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# IMPACT OF COVID-19 AND DROUGHT ON THE ECONOMY OF THEREPUBLIC OF MOLDOVA

### TAMARA LEAH<sup>1</sup>

#### **Abstract**

The paper characterizes the cumulative impact of the pandemic and drought on the main economic sectors of the Republic of Moldova. Total Gross Added Value (GAV) per economy, with a share of 87.0% in the Gross Domestic Product (GDP) formation, contributed to the decrease of GDP by 6.0% in 2020 compared to 2019, the volume of GAV being decreasing by 6.9%. Agriculture, which contributed more than 1/3 to the decrease of GDP (2.7%) with a share of 9.5% to the formation of GDP and a decrease of GAV on the respective activities by 26.4%. Following the drought impact, the second consecutive year, the share of agriculture in the structure of the economy is less than 10%. Trade, transport and storage, HoReCa contributed by -2.1% to the decrease of GDP, with a share of 20.7% to the formation of GDP and a decrease of GAV on the respective activities by 9.6%. These 3 sectors absorbed the shock of the pandemic the most, given that by far the most affected sectors are those involving the interaction and mobility of the population. Industry contributed by -0.6% to the decrease of GDP, with a share of 14.0% to the formation of GDP and a decrease of GAV on the respective activities by 4.3%. The negative result in the industry is also explained by the impact of the drought, which contributes to the increase in the price of raw materials for the food and beverage industry. Net taxes on products, with a share of 13.0% in GDP formation, contributed to the decrease of GDP by -1.0%, their volume decreasing by 7.3%. Despite the crisis of the last year, wages have risen more than prices. The cost of living in 2020 has remained virtually unchanged, if we refer to the insignificant inflation of 0.39%.

**Keywords:** GDP, GAV, drought, agriculture.

**JEL Classification:** Q01, F63

# **INTRODUCTION**

The COVID-19 crisis that began at the end of 2019 was declared a pandemic by the World Health Organization (WHO) on March 12, 2020. It caused enormous damage to the health, livelihoods and well-being of people around the world. The Republic of Moldova in 2020 was simultaneously affected by the COVID-19 pandemic and one of the most extreme droughts in the last two decades. The cumulative effect had a negative impact on the main economic sectors and geographical areas. In response, measures have been taken to mitigate the impact of the pandemic on the health of the population and to support businesses and workers affected. Most countries have also implemented measures that have contributed to achieving environmental goals. However, much remains to be done for recovery plans to accelerate the transition to a green economy, thus increasing resistance to external shocks (Coctailul din COVID, 2021).

# MATERIAL AND METHOD

The statistical data published by the National Bureau of Statistics (www.statistica.md), approached comparatively, the publications on the pandemic and the state of the economy served as material. The research method is based on the quantitative and qualitative analysis of public policies, published documents.

# **RESULTS AND DISCUSSIONS**

*Gross Domestic Product* (GDP) in 2020 amounted to 206.3 billion lei, in current (market) prices, decreasing in real terms by 7.0% compared to 2019. These data are the result of the simultaneous overlap of two cumulative impacts on the economy - COVID-19 and the drought, and represents the largest decline of the Moldovan economy in the last 25 years (Coctailul din COVID,

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2021). The recession of 2020 was more severe both compared to the crisis of 1998, marked by the collapse of the economy of the Russian Federation, and to the decline of 2009, marked by the international financial crisis.

The Gross Domestic Product, estimated for the I quarter of 2021, amounted to 46.5 billion lei, current (market) prices. Compared to the I quarter of 2020, GDP increased, in real terms, by 1.8% on the gross series and by 0.1% on the seasonally adjusted series. The evolution of the quarterly GDP in the period 2018-2021, calculated as gross series and seasonally adjusted series, is presented in Table 1.

Table 1. Evolution of quarterly GDP in the years 2018-2021

|   | Years | Quarter I | Quarter II | Quarter III | Quarter IV | Year  |
|---|-------|-----------|------------|-------------|------------|-------|
| - in % compared to the respective period of the previous year |       |           |            |             |            |       |
| Gross series  | 2018  | 104,0     | 105,5      | 103,7       | 104,2      | 104,3 |
|   | 2019  | 104,5     | 105,9      | 104,3       | 100,2      | 103,7 |
|   | 2020  | 100,9     | 86,0       | 90,3        | 96,7       | 93,0  |
|   | 2021  | 101.8     | -          | -           | -          | -     |
| Seasonally  | 2018  | 104,3     | 105,9      | 103,8       | 103,9      | -     |
| adjusted series   | 2019  | 103,6     | 105,2      | 105,1       | 99,5       | -     |
|   | 2020  | 99,7      | 93,8       | 89,4        | 96,3       | -     |
|   | 2021  | 100,1     | -          | -           | -          |       |
| - in % compared to the previous quarter                       |       |           |            |             |            |       |
| Seasonally  | 2018  | 99,4      | 102,3      | 100,9       | 101,3      | -     |
| adjusted series   | 2019  | 98,8      | 105,0      | 99,8        | 96,0       | -     |
|   | 2020  | 98,6      | 93,8       | 100,0       | 103,3      | -     |
|   | 2021  | 102,5     | -          | -           | -          | -     |

Source: NBS.www.statistica.md

*GDP: Categories of resources.* The total Gross Added Value (GAV) per economy, with a share of 84.9% in the formation of GDP, contributed to the increase of GDP by 0.6%, the volume of GAV being increasing by 0.7% compared to the one registered in the I quarter 2020. In particular, the following activities contributed to GDP growth in the I quarter of 2021 compared to the first quarter of 2020:

Extractive industry; manufacturing industry; production and supply of electricity and heat, gas, hot water and air conditioning; water distribution; sanitation, waste management, decontamination activities (+0.9%) with a share of 15.7% in GDP formation and an increase in GAV on those activities by 6.1%;

Constructions (+ 0.4%), with a share of 6.7% in the formation of GDP and an increase in GAV on the respective activities by 5.5%;

Information and communications (+ 0.4%), with a share of 6.8% in GDP formation and an increase in GAV on the respective activities by 6.5%;

Real estate transactions (+ 0.4%), with a share of 8.4% in GDP formation and an increase in GVA on the respective activities by 5.0%.

Negative impact on GDP developments had:

- Agriculture, forestry and fishing (-0.5%), with a share of 2.7% in GDP formation and a reduction of GAV on the respective activities by 13.9%;
- Financial activities and insurance (-0.3%), with a share of 4.3% in GDP formation and a reduction of GVA on those activities by 7.4%;
- Professional, scientific and technical activities, administrative services and support services (-0.3%), with a contribution of 3.1% to GDP formation and a decrease in GAV on those activities by 8.3%;

- Public administration and defense; compulsory social insurance; education; health and social assistance (they contributed -0.2% to the GDP change) with a share of 14.5% to the formation of GDP and a decrease of the GAV on the respective activities by 1.3%.
- Net taxes on products with a share of 15.1% in GDP formation, contributed to the change in GDP by + 1.2%, their volume increasing by 8.6% (Produsul Intern Brut, 2021).

*GDP: Categories of uses.* In terms of utilization, GDP growth in the first quarter of 2021 compared to the I quarter of 2020 was mainly due to:

Gross fixed capital formation (+2.9%), whose volume increased by 14.2%, contributing by 23.4% to GDP formation;

Final consumption of households (contributing +2.4% to GDP change), whose volume increased by 2.8%, contributing 82.9% to GDP formation.

A negative contribution on the index of the physical volume of GDP had the net export of goods and services (contributing with -8.2% the change in GDP), consequence of the increase of the physical volume of imports of goods and services (+7.1%), correlated with a reduction in the volume of exports of goods and services (-12.3%), (Produsul Intern Brut, 2021). The evolution of quarterly GDP in 2010-2021, expressed in average prices in 2010 is presented in Figure 1.

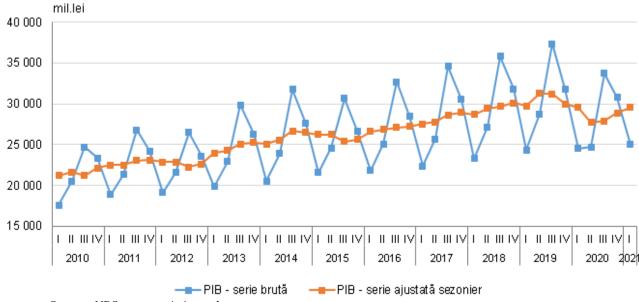


Figure 1. Quarterly GDP dynamics in 2010-2021 (2010 prices): gross series (in blue) and seasonally adjusted series (in orange).

Source: NBS.www.statistica.md

*Agriculture.* The total Gross Added Value (GAV) per economy, with a share of 87.0% in GDP formation, contributed to the decrease of GDP by 6.0% in 2020 compared to 2019, the volume of GAV being decreasing by 6.9%.

The National Bureau of Statistics reports that global agricultural production in households of all categories (agricultural enterprises, farms (households) and households) in 2020, according to preliminary estimates, marked 72.9% compared to 2019. Decrease in production global agricultural production (by 27.1%) was determined by the decrease of vegetable production by 35.9% (which caused the reduction of the general index of global agricultural production by 26.1%) and animal production - by 3.8% (-1.0%).

Considerable decreases in the physical volume of agricultural production in 2020 compared to 2019 were recorded for the following crops: grain maize - by 63.4% (which generated a decrease in global agricultural production by 8.6%), sunflower - 39.9% (-4.7%), wheat - 50.5% (-4.3%), fruit, nuts and berries - 21.2% (-2.0%), grapes - 27.6% (-1.8%), vegetables - by 22.2% (-1.7). In 2020, the

share of vegetable production in total agricultural production was 64% (in 2019 - 73%), animal production returning 36% (in 2019 - 27%).

On January 1, 2021, compared to that date of last year, there was a decrease in the number of animals in households of all categories, except for the number of cows in agricultural enterprises which increased by 13.1% (Moldova - Actualizare Economică, 2021).

The following economic activities contributed to the decline in GDP:

- Agriculture, which contributed more than 1/3 to the decrease of GDP (2.7%) with a share of 9.5% to the formation of GDP and a decrease of GAV on the respective activities by 26.4%. Following the impact of the drought, the second consecutive year the share of agriculture in the structure of the economy is less than 10 percent;
- Trade, transport and storage, HoReCa contributed -2.1% to the decrease of GDP, with a share of 20.7% to the formation of GDP and a decrease of GAV on the respective activities by 9.6%. These three sectors have absorbed the pandemic shock the most, given that the sectors most affected are those involving population interaction and mobility;
- Industry contributed by -0.6% to the decrease of GDP, with a share of 14.0% to the formation of GDP and a decrease of GAV on the respective activities by 4.3%. One of the structural novelties of the Moldovan economy in the crisis of 2020 is the much more significant presence of some industrial activities that are part of some international value chains (Automotive and Textile Industry), the given activities being among the most affected.

The negative result in the industry is also explained by the impact of the drought, which has led to higher raw materials for the food and beverage industry. Net taxes on products, with a share of 13.0% in GDP formation, contributed to the decrease of GDP by -1.0%, their volume decreasing by 7.3%.

Construction and financial activities. The economic activities that had positive contributions on the index of the physical volume of GDP and attenuated from the economic decline were construction (they contributed +0.3% to the change in GDP), with a share of 9.3% to the formation of GDP and an increase of GVA by 3.7%, as well as financial activities and insurance (contributed by +0.2% to the change in GDP) with a share of 3.9% in the formation of GDP and an increase in GAV on those activities by 5.7%. The positive evolution in the construction sector is explained by the continuation of the upward trend in the residential construction sector, but also of the growing public investments in road infrastructure.

*Income and uncertainty of future income.* The analysis of the components of aggregate demand reveals that private consumption, which constitutes 81.2% of the economy, recorded a reduction in real terms of 7% compared to the previous year, conditioned by the decrease of incomes to a part of the population, but also by a more prudent behavior of the less secure population on future incomes. As a result, private consumption contributed 82% to last year's economic downturn.

Gross fixed capital formation, an indicator that summarizes the level of investments made in the economy, decreased by 2.1%, contributing by -0.5% to the change in GDP, while Net Exports contributed slightly to the attenuation of the economic downturn with a positive contribution to the formation of GDP of 0.1%, but also here the reduction of the trade deficit took place by the negative adjustment of both imports (8.9%) and exports (-15.5%), this phenomenon being notable in the Republic of Moldova and in previous crisis years.

Quarterly developments in 2020 show that the largest decline in GDP took place in the II quarter, which coincides with most of last year's lockdown, with the economy shrinking by 1 % from the same period from 2019. At the same time, in the IV quarter there is a decrease of 3.3%, which is due almost exclusively to the impact of the drought. The data show that if we exclude agriculture, the other sectors generated an increase of 1.1% in the IV quarter, which indicates a return to consumption amid the easing of pandemic restrictions during this period.

*Trade and industry.* Despite the restrictions, overall, domestic trade had virtually no suffering. On the contrary - the National Bureau of Statistics reported an increase in sales of 4.6% in 2020. In contrast, services decreased by more than 15%. The drop in demand, generated by the pandemic,

reduced the industry by 5.5%, but cross-border trade also suffered. The year 2020 ended with exports of 2 billion 485 million USD, compared to 2019, the reduction was 10.6%.

Exports, however, were discouraged by both the pandemic and the drought of last year, when many farmers were forced to sell their products at lower prices, just to get rid of stocks. Although imports fell by 7.6%, the trade deficit continued to widen to \$ 5 billion 415 million. Car dealers, among others, say they are among the most affected of importers. From March to June, car shows were closed, which reduced their sales in 2020 by about a thousand cars.

*Transport and tourism.* It was a year in which most countries, including the Republic of Moldova, closed their borders to foreigners. As a result, in 2020, Moldovan airlines will carry only a quarter of the number of passengers it had in 2019 (-75.6%). Data from the National Bureau of Statistics (NBS) show that road transport decreased by 46% and rail transport by 38%. The fact that foreign nationals can now enter Moldova only for work purposes, has affected the owners of accommodation structures the most. In 2020, the turnover of hotels and pensions decreased by 76%.

**Pandemic and poverty.** Although, in absolute terms, the losses of multinational companies are in the order of billions, and their recovery requires significant investment, they are optimistic about the future - especially thanks to the assistance packages provided for the business environment.

In the Republic of Moldova, on the other hand, the volume of assistance for the business community is the lowest in the region. If neighboring countries have allocated about 5% of GDP to save the economy, the Chisinau government has provided only 1% of GDP. Moreover, out of the 320 million lei planned for subsidies for salaries or technical unemployment, only 19% were capitalized (Prohniţchi, 2021).

Official statistics show that the HoReCa sector needs the most support. At the end of last year, the number of employees in hotels and bars was a quarter (24.5%) lower than at the end of 2019. In general, however, the number of employees in private and state decreased by only 1.8%. Moreover, the average salary in the economy increased, last year by 10.8% (average gross salary - 8107 lei) in the real sector and only by 2% in the case of public employees.

The good part for the employed population is that, despite the crisis of the last year, wages have risen more than prices. According to the NBS, in 2020, the cost of living has remained virtually unchanged, if we ignore the insignificant inflation of 0.39%.

A possible lockdown, depending on the form and period, can also significantly influence the evolution of the economy. On the other hand, with the strong anticipated return from agriculture after the drought, but also starting from the low base of comparison last year, the premises could appear to keep the economy on a positive side, even if it will be in real terms. below the level of 2019. According to forecasts, GDP will reach the level of COVID-19 in 2022 (Lupuşor, 2021).

Medium term forecasts and developments. The uncertainties surrounding the evolution of the pandemic and political developments will keep the economy below its potential. GDP is expected to return to 3.8 percent in 2021, assuming more favorable conditions, including due to the vaccination campaign. We expect the economy to gain momentum, supported by the recovery in disposable income, in part due to remittances, the positive fiscal momentum (rising wages and transfers), and monetary policy. Reduced global demand, combined with the recent drought, is expected to constrain exports. Robust imports, supported by a return to domestic demand, will slow down economic growth. It is expected that most sectors will recover, with agriculture leading this recovery after a bad year in 2020.

After a severe contraction, unprecedented after the global recession of 2009, Moldova will register a modest recovery. Economic growth is expected to continue in 2022 to 2021, with a slowdown in potential in 2023. All sectors will recover as consumer and investor confidence grow against more favorable external conditions and monetary policy and fiscal expansionists. The current account deficit is expected to deteriorate in 2021 as food exports decline. In the future, the current account will expand as the economy accelerates. Inflation is expected to remain below the NBM target corridor of 5 percent +/- 1.5 percent in 2021-22, with a resumption of growth as the recovery consolidates. In 2020, the poverty rate, measured at the level of 5.50 USD/day, is estimated to increase

by 3.6 percent to 14.2 percent. Based on the assumption of economic recovery in Moldova and its main countries of destination of emigrants, we estimate a decrease in the poverty rate to 12.3 percent in 2021 2021 (Madan, 2021).

In the medium term, were anticipate that fiscal deficits remain above historical levels. The fiscal measures introduced to reduce the impact of the pandemic are estimated to keep the fiscal deficit around 4 percent of GDP in 2021, higher than historical averages. But, less than planned by the state budget law, partly due to lower external funding and reduced absorption capacity. In the future, we believe that the fiscal position will be problematic, as businesses are in a difficult situation and households suffer from unfavorablelabor market conditions. As a result, public debt is expected to grow steadily, while remaining relatively low by international standards.

The outlook is marked by substantial negative risks, and the fragile recovery also depends on the success of the vaccination campaign. Internal risks are related to political instability, institutional weakness and political constraints in implementing judicial and structural reforms. Fragile economic conditions and low levels of productivity are exacerbated by the state's extensive footprint in the economy, shrinking fiscal space, low financial intermediation and governance challenges. The advancement of long-term structural reforms, against the background of economic recovery measures and political turmoil, is of paramount importance. The ability to reduce the impact of the crisis and support the economic recovery will depend essentially on external financing, in particular on the successful negotiation of a new IMF program. Also, in the future, Moldova will have to manage inequality of opportunity and accelerate job creation in the private sector. Finally, as the severe drought of 2020 has shown, the economy is very vulnerable to climate change.

#### CONCLUSIONS

Regardless of the severity of the economic turmoil, the biggest loss comes on the part of human capital. Although it is difficult to estimate the value of specialists who died due to infection with the Covid-19 virus, it is clear that the economy will need a long time to recover from the disability, which was still high due to emigration. The research of the National Bureau of Statistics (NBS) on "The influence of the COVID-19 pandemic on the household" in 2020 reveals that only a little over half of households had income from work, about 1/4 had income from remittances, and over 90% they received salaries, pensions, social benefits. At the same time, 17.0% mentioned the reduction or loss of income from work, 8.3% reported the reduction or loss of remittances from abroad and only 3.6% reported the withholding of salaries, pensions, social benefits.

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