

## BULGARIA 2008 - STATISTICAL PANORAMA

Basic features and specific problems of the demographic, social and economic development, R & D and the environment's conditions in the country are presented in the analytical material. The statistical analysis is oriented mainly towards 2008 and comparisons with the preceding 2007 and 2000 (taken as a base year) are made. The tendencies of the development and the structural changes are analysed.

In the **first part** of the analysis are considered the main demographic processes in the country: number and age structure of the population, crude birth rate, crude death rate and natural increase of the population, marriages and divorces, regional development and distribution of the population in the country.

At the end of 2008 the number of Bulgarian **resident population** is 7 606.6 thousand persons. Due to the negative natural population increase and negative net international migration, the population decreased by 34 thousand persons or by 0.4% in comparison with the previous year. Women continue to predominate in the total number of the population (51.6%).

Regarding **the age structure**, the process of population ageing continues due to the long-term trend of decreasing crude birth rate and to a smaller extent to the increase of the average life expectancy. The number and relative share of the population under 15 years of age continues to decrease, whereas the relative share of the population over 65 years increases. While the relative share of the young people up to 15 years was 15.0% in 2001 and the share of the elderly population over 65 - 16.9%, in 2008 these relative shares are respectively 13.4 and 17.4% of the total population.

Number of **births** as well as the crude birth level continues to increase. In 2008 in the demographic statistics are registered 78 283 born children, 77 712 or 99.3% of which are live-born. In comparison with the previous year their number increases by 2 363 and in comparison with 2001 - by 9 000 children.

In 2008 can be noted a decrease in mortality in comparison with the previous year. In Bulgaria the number of **deaths** in 2008 is 110 523, which is by 2 481 less than 2007, and the mortality rate (14.5‰) decreases by 0.3%. The male crude death rate (15.8‰) continues to be higher than female crude death rate (13.3‰). The level of the total crude death rate of the population in Bulgaria is considerably higher than in other European countries. The value of this indicator is between 9.0 and 10.2‰ for most European countries, while it is 14.5‰ for Bulgaria.

After 1990 the **natural increase of the population** is negative and as a result the number of the population continuously decreases. In 2008 the absolute number of the natural increase is minus 32 811 persons. This is the smallest decrease of the population as a result of the natural increase after 1995.

In 2008 the number of **marriages** continues to decrease. Number of de jure marriages is 27 722, which is by 2 000 less than the previous year. The decrease of the number of marriages also leads to a decrease of the crude marriage rate - from 3.9‰ in 2007 to 3.6‰ in 2008. The decrease of the number of de jure marriages is due mainly to the increasingly spreading cohabiting/partnership.

There are 14 104 **divorces** registered in 2008 or 2 200 less than in 2007. Mutual agreement is the reason for divorce for nearly 60% of the total number of divorces, incompatibility of temperament - for 26%, and virtual parting - for 9%.

In 2008 the average duration of marriage until its dissolution has kept the level of 14 years which is typical of the last 4 years but in comparison with the previous years it marks a trend of increasing - by nearly 2 years since 2001.

The main social characteristics and living standards in the country are considered in the **second part**: labour force (employed and unemployed persons); wages and salaries; income, expenditure and consumption of households; pensions and social transfers; health services; education and training; culture; information and communication technologies used by households; criminality and jurisdiction.

During the period 2003 - 2008 the **economic activity rate of the population** increases. In 2008 the economic activity rate in the age group 15 - 64 years is 67.8%, whereas in 2003 it was 60.9%. The male activity rate is higher than that of the women by 8.9 to 9.6 percentage points during the period 2003 - 2008, as in 2008 the difference is 9.4 percentage points. The activity rates by gender in the age group 15 - 64 years are respectively 72.5% for the men and 63.1% for the women.

The increased economic activity observed during the last few years is due entirely to the growth of **employment**. During the period 2003 - 2008 the number of employed persons increases at an average of 3.5% per year. In 2008 the employment rate (age group 15 - 64 years) reaches 64.0% which is by 11.5 percentage points higher than in 2003.

The **unemployment** in the country decreases continuously during the period 2003 - 2008. In 2008 the number of unemployed persons is 199.7 thousand while in the beginning of the period it was 441.9 thousand. The unemployment rate reaches 5.6% while in 2003 it was 13.7%.

In 2008 the average annual **wages and salaries** as a total for the country reach BGN 6 288 as the nominal increase is by 2.3 times in comparison with 2000 and by 71.2 times - with 1995. The highest is the increase of the average wages and salaries in 2008 in comparison with 2000 in the economic activity groupings "Health and social work" - 3.0 times, "Financial intermediation" - 2.8 times, "Real estate, renting and business activities" and "Education" - 2.7 times, "Public administration; compulsory social security" - 2.5 times.

There is a permanent trend of increase of the nominal households' **income** during the last 10 - 12 years. During the period 1999 - 2008 the average gross income per person increases from BGN 1 502 to BGN 3 502 or approximately 2.3 times.

The real gross households' income increases by 24.8% during the period. During the new millennium the highest growth of the real income in comparison with 2001 is registered in 2008 - 39.7%. In comparison with 2007 the growth is 0.4%.

The real households' income from wages and salaries also increases. During the period 1999 - 2008 this source of income increases in real terms by 54.5%.

In 2008 the amount of **social transfers** (compensations, pensions, grants, benefits, family allowances) increases in nominal terms 3 times in comparison with 1999 and their relative share in the total income increases by 6.5 percentage points. Since 1999 the real income coming from **pensions** has been higher than the 1995 level. In 2008 the growth in comparison with 1999 is significant - 63.2%. For the last two years of the period the real growth of pensions as a source of income is 5.4%.

During the period 1999 - 2008 the **expenditures** of households follow the trend of dynamic income changes. The total household expenditures for the satisfaction of their needs in 2008 are in nominal terms 2.5 times higher than in 1999 and 14.2% higher than in 2007.

Since 1999 there has been a process of gradual decrease of the relative share of expenditures for food in the total expenditures. In 2008 this share reaches its lowest value - 36.6%. After 2001 a positive trend of decreasing share of expenditures for food in the consumer expenditures of households can be noticed.

In the field of **health system** as of 31.12.2008 the health network in the country disposes of 304 hospitals with 45 712 beds. 162 of them are multi profile hospitals with 32 559 beds; the specialized hospitals are 142 with 13 153 beds. In comparison with 2007 the number of beds increases by 2.4% which is due entirely to the increased number of beds in multi profile hospitals (by 3.6%). In the specialized hospitals, despite the increase of the number of establishments, the growth rate of the number of beds is negative (-0.6%).

28 020 physicians and 6 322 dentists work in the health establishments of the country. The medical specialists on health care and the persons who graduated from medical colleges are 45 288, of which 31 958 are nurses. The indicator "number of people per a physician" as a total for the country is 271. The indicator is lower in the regions where the medical universities are - Sofia (capital) (209), Varna (218), Pleven (234), Plovdiv (247) and Stara Zagora (257).

At the end of 2008 there are 1 203 persons per one dentist. The indicator is most favourable for the regions of Sofia (capital) (808), Plovdiv (816) and Pernik (1 041). It is highest in the regions of Sofia (2 230), Targovishte (2 224) and Razgrad (2 038).

During the period 2000 - 2008 **the educational structure** of the population in the 25 - 64 age group continues to improve and there is a stable trend of increase of the number and relative share of the population with higher and upper secondary education and respectively a decrease of the number and relative share of the population with basic and lower education.

During the last 3 years can be noticed an increase of the number and relative share of children in preprimary age (3 - 6 years). The number of children in kindergartens also increases: during the period 2000 - 2008 the increase is by 6.0%.

The relative share of expenditures for **culture** of GDP over the last few years remains unchanged (about 0.6%).

During the last few years the audio-visual sector (TV, radio, film production and cinema) is characterized by dynamic changes. In 2008 the three TV stations with national coverage of dissemination (BNT, BTV and NTV) and the 116 cables and satellite TV emit programs with duration of 747.0 thousand hours. In 2008 the total duration of TV broadcasting increases by 12.9% in comparison with 2007 and in comparison with 2000 - by 1.9 times.

During the period 2000 - 2008 the total number of radio stations in the country increases by 1.7 times (from 67 in 2000 to 114 in 2008). In 2008 the duration of emitted

programs is 797 683 hours which is 1.6 times more than 2000 and 5.4% less than 2007.

The trend of growth and wider use of **information technologies** in enterprises in Bulgaria continues in 2008.

The share of enterprises which have access to internet has increased by 8% in comparison with 2007. The highest increase is registered among the small and medium-sized enterprises (by 11 and by 3% respectively), while the large companies of over 250 employed persons show a slight decrease of 1% in providing the personnel with internet.

The share of the population which have used the unlimited possibilities that provide the modern computer technologies has increased by 6% in comparison with 2007 and 43% of the persons have stated that they have used a computer in 2008.

One third of the population in Bulgaria uses the internet every day or at least once a week for different purposes. The most active is the age group 16 - 24 years - 29%, followed by the age group 25 - 34 years which represents 27% of the population that regularly uses the internet.

The general characteristics of the **criminality** in the country in 2008 do not differ essentially from the previous years. The police registered 122 693 crimes (including against the economy) which in comparison with 2000 and 2007 is a decrease of 17.9 and 5.2% respectively.

The crimes of general character take the first place by number and relative share of the total punished criminality. In 2008 the crimes with penalty inflicted are 11 851 which is an increase of 34.0% in comparison with the previous year.

The property crimes take the second place in 2008. Their relative share in the total punished criminality is 37.3% (whereas in 2000 and 2007 it was respectively 53.3% and 43.1%).

The punished crimes against persons are 1 794 or 6.3% of the total number of crimes with penalty inflicted. The persons convicted of these crimes are 1 768 and the larger share of them (930 persons or 52.6%) is at age 14 - 29 years. In comparison with 2007 there is a decrease of the number of crimes and convicted persons by 10.3 and 16.6% respectively.

In the **third part** are considered the main economic characteristics: Gross Domestic Product, labour, labour productivity, investment, inflation, financial market and international transactions.

The produced **Gross Domestic Product** (by preliminary data) in 2008 is BGN 66 728 million at current prices and it exceeds the GDP in 2007 by BGN 10 208 million. The increased average annual price level in 2008 in comparison with the previous year determines 66.7% of the nominal GDP increase.

GDP (at a previous year prices) is BGN 59 919 million which is by 6.0% higher than in 2007. Since 1995 this is the 12<sup>th</sup> year with a positive GDP growth rate. In 2002 for the first time GDP exceeds the 1995 level - by 3.9%; the growth rate in 2007 and 2008 is 38.6 and 46.8% respectively.

In 2008 the **labour costs** of employers per hour worked reached BGN 4.52 which is an increase of 18.9% in comparison with 2007. The share of expenditures for wages and salaries is the highest - 78.7%, followed by the share of expenditures for social and health insurance - 17.2% and other social expenditures - 2.3%.

In 2008 (by preliminary data) one employed person in the national economy produces on average BGN 17 397 of GDP at current prices.

The national **labour productivity** per employed person increases by 2.7% in comparison with the previous year and the labour productivity per hour worked - also by 2.7%.

Average annual values in the period 2004 - 2008 show a prevailing influence of the intensive factors on economic growth: 47.6% of the real GDP growth is due to the increased labour productivity per employed person and 4.8% - to the better working time usage.

In the last few years can be observed a continuous increase of the **investments** in the economy. The expenditures on acquisition of tangible fixed assets by preliminary data in 2008 are BGN 28 823.8 million which is an increase of 6.1% (at a previous year prices) compared to 2007. In 2008 the relative share of the investments in the "Service" sector is 56.2%, in "Industry" - 41.7% and in "Agriculture and forestry" - 2.1%.

By preliminary data in 2008 the acquired tangible fixed assets amount to BGN 21 249.4 million and the share of such assets in manufacturing is 18.8%, in trade and repairing activities - 17.0%, in real estate, renting and business activities - 16.8%, in transport, store and communications - 14.2%, in construction - 10.6%.

**Inflation** in 2008 (December 2008 compared to December 2007) measured by the consumer price index (CPI) is 7.8% which for the last 10 years is a relatively high accumulated annual inflation.

The highest price increase of consumer goods and services is registered in July (1.5%) and in January (1.4%). The highest decrease (-0.2%) is registered in June and in December. Deflation is also recorded in November (-0.1%).

At the end of 2008 is registered an increase of the prices in all four consumer groups and the highest is in the group "Catering" (14.8%). The prices of services have increased by 10.4%, of foods - by 6.3% and of non-foods - by 6.1%.

In the field of **finances** is observed a trend of decreasing **base interest rate** from 4.6% at the end of 2000 to 2.1% at the end of 2005. The interest rate increase in 2007 and 2008 leads to a recovery and exceeding of the 2000 level (at the end of 2007 - 4.6%; at the end of 2008 - 5.8%).

The **exchange rate** BGN against the US dollar decreases during the period 2000 - 2008 as it drops from BGN 2.1019 per 1 US dollar at the end of 2000 to BGN 1.3873 at the end of 2008.

In 2008 the **current account** deficit is BGN 16 887.0 million against BGN 9 099.4 and 14 213.7 million in 2006 and 2007 respectively.

**The direct investment in Bulgaria** in 2008 amounts to BGN 12 053.7 million and is by 27.4% less than in 2007 (BGN 16 601.0 million). In 2008 **the direct investments abroad increase** by BGN 934.9 million against an increase of BGN 385.3 million in 2007.

The **broad money (M3)** increases by 8.8% in comparison with the previous year (from BGN 42 061.6 million to 45 777.8 million) and is almost twice as much as it was in 2005 (BGN 25 259.6 million). The **narrow money (aggregate M1)** decreases by 4.1% in comparison with 2007 but increases by 59.7% in comparison with 2005.

In the **fourth part** is observed the business development of the main economic activities: industry, construction, domestic trade, transport, communications, agriculture, foreign trade and tourism.

In 2008 the output produced by **industrial** enterprises (by preliminary data) at current prices amounts to BGN 57 219 million. The output at a previous year prices is by 2.7% more than in 2007 and by 96.2% more than in 2000.

In 2008 an increase of the output compared to the previous year is registered in the manufacturing of food products, beverages and tobacco products - 16.0%, machinery and equipment - 8.6%, transport equipment - 8.2%, chemical products - 7.6%, other non-metallic mineral products - 6.0%.

In 2008 the average annual producer price index on the domestic market (calculated on base year 2000) increases by 11.8% in comparison with 2007. The average annual producer price indices on the foreign market increase by 8.4% in comparison with the previous year.

In 2008 the output of the **construction** enterprises is BGN 16 427 million (by preliminary data). The decrease at a previous year prices compared to 2007 is 4.3% which is due to the unfavorable changes that occurred in the economic environment during the last months of the year.

Since 2000 the share of building of complete construction exceeds that of the civil engineering as its relative share varies from 61.2 to 70.3% of the total volume of construction.

In 2008 the **trade sector** developed with positive but slowed rates due to the negative trends of the international economic situation. By preliminary data the gross output at current prices is BGN 15 074 million; at a previous year prices there is an increase of 2.9% in comparison with 2007.

In 2008 (by preliminary data) the receipts from sales are BGN 85 114 million. In comparison with the previous year is registered a real growth rate of 3.3% due to the increase in all three major trade activities. The rates are relatively even since the increase of the trade of motor vehicles and fuel is by 6.3%, of the retail trade - 4.1% and of the wholesale trade - 2.5%.

In 2008 the real growth rate of retail sales compared to 2007 is 5.0%. Higher growth is recorded in the group of durable and other consumer goods - 6.2%, while in the group of foods, beverages and tobacco the increase is 1.6%.

In 2008 the gross output of the enterprises in the **Transportation and storage** sector is BGN 9 890 million (at current prices, by preliminary data). At a previous year prices the output increases by 4.0% in comparison with 2007 and by 48.9% in comparison with 2000.

The highest growth rate of the gross output in comparison with 2007 is registered in the air transport - 11.1%. In 2008 the goods carried by the railway transport companies (measured in thousand tons) are 10.0% less than in 2007. The decrease is due to the reduced volume of goods carried by national transport - by 10.9%.

The goods carried by the road freight transport decreased by 7.8% and the transport performance declined by 5.3% in comparison with 2007. The decrease is due entirely to the national transport where



the goods carried are 5 972.1 thousand tons less than the previous year.

The gross output of the **communication services** enterprises in 2008 by preliminary data is BGN 4 045 million (at current prices). The volume index of the gross output reaches 107.4% compared to 2007. The share of the public sector in the total output is 3.0% which shows a trend of preserving the 2007 level. The relative share of the private sector is 97.0%.

The value of the final output in **agriculture** (reduced by the internal turnover) in 2008 is BGN 8 738.1 million at current prices. The contribution of the crops to the final output continues to be the most significant - BGN 4 768.1 million. The second place takes the animal output - BGN 2 646.1 million.

The final agricultural output volume index in 2008 is 100.3% at base year 2005 and 132.4% at base year 2007. The increase is due to the higher crop output which is 106.4% of the 2005 output and 161.9% of the 2007 output. The animal output is almost at the previous 2 years level.

The prices of the crops increase by 7.7% in comparison with 2007 which is due to the higher prices of the industrial crops - by 26.3% and of the cereals - by 8.9%.

The **foreign trade turnover** of Bulgaria in the period January - December 2008 is BGN 79.4 billion (by preliminary data) and the trend of annual growth is preserved. The increase is 14.8% compared to the previous year.

In 2008 the export of goods amounts to BGN 29.9 billion which is an increase of 13.3% compared to 2007. The import of goods in 2008 increases by 15.9% compared to 2007.

In 2008 the external balance of goods and services (export FOB - import CIF) is negative and amounts to BGN 19.7 billion.

The main trade partners for Bulgarian export in 2008 like in 2007 are again Greece, Germany, Turkey and Italy. Exports to these 4 countries account for 36.4% of the total exports.

The main trade partners for import are Russia, Germany, Italy and Ukraine. They account for 41.5% of the total import of Bulgaria.

During the last few years the **tourism** in Bulgaria has a steady development. The year 2008 is good for the sector despite some unfavorable trends in terms of the world financial crisis.

In 2008 the number of arrivals of visitors from abroad to Bulgaria is 8 533.0 thousand which is by 10.4% more

than in 2007. An increase of the number of arrivals is registered for almost all countries and the highest growth rate (over 70%) is recorded for the arrivals from Malta and Luxembourg.

The arrivals of visitors from abroad in 2008 by purpose of visit "holiday and recreation" are 4 765.7 thousand, by purpose "as guests" - 98.5 thousand, "professional" - 418.4 thousand, "transit" - 2 753.1 thousand and "others" - 497.3 thousand.

In 2008 there has been 3 217 working public and private accommodation establishments - hotels, motels, mountain chalets, camping sites and others. The total number of the accommodation establishments has decreased by 83 (2.5%) in comparison with 2007.

In the **fifth part** are considered main problems concerning the ecological conditions in the country which reflect the economic development as well as the technological structure of production. In this section are also presented the trends of the variations of the indicators in the overall energy balance sheet which is an important factor of restructuring and adjusting of the Bulgarian economy to the market conditions.

Preserving the quality of the **environment** is a main purpose of sustainable consumption and production. Since 1999 there is a trend of decreasing the emissions into the atmosphere. This trend may be illustrated by the sulphur oxides emissions which in 2007 have decreased by 2% in comparison with 2006. The emissions of the other major pollutants also decrease in comparison with 2006 in the interval 65 - 93%.

In 2007 the sulphur oxides emission (on average for the country) is 7.7 tons per 1 sq. km (7.9 tons in 2006) and 112 kg per capita (114 kg in 2006).

The comparison between the emissions and GDP shows a sustainable trend of decreasing pollution per unit of GDP. In 2007 the sulphur oxides emissions per USD 1000 of GDP decrease twice in comparison with 2003 - from 0.049 to 0.022 tons.

In 2007 the fresh **water** abstractions are estimated to be 6.2 billion cubic meters, which is nearly the average annual volume for the last 8 years (6.3 billion cubic meters).

The depreciated water-main network and the characteristics of the hydromelioration systems in Bulgaria predetermine the heavy water losses during transport. In 2007 the water losses in the public water supply are 61.5% of the water quantities and the losses at the hydromelioration systems are 63%.

The total volume of water use (from self supply) in 2007 is 4.9 billion cubic meters and the major share of it is used for cooling in the energy production.

After the energetics the leading place in water use takes the manufacturing industry. In 2007 is used 353 million cubic meters which is 67% of the 2000 level. The volume of water used for irrigation increases. In 2007 it is 242 million cubic meters which is 61% more than the lowest level recorded in 2002. The water used by the domestic sector has relatively stable levels.

During the last few years have been taken measures to close down old landfills which do not fulfill the ecological conditions and is being developed modern equipment for disposal of **municipal waste**.

Due to the construction of regional landfill sites the total for the country number of landfill sites decreases - from 619 in 2000 to 435 in 2007. At the same time the share of the population served by municipal waste collection systems increases - from 78.6% in 2000 to 92.5% in 2007.

By municipal administrations data in 2007 is collected 3 324 thousand tons of municipal waste through organized waste collection systems of which 2 980 thousand tons are landfilled.

As a whole for the period 2000 - 2007 can be noticed a trend of decreasing the generated municipal waste. While in 2000 have been generated 518 kg per capita of municipal waste, in 2007 the annual volume decreases to 469 kg.

For the period 1999 - 2007 the share of the **environment expenditure** in GDP is between 0.9 and 2.1%. The highest level is reached in 1999, 2001, 2006 and 2007.

In the area of **energetics** the production of **primary energy** in 2007 is 9 738 thousand tons of oil equivalent (t.o.e.) which in comparison with 2006 is a decrease of 11.6%. The share of renewable energy resources in the production of primary energy in 2007 is 10.2%, in 2006 - 10.6% and in 2005 - 10.6%. For creating **secondary (transformed) fuels and energy** in 2007 are used 20 382 thousand t.o.e. energy resources as the main shares in the transformation input have: the crude oil and feedstocks - 36.2%, coal - 35.1%, of which 23.4% is a home production and nuclear energy - 18.3%.

The gross energy consumption in the country in the period 1999 - 2006 increases. Despite the minor decrease in 2007 in comparison with 2006 (2.9%), in 2008 the gross energy consumption increases by 0.1% (by preliminary data) in comparison with 2007.

The economy's dependency on energy resources increases and after shutting down the 3<sup>rd</sup> and 4<sup>th</sup> unit of the Nuclear Power Plant it is 51.7% in 2007.

The energy intensity of the economy calculated as the gross inland energy consumption per BGN 1 000 of GDP marks a stable trend of decreasing during the period 1999 - 2007 despite the high levels of energy intensity.

In the **sixth part** are considered the research and development activities (R & D) in the country: intensity and expenditure for R & D; personnel engaged in R & D activity.

In 2007 the **expenditure on research and development activity** (R & D) amounted to BGN 273 047 thousand which is by BGN 36 011 thousand more than the previous year.

In 2007 as well as in 2006 the R & D expenditure is 0.48% of GDP and in comparison with 2000 is registered a decrease of 0.04 percentage points. The R & D intensity in Bulgaria is significantly lower than the average European values of this indicator (1.83% - EU-27) and after Bulgaria are only Slovakia (0.46%) and Cyprus (0.33%).

In 2007 are engaged 19 933 people in working on scientific research and papers which is by 4.9% higher than the previous year and by 18.3% higher than the level in 2000.

In 2007 the number of researchers which is the most numerous and highly qualified category of scientific personnel is 13 090 which is by 8.8% more than 2006 and by 24.4% more than 2000. The other 2 categories - technicians and other personnel engaged in R & D activity - also increase in comparison with 2000 but with a slightly lower growth rate - by 8.2%.

In 2007 in scientific research in Bulgaria are engaged 3.2 researchers per 1000 persons from the labour force. This level of employment of the most highly qualified labour force in R & D activities is significantly lower than the average employment in EU-27 (5.7 per 1 000 persons).

The analysis of the age structure of the personnel engaged in R & D activities at the end of 2007 shows that almost half of them (40.4%) are up to 45 years of age; in the "Enterprises" sector this share is 48.7%.