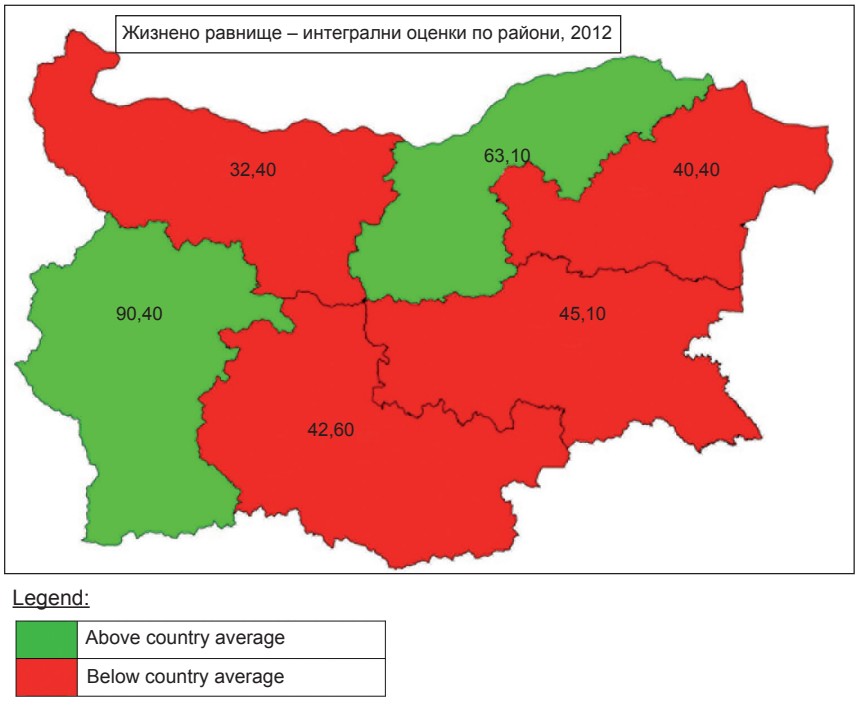
	2007
South-West Region	87.9%
North-Est Region	76.3%
BULGARIA	**61.0%**
South-Central Region	60.4%
South-East Region	51.7%
North-West Region	40.6%
North-Central Region	34.7%
Coefficient of Variation	**31.9%**

Table 26
Living standard –
integrated score by regions

	2012
South-West Region	90.4%
North-Est Region	63.1%
BULGARIA	**57.8%**
South-Central Region	45.1%
South-East Region	42.6%
North-West Region	40.4%
North-Central Region	32.1%
Coefficient of Variation	**36.8%**



Map 1. Ranking of regions according to their integrated scores of the living standard (2007)



Map 2. Ranking of regions according to their integrated scores of the living standard (2012)

In the ranking of the regions in both studied years there are three circumstances:

The first one consists in the finding that SWR remains stable at the top position as a region with the best living standard by analysed parameters. Moreover, in the crisis 2012 the parameters relatively improve, and its integrated score moves towards the benchmark of 100%. This, together with the decline in 2012 of the score of the last NWR, increases the differentiation between the regions (the coefficient of variation increases by some five percentage points compared with 2007).

The second circumstance consists in significant improvement of the ranking of NCR in 2012 against the baseline 2007. This is due mostly to the great positive changes of the indicators referring to the poverty and social exclusion. In 2007, NCR has the worst score of the share of population at risk of poverty (23% against 21.4% average for the country) and the share of population at risk of poverty or social exclusion (54.5% against 44.8% country average). In 2012, this region is already in the group of the leaders by the same indicators: while the country average share of population at risk of poverty is 21%, it is 15.1% in NCR, which is the lowest score of all regions; respectively, having 48% average country share of population at risk of poverty or social exclusion, the share in NCR is 47.2% and this share is lower only in SWR (40%).

The third circumstance consists in the "fall" of the NER from second place in 2007 to second last in the rankings for 2012. This again is a result of significant negative changes in the indicators of poverty and social exclusion. Data show that in 2007, NER has the best score in terms of share of the population at risk of poverty (15.9% against 21.4% national average) and relatively good score of the share of population at risk of poverty or social exclusion (46.4% against 44.8% national average). In 2012, the situation dramatically changes. The region is already in an extremely bad position for the same indicators: 21% average for the country share of population at risk of poverty and 23% in NER, which is very close to the worst value of 23.2% (in SER); respectively at 48% country average share of the population at risk of poverty or social exclusion, the score of NER is 54.2%, which is the worst value among all regions.

In both years NWR sustainably hold positions at the bottom of the ranking, as SCR and SER retain their places in the middle of the ranking.

The conclusion is that the adverse socio-economic environment has been a stronger factor for marked changes in the risk of poverty and social exclusion in some regions, which has led to growing inequalities in living standards between the territorial units at NUTS 2 level.

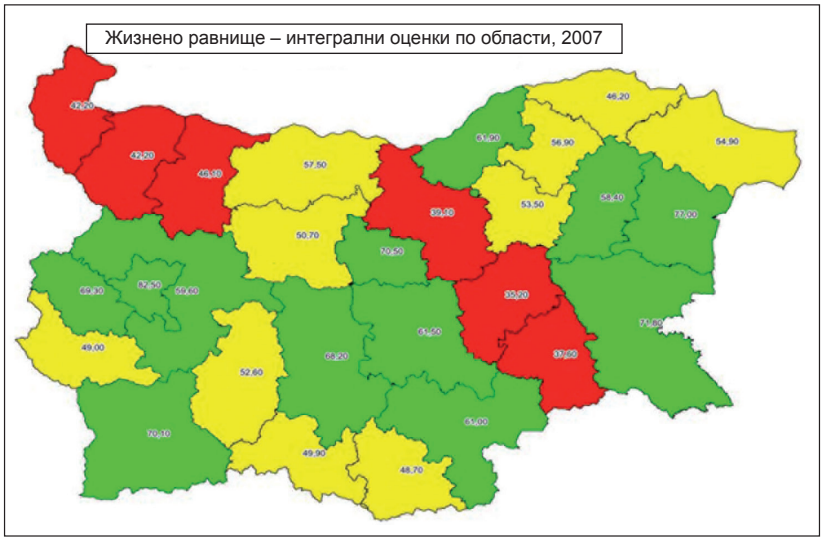
The disparities between districts by integrated score of living standard (**Table 27**, **Table 28**, **map 3** and **map 4**) suggest the following evaluation and conclusions:

Table 27
Living standard – integrated score by districts

	2007
Sofia (capital)	82.5%
Varna	77.0%
Bourgas	71.8%
Gabrovo	70.5%
Blagoevgrad	70.1%
Pernik	69.3%
Plovdiv	68.2%
Rousse	61.9%
Stara Zagora	61.5%
Haskovo	61.0%
Sofia (district)	59.6%
Shumen	58.4%
BULGARIA	**57.8%**
Pleven	57.5%
Razgrad	56.9%
Dobrich	54.9%
Targovishte	53.5%
Pazardzhik	52.6%
Lovech	50.7%
Smolyan	49.9%
Kyustendil	49.0%
Kardzhali	48.7%
Silistra	46.2%
Vratsa	46.1%
Vidin	42.2%
Montana	42.2%
Veliko Tarnovo	39.1%
Yambol	37.6%
Sliven	35.2%
Coefficient of Variation	**21.4%**

Table 28
Living standard – integrated score by districts

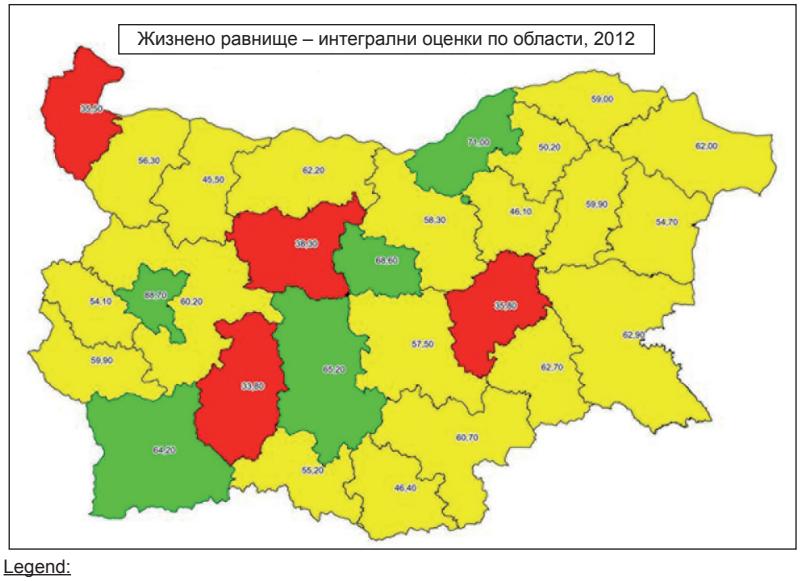
	2012
Sofia (capital)	88.7%
Rousse	71.0%
Gabrovo	68.6%
Plovdiv	65.2%
Blagoevgrad	64.2%
Burgas	62.9%
BULGARIA	**62.9%**
Yambol	62.7%
Pleven	62.2%
Dobrich	62.0%
Haskovo	60.7%
Sofia (district)	60.2%
Kyustendil	59.9%
Shumen	59.9%
Silistra	59.0%
Veliko Tarnovo	58.3%
Stara Zagora	57.5%
Montana	56.3%
Smolyan	55.2%
Varna	54.7%
Pernik	54.1%
Razgrad	50.2%
Kardzhali	46.4%
Targovishte	46.1%
Vratsa	45.5%
Lovech	38.3%
Sliven	35.8%
Vidin	35.5%
Pazardzhik	33.8%
Coefficient of Variation	**20.8%**



Legend:

	High
	Average
	Lagging behind

Map 3. Ranking of districts according to their integrated score of living standard (2007)



Legend:

	High
	Average
	Lagging behind

Map 4. Ranking of districts according to their integrated score of living standard (2012)

Except the capital Sofia, in 2012 the values of the integrated scores of the districts worsen compared with 2007 (i.e. they become more distant from the benchmark 100%).

One group of districts preserve their positions in the ranking in both years:

o District Sofia city is at the top of the scale, which clearly demonstrates that the analysed parameters of the living standard in this district have sustainable and relatively most favourable characteristics.

o Districts Ruse, Gabrovo, Plovdiv and Blagoevgrad also preserve their positions in the leading group of districts that are above the average country value of the integrated score.

o At the other pole are districts such as Vidin and Sliven that remain at the bottom of the ranking.

Another group of districts deteriorate their positions:

o Newcomers in the group of the most depressed districts in 2012 are districts Lovech and Pazardzhik, which have been in the group in the middle of the ranking in 2007. The main factors for this development are:

■ Lovech – significant increase of the share of the population at risk of poverty or social exclusion (in 2012 the district registers the worst value of 72% against 49% average for the country) and the high relative decline of household income per capita (in 2007 the income is 83% of the maximum registered in a district in the country, and in 2012 it drops down to 46%);

■ Pazardzhik – significant deterioration of the values of the indicators: (a) poverty (from 21% in 2007 against 21,4% country average to 31% in 2012 against 21% country average); (b) poverty and social exclusion (from 43% in 2007 to 64% in 2012, 49% country average); (c) household income per capita (in 2007 it is 80% of the maximum registered income in a district in the country, and in 2012 it relatively decreases to only 54%).

o Remarkable breakdown is registered in district Varna, which, being a leader in 2007, in 2012 takes a position in the second half of the ranking. The main reasons for this negative change is the deterioration of all indicators, but especially – of the indicators household income per capita, share of the poor, share of population at risk of poverty or social exclusion and coefficient of migration:

■ The proportion of household income per capita in the district against the maximum income registered in a district in the country declines from 83% in 2007 to 67% of the maximum income in the country in 2012;

■ The share of the poor increases from 15,6% in 2007 and 21,4% average for the country, to 23.7% in 2012, the country average being 21%;

■ The share of population at risk of poverty or social exclusion from 39.3% in 2007 (44.8% average for the country), jumps to 59.4% in 2012 (49% average for the country);

■ The coefficient of migration drops down from the positive value of 6.8 promille in 2007 to – 0.24 promill in 2012.

The differentiation between the districts in both analysed years does not change in practice – the coefficient of variation almost does not change. However, this is combined with the following particularities:

o In 2012, the gap of the scores of the top and the bottom district increases to 55 percentage points compared with 47.3 percentage points in 2007.

o In 2007, the gap of districts ranked from second to second last position is in the diapason of 39 percentage points, while in 2012 it narrows to 35 percentage points, which suggests smaller disparities between most districts. It influences the overall magnitude of the coefficient of variation.

The conclusion is that in the crisis 2012:

o On one hand, differentiation in terms of living standard of the population between the districts at the top and those at the bottom of the ranking increases;

o On the other hand, in the prevailing case the disparities between the districts decrease to some lower values of integrated scores compared to 2007.

4. Conclusions

The results of disparities in the living standard suggest between the regions and between the districts may be summarised in the following conclusions:

First, it should be noted that the applied methodological approach gives acceptable and adequate evaluation of the disparities and the ranking of the regions and the districts based on studied indicators. The modification of the method of Bennett calculates aggregate and comparable indicators of the living standard, taking into consideration the level of the individual indicators included in the research.

In the period 2007-2012, the territorial disparities in the living standard of the population show a trend of increase. This trend is observed both for the regions and for the districts.

The ranking of the regions and the districts based on the scores of analysed indicators shows significant changes. In some regions and districts the indicators' values improve while in others they worsen. Only SWR and the capital Sofia preserve their leading position on most indicators.

The territorial disparities by thematic fields show different development trend. Thematic fields with more obvious deepening of disparities are "Income and expenditure" and "Social services". The increase in disparities in the thematic field "Health care system" is slight, and in the fields of "Education" and "Migration" disparities are decreasing. Those different trends of development are due to the specificity of the affecting factors.

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Abbreviations:

NSI – National Statistical Institute
GS – General schools
SS – Special schools
NWR – North-West Region
NCR – North-Central Region
NER – North-East Region
SER – South-East Region
SCR – South-Central Region
SWR – South-West Region
NUTS – Nomenclature des Unités Territoriales Statistiques – General Classiifcation of Territorial Units for Statistical Aims
NUTS 2 – Region of Level 2
NUTS 3 – District

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