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## **CHALLENGES AND INCENTIVES FOR THE GROWTH OF THE COMPETITIVENESS OF THE MOLDOVAN ECONOMY**

The level of a nation's competitiveness reflects the state of the country's economy and the prospects for development, and the ability to take measures to overcome crises with minimal losses. The current situation in the global economy is characterized by an increase in international competition and a sharp struggle for sales markets, which is taking place against the backdrop of the effects of the economic downturn caused by COVID-19 lockdowns and the inflationary process caused by the energy crisis.

The analysis of the dynamics of the Gross Domestic Product (GDP) of the Republic of Moldova showed that the GDP registered significant disturbances in the year of the COVID-19 pandemic quarterly. Moldova experienced a high rate of the economic decline of 15,3% in the second quarter of 2020 and 11,2% in the third quarter of 2020 compared to the respective period of the previous year (Table 1).

*Table 1.*

**Quarterly GDP evolution (% compared to the same quarter  
of the previous year)**

<b>Year</b>	<b>Quarter I</b>	<b>Quarter II</b>	<b>Quarter III</b>	<b>Quarter IV</b>
<b>2017</b>	102,6	102,6	105,7	107,0
<b>2018</b>	103,8	105,3	103,3	103,8
<b>2019</b>	104,4	105,8	104,3	100,2
<b>2020</b>	99,8	84,7	88,8	95,2
<b>2021</b>	108,4	116,5	111,6	118,9

*Source: Data provided by the National Bureau of Statistics of the Republic of Moldova, published on the websites <https://statistica.gov.md/pageview.php?l=en&idc=407> [5].*

In the first two quarters of 2021, there was an active restoration in the Moldovan economy. In the same period, there was an increase in investment in fixed assets (Table 2). In the next two quarters, investment falls, as risks have increased due to the energy crisis and the aggravation of the geopolitical instability.

**Table 2.**

**Quarterly investment in fixed assets evolution  
(% compared to the same quarter of the previous year)**

Year	Quarter I	Quarter II	Quarter III	Quarter IV
2017	98,8	104,7	102,6	99,9
2018	102,9	110,1	121,0	110,7
2019	125,1	127,8	103,2	102,6
2020	98,5	77,7	110,0	99,6
2021	114,8	146,5	98,0	90,1

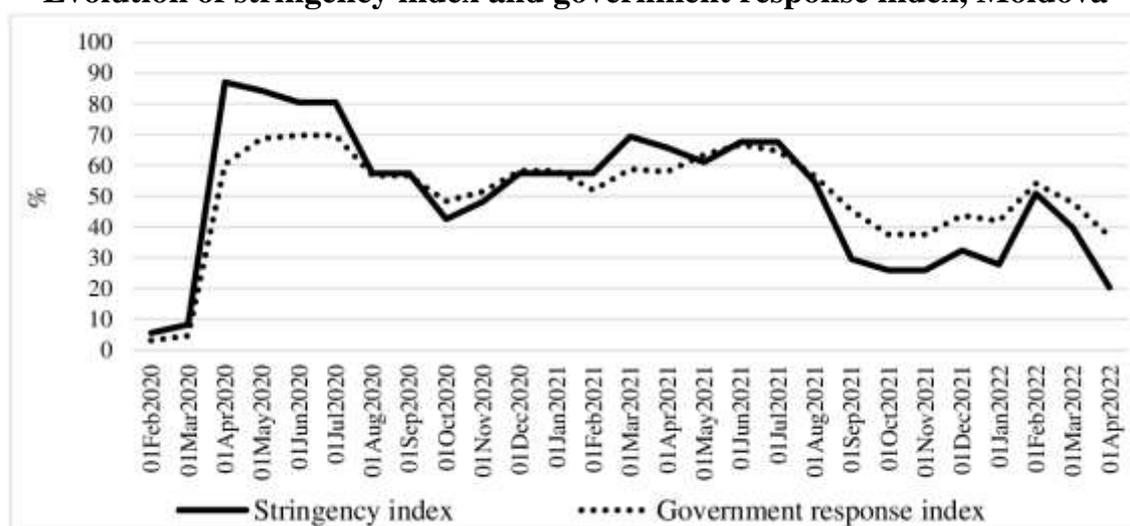
Source: Data provided by the National Bureau of Statistics of the Republic of Moldova, published on the websites <https://statistica.gov.md/pageview.php?l=en&idc=407> [5].

Investments in machinery and equipment increased by 19,1% in 2021 compared to 2020. Certainly, it contributed to GDP growth. Meanwhile, the manufacturing industry hurt the change in GDP, which contributed to reducing the Gross Value Added by - 2,2% and decreasing the GDP by -0,2% in the fourth quarter of 2021. However, agriculture, transport, construction, information, and other activities contribution to GDP growth by 7,4%, 2,1%, 2,1%, 1,0%, and 5,0% respectively.

Gross industrial output was up 12,1% in 2021 compared to the previous year. This growth covered a 5,5% decrease in this indicator in 2020 compared to 2019. The increase in industrial production is due to the rise in the production and supply of electricity and heat, gas, hot water, and air conditioning by 16,1%, the mining industry by 11,9%, and the manufacturing industry by 11,4%. A factor contributing to the growth of GDP in the third and fourth quarters of 2021 and industrial production in September-December 2021 is the partial lifting of pandemic-related restrictions. The stringency index decreased by 25.00 percentage points during August 2021 (to 1 September), and the government response index by 11.19 percentage points (Figure 1).

**Figure 1.**

**Evolution of stringency index and government response index, Moldova**



Source: Authors processing based on data of Oxford COVID-19 Government Response Tracker [5].

Consumers have again flocked to stores after the easing of restrictions associated with the pandemic. Household consumption increased by 3,0% in the third quarter, by 4,3% in the fourth quarter of 2021 compared to the previous quarter. Such a surge in spending was the result of the realization of pent-up demand that had accumulated during the period of COVID-19 restrictions and the purchase of products for future use against the backdrop of rising prices. The main two directions of expenses of the population of Moldova are food, non-alcoholic beverage, and housing, water, electricity and gas. Their monthly average consumption expenditures per person is approximately 57,2% in 2021 (Table 3).

**Table 3.**

**Consumption expenditures of the population by destination  
(percentage of total)**

<b>Expenditure by destination</b>	<b>Quarter I</b>	<b>Quarter II</b>	<b>Quarter III</b>	<b>Quarter IV</b>
Food and non-alcoholic beverage	43.2	43.0	41.7	40.1
Alcohol and tobacco	1.9	1.8	2.4	2.0
Clothing and footwear	8.9	9.0	9.0	9.4
Housing, water, electricity and gas	15.3	15.5	15.1	14.8
Transportation	5.5	7.1	6.3	7.0
Recreation and culture	2.2	1.5	2.4	2.2
Restaurants and hotels	2.0	2.0	2.4	2.1
Other products and services	21.0	20.1	20.7	22.4

*Source: Data provided by the National Bureau of Statistics of the Republic of Moldova, published on the websites <https://statistica.gov.md/pageview.php?l=en&idc=407> [5].*

A competitive state can ensure a decent living for the population. The population that spends a large part of its income on food and communal services has poor welfare. Therefore, the competitiveness of the Moldovan economy is comparatively low. Other arguments can be put forward in support of this claim. The share of the food basket in the amount of the subsistence minimum increased by 0.9 percentage points in 2021 compared to 2019 (the pre-pandemic year) (Table 4).

**Table 4.**

**The share of the food basket in the minimum amount of existence, %**

	<b>Largest cities</b>	<b>Small towns</b>	<b>Villages</b>	<b>Total</b>
Semester I 2019	42.6	47.4	51.3	48.4
Semester II 2019	40.8	47.1	49.6	46.9
Semester I 2020	43.6	48.0	51.5	48.9
Semester II 2020	41.3	47.1	49.1	46.6
Semester I 2021	43.5	48.0	52.2	49.4
Semester II 2021	43.3	47.0	49.8	47.7

*Source: Data provided by the National Bureau of Statistics of the Republic of Moldova, published on the websites <https://statistica.gov.md/pageview.php?l=en&idc=407> [5].*

Although the rural population has a subsidiary farm, the share of the food basket in the minimum amount of subsistence is higher than that of the urban population. It is distinct obvious, that the disposable income of the rural population is much lower, and the standard of living is also poor. Under the influence of the global energy crisis, the price of natural gas for the population increased by 1.9 times in the second term semester of 2021. Subsequently, prices of other goods and services raised too [2, p. 49]. The Consumer Price Index for food products was 117,46% in 2021 (Table 5). Food prices were growing monthly by about 3,3% from September 2021 to the end of the year. It naturally affected the standard of living of the population [4].

**Table 5.**

**Consumer Price Index (December previous year = 100%)**

	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Total	107,31	100,88	107,54	100,39	113,94
Food stuffs	109,71	102,15	112,37	101,66	117,46
Non-food goods	104,07	101,72	105,16	99,51	112,06
Services	107,95	97,68	103,51	99,70	111,59

*Source: Data provided by the National Bureau of Statistics of the Republic of Moldova, published on the websites <https://statistica.gov.md/pageview.php?l=en&idc=407> [5].*

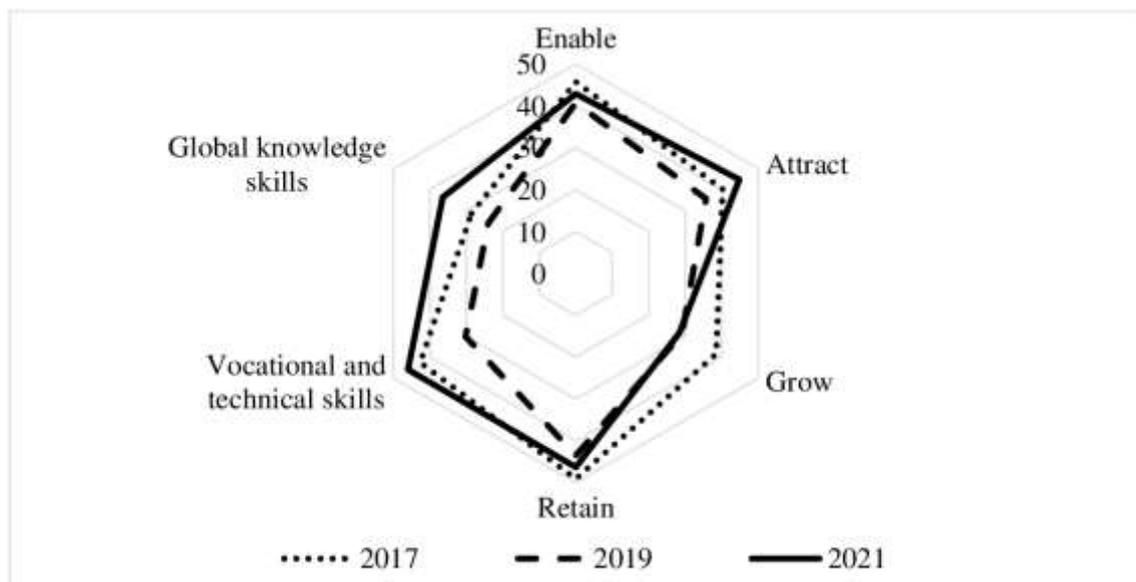
Investments in intangible assets decreased by 38,6% in 2020 compared to 2019, including investments in research and development decreased by 54,3% and in software programs by 45,9%. In this way, the competitiveness of the Moldovan economy is declining. According to the Global Competitiveness Report 2020 “the COVID-19 crisis catching up more difficult for countries that were lagging in digitalization before the crisis” [1, p. 5].

As well as investment, the quality of labor resources is a factor on which the competitiveness and stability of economic growth depend. We use “the Global Talent Competitiveness Index (GTCI) to analyze entrepreneurial talent in the era of digitalization of the economy” [1].

The Republic of Moldova, with a score of 40.79, ranked 83rd on the GTCI index in 2021, falling by eight positions compared to 2017. Pillar Grow registered the lowest level of all pillars in 2021 and declined in 2017-2021 (Figure 2). Moldova's strong point is the retain, vocational and technical skills pillars.

The Global Talent Competitiveness Index change is caused by many factors. Among the factors that have a positive impact are women in high-skilled jobs (4th rank), skills matching (17th rank), population with tertiary education (26th rank), population with secondary education (31st rank), senior officials and managers (31st rank), the prevalence of training in firms (38th rank), etc. Factors that have a negative impact are cluster development (131st rank), ease of finding skilled employees (131st rank), brain retention (128th rank), brain capacity (127th rank), availability of scientists and engineers (124th rank), etc.

It should be noted that the preferred factor in increasing competitiveness is the quality and education of the workforce rather than the employment rate. Moldova's economy must attract substantial kapital from foreign sources, for which it is necessary to create a competitive investment climate.



Source: Authors processing based on data of *The Global Talent Competitiveness Index* [8].

**Figure 2. Global Talent Competitiveness Index, Republic of Moldova, Profile by Pillar**

In the period of the economic recession in the first year of the COVID-19 pandemic, the drought in 2020, and the global energy crisis in 2021, have emerged that the competitiveness of the Moldovan economy is very low. This study showed that many industrial enterprises lost the influx of innovation and scientific support. In addition, some of the capacities there are morally and physically worn-out machines and equipment, which does not allow the development and implementation of advanced scientific and technological achievements. Funding for Moldovan science is decreasing from year to year.

The evaluation of the share of expenditures made for research and development in Gross Domestic Product showed that in Moldova, this indicator was 0,54% of GDP in 2008, 0,25% in 2018, 0,24%, and 0,23% respectively in 2019, and 2020. For comparison, in the case of Ukraine, this index in 2020 was 0,18 percentage points higher, reaching the level of 0,41% of GDP, and in Romania was 0,47% [3]

The share of research and development expenditures in the GDP of the Republic of Moldova registered a significant decrease after the political crisis of 2009. The signing of the Association Agreement with the European Union did not improve the situation in this segment. The main causes are the followings. Moldovan goods do not meet European standards, and considerable need for financial resources which Moldova does not have.

The Republic of Moldova occupies a relatively low position in terms of labor productivity. Although, there has been a relatively high increase in labor productivity compared to some European countries (Latvia, Lithuania, Romania, Ukraine, Serbia, Georgia) over the past eight years. High productivity growth was registered in the

manufacturing and services sector, while moderate growth was in agriculture [6, p. 14].

The analysis carried out proves that to grow the competitiveness of the Moldovan economy, it is necessary to increase investment in new technologies, science, and research. As a result, contribution to emerging technologies and the availability of scientists and engineers will increase. The Government of the Republic of Moldova should develop and promote strategies and programs that would prevent brain drain, promote urbanization and social mobility, and improve the social protection system.

As we noted above, building a digital economy can ensure long-term competitiveness. Innovations and the introduction of advanced technologies are the main factors that can insure increasing the competitiveness of the Moldovan economy.

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