

# HOUSEHOLD EXPENDITURE DURING A PANDEMIC: COVID-19 AND THE CASE OF BULGARIA

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**Abstract:** This article examines the expenditures of Bulgarian households during the COVID-19 pandemic. It specifies the theoretical and methodological features of the concepts of the household total and monetary expenditures and outlines their structure and specific characteristics. It also proves that the amount of total consumer expenditure is greater than the amount of monetary consumer expenditure. The structure and dynamics of the total expenditure average per household and per person are analyzed, deriving the factors that affect the trends in the change of the studied categories. The object of study is household total expenditure, and the subject involves the supposed role of COVID-19 as a factor that affects the state and dynamics of household total expenditure and/or its structure in Bulgaria. The conclusion is that there is a negative pandemic impact, but it should not be overestimated and/or dramatized.

**Keywords:** household total expenditure, household monetary expenditure, COVID-19, household budget

**JEL:** H20, H27, H31.

## Introduction

It is well known that the global COVID-19 pandemic situation has had a negative impact both on the economy as a whole and on the budget and well-being of households. The changes in consumer expenditure can be explained by two groups of factors (Horvath, A., B. Kay and C. Wix, 2021): concerns about the health status of household members and government measures to limit the pandemic. This paper examines the issues related to

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the dynamics and structure of household expenditure in Bulgaria for the period 2016-2022. In this regard, an attempt is made to assess the consumer reaction to the COVID-19 pandemic. The analysis of total expenditure and its items allows us to conclude that the smaller the relative share of the expenditures related to satisfying primary needs (for example, food), the higher the household well-being. The latter correlates positively with spending in the sphere of culture, tourism and recreation. The main aim of the paper is to specify the degree of impact and the directions of change in household expenditure under the conditions of a pandemic and, on this basis, to determine the impact of COVID-19 on the well-being of Bulgarian households. The specific objectives can be boiled down to:

- Characterizing the theoretical foundations and methodological features of measuring household expenditure;
- Analyzing the state of and deriving the trends in the dynamics of household total expenditure for the period 2016-2022 (before and after the manifestation of the COVID-19 crisis);
- Studying the impact of the COVID-19 crisis in Bulgaria on the structure and dynamics of household total expenditure and its items.

### **1. Consumer expenditure in the structure of household total expenditure**

The budget of households, as their main financial plan, contains two sides – income and expenditure. Expenditure, in turn, can be defined as the nominal amount of funds spent by all members of a household over a given period of time. Depending on the scope of the items included, household expenditures are total and monetary. In accordance with the methodology used by the NSI of Bulgaria, *monetary expenditure* includes consumer spending on food and non-alcoholic beverages, alcoholic beverages and tobacco products, clothing and footwear, housing, water, electricity and fuels, home furnishing and home maintenance, health, transportation, communication, recreation, culture and education, other goods and services, as well as spending on taxes, social insurance contributions, regular transfers to other households and other non-consumer expenditure. *Total expenditure* is the arithmetic sum of monetary and valued in-kind expenditures. By studying carefully the NSI methodology regarding household income, expenditure and consumption we find out that deposits, paid off debts and

granted loans are excluded from the amount and structure of the total and monetary expenditures.

Therefore, *expenditures (total and monetary) include two main groups of expenditure: consumer and non-consumer*. The latter involves spending on taxes, social insurance contributions, regular transfers to other households and other non-consumer expenditure. Moreover, the amount of consumer total expenditure is greater than the amount of consumer monetary expenditure, since consumer total expenditure includes both monetary and valued in-kind expenditures. Household expenditure on the purchase of goods and services affect directly the GDP, economic growth and employment. Their amount (total nominal amount) and structure depend primarily on a number of *microeconomic and macroeconomic, personal and social factors*.

Typical examples of *economic* determinants of the amount and type of household expenditure are:

- Household disposable income;
- Prices of goods and services, quality, brand and guarantees of consumer goods;
- Monetary policy of the central bank, price level and interest rates;
- Government fiscal policy, employment level and tax system.

An important *microeconomic factor* determining household consumption expenditure is disposable income. Both the total nominal amount and the structure of household consumption expenditure are known to correlate directly with this income. It (in accordance with the basic statements of economic theory and the NSI methodology) is obtained as a difference between gross income and the amount of taxes and social insurance contributions. Besides, the lower the income, the higher the relative share of household expenditure on essential goods is, and vice versa. At the same time the distribution and amount of the expenditure of individual groups of households is known to be an important measure of their well-being (Krueger, D and F. Perri, 2002). In fact, the smaller the part of the household expenditure aimed at satisfying primary needs, the higher the well-being of the household members is.

The role of the *other microeconomic factors* is also essential. The prices of consumer goods, their brand, quality and guarantees largely determine the structure of household purchases of goods. The purchase of services, in turn, gives rise to specific problems because: 1) services do not have a material expression and their quantity cannot be directly determined; 2) the quality of the services can be objectively determined after payment and

use. Therefore, the question of the structure of purchased services essentially boils down to choosing a contractor. Bearing the above in mind, the rational choice of the household should be based on information about specific microeconomic factors such as the reputation of the company and the presence/absence of quality certificates.

In general, the *macroeconomic determinants* of the type and amount of household expenditure can be boiled down to the state of the economic situation and the government's discretionary policy to change it (presumably to improve it). For example, expansionary fiscal measures aimed at easing the tax burden and increasing social transfers most often lead to increasing household expenditure, but have a weaker impact on its structure. In contrast, government measures aimed at limiting COVID-19 or another similar external shock (e.g. restrictions on mobility) logically lead to reducing consumer expenditure and changing its structure (Coibion, O., Y. Gorodnichenko and M. Weber, 2020; Chen, H., W. Qian, and Q. Wen, 2021).

The high levels of inflation, increasing the prices of consumer goods and services, lead to an increase in the nominal amount of consumer expenditure, but often reduce the real amount of goods and services that households purchase with the higher expenses they make. It is a controversial issue to what extent the dynamics of the price level and the policy of the central bank for its stabilization influence the structure of household purchases. Regardless of the above stated, there are sufficient reasons to assume that under the conditions of inflation, there is an increase in the demand for durable goods. The macroeconomic factors affecting the dynamics of consumer expenditure include the propensity of households to consume and save. That undoubtedly depends on the level of interest rates in the country, but also on personal, including psychological (Jin X. et al., 2021) factors. The negative external shocks reduce consumption in response to "increased uncertainty, financial constraints, or declining expectations regarding future income prospects" (Chronopoulos, D., M. Lukas and J. Wilson, 2020, p. 6). As a rule, in an unfavourable economic situation, expressed in high levels of unemployment and anemic or negative economic growth, households reduce the total amount of their expenditures and increase their savings.

In accordance with the personal finance theory, the specific consumer habits regarding the type of goods and services purchased mainly depend on the influence of the so-called *personal determinants*. It is generally assumed that the above cited personal factors affect slightly the total nominal amount

of consumer expenditure, but their impact on the structure of household purchases is significant. Typical examples of such personal determinants are: age, gender, marital status, educational level, place of residence, number of children in the household, number of elderly people in the household, etc. Two things should be specified here. *First*, the analyzed factors significantly determine the structure of household expenditure on *daily* purchases. The purchase of fixed assets and investment products largely depends on the economic factors mentioned above. *Second*, some personal determinants also relate to the nominal amount of household expenditure: age, education and (unfortunately) gender.

A *third group of factors*, which reflects the influence of mass media, social networks, advertising, etc., also affects the amount and structure of household consumption expenditure. These determinants can be defined as *social*. There has been an upward trend in the role they play over the recent decades.

A few logical questions arise in relation to all of the above stated and in terms of the global pandemic situation after the end of 2019. On the one hand, *is it appropriate to add (explicitly formulate) one more factor – COVID-19, to the analyzed economic, personal and social factors influencing consumer expenditure?* On the other hand, *how long-lasting is the possible impact of the COVID-19 crisis and how permanent is the supposed change in the structure of consumer purchases?* An answer to these questions is sought below.

The analysis of the theoretical foundations of household expenditure gives rise to several important generalizations. Firstly, total expenditure, as the broadest concept, involves consumer and non-consumer expenditures. Secondly, total expenditure and, accordingly, consumer total expenditure are broader concepts than monetary expenditure and consumer monetary expenditure, as they include, in addition to the monetary value of the respective expenses, the value equivalent of in-kind household expenditure. Thirdly, the factors influencing the value and structure of household total expenditure can be classified as follows: economic, personal, social, and (possibly after the end of 2019) the COVID-19 pandemic situation.

### 2. Comparative analysis of household total expenditure for the period 2016-2019

Empirical analysis is important for highlighting the state, dynamics and trends in the development of household expenditure and *dissociating the impact of the COVID crisis*. The data from Table 1 logically confirm the theoretical statement that the value of the total expenditure is greater than that of the monetary expenditure. So, for example, in 2016, the value of the total expenditure average per household was BGN 11,146, and the monetary expenditure average per household was BGN 11,014. The difference of BGN 132 (11,146–11,014) represents the value of the household in-kind expenditure. In 2017, 2018 and 2019, the amount of total and monetary expenditure average per household was as follows: BGN 11,989; BGN 12,910; BGN 13,538 total expenditure average per household and BGN 11,860; BGN 12,771; BGN 13,415 monetary expenditure average per household. The ratio between the analyzed expenditures and the average per person is similar. In 2016, the total expenditure average per person was BGN 4,755 and in 2019, the same expenditure average per person was BGN 6,214. In 2016 and 2019, the monetary expenditure average per person was BGN 4,699 and BGN 6,158. The ratio between monetary and total expenditure in the period 2016-2019 ranged between 98% and 99%, therefore the *valued in-kind expenditure has an insignificant impact on the volume and structure of household purchases in Bulgaria*.

The analysis of the structure of household expenditure is important in terms of the trends related to the ratio between the **individual groups (items) of total expenditure**. The data on the *total expenditure* average per household and per person (see Table 1) give grounds for drawing several important conclusions. Thus, for example, in the structure of household total expenditure average per household and per person, consumer total expenditure occupies the highest relative share. For the period 2016-2019, it ranged from 82.6% in 2016 to 81.5% in 2019. The dynamics of the *relative share of taxes* for the studied period can be systematized as follows: 5.2% in 2016, 5.6% in 2017, 5.5% in 2018 and 5.6% in 2019, and of the other expenditures – 4.5% in 2016, 4.4% in 2017, 4.9% in 2018 and 4.2% in 2019, respectively. *Social insurance contributions*, as non-consumer expenditure in the structure of household total expenditure, had a relative share as follows: 6.5% in 2016, 6.9% in 2017, 7.3% in 2018 and 7.6% in 2019, i.e. of the non-consumer expenditure, the expenditure on social insurance contributions occupies the highest relative share (in the structure of total expenditure).

Table 1 illustrates yet another fact. In the structure of the total expenditure average per household and per person, the *expenditure on food and non-alcoholic beverages* occupies a high relative share. The trend in the change of the relative share of the main group of household expenditures compared to total expenditure is as follows: 30.8% in 2016, 30.1% in 2017, 29.7% in 2018 and 29.5% in 2019. In this line of thought, it is important to note that expenditure on food and non-alcoholic beverages had the highest relative share in the structure of consumer total expenditure. Thus, for example, this relative share was 36.5% in 2018, and 36.2% in 2019, respectively (as a rule, the percentage ratio of expenditure on food and non-alcoholic beverages compared to consumer expenditure is higher than the relative share of the same item compared to total expenditure).

A fact that is also worth noting is that the *expenditure on housing, water, electricity and fuels* occupies a significant relative share in the structure of the total expenditure, including the total expenditure average per household and per person. The trend in the change of the relative share of this group of expenditures is as follows: 14.3% in 2016, 14.8% in 2017, 13.6% in 2018 and 13.5% in 2019. The expenditure on housing, water, electricity and fuels had a high relative share in the structure of consumer total expenditure. Thus, for example, in 2019, this share was 16.5%.

The percentage ratio between household expenditure on health, transport, communication, recreation, culture and education and the total expenditure average per household and per person varies slightly. In 2016, the relative share of the expenditures in the above-given sequence compared to the total expenditure was: 5.5%, 6.9%, 4.4% and 4.8%. In 2019, the relative share of these groups of expenditures compared to total expenditure average per household and per person can be summarized as follows: 6.2% spent on health, 7.5% spent by households on transport and, respectively, 4.2 % and 5.2% household expenditure on communication and recreation, culture and education.

The analysis of the data from Table 1 provides grounds to conclude that *households spend the least money on clothing and footwear*. The relative share of this household expenditure compared to the total expenditure average per household and per person for the period 2016 - 2019 ranges between 3.6% in 2016 and 3.3% in 2019.

The empirical analysis of household expenditure would be incomplete if the **dynamics of the individual groups of total expenditure** for the individual years was not analyzed (see Table 1).

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Table 1.

Total expenditure of Bulgarian households for the period 2016-2021.

Expenditure groups	2016	2017	2018	2019	2020	2021
<i>Average per household – BGN</i>						
<b>Total income</b>	<b>12, 112</b>	<b>12, 836</b>	<b>13, 450</b>	<b>14, 361</b>	<b>15, 088</b>	<b>16 ,115</b>
<b>Total expenditure</b>	<b>11, 146</b>	<b>11, 989</b>	<b>12, 910</b>	<b>13, 538</b>	<b>13, 403</b>	<b>14, 729</b>
Consumer total expenditure	9, 203	9, 835	10, 493	11, 037	10, 890	12, 107
Food	3, 432	3, 613	3, 834	3, 994	4, 034	4, 303
Alcoholic beverages and tobacco products	484	504	527	568	571	604
Clothing and footwear	402	421	438	440	404	536
Housing, water, electricity and fuels	1, 595	1, 770	1,760	1, 821	1, 855	2, 038
Home furnishing and home maintenance	411	498	514	503	561	696
Health	616	642	701	842	836	924
Transport	764	809	938	1, 017	893	1, 010
Communication	494	515	554	573	615	660
Recreation, culture and education	530	528	623	702	539	653
Miscellaneous goods and services	473	534	604	575	581	682
Taxes	579	666	712	759	775	825
Social insurance contributions	727	822	939	1, 029	1, 078	1, 113
Regular transfers to other households	130	145	130	140	120	133
Other expenditure	507	522	635	573	540	551
<b>Monetary expenditure</b>	<b>11, 014</b>	<b>11, 860</b>	<b>12, 771</b>	<b>13, 415</b>	<b>13, 302</b>	<b>14, 638</b>
<i>Average per person – BGN</i>						
<b>Total income</b>	<b>5,167</b>	<b>5,586</b>	<b>6,013</b>	<b>6,592</b>	<b>7,002</b>	<b>7,705</b>
<b>Total expenditure</b>	<b>4, 755</b>	<b>5, 217</b>	<b>5, 772</b>	<b>6, 214</b>	<b>6, 220</b>	<b>7, 042</b>
Consumer total expenditure	3, 926	4, 280	4, 692	5, 066	5, 054	5, 788
Food	1, 464	1, 573	1, 714	1, 833	1, 872	2, 057
Alcoholic beverages and tobacco products	206	219	236	261	265	289
Clothing and footwear	172	183	196	202	188	256
Housing, water, electricity and fuels	681	770	787	836	861	974
Home furnishing and home maintenance	175	217	230	231	260	333
Health	263	280	313	386	388	442
Transport	326	352	419	467	415	483
Communication	211	224	248	263	285	315
Recreation, culture and education	226	230	279	322	250	312
Miscellaneous goods and services	202	232	270	264	270	326
Taxes	247	290	318	348	360	394
Social insurance contributions	310	358	420	472	500	532
Regular transfers to other households	55	63	58	64	56	63
Other expenditure	216	227	284	263	251	264
<b>Monetary expenditure</b>	<b>4, 699</b>	<b>5, 161</b>	<b>5, 710</b>	<b>6, 158</b>	<b>6,173</b>	<b>6, 999</b>

Source: NSI



**The total expenditure average per household** in 2019 increased by 21.5% compared to 2016, by 12.9% compared to 2017 and by 4.9% compared to 2018. *Consumer total expenditure* average per household grew by 19.9% in 2019 compared to 2016. Compared to 2017 and 2018, the consumer expenditure average per household grew by 12.2% and 5.2% respectively. *Total expenditure on food and non-alcoholic beverages*, as an item of total expenditure average per household, in 2019 increased by 16.4% compared to 2016, by 10.5% compared to 2017 and by 4.2 % compared to 2018. The funds for *housing, water, electricity and fuels* included in the structure of total expenditure average per household in 2019, compared to the previous three years, also showed an upward trend, the increase being as follows: 14.2% compared to 2016, 2.9% compared to 2017 and 3.5% compared to 2018. The growth of total expenditure average per household on *health* in 2019 compared to the previous three years was as follows: 36.7 % compared to 2016, 31.1% compared to 2017 and 20.1% compared to 2018. The increase in total expenditure average per household on *recreation, culture and education* in 2019 compared to the previous three years can be systematized as follows: 32.4% compared to 2016, 33.0% compared to 2017 and 12.7% compared to 2018. The non-consumer total expenditure that includes the *expenditure taxes, social insurance contributions, regular transfers to other households and other non-consumer expenditures*, in 2019, compared to the previous three years, also rose.

The **total expenditure average per person** increased by 30.7% in 2019, compared to 2016. In 2019, compared to 2017 and 2018, the growth rate of the analyzed expenditure was respectively 19.1% and 7. 7%. There was a similar trend in the change in *consumer total expenditure* average per person in the household. In 2019, compared to 2016, it increased by 29.0%, and by 18.4% and 8.0%, respectively, compared to 2017 and 2018. The total amount of *non-consumer total expenditure* in 2019, compared to 2016 and 2018, also increased. The total expenditure average per person on *food and non-alcoholic beverages* for 2019 rose by 25.2% compared to 2016. Compared to 2017 and 2018, the same expenditure increased by 16.5% and 6.9% respectively. The total expenditure average per person on *health* also increased. In 2019, compared to the previous three years, the growth of the total expenditure average per person on health was as follows: by 46.8% compared to 2016, by 37.9% compared to 2017 and by 23.3% compared to 2018. The growth rate of total expenditure average per person on *recreation, culture and education* was also high. In 2019, compared to the previous three years, this expenditure increased as follows: by 42.5% compared to 2016, by

40.0% compared to 2017 and by 15.4% compared to 2018. The dynamics of the total expenditure average per person on *recreation, culture and education* coincides with the rate of change in the monetary expenditure for the same group of household expenditures.

It is important for the analysis of the total expenditure average per person in the period 2016-2019 to compare its absolute value and dynamics with the same indicators of the **total income average per person** during the analyzed period. The total income average per person for 2019 was BGN 6, 592, and the total expenditure average per person for the same year was BGN 6, 214. Hence, the total income average per person for 2019 was BGN 378 or 6.1% higher than the total expenditure average per person. *On an annual basis, the average increase in total income per person was 9.6%, and the average increase in total expenditure per person was 7.7%*, i.e. the growth rate of total income average per person outpaced the growth rate of total expenditure average per person. The gross total income average per person in 2019 was BGN 6, 325 and increased by 10.1% on an annual basis. The consumer total expenditure average per person in 2019 was BGN 5, 066 and increased by 8.0% on an annual basis.

The total income average per person for 2018 was BGN 6, 013 and grew by 7.6% on an annual basis. The total expenditure average per person for 2018 was BGN 5, 772 and increased by 10.6% on an annual basis, i.e. the growth of the analyzed expenditure outpaced the increase in the analyzed income by 3.0%. The total income average per person for 2017 was BGN 5, 586, and the total expenditure average per person for the same year was BGN 5, 217. On an annual basis, the increase in income was 8.1%, and in expenditure – 9.7%, i.e. the growth of the analyzed expenditure outpaced the growth of the analyzed income by 1.6%. For 2016, the absolute amount of the studied values was BGN 5, 167 and BGN 4, 755, respectively. On an annual basis, the total income growth average per person was 4.3%, and the total expenditure growth average per person was 1.9%, respectively. Therefore, on an annual basis, the growth rate of total income average per person outpaced the growth rate of total expenditure average per person by 2.4%.

The above analysis allows us to make the following important conclusions and generalizations:

*First*, in the structure of total expenditure average per household and per person, consumer expenditure is 4.4 to 4.7 times greater than non-consumer total expenditure. Naturally, in the structure of consumer total expenditure average per household and per person, the highest relative

share is occupied by food and non-alcoholic beverages. The relative share of expenditure on housing, water, electricity and fuels is also high.

*Second*, the total expenditure average per household, per person and the expenditure groups included in it, for the period 2016-2019, increased both on an annual basis and in 2019 compared to the previous three years. It is important to note that the expenditure growth average per household and per person on health and on recreation, culture and education is greater than that of consumer monetary expenditure as a whole, including the main household consumption expenditure – that of food and non-alcoholic beverages.

*Third*, the total income average per person and the total expenditure average per person tend to increase on an annual basis. It is noteworthy that in 2018, compared to 2017, and in 2017 compared to 2016, the growth rate of total income average per person was lower than the growth rate of total expenditure average per person.

### **3. Comparative analysis of household total expenditure for the period 2020-2022**

At the end of 2019 and the beginning of 2020, Bulgaria, Europe and the world were in the grip of the COVID-19 pandemic. The global pandemic situation has had a negative impact on most spheres of the socio-economic life of the countries. Under the direct impact of the COVID-19 crisis and (in no small degree) under the influence of the government measures to deal with it, the positive trends in a number of macroeconomic indicators of Bulgaria such as GDP growth, unemployment rate, final consumption, gross value added and exports are replaced by negative ones. Thus, for example, as a result of the COVID-19, according to data from the Ministry of Finance, in 2020 the real GDP fell by 4.2%. Investments and exports were among the most affected by the crisis. In 2020, the number of employed persons decreased by 2.3% on an annual basis, and the decrease in employment in trade, transport and tourism was 6.5%. The average annual inflation for 2020 was 1.2%.

In Bulgaria, COVID-19 has had a certain impact on the structure and dynamics of the total expenditure average per household and per person for the period 2020-2022. The data analysis (see Table 1) confirms this fact, as well as the inhomogeneous effect of the pandemic on the separate groups of

household expenditures, known from the practice of other countries (Andersen et al. 2020; Fadejeva et al. 2022).

In the structure of **total expenditure** average per household and per person, the highest relative share is occupied by the consumer total expenditure. For 2020, its relative share was 81.3%, and for 2021, this share was 82.2%, respectively. For 2019, the last year prior to the pandemic, *consumer total expenditure* accounted for 81.5% of the household total expenditure. The relative share of the main group of household expenditures, namely *food and non-alcoholic beverages*, in the structure of the total expenditure average per household and per person is as follows: 29.5% in 2019, 30.1% in 2020 and 29.2% in 2021, i.e. *there are no significant changes under the impact of COVID-19*. *Housing, water, electricity and fuels* expenditure for 2020 and 2021 accounted for 13.8% of the household total expenditure. The percentage ratio between household expenditure on *health, transport, communication, recreation, culture and education* and the total expenditure average per household and per person varies slightly. In 2020, the relative expenditure share compared to total expenditure was as follows: 6.2% (health), 6.7% (transportation), 4.6% (communication) and 4.0% (recreation, culture and education). For 2021, the relative share of the same expenditures in the structure of the total expenditure average per household and per person was 6.3%, 6.9%, 4.5% and 4.4%, respectively. *The share of expenditure on recreation, culture and education in the total expenditure in 2020 and 2021 decreased by 1.2% and by 0.8% compared to 2019, i.e. there was a negative impact of COVID-19 on this type of household purchases, but it should not be overestimated.*

The analysis of the dynamics of the total expenditure average per household and per person for the period 2020-2022 gives grounds to highlight a few more significant features.

*First*, it should be emphasized that the total expenditure average per household in 2020 on an annual basis decreased by 1%, and the consumer total expenditure average per household in 2020, compared to 2019, decreased by 1.3%. The total expenditure average per person in 2020, compared to 2019, remained at the same level, and the consumer total expenditure average per person in 2020 decreased by 0.2% on an annual basis. The reason for the negative rate of change in the analyzed total expenditure groups in 2020, compared to 2019, can be sought in the *negative impact of the pandemic (and more likely of the measures related to limiting its spread)* on all spheres of socio-economic life. On the other hand, the total expenditure average per household in 2021, compared to 2019, increased by

8.8% and consumer total expenditure in 2021 compared to 2019 increased by 9.7%. The total expenditure average per person and consumer total expenditure average per person for 2021, compared to 2019, rose by 13.3% and 14.2% respectively. The quoted figures *unequivocally show the short-term effect of the pandemic on household expenditure*. The data for Bulgaria also confirm the thesis (Cotton, Ch, V. Garga and R. Justin, 2021) that the government measures to limit consumer mobility also have a short-term effect.

It is important to emphasize yet *another feature*. The total expenditure average per household and the total expenditure average per person on food and non-alcoholic beverages for 2020 increased on an annual basis by 1.0% and 2.1%, respectively. The average expenditure on *food and non-alcoholic beverages*, as major consumer expenditure, per household and per person for 2021, compared to 2019, increased by 7.7% and 12.2%, respectively. At the same time, total expenditure average per household and total expenditure average per person on *housing, water, electricity and fuels* for 2020 increased on an annual basis by 1.9% and 3.0%. The analyzed group of expenditures average per household and per person for 2021, compared to 2019, grew by 11.9% and 16.5%, respectively. Taking into account the fact that there was a similar situation in the period 2016-2019, it can be concluded that *the impact of the pandemic is not enough to change the previously observed trend*.

It is logical to also comment on household expenditure on *recreation and culture and education*. The total expenditure average per household and the total expenditure average per person of the mentioned category for 2020 on an annual basis *decreased by 23.2% and 22.4%*. The analyzed group of expenditures average per household and per person for 2021, compared to 2019, fell by 7.0% and 3.1%, respectively. The main reason for the negative rate of change in the total expenditure average per household and per person on recreation, culture and education for 2020 and 2021, compared to 2019, is the *measures related to reducing the spread of COVID-19 and, on this basis, limiting the social life and social contacts of household members*. Another point is also striking - in terms of this group of expenditures, the *COVID-19 effect is characterized by higher duration*.

Taking into account the above mentioned regarding expenditure on recreation, culture and education, it can be expected that household expenditure on health also had to undergo a sharp change in 2020. In fact, the total expenditure average per household on health for 2020 on an annual basis *decreased by 0.7%*, and the total expenditure average per person on

health in 2020 compared to 2019 *increased by only 0.5%*. It is fair to note that there is a similar picture in other countries (Kantur, Z. and G. Ozcan, 2021; Chen, H., W. Qian, and Q. Wen, 2021). The total expenditure average per household and per person on health for 2021 compared to 2019 increased by 9.7% and 14.5% respectively. The adduced data allow the following interpretation: 1) under the conditions of the COVID-19 crisis, the dynamics of the total expenditure on health is insignificant; 2) in 2021, households realized expenditures postponed from 2020.

For the sake of completeness of the analysis, attention should also be paid to the dynamics of **household income** during the studied period. In this regard, it is important to note that the total income average per person for 2020 was BGN 7, 002 and *increased on an annual basis by 6.2% (there is no explicitly negative pandemic effect)*. The total expenditure average per person for 2020 was BGN 6, 220 and on an annual basis it *increased by 0.1%*, i.e. in this year, the total expenditure average per person almost kept the levels of the previous twelve months. In this case, it can be argued that there was a pandemic effect as regards the increase in uncertainty and, on this basis, postponing household purchases and/or increasing savings. *In 2020, the increase in total income average per person outpaced the increase in total expenditure average per person, and therefore the dynamics of expenditure is not determined by a lack of income.* The total income average per person for 2021 was BGN 7, 705 and rose by 10.0% on an annual basis. The total expenditure average per person for 2021 was BGN 7, 042 and rose by 13.2% on an annual basis. Therefore, in 2021, the increase in total expenditure average per person outpaced the increase in total income average per person by 3.2%. In this regard, it can be assumed that *purchases postponed from the previous year were carried out.*

In 2022, the *increase in the price level* appears to be the main economic factor determining the dynamics of a number of economic indicators, including total expenditure average per household and per person. Inflation for May 2022, according to NSI data, was 15.6% on an annual basis. Increased inflationary pressure, as a consequence of high electricity and fuel prices, has an impact on the cost price of all goods and services, and therefore on household income and expenditure. On this basis, in 2022, an increase in household total expenditure and household monetary expenditure can be expected, including a significant increase in the expenditure on food and non-alcoholic drinks, electricity, fuels and transport.

## Conclusion

The analysis of the theoretical foundations, the measurement methodology, the structure and dynamics of the expenditures of Bulgarian households under the conditions of COVID-19 gives grounds to draw the following conclusions:

*First*, the global pandemic situation provoked by COVID-19 has an impact on the main macroeconomic indicators in Bulgaria. The impact on the total expenditure average per household and total expenditure average per person should not be dramatized. At the end of 2021 and in 2022, the increase in the price level also affects the analyzed consumer expenditure groups.

*Second*, household total expenditure and its items in the period 2016-2019 and in 2021 on an annual basis show an upward trend in nominal terms. In the structure of the total expenditure average per household and per person, the highest relative share is occupied by expenditure on food and non-alcoholic beverages. The total expenditure average per household and per person on housing, water, electricity and fuels also has a significant relative share.

*Third*, the total expenditure average per household and the total expenditure average per person on recreation, culture and education for 2020 on an annual basis and for 2021 compared to 2019 decrease significantly. The impact of the COVID-19 pandemic is real here. Total expenditure average per household and per person, as well as consumer total expenditure, expenditure on clothing and footwear and funds spent on health and transport also show a slight decline for 2020 on an annual basis.

*Fourth*, in 2021, on an annual basis, total expenditure average per household, total expenditure average per person and all their items in nominal terms show an upward trend. In this regard, it can be assumed that the impact of the COVID-19 crisis on household purchases is rather a temporary phenomenon.

*Fifth*, in 2017, 2018 and 2021, the growth rate of total income average per person is lower than the growth rate of total expenditure average per person, i.e. the growth of total expenditure outpaces the growth of total income. In the first three months of 2022, the growth rate of total expenditure once again outpaces the growth rate of household total income.

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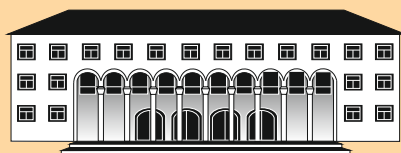
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