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## FACTORS DETERMINING THE INEQUITY OF REGIONAL DEVELOPMENT IN THE REPUBLIC OF MOLDOVA

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**Abstract:** *Structural reforms, modifications in economic and social infrastructure following the promotion of market mechanisms, demographic factors (population' decline, structural modification and ageing, migration) have affected the development of the regions in different modes. Some regions have managed to rebuild successfully and their economic growth is noticeable, others are still in a state of economic stagnation. All this has contributed to regional inequality, the attenuation of which requires the solution of socio-economic problems and channelling additional financial sources. Taking into account that employment is an important factor in ensuring stable socio-economic development, the analysis of the possibilities of the population to be employed and the risk of unemployment, income levels, identifying the factors that contribute to labour migration was carried out. Based on the results of the research, several proposals have been elaborated to perfect socio-economic and employment policies, including ensuring equal development of regions, increasing the employment level of working age population, including also of migrants returning to the country, improving the system of labour remuneration, which will contribute to attenuation regional differentiation and convergence in the future.*

*The article was elaborated within the framework the project of the State Program (2020-2023) 20.80009.0807.21 Migration, Demographic Changes and Policies of Stabilization the Situation.*

**Keywords:** *labour migration, employment, working age population, economically inactive population, region, wage.*

**JEL Classification:** E24, J48, R58.

### 1. Introduction

The labour market, being an important and integral part of the national economy, has an impact on economic and social development both at the regional level and at the level of the country as a whole, affecting the rate of economic growth due to professionally qualified labour force, which is one of the factors of production with capital. The competitiveness of the labour market depends on the situation in these regional markets and their stability. At the same time, a characteristic feature of regional labour markets is their interregional inequality (differentiation), which is determined by analysing the levels of participation in economic activity, employment and unemployment of working age population, which are not only economic indicators but also social indicators, necessary for the development and implementation of an effective regional employment policy. Regional differences in employment depend on the state and development of the economy's infrastructure, demographic, socio-cultural and other factors, as well as indicating irrational use or lack of labour resources. Imbalances in regional labour markets, low wages, lack of decent jobs and the impact of endogenous and exogenous shocks are provoking migration processes, i.e. there is a regionalisation of migration processes. In the modern world, increasing labour migration processes are becoming a living manifestation of economic globalisation. In general, the world is a global migration system consisting of regional migration systems.

### 2. Purpose of the research and methods applied

The main purpose is to analyse the mobility processes of labour force, the determining factors which contribute to labour migration at the most active and productive part of the economically active population, and elaboration the proposals to attenuate their impact on

equitable regional development. The achievement of the purpose has been ensured through realization the following objectives:

Comparative analysis of economic and social factors and their impact on the mobility of the economically active population in regional and national aspects.

Research of interrelationships between the socio-economic status, the acceleration of labour migration flows, the imbalance of local labour markets as some of the important causes of the process of regional polarisation and regional continuing inequality.

Elaboration of recommendations and measures for equitable socio-economic development of regions and formation of competitive labour market in the Republic of Moldova.

The complex and systemic approach was used, as well as scientific methods, including comparative, quantitative and qualitative analysis, graphics, etc. to achieve the objectives set in given research. In the analysis was carried out on the basis of official statistical data of the National Bureau of Statistics of the Republic of Moldova (NBS of the RM), the National Employment Agency (NEA), and some indicators necessary for the research were calculated by the authors. In estimating the indicators, the number of the population with usual residence was used, defined as the place where the person lived predominantly in the last 12 months indifferent of temporary absences (for the purpose of recreation, vacation, visits to relatives and friends, business, medical treatment, religious pilgrimages, etc.).

### **3. Hypotheses on the relationship between migration and interregional socio-economic development**

Labour migration processes affect the situation in regional labour markets, including labour supply, real wage change (Kim, 2007; Lücke and Saha, 2019, pp. 23-26). Consolidation the international processes of labour force, change of its qualitative characteristics (Hnatkivskyy, 2015; Chepel and Bondarenko, 2015; Krivenko, 2010) is a consequence of globalization of the world economy. Thus, research Krivenko P.A. (2010) with the introduction of migration into the Lucas model made it possible to conclude that the convergence between countries in terms of GDP per capita takes place at the expense of the spread of technology (exchange of ideas) and that migration makes the greatest contribution in growing developing countries and the lowest in poor developing countries. On the other hand, testing of the hypothesis on the impact the international migration of population's labour force on interregional convergence processes found both confirmation and deviation due to its insignificance (Vakulenko, 2013).

As a global phenomenon and as a consequence of the economic, social and political transformations taking place in contemporary society, the Republic of Moldova is not an exclusion in labour migration mobility. The process of globalization, the variety of trade and industrial relations of the republic with other countries, the development of communications and international transport had a significant impact on international migration of labour force, became the reason for the increase of domestic migration flows of labour force, being a means of salvation from poverty, unemployment, socio-economic and political tensions in the whole country and its regions. The specificity of migration processes in the Republic of Moldova is explained both to changes in socio-economic and political processes, the disintegration of the USSR, the democratization of society, the development of market relations, the emergence of an opportunity to obtain citizenship of EU countries or other developed countries, the abolition of the visa regime for citizens of the Republic of Moldova, etc. According to some estimates about a quarter of the population is abroad temporarily, for a long period with the aim of returning to the country or remaining in the host country on a permanent basis (Vremiş and Vladicescu, 2020). According to the NBS data on the

assessment of the impact of migration on the country's population (NBS, 2019a) about 160 thousand persons left the country vis-à-vis 110 thousand persons who returned home or 50 thousand persons represent the negative balance following migration flows (available data are only for 2017).

All above-mentioned processes are principally the objective result and continue to influence the demographic situation, economic development, family relations, education, culture and other spheres of public life in the country as a whole and in its regions. From this point of view, migration processes are usually perceived negatively, as a phenomenon that must be combated in order to eradicate it.

However, as the analysis shows, in the Republic of Moldova, almost all reforms are progressing slowly and with difficulty, as well as a higher standard of living, income and welfare, existing infrastructure, governance, justice and so on in the EU countries are currently attractive to migration of labour force and with the right realistic and practical approach to managing these processes can be beneficially at both local and national level. This approach is made possible by the migrants' desire to return home, the positive experience they have accumulated abroad, as well as the investment of their accumulated savings in business, improved property and health, the education of family members and the desire to contribute to development and prosperity in their native places.

The state is obliged to ensure the stable and equilibrated development of the country's regions and a decent standard of living for the population. The necessity to solve given problem is especially relevant at the present when evaluation the uniformity of development of regions, determining the factors of inequality, the specific characteristics of their development in order to reduce differentiation between respective localities. The relationship between migration and interregional socio-economic change is becoming increasingly complex, as well as and migration processes are one of the principal factors of social transformation and development both in the country and in regions, its localities.

In the context of the above-mentioned for the analysis of the situation in the Republic of Moldova will be used statistical data available NBS, including on some characteristics of labor migration processes, regional GDP, income/wage, activity and employment level, unemployment.

#### **4. Analysis of the socio-economic development of the regions**

In 2020 Gross Domestic Product (GDP) was down 7.0% compared to the previous year on a gross basis, with the negative contribution of 6.0% from Gross Value Added (GVA), which was down 6.9% compared to 2019. Practically all activities (excluding construction and financial activities and insurance) contributed to the decrease in GDP, which was mentioned above, firstly, agriculture, forestry and fisheries, with -2.7%, having 9.5% share in GDP formation and 26.4% decrease in GVA; secondly, wholesale and retail trade, maintenance and repair of motor vehicles and motorcycles; transport and storage contributed to the -2.1% decrease in GDP; accommodation and public catering activities, the share in GDP formation was 20.7% and GVA in these activities decreased by 9.6% respectively; in the thirdly, the -0.6% decrease in GDP came from extractive industry; processing industry; production and supply of electricity and heat, gas, hot water and air conditioning; water distribution; sanitation, waste management and decontamination activities, whose share in GDP formation was 14.0% and GVA in these activities decreased by 4.3% respectively. At the same time, net taxes on products (the share in GDP formation is 13.0%) also contributed to the -1.0% decrease in GDP, the volume of which decreased by 7.3% (NBS, 2021a). Some characteristics of GDP formation in the territorial aspect, based on NBS data available at the moment, are reflected in table no. 1.



**Table no. 1. Characteristic of GDP in territorial aspect, %**

	2014	2015	2016	2017	2018
<b>Share of regions, municipality in GDP, % of total</b>					
<b>Republic of Moldova</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Mun. Chişinău	56.1	57.0	57.6	58.2	59.4
North	17.6	17.2	17.0	16.8	16.6
Centre	15.3	15.3	15.2	15.0	14.7
South	8.4	7.9	7.7	7.6	7.1
ATU Găgăuzia	2.6	2.6	2.5	2.4	2.2
<b>Share of GVA, % of GDP</b>					
<b>Republic of Moldova</b>	<b>86.9</b>	<b>87.2</b>	<b>87.6</b>	<b>86.5</b>	<b>86.5</b>
Mun. Chişinău	87.1	87.5	87.6	86.4	86.5
North	86.6	86.6	87.6	86.8	86.6
Centre	86.4	86.8	87.7	86.7	86.5
South	86.7	87.0	87.5	86.9	86.5
ATU Găgăuzia	86.5	87.4	87.2	85.8	85.4
<b>Share of Net taxes on products in GDP, %</b>					
<b>Republic of Moldova</b>	<b>13.1</b>	<b>12.8</b>	<b>12.4</b>	<b>13.5</b>	<b>13.5</b>
Mun. Chişinău	12.9	12.5	12.4	13.6	13.5
North	13.4	13.4	12.4	13.2	13.4
Centre	13.6	13.2	12.3	13.3	13.5
South	13.3	13.0	12.5	13.1	13.5
ATU Găgăuzia	13.5	12.6	12.8	14.2	14.6
<b>Total Physical Volume Indices, %</b>					
<b>Republic of Moldova</b>	<b>105.0</b>	<b>99.7</b>	<b>104.4</b>	<b>104.7</b>	<b>104.3</b>
Mun. Chişinău	106.1	102.3	103.1	105.5	105.3
North	104.8	96.3	106.0	104.0	104.0
Centre	104.6	99.1	106.9	103.7	103.5
South	100.4	91.9	105.5	102.6	100.3
ATU Găgăuzia	101.3	93.4	103.6	102.7	100.2

Source: NBS, <https://statistica.gov.md/category.php?l=ro&idc=191>

The analysis of the national GDP shows that the principal part of its formation, or 59.4%, belongs to Chisinau municipality. Moreover, in the period 2014-2018 there was the clear tendency of decreasing share of regions in the formation of national GDP. Practically, during the analyzed period *the physical volume indices* of GDP were increasing, excluding 2015 because of (due to) the consequences of the banking crisis of 2014-2015 and the negative impact on economic development in 2015 of the recession and Russia's trade restrictions on agricultural exports, the crisis in Ukraine, the growing demand for domestic products from EU countries, drought, problems in the banking system, etc. In continuation, there were some signs of recovery of the national economy against the background of its vulnerability taking into account the influence of exogenous and endogenous factors (mutual sanctions between the Russian Federation and the EU, the recession in Russia and its restrictions on the import of agricultural products from Moldova, Ukraine's crisis, problems in the banking sector, a decrease in the volume of remittances from abroad, etc., which led to a decrease in industrial activities and investments. At the same time, favourable climatic conditions have contributed to the increase in the volume of production in the agricultural sector and the certain revival of trade activity. Against the backdrop of signs of economic recovery, including an increase in production in industry and agriculture, investment in fixed assets, foreign trade, real wages and remittances of migrant labour force from abroad have increased, including household incomes. In 2018, GDP grew by 4.3% year-on-year, including due to a good harvest that had a positive effect on economic activity, and, as a result, an increase in agricultural exports, an increase in investment, as well as the increase in

household consumption by 3.8% over the previous year. The evolution of the principal macroeconomic indicators for the Republic of Moldova is presented in table no. 2.

**Table no. 2. Dynamics of the principal macroeconomic indicators in the Republic of Moldova**

	2014	2015	2016	2017	2018	2019	2020
<b>GDP, curent prices, mln lei</b>	133 482	145 754	160815	178881	192509	210378	206352
Physical Volume Index of <b>GDP</b> , previous year = 100.0%	105.0	99.7	104.4	104.7	104.3	103.7	93.0
Physical Volume Index of <b>GVA</b> total, previous year = 100.0 %	105.4	99.6	105.0	104.2	104.4	103.9	93.1
Industrial production volume index, % to previous year	107.3	100.6	100.9	103.4	103.7	102.0	94.5
<b>Share of value of manufactured production,%</b>							
<b>RM</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Mun. Chişinău	56.5	57.2	55.3	54.3	54.1	50.7	51.7
North	20.5	19.6	21.4	21.6	20.9	22.0	21.9
Centre	16.3	16.3	16.3	16.8	17.2	19.6	18.7
South	3.8	3.8	3.7	3.7	4.3	4.4	4.3
ATU Găgăuzia	2.9	3.1	3.3	3.6	3.5	3.3	3.4
<b>Share of production delivered on the external market, % of total deliveries</b>							
<b>Total by RM</b>	<b>31.4</b>	<b>31.3</b>	<b>33.8</b>	<b>34.6</b>	<b>35.3</b>	<b>35.9</b>	<b>35.1</b>
Mun. Chişinău	24.2	24.7	25.7	28.1	28.7	26.5	26.0
North	35.7	34.4	42.2	41.4	41.2	42.5	40.9
Centre	43.4	40.5	41.0	40.6	41.7	47.1	46.4
South	48.9	48.9	48.5	44.8	49.7	46.0	44.1
ATU Găgăuzia	58.3	63.1	62.8	58.3	55.7	55.9	53.6
Agricultural production volume index. % to the previous year	108.6	86.6	118.8	109.1	102.9	98.1	72.9
Investments in fixed assets from all sources of financing. % to the previous year*	103.8	90.6	87.2	103.5	112.9	109.4	96.9
The average monthly wage of a economy worker. % to the previous year	110.8	110.5	110.3	112.1	113.2	114.1	110.2
Real Wage Index. compared to the previous year = 100.0 %	105.4	100.7	103.4	105.2	109.9	108.9	106.2
Annual average Consumer Price Index. %	105.10	109.70	106.40	106.60	103.05	104.84	103.77
Average annual Exchange Rate. lei/US dollars	14.0388	18.8161	19.9238	18.4902	16.8031	17.5751	17.3265
Average annual Exchange Rate. lei/Euro	18.6321	20.8980	22.0548	20.8282	19.8442	19.6741	19.5813

\*Until 2016, data are presented on the indicator "Investment in long-term tangible assets".

Source: NBS, <https://statistica.gov.md/category.php?l=ro&idc=191#idc=558&>,

National accounts, 2020 edition,  
<https://statistica.gov.md/pageview.php?l=ro&idc=263&id=2334>

The key centre of the country is mun. Chişinău, where 60.5% of the number of economic entities is concentrated and 50.7% of the volume of production and 67.1% of long-term investments - tangible fixed assets, including 80.1% in housing construction, as well as 48.4% of the number of employees, whose average monthly wage exceed the national average by 120.1% (NBS 2019b). In the mentioned conditions the socio-economic development of regions and labour markets will be dependent on the existing socio-economic

infrastructure and local labour markets, demographic factors (population's decline, demographic ageing), increased mobility of labour force, both exogenous and endogenous factors in connection with structural economic reforms, application of private ownership, etc. As a result of the mentioned consequences the unequal development of regions takes place. Thus, according to the information available for 2018, it was observed that the share of development regions in the formation of GDP was non-uniform.

**Table no. 3. Share of development regions in GDP and GVA formation in 2018, %.**

	Share of value added of economic activities in RGDP, %*				Contribution of regions of development to GDP formation	Contribution to GVA formation, % *			
	agriculture, forestry and fisheries	industry	services	construction		agriculture, forestry and fisheries	industry	services	construction
Mun. Chişinău	0.3	13.3	62.9	10.0	59.4	1.0	54.0	70.0	75.0
North	22.0	18.6	42.0	4.0	16.6	35.0	21.0	13.0	8.0
Centre	23.5	19.6	39.2	4.1	14.7	34.0	20.0	11.0	8.0
South	33.0	7.8	36.8	8.8	7.1	23.0	4.0	5.0	8.0
ATU Găgăuzia	29.6	15.0	38.3	2.5	2.2	7.0	2.0	2.0	1.0

\* agriculture, forestry and fisheries, section A of CAEM-2;

industry, sections B-E of CAEM-2; services, G-T sections of CAEM-2; construction, section F of CAEM-2

Source: National accounts, 2020 edition,

<https://statistica.gov.md/pageview.php?l=ro&idc=263&id=2334>

Thus, in the context of promoting structural reforms, changes in socio-economic infrastructure, other factors of internal and external nature (crisis or stagnation of economy, drought, pandemic state, income levels, etc.) all have an impact on the level of economic activity of population. From the data in table nr. 3 it is observed that the major share of all types of economic activities belongs to the mun. Chisinau, while the regions of the South, UTA Găgăuzia and the North were sensitive to any economic, social or natural event, which also influenced the labour market and its employment rate, as well as the wage gap between regions of development, poverty and the risk of being unemployed as a result of economic and social instability.

**Table no. 4. Evolution of average monthly wages and poverty rates on the Republic of Moldova and regions of development**

	2014	2015	2016	2017	2018	2019	2020
<b>Total average monthly wages, RM, lei</b>	<b>4089.7</b>	<b>4 538.4</b>	<b>4997.8</b>	<b>5 587.4</b>	<b>6268.0</b>	<b>7233.7</b>	<b>7943.0</b>
Mun. Chişinău	4 827.0	5 375.3	5 951.5	6 716.4	7 490.0	8686.4	9561.3
North	3 522.1	3 871.0	4 211.9	4 665.2	5 259.5	5916.1	6501.2
Centre	3 334.7	3 719.5	4 061.8	4 522.3	5 084.0	5910.6	6429.9
South	3 183.5	3 527.3	3 881.6	4 257.0	4 814.7	5572.2	6151.3
ATU Găgăuzia	3 229.9	3 553.2	3 867.1	4 268.2	4 799.5	5554.9	6150.7
<b>Ratio of average monthly wages, compared to total on the RM. %</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Mun. Chişinău	118.0	118.4	119.1	120.2	119.5	120.1	120.4
North	86.1	85.3	84.3	83.5	83.9	81.8	81.8
Centre	81.5	82.0	81.3	80.9	81.1	81.7	80.9
South	77.8	77.7	77.7	76.2	76.8	77.0	77.4

ATU Găgăuzia	79.0	78.3	77.4	76.4	76.6	76.8	77.4
<b>Average monthly disposable income per capita, lei*</b>	<b>1735.2</b>	<b>1951.8</b>	<b>2051.8</b>	<b>2208.5</b>	<b>2357.1</b>	<b>2880.6</b>	<b>3096.6</b>
Mun. Chişinău	2263.5	2582.8	2842.1	3049.4	3264.2	4184.5	4355.0
North	1656.1	1823.3	1830.7	1999.5	2131.3	2507.9	2729.7
Centre	1530.1	1733.9	1785.8	1901.9	2082.7	2530.4	2811.2
South	1512.8	1691.7	1802.2	1943.6	1985.6	2356.4	2524.5
<b>Subsistence level of working age population, lei</b>	<b>1726.8</b>	<b>1842.2</b>	<b>1914.7</b>	<b>1984.5</b>	<b>2016.1</b>	<b>2194.0</b>	<b>2247.6</b>
<b>Threshold of absolute poverty, lei</b>	<b>1558.6</b>	<b>1709.8</b>	<b>1819.2</b>	<b>1939.3</b>	<b>1998.4</b>	<b>2095.1</b>	<b>...</b>
<b>Absolute poverty rate, %</b>	<b>29.5</b>	<b>25.4</b>	<b>26.4</b>	<b>27.7</b>	<b>23</b>	<b>25.2</b>	<b>26.8</b>
Mun. Chişinău	10.7	6.9	6.5	7.5	4.7	4.4	7.6
North	31.9	26.5	30.5	31.1	28.4	27.7	28.1
Centre	38.5	35.6	35.7	36.6	28.7	29.8	30.6
South	35.1	30.9	30.8	33.8	28.8	40.4	42.9
<b>Threshold of extreme poverty, lei</b>	<b>1257</b>	<b>1378.9</b>	<b>1467.2</b>	<b>1564</b>	<b>1611.7</b>	<b>1689.7</b>	<b>...</b>
<b>Extreme poverty rate, %</b>	<b>12.8</b>	<b>10.5</b>	<b>10.4</b>	<b>11</b>	<b>8.7</b>	<b>10.7</b>	<b>10.8</b>
Mun. Chişinău	4.8	1.3	2.0	1.4	1.1	1.4	2.9
North	13.8	11.5	13.3	10.7	10.5	10.4	11.1
Centre	16.0	16.6	13.6	17.1	11.2	12.9	12.0
South	16.4	10.7	11.8	13.8	11.6	19.2	18.5

\* Based on the estimation of the indicators, the number of the population with usual residence was used. Usual residence is defined as the place where the person has lived predominantly in the last 12 months independently of temporary absences (for recreation, vacation, visits to relatives and friends, business, medical treatment, religious pilgrimages, etc.). Starting with 2019, the data are not comparable with the previous period, because the CBGC methodology has been modified.

Source: NBS, [www.statistica.md](http://www.statistica.md), <https://statistica.gov.md/category.php?l=ro&idc=445>

The comparative analysis of the level of wage and income obtained on average in the Republic of Moldova and the regions of the country shows the existence of the difference between them, and if in the North and Centre regions it was about 18 p.p., in the South region and ATU Găgăuzia, respectively, it is higher or about 23 p.p. In mun. Chişinău the wage income exceeds the average in the country by 1,2 times. In 2020, the average monthly wage of a worker in ATU Găgăuzia was 64.3% compared to mun. Chişinău, respectively, the mentioned wage difference was 64.3% in the South region, 67.2% in the Centre region and 68.0% in the North region. The difference also exists in the case of disposable income per person. As a result of given situation in the regions of the Republic of Moldova absolute poverty and extreme (food) poverty occurs, the income obtained per person in the South region until 2019 was less than the subsistence level value and the absolute poverty threshold and in 2019 exceeded these, respectively, by 9.4% and 12.5% (in the North and Center regions such situation was in 2014-2016, and it has continued to improve). At the same time, the absolute and extreme poverty rates remains quite high in the North, Centre and South regions. The existing state is explained by the level of economic development, what type of economic activity predominates in the region. Thus, for example, in ATU Găgăuzia (29.6%) and South (33.0%) the share of value added from agriculture, forestry and fisheries in RGDP or activities with the lowest level of wage prevails (according to NBS data, in 2019 the wage in given area amounted to 65.9% of the average wage in the country, NBS, 2021b), as well as the service sector (respectively, 38.3% and 36.8%), whereby the remuneration of employees' work depends on many factors, including forms of property, judicial status, demand for certain services, seasonal period, etc. (table no. 3). Gender wage disparities also contribute to the mobility of employees to search higher paying and attractive work places.

**Table no. 5. Gender pay gap in aspects of regions of development  
(the ratio wage of women to men, %)**

	2014	2015	2016	2017	2018	2019
<b>Total RM</b>	<b>12.4</b>	<b>13.2</b>	<b>14.5</b>	<b>13.5</b>	<b>14.4</b>	<b>14.1</b>
Mun. Chişinău	11.4	13.5	15.8	14.7	15.4	16.4
North	9.1	9.8	9.1	11.3	11.2	7.9
Centre	9.2	8.1	7.3	6.2	7.8	6.2
South	10.4	8.0	7.8	6.1	7.3	4.9
ATU Găgăuzia	6.8	7.0	6.2	3.7	5.2	0.2

Source: Authors' calculations and NBS data,  
<https://statistica.gov.md/pageview.php?l=ro&idc=350&id=4290>

The highest gender discrepancies occur in mun. Chişinău, as a key center of complex development of different types of activities, including activities with higher wage where men predominate over women (the share of employed men prevails in financial and insurance activities – 42.9%, information and communication – 35.7%, total industry – 20.9%, health and social assistance – 19.6%, processing industry – 17.8%, accommodation and public catering activities – 15.9%, construction – 15.6% and some others (NBS, 2021c).

Economic activities with high wages, such as information and communication, production and supply of electricity and heat, gas, hot water and air conditioning, financial and insurance activities, public administration and defence, obligatory social insurance and some others, are reflected by the NBS data in table no. 6, by economic activities at national level (2019 was used in comparison to 2018 with the aim of attenuation the impact of Covid-19 pandemic in 2020).

**Table no. 6. Distribution of employees according to the amount of wage calculated for  
September 2019, % compared to total for the Republic of Moldova for which the wage  
was calculated and received  
(employees who worked in full September and full day)**

	Sub 1500,00 lei	de la 1500,01 pînă la 2000,00 lei	de la 2000,01 pînă la 2500,00 lei	de la 2500,01 pînă la 3000,00 lei	de la 3000,01 pînă la 4000,00 lei	de la 4000,01 pînă la 7000,00 lei	de la 7000,01 pînă la 10000,00 lei	peste 10000,01 lei
<b>Total by economic activities, 2018</b>	<b>1.7</b>	<b>4.4</b>	<b>5.2</b>	<b>11.9</b>	<b>16.2</b>	<b>34.4</b>	<b>15.1</b>	<b>10.9</b>
<b>Total by economic activities, 2019</b>	<b>0.0</b>	<b>0.7</b>	<b>3.7</b>	<b>9.8</b>	<b>15.8</b>	<b>34.8</b>	<b>19.4</b>	<b>15.8</b>
A Agriculture, forestry and fisheries	0.2	0.8	3.9	16.1	21.9	39.7	11.1	6.2
B Extractive industry	-	-	1.4	9.2	20.4	40.4	15.7	13.0
C Processing industry	0.0	0.0	1.1	7.7	16.1	40.5	22.0	12.5
D Production and supply of electricity and heat, gas, hot water and air conditioning	-	-	0.1	0.2	1.3	15.9	34.5	48.1
E Water distribution; sanitation. waste management, decontamination activities	0.1	0.3	2.6	11.8	15.9	34.1	17.3	17.9
F Constructions	-	-	0.7	7.1	12.2	39.9	21.4	18.6
G Wholesale and retail trade; maintenance and repair of motor vehicles and	-	0.0	1.1	13.2	19.6	37.6	15.1	13.3

motorcycles								
H Transport and storage	0.0	-	0.5	8.8	23.2	34.8	15.3	17.3
I Accommodation and public catering activities	-	0.1	1.9	13.8	34.1	36.5	8.2	5.4
J Information and communications	-	-	0.4	2.7	2.9	18.6	21.5	53.9
K Financial and insurance activities	-	-	0.4	2.7	2.9	26.2	26.5	41.2
L Real estate transactions	-	0.6	6.0	14.0	23.0	38.2	10.5	7.7
M Professional, scientific and technical activities	0.2	0.4	2.4	7.6	13.7	32.1	20.4	23.2
N Administrative service activities and support service activities	-	0.2	0.8	21.9	21.9	33.2	11.4	10.5
O Public administration and defense; obligatory social insurance	-	1.2	4.2	4.4	4.6	34.6	27.3	23.7
P Education	-	2.5	10.2	11.5	14.0	28.1	23.6	10.2
Q Health and social assistance	-	0.3	4.8	8.3	18.1	38.4	18.1	12.2
R Art, recreation and leisure activities	-	3.1	9.9	12.2	22.9	39.9	9.1	2.9
S Other service activities	-	-	1.9	11.3	18.4	30.4	14.3	23.6

Source: NBS and authors' data aggregation,  
[http://statbank.statistica.md/pxweb/pxweb/ro/30%20Statistica%20sociala/30%20Statistica%20sociala\\_03%20FM\\_SAL025/?rxid=4eec3dd5-755a-4e4e-92de-3dc2d391f3a9](http://statbank.statistica.md/pxweb/pxweb/ro/30%20Statistica%20sociala/30%20Statistica%20sociala_03%20FM_SAL025/?rxid=4eec3dd5-755a-4e4e-92de-3dc2d391f3a9)

The analysis of statistical data shows that in 2019 compared to 2018, the situation in the field has slightly improved: slightly - the share of employees with wages up to 2000.0 lei has decreased to 0.7% compared to 6,1% in the previous year. Also, taking into account the amount of a social standard of human survival in 2019 or the subsistence level for working age population at the level of 2194.0 lei, the share of employees had salaries up to 2500.0 lei was 4,4%, including in art, recreation and leisure activities 13.0%, education 12.7%, real estate transactions 6.6%, health and social assistance 5.1%, agriculture, forestry and fisheries 4.9%, etc. At the same time, high salaries were registered in the production and supply of electricity and heat, gas, hot water and air conditioning (48.1% of employees had salaries above 10000.00 lei), respectively, in financial and insurance activities (41.2%), public administration and defence, obligatory social insurance (23.7%) and some other categories of employees who had salaries higher than the amount of the average wage in the Republic of Moldova.

The precarious material situation of families, the desire to get out of poverty, to provide a better and more decent life and education level for their children are one of the principal factors of external and internal mobility of working age population, more precisely, the migration of labour force in search of a better future than the existing one.

Structural reforms, the development of market relations, other exogenous and endogenous factors accelerated the process of labour force mobility as a result of modifications in the socio-economic infrastructure, including the reorganisation or liquidation of a certain economic agent, which contributed to the risk of the employee to be unemployed. Thus, according to NBS data (NBS, 2020) in 2019 only 72.4% of the number of reported enterprises were active (35.7 thousand out of 49.3 thousand enterprises), including during the year 5.3 thousand enterprises were created and 9.1 thousand enterprises were liquidated. Also, in 2019 only 46.8% of new enterprises created in the previous year (2018) and only 40.5% of new enterprises created in 2017 remained active. The territorial distribution of the number of active enterprises is as follows (from the total number of active enterprises): mun. Chişinău – 63.3% or 22.6 thousand; Centre – 15.3% or 5.5 thousand; North – 12.9% or 4.6

thousand; South – 5.4% or 1.9 thousand and ATU Găgăuzia – 3.1% or 1.1 thousand enterprises.

At the same time, in 2019, 3.1 thousand new enterprises were created in the mun. Chişinău, 0.9 thousand in the Centre development region, 0.7 thousand in the North, 0.3 thousand in the South and 0.2 thousand in ATU Găgăuzia. Consequently, it can be observed that the economic activity of enterprises, to a large extent, can be estimated as unstable, specific indicators in given field were less than 50 percent, namely:

46.8% - 1-year survival rate or the ratio of the number of newly created enterprises in 2018 and that were active in 2019 to the number of newly created enterprises in 2018;

40.5% - 2-year survival rate or the ratio of the number of enterprises newly created in 2017 and that were active in 2019 to the number of enterprises newly created in 2017.

Largely, the most credible are enterprises based on public property, which had indicators mentioned respectively 50.0% and 51.9%, based on private property (Republic of Moldova) respectively 48.2% and 41.7%, mixed enterprise ownership respectively 41.7% and 41.0% and foreign ownership respectively 32.3% and 27.5% (NBS, 2020).

### 5. Analysis of the employment level of the working population in regional aspect

In given context, the formation of labour force markets will also have characteristics depending on the possibilities of working age population to be hired, as well as the demand and supply of labour force in this locality. The indicators on economic activity, employment and unemployment are reflected in table no. 7, as well as the difference in the involvement of working age population in economic activity and employment, as well as in dependence on employment level is registered in the fluctuations of the unemployment rate of population remaining without a work place.

**Table no. 7. Dynamics of principal indicators of labour force market**

	2014	2015	2016	2017	2018	2019*	2020*
<b>Economic activity rate</b>							
<b>Total RM</b>	<b>43.3</b>	<b>44.5</b>	<b>44.8</b>	<b>44.1</b>	<b>45.9</b>	<b>42.3</b>	<b>40.3</b>
Mun. Chişinău	52.3	52.0	50.2	49.0	49.8	55.1	51.2
North	42.9	46.8	47.2	47.1	48.3	44.4	43.0
Centre	40.4	40.9	43.0	41.6	45.1	35.9	34.8
South	36.7	36.9	36.9	37.3	38.4	33.2	31.4
<b>Employment rate</b>							
<b>Total RM</b>	<b>41.7</b>	<b>42.4</b>	<b>43.0</b>	<b>42.4</b>	<b>44.5</b>	<b>40.1</b>	<b>38.8</b>
Mun. Chişinău	49.2	48.4	47.3	46.2	47.3	52.6	48.8
North	41.9	44.9	45.5	45.6	46.8	42.5	41.3
Centre	39.2	39.4	41.3	40.1	44.5	33.6	33.8
South	35.5	35.6	36.2	36.3	37.6	31.3	30.3
<b>ILO unemployment rate</b>							
<b>Total RM</b>	<b>3.7</b>	<b>4.7</b>	<b>4.0</b>	<b>3.9</b>	<b>2.9</b>	<b>5.1</b>	<b>3.8</b>
Mun. Chişinău	6.0	7.0	5.7	5.8	5.0	4.6	4.6
North	2.1	4.1	3.7	3.0	3.1	4.3	4.0
Centre	3.0	3.7	4.0	3.7	1.4	6.3	2.9
South	3.4	3.4	1.8	2.7	2.0	5.8	3.5
<b>Officially registered unemployed.</b>							
<b>Total RM</b>	<b>20 726</b>	<b>26 908</b>	<b>26 889</b>	<b>22 386</b>	<b>18 696</b>	<b>16 598</b>	<b>25 525</b>
including share of total, %							
Mun. Chişinău	7.9	7.1	5.7	5.2	4.2	3.7	5.1
North	39.0	43.1	46.8	46.0	47.2	50.3	52.2
Centre	33.1	30.8	30.0	33.1	33.0	28.2	24.7



South	16.1	14.8	14.0	11.8	11.2	12.8	12.2
ATU Găgăuzia	3.9	4.2	3.5	3.9	4.4	5.0	5.8
* 2019-2020, Household Labour Force Survey (Labour Force Survey), implemented by NBS RM according to the new survey research plan and according to the revised definition of employment.							

Source: NBS, Territorial statistics, [https://statbank.statistica.md/pxweb/pxweb/ro/60%20Statistica%20regionala/60%20Statistica%20regionala\\_03%20FM/?rxid=9a62a0d7-86c4-45da-b7e4-fccc26003802](https://statbank.statistica.md/pxweb/pxweb/ro/60%20Statistica%20regionala/60%20Statistica%20regionala_03%20FM/?rxid=9a62a0d7-86c4-45da-b7e4-fccc26003802), BNS, Anuarul statistic al Republicii Moldova, <https://statistica.gov.md/pageview.php?l=ro&idc=350&nod=1&>, NEA date, <https://www.anofm.md/>

Firstly, it can be mentioned the low level of economic activity in the Centre and South regions and, respectively, the low level of employment of working age population. At the same time, in given regions the unemployment rate is lower by comparison the average unemployment rate (calculated according to the ILO methodology) in the country and in mun. Chişinău. In the case of unemployment registered by the National Employment Agency (NEA) and its territorial structures, it is necessary to mention, that the highest share of unemployed was registered in the North region of development, which for the analyzed period had the annual growth tendency towards 2019 (11.3 p.p. compared to 2014), the Centre region is the second place in the share of registered unemployed (given indicator varied within the range of 30 - 33%, and it decreased to 28.2% in 2019). Towards 2018 the number of employed population, as consequence of population' decline and ageing, changes in economic and social infrastructure, decreased by 16,3% compared to 2014 (in 2019 there was interruption in the data series from the application of new methodology in Household Budget Survey (HBS) and Labour Force Survey (LFS)), including by 5.5% the population employed in agriculture, forestry and fisheries and by 16.0% in industry, by 17.6% in construction. The analogous situation is also observed in the Centre region, where the number of employed population in the mentioned period decreased by 5.3%, by 13.5% in industry, by 17.0% in construction, about 2.0 times in transport, storage, information and communication (NBS, 2021d).

As a result of the economic reforms, the structure of employed population by types of economic activities, forms of employment and professional status had been changing, and also it is observed that in the Republic of Moldova regional polarization and inequality create a deceleration of economic growth, social intensity), acceleration of migration flows of economically active population. Under given circumstances, the state is obliged to direct its efforts towards balancing and stable development of the regions in order to ensure a decent living standard for their population and the country as a whole. Analysis of regional inequality, specific characteristics and dynamics of the principal indicators of socio-economic development, including employment level of labour force, is necessary for both local and central authorities.

The labour market is an important place in the Moldovan economy. In given context, state policy was directed towards increasing the employment level, supporting the lowest possible differentiation in labour remuneration, and attenuation the risk of poverty, especially among the employed population. At the same time, the policies promoted in given field had not the desired effect, there is an inefficient distribution of labour resources, as a consequence in deficit in some localities and a surplus of labour force in others. At the same time, another challenge is the demographic factor, including a decline and ageing population, which also contributes to the stability of labour force market. The analysis shows that there are problems associated with the reproduction of labour force as well as the reserve of labour supply.



**Table nr. 8. Structure of working age population in the Republic of Moldova  
by regions of development**

	2014	2015	2016	2017	2018	2019*	2020*
<b>TOTAL POPULATION</b>	<b>2356.0</b>	<b>2333.6</b>	<b>2313.2</b>	<b>2267.3</b>	<b>2220.2</b>	<b>2175.2</b>	<b>2150.9</b>
<b>Economically active population, thousand persons, % of total:</b>	<b>1019.6</b>	<b>1038.0</b>	<b>1035.3</b>	<b>999.7</b>	<b>1018.1</b>	<b>919.3</b>	<b>867.3</b>
Mun. Chişinău	29.2	28.3	26.9	26.7	25.5	30.4	29.8
North	27.5	29.0	29.3	29.6	29.5	29.6	30.1
Centre	27.4	27.1	28.3	27.8	29.3	25.3	25.6
South	15.9	15.6	15.5	15.9	15.7	14.7	14.5
<b>Economically inactive population, thousand of persons</b>	<b>1336.4</b>	<b>1295.6</b>	<b>1277.9</b>	<b>1267.6</b>	<b>1202.1</b>	<b>1255.9</b>	<b>1283.6</b>
Share of inactive population, % compared to RM							
Mun. Chişinău	20.3	20.9	21.7	21.9	21.8	18.1	19.2
North	28.0	26.4	26.6	26.3	26.8	27.1	27.0
Centre	30.8	31.4	30.4	30.9	30.2	33.1	32.4
South	20.9	21.3	21.3	20.9	21.2	21.7	21.4
Share of inactive population in working age population (aged 15 and over), %	<b>56.7</b>	<b>55.5</b>	<b>55.3</b>	<b>55.9</b>	<b>54.1</b>	<b>57.7</b>	<b>59.7</b>
Mun. Chişinău	47.7	48.0	49.8	51.0	50.2	44.9	48.8
North	57.1	53.2	52.8	52.9	51.7	55.6	57.0
Centre	59.6	59.1	57.0	58.4	54.9	64.1	65.2
South	63.3	63.1	63.1	62.7	61.6	66.8	68.6

Source: Authours' calculations and NBS data,  
[https://statbank.statistica.md/pxweb/pxweb/ro/30%20Statistica%20sociala/30%20Statistica%20sociala\\_03%20FM\\_03%20MUN2019\\_\\_MUN080/?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774](https://statbank.statistica.md/pxweb/pxweb/ro/30%20Statistica%20sociala/30%20Statistica%20sociala_03%20FM_03%20MUN2019__MUN080/?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774)

The analysis of economically active population aged 15 years and over shows that in the country as a whole, the economically inactive population predominates compared to the economically active population, including in 2020 its share reached the level of about 60%. Practically, only in mun.Chişinău slightly less than 50 percent, and in the South (68.6%) and Centre (65.2%) regions this high level of economically inactive population is the challenge both for socio-economic development of the region and for local labour market. From a social point of view, the situation created also contributes to the financial instability of the state social insurance system (state social insurance budget). In addition, the number of economically active population decreased in the South region (by 2.2% in 2018 compared to 2014 and by 7.4% in 2020 compared to the previous year), as well as in mun.Chişinău, there was decreasing tendency of given population category was observed (by 12.7% in 2018 compared to 2014 and by 7.6% in 2020 compared to the previous year). Against the background of the growth tendency of economically active population towards 2018 in the North (by 7.2% compared to 2014) and Centre (by 7.0% compared to 2014) regions, only for one year or in 2020 compared to 2019, the economically active population decreased in given regions, respectively, by 3.8% and 4.5% (NBS, 2021e). The largest part of inactive population is not searching and not available for work; given category includes pensioners, students and others who are not actively searching for a work. The share of given population group in the country's inactive population remained practically unchanged through period (2014-2020). The same situation is typical for working migrants. At the same time, the share

of migrants in the inactive population, despite some changes, remains permanent (for the period 2014-2018).

**Table no. 9. Structure of economically inactive population in relations with labour market, 2014-2020**  
(in %)

	2014	2015	2016	2017	2018	2019*	2020*
Economically inactive population	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Search but not available to work	0.1	0.1	0.1	0.1	0.1	0.2	0.1
Not searching but available to work	1.1	0.9	1.1	0.7	0.5	1.2	0.7
Desires to work but not searching and not available	0.2	0.4	0.9	0.7	0.6	0.5	0.4
Not searching and not available to work	87.4	88.0	87.8	87.4	86.5	89.7	91.8
Went abroad to work	11.2	10.6	10.1	11.1	12.3	8.4	7.0

\* 2019-2020, Household Labour Force Survey (Labour Force Survey), implemented by NBS RM according to the new survey research plan and according to the revised definition of employment.

*Source:* Authours' calculations on the basis of NBS data, [www.statistica.md](http://www.statistica.md)

It can be mentioned the major share of inactive population (from 87% to 92%), which are not searching and not available for work is remains, which in regional aspect is reflected in table no. 10. Thus, the Centre (about 32%) and North (about 27%) regions are the highest shares and it should be noted that these data, practically, are observed through analyzed period (including are still remaining in the years 2019-2020 following the recalculation and implementation of the new sondage plan and revised definition of employment by the NBS). At the same time, it is necessary to mention that 98.8% of inactive population have only 2 categories or those which are not planning employment and those which have left the country in search of well-paid and more attractive work.

**Table nr. 10. Dynamics of economically inactive population not searching and not available for work**

	2014	2015	2016	2017	2018	2019*	2020*
Total population not searching and not available to work, thousand persons	1168.5	1140.0	1122.6	1108.4	1039.7	1126.3	1177.9
% of total:							
Mun. Chişinău	21.9	22.4	23.5	23.6	23.8	19.2	19.8
North	27.5	25.9	26.0	26.7	27.0	27.2	27.0
Centre	30.7	31.4	30.2	29.6	29.0	32.3	31.9
South	19.9	20.3	20.3	20.1	20.2	21.3	21.3
Share of pensioners in population not searching and not available for work, % of total	46.0	47.6	47.6	47.6	48.6	50.3	49.2
Mun. Chişinău	52.3	55.0	54.4	54.4	53.1	49.1	47.4
North	48.2	48.9	47.8	45.5	47.5	52.3	52.3
Centre	42.9	44.0	43.2	44.6	46.4	49.6	48.4
South	40.8	43.5	46.1	46.4	47.5	49.7	48.3

*Source:* Authours' calculations and NBS data,  
<https://statbank.statistica.md/pxweb/pxweb/ro/30%20Statistica%20sociala/30%20Statistica%>

[20sociala\\_03%20FM\\_03%20MUN2019\\_MUN080/?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774](https://statbank.statistica.md/pxweb/pxweb/ro/30%20Statistica%20sociala/30%20Statistica%20sociala_03%20FM_03%20MUN2019_MUN080/?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774)

The analysis of the data on population not searching and not available for work demonstrates that the category of pensioners constituted the major part, which, according to the biological nature of man, cannot be considered as a labour force reserve necessary for the socio-economic development of the regions. Practically, the share of given category has stabilized in the range of 48-52%, and another category of population that ranks second among the inactive population in relation to labour market refers to labour migrants (7-8% of inactive population on the Republic of Moldova in 2019-2020, table no. 9).

The dynamics of the number of labour migrants differ significantly by region: a decrease in the number of migrants in the North and South regions and an increase in the Centre region and mun.Chişinău. At the same time, the tendency of decreasing number and share of labour migrants is observed in all regions, except mun.Chişinău, where, by contrast by difference from other regions, the number of labour migrants continuing to work during the pandemic in 2020 was increasing, including in 2020 by 29.7% compared to the previous year.

**Table no. 11. Population went abroad to work, regional aspects, 2014-2020, thousand persons/%**

	2014	2015	2016	2017	2018	2019*	2020*
<b>Working age population went abroad to work, thousand persons</b>							
<b>Republic of Moldova, total</b>	<b>149.8</b>	<b>137.2</b>	<b>128.8</b>	<b>140.6</b>	<b>147.4</b>	<b>105.9</b>	<b>90.4</b>
Mun. Chişinău	11.4	12.6	10.2	13.5	14.3	9.1	11.8
North	45.1	38.8	33.1	29.1	32.6	24.2	21.7
Centre	49.5	43.7	44.5	58.2	59.4	43.8	35.4
South	43.9	42.1	41.1	39.9	41.2	28.7	21.5
<b>Share of population went abroad to work, % of total RM</b>							
<b>Republic of Moldova, total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Mun. Chişinău	7.6	9.2	7.9	9.6	9.7	8.6	13.1
Nord	30.1	28.3	25.7	20.7	22.1	22.9	24.0
Centre	33.0	31.9	34.5	41.4	40.3	41.4	39.2
South	29.3	30.7	31.9	28.4	28.0	27.1	23.8
<b>Share of labour migrants in inactive population, %</b>							
Total on the Republic of Moldova	<b>11.2</b>	<b>10.6</b>	<b>10.1</b>	<b>11.1</b>	<b>12.3</b>	<b>8.4</b>	<b>7.0</b>
Mun. Chişinău	4.2	4.7	3.7	4.9	5.5	4.0	4.8
Nord	12.1	11.3	9.7	8.7	10.1	7.1	6.3
Centre	12.0	10.7	11.5	14.9	16.6	10.5	8.5
South	15.7	15.3	15.1	15.0	16.1	10.5	7.8

\* 2019-2020, cercetarea forţei de muncă în gospodăriile casnice (Ancheta forţei de muncă), a fost implementată de BNS RM conform noului plan de investigaţii de anchetă şi conform definiţiei revizuite a ocupării forţei de muncă.

Source: Authours' calculations and NBS data,  
[https://statbank.statistica.md/pxweb/pxweb/ro/30%20Statistica%20sociala/30%20Statistica%20sociala\\_03%20FM\\_03%20MUN2019\\_MUN080/?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774](https://statbank.statistica.md/pxweb/pxweb/ro/30%20Statistica%20sociala/30%20Statistica%20sociala_03%20FM_03%20MUN2019_MUN080/?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774)

The analysis of the migratory flow in order to search for a working place or to work (table no. 11) shows that the largest part of population went abroad to work is in the Centre

region (39.2% in 2020 or decreased by 2.2 p.p. in the pandemic conditions), while the share of labour migrants from mun.Chişinău increased by 4.5 p.p.. Migration flows from the South region have slowed down, at the same time the major share of migrants from the inactive population remains in this region (prevailing the average value for the country by 2.1 p.p. in 2019 and 0.8 p.p. in 2020, as well as 4-5 p.p. for the whole period analysed).

## 6. Conclusions

The development of market relations, the spread and predominant role of private property in economic activities against the background of the promotion of structural reforms, crises (or stagnation) and other factors such as demographic processes, nature (drought), etc., all these have affected the development of the regions in different modes and have contributed to their inequality. At the same time, taking into account that economic development and the labour market are interdependent, such the diverse situation on the regional labour markets cannot be favourable, and does not contribute to stable socio-economic development of regions, to their convergence, or represent a single complex of the country as a whole.

In order to ensure the process of regional convergence, improve the labour market situation and attenuate the impact of labour migration processes it is proposed:

- *promotion of transparent and adequate measures* to improve the business environment at both state and local level, which will contribute to the economic and social development of the regions, attracting investment, creating new work places, improving the tax base and budget revenues (state and local), etc.;
- *using the decomposition method*, determine the types of economic activity, the drivers of convergence of regions, including regional GDP growth, structural changes in labour force employment, financial and budgetary indicators, the effect of possible economic and social changes, using a criterion of existence the convergence between regions;
- *modern and efficient management of migration processes*, including the use of migrants' resource potential and financial means (sponsorship, charity activity, creative ideas, professional attitudes, etc.) for both local development and the development of the country as a whole, which should be an important factor influencing decision process at both local and state level;
- *elaboration interregional balances and forecasts of labour force* taking into account the demographic situation in the country' regions;
- *analyze the possibility of applying different econometric approaches* to convergence modelling, highlighting their advantages and disadvantages by elaborating recommendations on the use of economic and mathematical tools, which will allow to objectively describe the specific processes taking place in the regions, to make quantitative assessments of them, as well as to elaborate an optimal forecast for territorial development.

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## FISCAL IMPACT OF ROMANIA'S ACCESSION TO THE EUROPEAN UNION - ADVANTAGES AND DISADVANTAGES

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**Abstract:** *In this paper we present the main fiscal incidences manifested on the Romanian fiscal system, analyzed in terms of their realization in possible advantages or disadvantages, 15 years after Romania's accession to the European Union. We aim to highlight the advantages anticipated at that time, perceived as opportunities to reform and create a fiscal system stimulating economic development and their confirmation or possible transformation into certain disadvantages over the Romanian fiscal and economic system. We refer to the evolution of some indicators, of some tax rates and their translation in the fiscal and economic dynamics, in the period 2007 - 2021.*

**Keywords:** *accession, fiscal policy, tax advantages, tax disadvantages, European Union.*

**JEL Classification:** *E62, F36, G28.*

### **1. An overview of fiscal policy - at Community and national level**

In the process of forming and consolidating the European Union (EU) as an economic, social and political space, a series of structural transformations took place which resulted in the gradual takeover of the coordination of the main macroeconomic adjustment policies from the national level to the community. These have been accompanied by a number of other measures / processes that favor the creation of the single market and the free movement of capital and labor, such as: customs union, harmonization of social policies, increased economic cohesion, strengthening of Community institutions and perhaps the most important creation. , the single European currency, namely the Eurozone and, in a process of formation (affected by the COVID-19 pandemic), the fiscal union.

The EU's common economic policy is based on three main pillars: the monetary pillar, the fiscal pillar and the structural pillar. At the current stage of the economic integration process, the monetary pillar is the most advanced, being strongly coordinated at Community level, a process accompanied by a replacement of national monetary policies and those of the exchange rate with Community policies. The second is the fiscal pillar, which aims at a process of fiscal discipline and consolidation, consisting in particular in reducing budget deficits, public debt and the coordination of fiscal policies, mainly due to the lack of a common fiscal regulation. poor coordination and poor performance in the joint application of such provisions and rules.

Fiscal-budgetary policy, along with monetary policy, is one of the main tools for adjusting the economy, especially at the national level. Sometimes the effectiveness of fiscal policy in combating short-term economic fluctuations is limited as it must comply with the provisions of the Stability and Growth Pact (SGP), which consist of medium- and long-term commitments, and effective combination with flexible short-term measures is a real challenge, which affects fiscal efficiency, at national level, but also, at large, at Community level.

Budgetary policy is also very heterogeneous among member states, being the strongest form of manifestation of national sovereignty from an economic point of view, being subject to constraints related to the avoidance of excessive government deficits, the prohibition of financing public deficits by any type of credit. facilitated by the central bank, the prohibition of establishing privileges for public authorities and financial institutions, etc. The most important of these is the one on the excessive deficit, being regularly monitored and examined, through institutional mechanisms, under two aspects:

- the share of the current or planned budget deficit so that it does not exceed the reference value (3% of GDP), except in cases where there is a permanent decrease in the excess deficit, which falls close to the established value, or when the deficit increases it is temporary and exceptional and remains close to the reference value;

- the share of government debt so as not to exceed the reference value (60% of GDP), unless there is a decrease in the difference from the reference value at a rate fast enough to reach close to the reference value. reference.

If a Member State does not meet one or both of the above criteria, the Commission shall prepare a report setting out all relevant issues, in particular those relating to the medium-term economic and budgetary position of the country concerned.

One of the major objectives of European fiscal policy, in order to achieve the goal of fiscal consolidation, is to stabilize tax revenues at the level of member countries, by counteracting the negative effects of globalization on tax systems, on tax competition (reorientation towards tax systems in other countries) as well as to facilitate the development of the underground economy.

Negative effects that arise as a result of tax competition are translated into national fiscal policy measures that affect the tax base of other countries, consisting of: the adoption of reduced rates of taxation of the main incomes, the application of advantageous tax regimes for certain sectors of activity, lack of transparency at the level of tax authorities. Thus, the competitiveness of modern tax systems, aimed at achieving these measures, tends to affect their internal tax situation, shifting the tax burden to other tax bases, in an attempt to accumulate revenue for the provision of public goods and services, for the system. social security affected by the aging and migration of the population, to support the trend registered in the unemployment system.

In this context, increasing fiscal competitiveness between tax systems seems to be a way of stimulating tax competition with negative effects, and the tax systems of modern EU member states must rather undergo a process of deeper tax harmonization in order to create a framework for the flow of capital, labor and goods, without affecting the tax revenues of these countries.

Fiscal coordination, as a Community attribute, could be achieved more effectively through fiscal harmonization, which involves replacing different national rules with a single tax system aimed in particular at unifying the tax base and not standardizing tax rates, and identifying tax obstacles to the free movement of goods, services, labor and capital and removing them through tax cooperation.

## **2. Romania's accession to the EU - expected fiscal advantages**

The process of Romania's accession to the EU involved a period characterized by profound changes in the economic system, namely the internal transition from a centralized economy to a market economy and in terms of meeting the accession criteria. To this end, the EU has provided a model for economic policy-making to enable it to be made compatible with specific standards and criteria (*acquis communautaire*). Its implementation was able to generate a relatively rapid convergence from a structural point of view, but also in terms of ensuring a real convergence (income, productivity, employment, education). In fact, EU accession does not represent an immediate and permanent guarantee of the process of economic convergence, but depending on the degree of development, requiring external and internal support of the process of economic growth. For this reason, the architecture of fiscal policies at Member State level also takes on different forms and nuances.

With Romania's accession to the EU, national fiscal policy has entered a process of assimilating specific fiscal standards and criteria (the *acquis communautaire*) and then a process of harmonizing existing tax systems at EU level, from the point of view of direct and indirect taxation. In the field of indirect taxation, the already member countries (old members) had made some progress, taken over by the new acceding countries, so that the harmonization in the field of indirect taxation progressed relatively quickly, the countries being motivated to implement this process quickly.

We present below some possible advantages for Romania, of economic nature, which were translated into potential advantages of fiscal nature, at that moment, consisting in:

- access to the single market - facilitating the opening of the economy - increasing economic, capital and trade flows, all of which constitute the development of tax bases and, implicitly, the dynamics of the tax revenues generated by them;
- increasing fiscal discipline by limiting the budget deficit and public debt - issues that generate fiscal consolidation and sustainability in the medium and long term;
- streamlining the tax administration, materializing in the increase of voluntary tax compliance, by reducing the share of tax evasion and, in general, the underground economy;
- access to financial resources provided by the various European funds, at various stages of the accession and integration process, which requires (after formal accession to the EU) a contribution to the European budget;
- institutional harmonization - the creation of an independent fiscal institution to monitor the fiscal-budgetary process, in accordance with the fiscal rules of the European fiscal framework at national level and the notification of deviations and consequences regarding possible deviations;
- access to a permanent common EU fiscal capacity through which the effects of external shocks can be mitigated, a common fiscal capacity to be financed by the EU's own budgetary resources, by issuing common bonds, and assistance to a Member State may be conditional on compliance with tax rules;
- a certain fiscal homogenization with the countries of the Union or the region in order to avoid harmful effects of the fiscal competition, but also a certain stability to shocks of economic and social nature.

These fiscal and economic benefits, expected at the time of accession, were obviously not guaranteed, but their confirmation requires the involvement of national authorities, cooperation with European authorities, the implementation of economic and fiscal measures in line with European fiscal guidelines and the improvement of alternative factors. (infrastructure, quality of institutions, corruption, legislative instability, etc.), which are important elements in terms of the flow of foreign direct investment, economic development and fiscal multiplication.

### **3. About the evolution and confirmation or non-confirmation of the expected fiscal advantages for Romania**

Next, we analyze the expected advantages, mentioned above, from the perspective of their confirmation and their transformation into certain advantages of fiscal / economic nature or disadvantages for the Romanian economy.

Access to the single market is a facilitator for opening up the economy, for increasing economic, capital and trade flows, all of which constitute the development and expansion of tax bases and, implicitly, a positive dynamic of tax revenues generated by them. After a relatively difficult start, specific to each start, requiring accommodation from several points of view (legislative, fiscal, economic, political etc.), this expected advantage has materialized, moreover, in a market for Romania. Specifically, the Romanian market has entered the "center-periphery" model which describes the relationship between the central economy (self-sufficient, prosperous) and peripheral economies, isolated from each other, vulnerable and uncompetitive, gradually becoming economically dependent, in which



production and resources some countries are conditioned by the development and economic conditions of other dominant countries.

Increasing fiscal discipline by limiting the budget deficit and public debt - issues that generate fiscal consolidation and sustainability in the medium and long term - has apparently made progress for Romania after overcoming the financial and economic crisis of 2008-2010, more precisely in 2013-2016, but in fact the consolidation of the deficit has been transferred to the increase of public debt, and since 2017 it has entered a process of degradation, being on the verge of opening the excessive deficit procedure in March 2020, a situation suspended due to the COVID - 19 pandemic. the two indicators deteriorated sharply (debt reached about 50% of GDP in 2021). This unfavorable course was the effect of several aspects developed in the 15 years since Romania's accession to the EU, respectively: the appearance of the two "black swans", consisting of the two major crises that affected the global economy and, implicitly, national economies - the crisis financial and economic crisis from 2008-2010 and the health and social crisis that began in 2020, with signs of manifestation even today, especially on the economic and fiscal-budgetary environment. On the other hand, the national political and fiscal-budgetary culture did not evolve much on the discipline line, but remained in the traditional habits manifested in the pre-election campaigns to increase the administrative expenses of the state (salaries, pensions, fiscal facilities), but take fiscal measures to balance these increases in expenditure, respectively fiscal measures to increase tax revenues. These increases in expenditure, premeditated or conjunctural, not covered by the current tax revenues of each year, have gradually accumulated in the public debt, which increases from approx. 12% in 2007, at approx. 50% in 2021.

Streamlining tax administration by reducing the share of tax evasion and the underground economy. On the background of an administrative institution - the National Agency for Fiscal Administration - inflexible to change the strategy of interaction with taxpayers, to digitization, behavioral typologies have emerged among taxpayers with tendencies to practice tax evasion and, lately, methods have been perpetuated and developed ingenious to erode the profits of multinational companies.

This last situation is not only manifested in Romania, but is a problem at community and global level. To this end, both at European and international level, the OECD has taken a number of steps in legislative progress, in particular at EU level as regards VAT, and partly at OECD level.

At European level, regulatory progress has been made especially in the field of VAT, but the effects of these measures in Romania are not yet felt, Romania being in first place in the EU in losses from non-collection of VAT, respectively 35% of planned revenues. The situation is far-reaching across the EU, with VAT estimated at EUR 134 billion in 2019 due to VAT fraud and tax evasion through VAT avoidance and optimization practices, bankruptcies and insolvencies, as well as incorrect calculations and administrative errors. Administrative efforts at national level to increase VAT revenue collection are also supported by significant EU efforts to improve the way VAT is collected through the creation of the Eurofisc network, which provides for the possibility of cooperation between Member States through national staff. 27 Member States and Norway. Since 2019, network members have been actively using the EU-funded "Transaction Network Analysis" tool for the rapid exchange and joint processing of VAT data, which allows them to automatically detect cross-border VAT fraud at a much earlier stage. early, and from 2022, the EC announces that it will further modernize the VAT system, including the consolidation of Eurofisc, a situation that can also help Romania in its efforts to increase revenue collection from this source.

***Access to financial resources through European funds***, which also requires a contribution to the European budget, but which can be constituted in investment flows and, consequently, in fiscal multiplication effects - from this perspective, the financial balance

between Romania and the EU indicates a net profit of approx. 41 billion euros for Romania (cumulative 2007 - 2021), this amount being found in various tax bases, with fiscal multiplication effects. One observation is that the financial resources attracted from the EU are not found in large infrastructure investment projects, in improving the quality of institutions, aspects that, together with the progress made in other areas under analysis, contribute to improving the economic and fiscal environment. from Romania.

**Access to a permanent common EU fiscal capacity** through which the effects of external shocks can be cushioned, a common fiscal capacity to be financed by the EU's own budgetary resources, by issuing common bonds, and assistance to a Member State may be conditional on compliance with tax rules. This capacity has not been developed by the EU, and its budget remains a rigid instrument in terms of its ability to (pre) cushion economic and social shocks, being balanced by the norm.

**A certain tax homogenization with the countries of the Union** or the region by which to limit tax evasion, to avoid certain harmful effects of tax competition and to create an area of tax cooperation for the benefit of each country. This expected homogenization has only been achieved with regard to the Community's constraints on the transposition of certain tax regulations from Community law into national law. However, for the most part, the neighboring tax systems, or those in certain regions, are in competition with each other, a situation that is manifested by the reduction of tax rates, especially on mobile tax bases - capital, labor, issues that have affected, at least Romania, from the point of view of the collected tax revenues.

#### 4. Conclusions

The coordination of fiscal policy has not been translated into a certain homogenization of the national fiscal systems, and the targeted fiscal competitiveness seems to amplify the fiscal competition, with negative effects, Romania being one of the countries significantly affected by this situation.

The fiscal attractiveness created by the Romanian fiscal system by reducing tax rates, granting fiscal facilities, given the current level of economic development, seems a less successful fiscal strategy, due to the poor development of alternative factors (infrastructure, quality of institutions, corruption, legislative instability etc.), which continue to be important elements that limit the flow of foreign direct investment and anticipated fiscal multiplication by reducing tax rates.

The anticipated advantages presented and analyzed, for the most part, were not confirmed at the expected level or turned into certain disadvantages for the national economy. The two crises that humanity has gone through during the 15 years since Romania's accession to the EU, have mobilized international institutions and organizations in order to remedy some deficiencies of the tax systems or to limit the economic, competitive effects on them. In this approach, a series of actions are being implemented that can help the Romanian tax system in the future (limiting the erosion of tax bases, strategies to improve the administration of tax systems).

The effects of fiscal failures are somewhat cumulated in the two indicators - budget deficit and public debt, but especially in the latter, whose dynamics will increase the medium-term fiscal pressure and limit the fiscal resources available for investment and public goods, through the cost of the service, public debt, in the situation where fiscal consolidation measures are not implemented, especially on the side of increasing fiscal revenues, moderating the growth rate of public expenditures and their orientation towards infrastructure investment projects, improving the quality of institutions, etc.

At European level, it seems that the main purpose of fiscal policy measures is to reduce the levels of tax rates and not because this is the will of the EU, but because this is the

effect of the market, of fiscal competition. In this context, a more transparent and predictable taxation, with a single tax base, subject to fiscal harmonization rather than increasing the competitiveness between them, seems to be a more appropriate solution to create a framework for capital flows. employment and economic development in general, with positive tax consequences for Member States.

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## ASSESSING SOME FISCAL INDICATORS IN THE EUROPEAN UNION IN THE PERIOD 2000-2021

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**Abstract:** COVID-19 has posed many problems to the world's economies beyond its dramatic medical effects. The beginning of 2022, under the auspices of the war in Ukraine, brings and will continue to bring additional challenges for the world's economies and especially for European economies. In this context, marked by high fears and uncertainties, worldwide, fiscal policy strives to control expanding public debt but also the

*level of taxes and duties, boost revenue and control spending. Therefore, this article highlights the study of some basic fiscal indicators at European Union level for the period 2000-2021. The indicators followed are overall balance, primary balance, cyclically adjusted primary balance, automatic stabilizers, fiscal stance, fiscal impulse and fiscal multiplier (more exactly impact multiplier of expenses). The results show that there are many fiscal and budgetary issues to be addressed by expansionary or contractionary European Union policy measures, and that the pandemic crisis and the war crisis could make matters worse in the future.*

**Keywords:** cyclical adjusted primary balance, fiscal stance, fiscal impulse, automatic stabilisers, EU.

**JEL Classification:** H30, H61, H62.

## 1. Introduction

Macroeconomic stability and sustainability seem more than ever to guide the world's economies, and fiscal policy through its short-term impact may or may not contribute to these goals. Therefore, measuring the fiscal stance, and other important indicators, can outline whether the link between fiscality and the economy is mutually reinforcing or vice versa, taxation can put a brake, either directly or indirectly, on economic development. Therefore, the role of fiscal policy is to help the economy stay close to its potential growth, so governments must constantly strive to use, in particular, counter-cyclical fiscal policies. Specifically, in good times, fiscal policy should contract, and in less favorable times, fiscal policy should allow for some relaxation or expansion. Managing this process is not easy, because poorly developed countercyclical fiscal policies can themselves trigger a sudden transition from boom to recession and not what it was intended at the beginning, more exactly a process of counterbalancing and keeping economic growth close to the potential. Of course, the overview should not be limited to the short term, but also should be extended to the medium and long term, but for this article, we can consider sufficient a diagnostic analysis of the sustainability of fiscal policy on short-term, following, in future studies, an analysis of the sustainability of public debt in the current complicated European context.

Therefore, this article analyzes, for the period 2000-2021, for euro area countries, for non-euro area countries and for the EU as a whole, a series of indicators such as: overall balance, primary balance, cyclically adjusted primary balance, fiscal stance, fiscal impulse automatic stabilizers and fiscal multiplier, which can tell us whether fiscal policy works or not in the direction of supporting the economy of these areas.

## 2. Description of the problem

Fiscal policy is not the only macroeconomic policy that can help us understand the connection with macroeconomic developments and the business cycle in general, therefore monetary policy also has an important contribution, especially for inflation, exchange rate and external balance. One of the limitations of basic fiscal indicators (overall balance and primary balance) is that we cannot say exactly whether the positive developments are strictly due either to the evolution of the indicators, or of the shock of commodity or housing prices, or the automatic stabilisers or indeed, the governments have taken measures (e.g. rules, adjusting tax rates, discretionary spending etc.) by which fiscal policy has led to these improvements.

But if we focus strictly on the short term and especially on the contribution of fiscal policy to shaping aggregate demand, we can see that in addition to indicators such as overall balance and primary balance, we should see the effects of fiscality on the business cycle more precisely the evolution of cyclically-adjusted fiscal balance. This element is analyzed together with two other indicators: the fiscal state and the fiscal impulse and then we will be able to make important statements about the adequacy of the fiscal policy to the evolutions of the economic cycle at non-euro area, euro area and EU level, and what fiscal policy should do in the sense of expanding or contracting.

### 3. Literature review

Numerous studies deal with: the evolution of fiscal policy, more and more adequate ways of estimating and measuring fiscal indicators, analyzes between discretionary and non-discretionary measures, implicitly indicators to facilitate this decomposition, the connection of fiscal evolutions with the economic cycle, with globalization, with stabilization policies, including the relationship between fiscal policy measure with economic crises, etc. For example, when is analyzed the relationship between fiscal policy and the business cycle, the expansionary or contractionary nature of fiscal policy changes is analyzed using estimates of the real-time and ex-post business cycle position based on the production function approach or on some filtering techniques (Cimadomo, 2008; Beetsma and Giuliodori, 2008), but these methods suffers from the inherent uncertainty related to the business cycle position in real time (Barriosand and Fargnoli, 2010). The emphasis on countercyclicality is generally very important, countercyclical fiscal policy (stimulating aggregate demand during downturns and withdrawing demand during upturns) can potentially play a role in responding to normal variations but mostly to larger aggregate demand shocks. Thus, through the impact of revenues and government spending on income-sensitive components of aggregate demand, fiscal policy contributes to broader-based stabilization process more than other macroeconomic levers (e.g. monetary policies) (Daniel et. al., 2006).

When considering the relationship between discretioanry measures and financial crisis, Barriosand and Fargnoli (2010) found that although on average discretionary measures are relatively low compared to tax revenues levels, their incidence on tax elasticities can be very large and can lead to significant departure between gross and net tax elasticities, which in turn affect the view on what really is the fiscal stance. Also, they found that the discretionary measures taken by the EU countries in the run-up to the 2008/2009 global financial crisis were often pro-cyclical thus, once the full effects of the crisis on tax revenues unfolded, countries often found themselves in the most difficult budgetary situations.

Also, in the study of Giorno, Richardson, Roseveare and van den Noord (1995), are analyzed a number of elements concernring the estimation of potential output, output gaps and structural budget balances, mentioning that changes in the structural deficit provide also some indication of the degree of stimulus or restraint that the government provides to demand over and above that given by the automatic stabilizers and also a measure of the degree of fiscal consolidation. The resuts of their study, marking a ten-year analysis until 1996, emphasizes that for a number of world countries (15 of them being from the EU area) estimated structural deficits have been relatively stable over the past decade, fluctuating by no more than one or two per cent of GDP. In some cases, notably for Belgium, Denmark, Ireland, Portugal and Japan, estimated structural deficits fell steadily through the 1980s, while for others (especially France, Greece, Norway, Finland and Spain) there is some trend deterioration over the analyzed period.

If we take into account the possible future evolutions, taking into account IMF Fiscal Monitor from 2021 informations, although fiscal policy remains supportive, with 2021 deficits falling by about 2 percentage points of GDP, on average, however, the deficits are still well above prepandemic levels, especially in advanced economies, beeing projected to decrease further by almost 3 percentage points in 2022 and return to their prepandemic levels by 2026. But in the context of the COVID-19 pandemic doubled by the ruthless effects of the war in Ukraine, we can talk about prolonging budget deficits beyond current expectations, amid high costs of managing migrants, high costs of reducing human suffering and loss of human capital, high costs related to security and defense and also costs related to the administration of efficient policies for energy and food security. All of this will be translated in the near future in sustained costs for a stronger public sector, allowing the possibility of some fiscal relaxation in difficult moments (Ghosh and al., 2002; Heller, 2005) and funding

will need to be supported by both public deficits and higher public debt at European level, and especially of EU authorities.

#### 4. Methodology and data source

The article is based on the IMF's methodology for making a diagnosis of fiscal policy. The analysis period is 2000-2021, and for the fiscal impulse the results refer to the period 2001-2021, and the main data source is Ameco. Together with Ameco, we used Eurostat and World Bank data to complete the information. The breakdown was made into groups of countries: non-euro area countries, i.e. those still outside the euro area, and euro area countries and EU average as a whole, with all 27 states.

The formulas are:

Overall Balance (OB) = Revenue of the general government (R) - Expenses of the general government (G); (1)

Primary Balance (PB) = Overall Balance + Interest spending; (2)

Cyclically Adjusted Primary Balance (CAPB) = Cyclically adjusted revenue ( $R^{CA}$ ) - Cyclically adjusted primary expenditures ( $G^{CA}$ ); (3)

where:  $R^{CA}=R*(Y^{potential}/Y)^{\epsilon^{R,Y}}$  and  $G^{CA}=G*(Y^{potential}/Y)^{\epsilon^{G,Y}}$ ;  $\epsilon^{R,Y}$  is revenue elasticity and  $\epsilon^{G,Y}$  expenditure elasticity; Y is actual GDP and Ypotential is potential GDP;

Output gap=(Y-Ypotential)/Ypotential; (4)

Cyclical factors (or automatic stabilizers) (AS)= Primary Balance (PB) - Cyclically Adjusted Primary Balance (CAPB); (5)

Fiscal stance (FS) = - CAPB; (6)

Fiscal impulse (FI) =  $\Delta FS$ ; and (7)

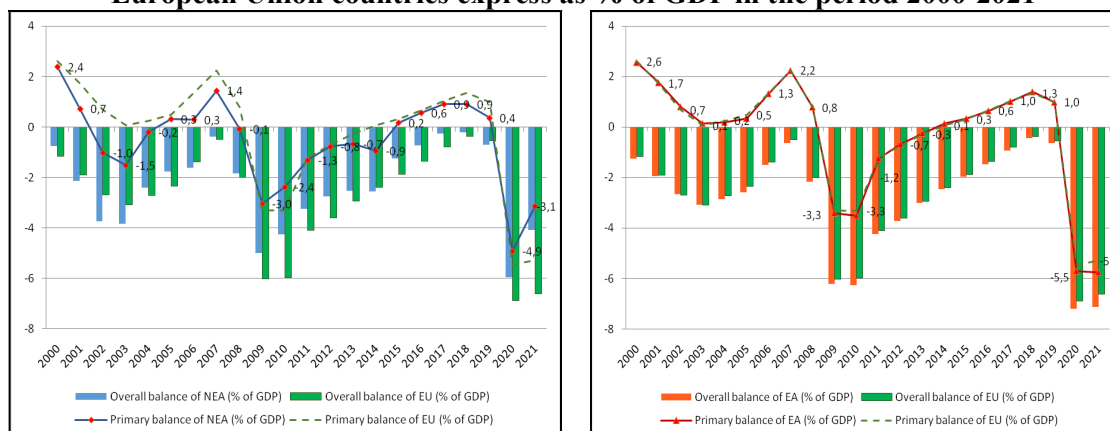
Fiscal multiplier (selected only for expences) =  $\Delta Y / \Delta G$ , where:  $\Delta Y = Y_t - Y_{t-1}$ ;  $\Delta G = G_t - G_{t-1}$ ; (8)

The elasticity of the revenues is considered for income to be 1, and for expenses to be very very low and negative, ie: minus 0.05. The elasticity values, although calculated effectively due to the large variability, were not preferred but a relatively average value was preferred, proposed by the IMF methodology. Hence, we consider that the revenues are procyclical and expenditure are usually counter-cyclical. The values of elasticities (both for revenues and expenditures) were considered constant throughout the period (2000-2021) and were proposed according to the IMF methodology, being relatively consistent with the values stated in the economic reports and profile literature (Girouard and André, 2005; Bruce et al., 2006; Bouthevillain *et al.*, 2001; Wolswijk, G., 2009; Price, Dang and Guillemette, 2014; Belinga et al., 2014; Murre and Princen, 2015; Köster and Priesmeier, 2017 etc.).

#### 5. Results

Overall balance describes the difference between the government's overall revenue from taxes, fees, etc. and government expenditures, including capital spending and government loans. That is why the overall balance is considered somewhat similar to net lending borrowing, especially if the proceeds from privatization or redemption are limited. So, it will be calculated the overall balance as the difference between primary income and primary expenses, and it will be calculated the primary balance as the difference between income and expenses (the overall balance), plus interest expenses related to the debts incurred, the results being expressed as percent of GDP. (see Figure 1). A large gap between the overall balance and the primary balance means a large interest expense, while a small difference means a more sustainable long-term debt policy with less burdensome interest rates.

**Figure no. 1. Overall balance and primary balance of Non-euro area, euro area and European Union countries express as % of GDP in the period 2000-2021**

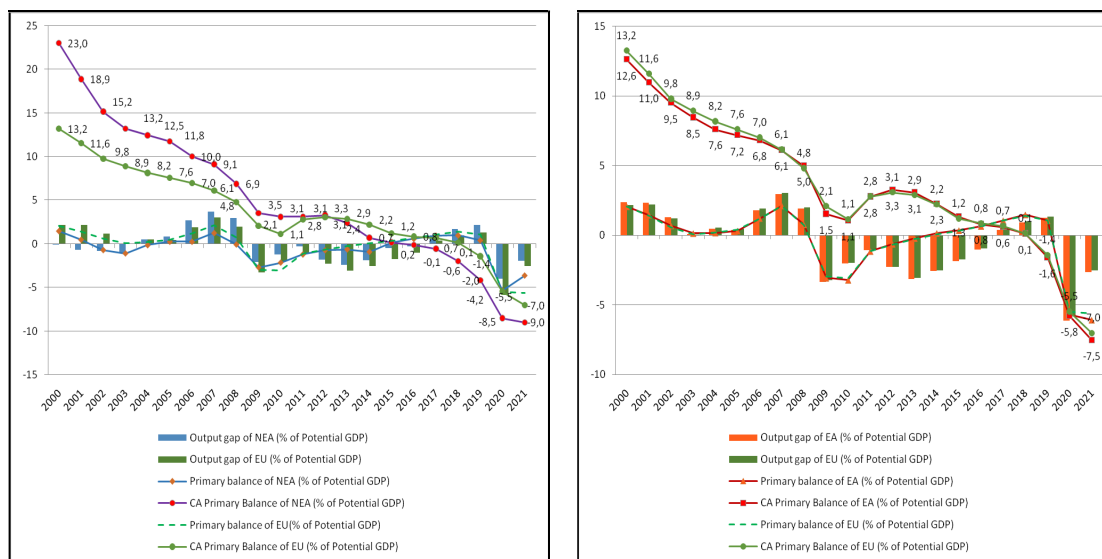


Source: Ameco data; author's processing. Notations: NEA - Non-euro area countries; EA - Euro area countries; EU- European Union countries

Thus we notice that a very burdensome interest rate was recorded at the beginning of the analysis period (2000), gradually decreasing in time, for both non-euro countries (NEA), for euro area (EA) and EU 27 countries as a whole (EU), which suggests a better debt management and relatively more favorable market conditions. Interest expenditures during the analysis period (2000-2021) recorded a average of 3.1% of GDP for NEA countries, 3.8% for EA countries and 3.8% for the EU countries. The moments of financial crisis or tensions are marked by collapses for both primary balance and overall balance for NEA, EA and EU (more precisely the years 2003-2004, 2009-2010, 2020-2021). If we analyze comparatively the evolution of the overall balance between NEA and EU and EA and EU, it is observed that in the years 2001-2003, 2006, 2014, 2019, overall balance of NEA was higher than in the EU, and in the years 2000-2001, 2004-2021 for the euro area, overall balance was higher than in the EU, being a driver for evolution at European level. This suggests that eurozone countries need to pay more attention to public spending management, but also that both automatic stabilizers and public discretionary policies may be more strongly activated, especially in times of crisis by the governments of this group of countries.

When comparing the output gap with the evolution of primary balance, we can see that the recession of 2009 and the one of 2020 was marked more strongly by the collapse of the primary balance, especially for the non-euro area countries (NEA), and the periods of economic recovery (2004-2008 and 2017-2019, for NEA) were not followed by the same measure of the recovery of the primary balance suggesting some discretionary expansion of the fiscal policy. Also, let us remain that a negative output gap suggests that the regions chosen for analysis are in recession, so we notice that for NEA countries the recession periods are 2000-2003, 2009-2016, 2020-2021 and the expansion periods are only 2004-2008, 2017-2019. We notice a dramatic and worrying aspect that from a period of 22 years, 14 years clearly in recession for NEA countries. Thus, over 60% of the analysis period was in recession for NEA, compared to the euro area countries where only a 45% of the analysis period was recorded in recession (more exactly the periods 2010-2017 and 2020-2021).

**Figure no. 2. Output gap, primary balance and cyclically-adjusted primary balance of Non-euro area, euro area and European Union countries express as % of Potential GDP in the period 2000-2021**



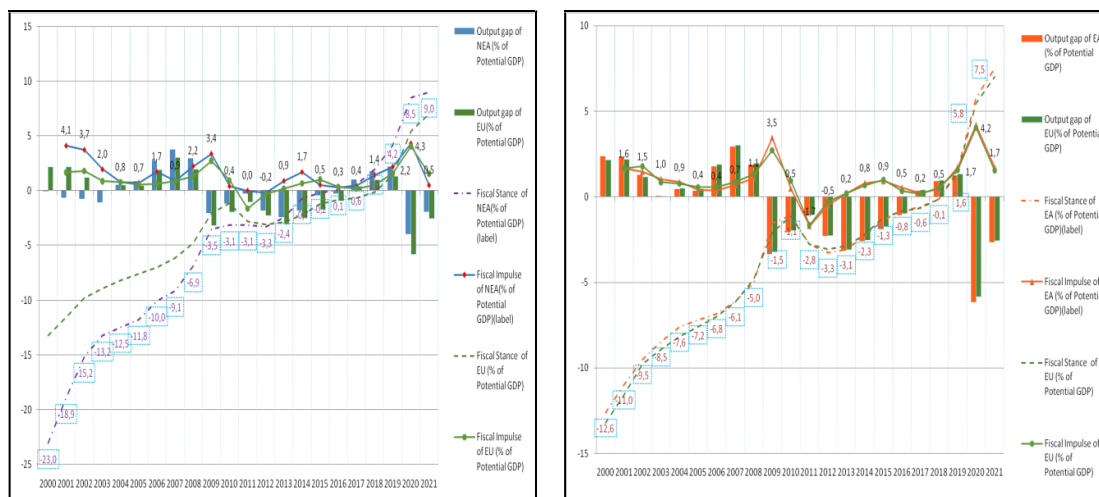
Source: Ameco data; author's processing. Notations: NEA - Non-euro area countries; EA - Euro area countries; EU- European Union countries; CA Primary Balance - Cyclically adjusted primary balance

If we compare the primary balance with the cyclically-adjusted primary balance, we see that for NEA countries, the current balance exceeds the cyclical one, which indicates theoretically that the period of the closeness of the economy with the potential is only the period 2016-2021 (the rest period seems mostly in the recession), while for EA countries this period is 2017-2021, and for EU the same period is 2017-2019 and the year 2021. Thus, the boom period is basically 2016/2017-2019, and the recession 2020-2021 makes fiscal situation looking worse than it actually was because of the sudden and deep collapse of the economy.

If we refer to fiscal stance and fiscal impulse (see Figure no.3), we observe a relatively oscillating evolution for the fiscal impulse and a negative evolution of fiscal stance until 2016, followed by a positive evolution in growth. Fiscal stance indicates the connection between taxation and domestic demand. Thus, a positive value of fiscal stance means that the cyclically-adjusted primary balance is negative, so we are talking about a deficit and an expansionary fiscal policy or an increase in spending over revenues, so a boost in aggregate demand. On the contrary, a negative fiscal stance means that the cyclically-adjusted primary balance is positive, so it is a surplus, so a contractionary fiscal policy, and therefore a mechanism to restrict aggregate demand through restrictive government conduct concerned with accumulating revenue above the expenditure level. The fiscal impulse shows us the sensible variation, from one year to another, of the fiscal state. A positive fiscal impulse shows us that the fiscal policy becomes more and more expansionist, and a negative fiscal impulse shows us a fiscal policy that becomes rather contractionary.

**Figure no. 3. Output gap, fiscal stance and fiscal impulse of Non-euro area and European Union countries express as % of GDP in the period 2000-2021**

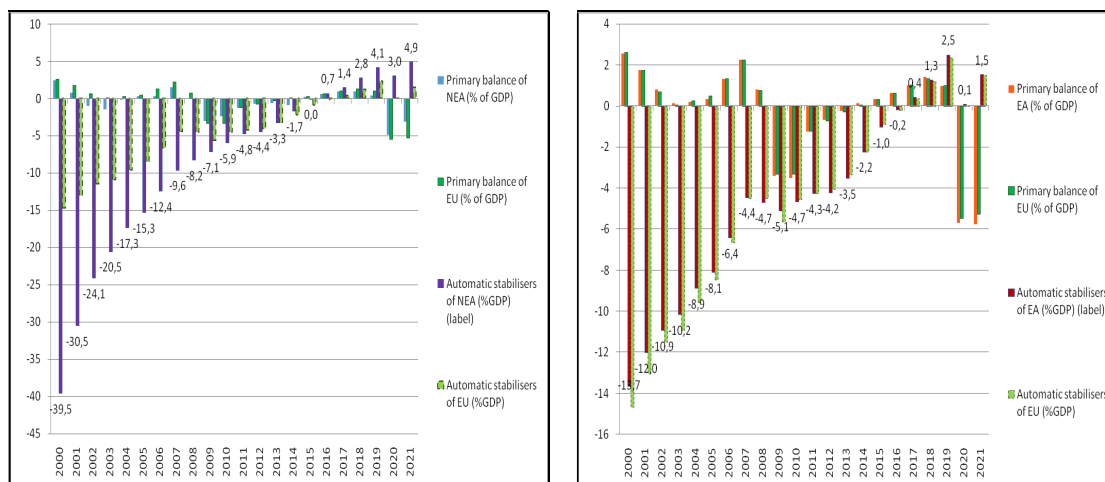




Source: Ameco data; author's processing. Notations: NEA - Non-euro area countries; EA - Euro area countries; EU- European Union countries

Therefore, figure no.3 indicates that the fiscal impulse for the NEA countries was predominantly expansionist, only the year 2012 marked a rather contractionary moment, which is valid both for EA (contraction taking place in 2011) and for the EU (contraction taking place during 2011-2012). However, fiscal stance indicates a predominantly contractionary fiscal policy until 2016 for NEA countries, and until 2019 for EA and EU countries. The COVID-19 crisis has somewhat changed the trend, starting with 2020, marking the need for a relaxation of fiscal rules but especially for national and European fiscal stimulus programs, the effects of which have proved extremely beneficial for the economy in the context of the imposed restrictions. Figure 4 summarizes the previous information as well, but now from the perspective of cyclic factors or automatic stabilizers.

**Figure no. 4. Primary balance and automatic stabilizers of Non-euro area, euro area and European Union countries express as % of GDP in the period 2000-2021**

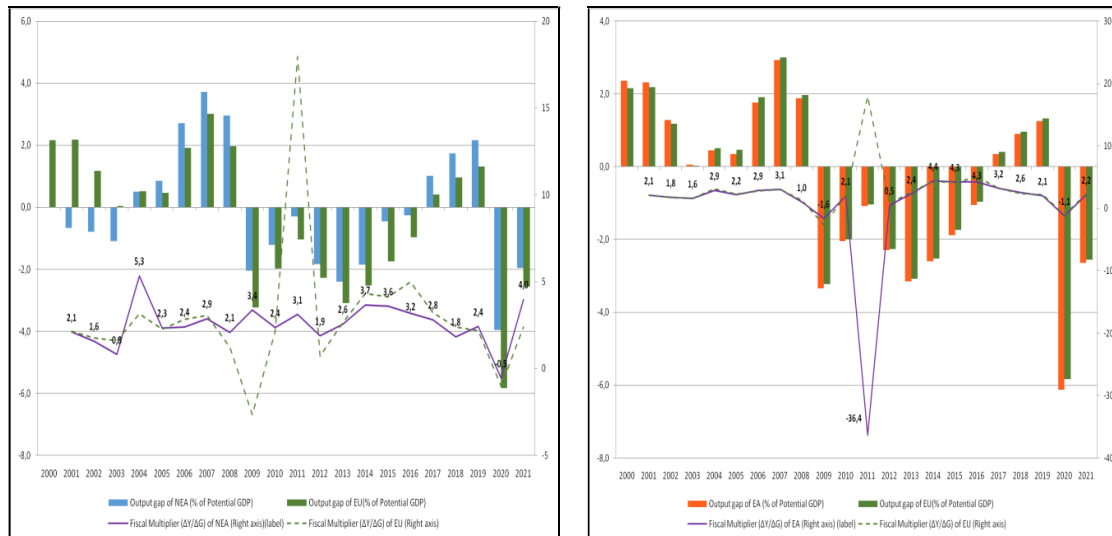


Source: Ameco data; author's processing. Notations: NEA - Non-euro area countries; EA - Euro area countries; EU- European Union countries

Thus, for the NEA countries we notice that they decrease, in value, in the period 2000-2014, being also negative in this period, and from the period 2015-2021 they start to have a positive and increasing evolution. The same is true for EA, automatic stabilizers decrease until 2016, and then become positive and increase in 2017-2021. The years 2000-2021 mark a relatively corresponding increase in the value of automatic stabilizers, suggesting a relatively good reaction of the economy to the non-economic crisis, but with considerable economic effects, triggered by the COVID-19 pandemic.

To see the effect of fiscal conduct (expansion or contraction) on production, it will be calculated the fiscal multiplier. So, in the Figure no.5 we can see the evolution of the fiscal multiplier, referring here strictly to the impact expense multiplier, and we notice that for the NEA countries the evolution is relatively volatile, although the oscillation is relatively balanced, except for the year 2020 for NEA countries, and 2009, 2011 and 2020 for EA countries and 2009 and 2020 for EU countries. The year 2011 marks a sharp collapse in the fiscal multiplier of spending for EA countries, which shows that the sovereign debt crisis has left its damaging mark, even stronger than the crisis of 2009 and 2020 on the evolution of output.

**Figure no. 5. Output gap and fiscal multiplier of Non-euro area and European Union countries express as % of GDP in the period 2000-2021**



Source: Ameco data; author's processing. Notations: NEA - Non-euro area countries; EA - Euro area countries; EU- European Union countries

Therefore, the article highlights a number of elements of European taxation from 2000-2021, analyzing a number of basic fiscal indicators for the diagnosis of fiscal policy. However, a number of questions remain regarding how best to bring growth to potential growth. In this sense, we can still ask ourselves how much should be and how should react the fiscal stance, the fiscal impulse, the fiscal multiplier and the cyclically-adjusted primary balance etc. These questions are even more pronounced in the context of the fact that the fiscal policy has an natural delayed impact in time on economic output, being difficult to establish, with certainty, the optimal moment of action. In addition, the fact that fiscal policy directly and indirectly influences other macroeconomic indicators related to consumption, investment and net export, public debt, employment, etc. it can make us answer with difficulty regarding the optimal levels of the indicators pursued and especially, what are the measures that can bring us almost certainly in the proximity of the potential output. The answers are even more difficult to build in the context in which, lately, the crises have followed a pattern of a very dense frequency in Europe and especially in the EU. Thus, they have an extremely varied and complex form, starting from an economic crisis, continued with a debt crisis, then with a pandemic crisis and at this moment augmented by a war crisis on its borders and probably with a food and energy crisis difficult to fight, and especially difficult to be solved adequately by fiscal policies.

## 6. Conclusions

The crises that have followed one another with astonishing rapidity lately, especially in the last 10 years, put us in front of the fact of asking ourselves what is the capacity of public policies to face them. Thus, the article analyzes a series of basic indicators of a fiscal diagnosis in the EU regarding the assurance of fiscal sustainability, especially in the short term. The analysis period is 2000-2021, and the methodology, although relatively simplistic, is that used by the International Monetary Fund. Therefore, the results mark that:

- The gap between the overall balance and the primary balance has narrowed over time, which also demonstrates an improvement in market conditions in the EU, but also a more adequate public policy on interest rate management both in non-euro area countries and euro area member states,

- During the analysis period, the collapse of the basic fiscal indicators (overall balance and primary balance) are sudden, and the returns, cumbersome and gradual, and the main

driver of shocks is felt especially in the euro area, which is not surprising, especially since it is almost three times the size of the non-euro area (only seven countries),

- For Non-Euro Area (NEA) countries the recession periods are 2000-2003, 2009-2016, 2020-2021 and the expansion periods are only 2004-2008, 2017-2019, so from a period of 22 years, 14 years clearly in recession, comparatively more time than in euro area countries; this may also indicate that the macroeconomic policies of this area are less efficient in bringing the economy to its potential level quickly and efficiently,

- For NEA countries, the current balance exceeds the cyclical one, which indicates theoretically that the period of the closeness of the economy with the potential is only starting in 2016 and 2017 for EA countries, continuing until the 2020-2021 crisis, when fiscal situation was looking worse than it actually was because of the recession,

- The fiscal impulse for the NEA countries was predominantly expansionist, only the year 2012 marked a rather contractionary moment, which is valid both for EA (contraction taking place in 2011) and for the EU (contraction taking place during 2011-2012). However, fiscal stance indicates a predominantly contractionary fiscal policy until 2016 for NEA countries, and until 2019 for EA and EU countries. As natural, the COVID-19 crisis has somewhat changed the tendency, for the period 2020-2021,

- Considering automatic stabilizers, we can see a decrease in value in the period 2000-2014 for the NEA countries, and in the period 2000-2016 for EA countries, being also negative in this period, and from the period 2015(2017 for EA countries) until 2021 they had an increasing positive evolution; the year 2021 mark a relatively corresponding increase in the value of automatic stabilizers, for both NEA and EA countries,

- The fiscal multiplier performed relatively well during the 2000-2021 analysis period in both NEA and EA countries, but marked, as expected, a deterioration in the onset of the economic crisis (2009, 2021 and also 2011 for EA, on the background of sovereign debt crisis).

Given the current developments, and especially the war in Ukraine, fiscal indicators will certainly deteriorate in European Union in the near future, synchronizing with downward GDP developments. Thus, fiscal policy will face tight borrowing constraints, probably higher risk premiums due to the more stressed and less liquid financial markets, an important loss in fiscal revenues, and with increasing public spending on the background of the need to improve the social consequences of the massive flows of refugees, etc.

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## MANAGEMENT AND ANTICIPATION OF RISK - A NECESSITY FOR LEADERS

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**Abstract:** *As we take part in a series of imbalances that occur throughout the world, and globalization, with all its fundamental components, generates chain reactions when a phenomenon occurs, either positive or negative, the role of leaders in an organization is that of when trying to mitigate the effects of risks. The leader's attitude towards risk is important because the way he acts, how he manages and anticipates the risks lead the organization to success. To be able to manage and anticipate the risks of an organization, the leader must possess one of the most important qualities - the vision. By managing, anticipating and leading the vision, the effects of the risks to which organizations can be exposed due to frequent changes can be mitigated. Management and anticipation risks thus become a necessity for leaders, a distinctive element of the organization's struggle, differentiation from the competition by which it manages to foreshadow the future status of the organization. The purpose of this paper is to present the importance of risk management and their anticipation by leaders in order to reduce the effects of risks on the organization through a rigorous analysis of the specialized literature, of the scientific documents.*

**Key words:** leadership, leader, vision, management risk, anticipation of risks.

**JEL classification:** G32, M12, O15.

### 1. Introduction

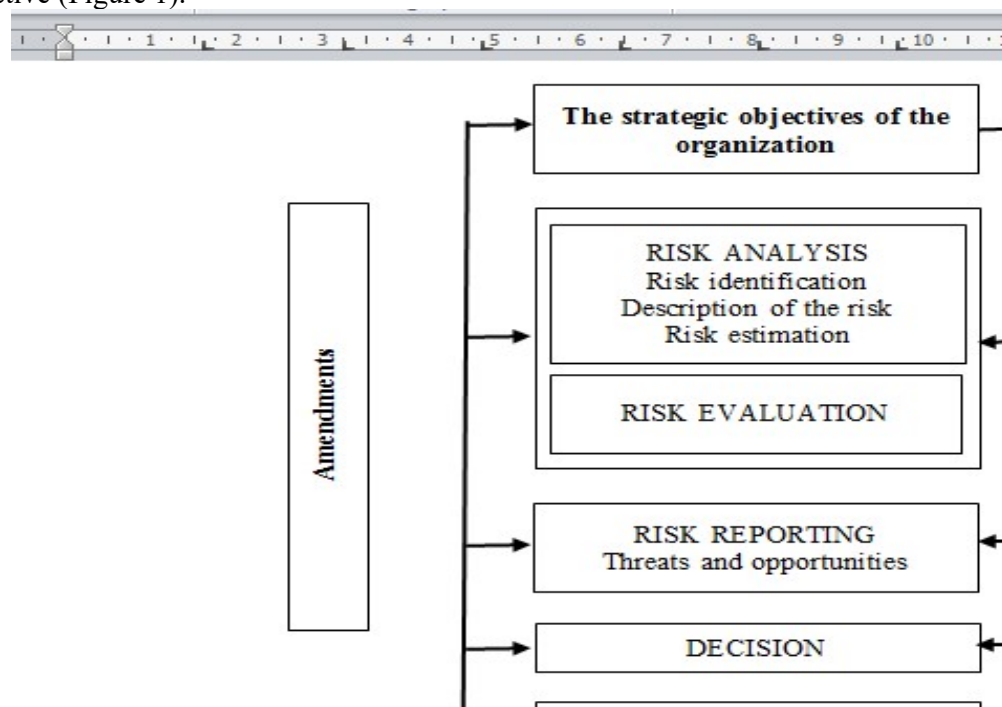
In today's society where everything has a price, information has very fast speed of movement, people have increasingly diverse interests, when we talk about the organizational environment, the pressures and changes that globalization brings, we indirectly say the need for adaptability fast. How do we differentiate one successful organization from another? Not only the technology ensures the evolution and resistance to change, but also the top management. By the top management, we refer mainly to the leader or leaders of the organization. Thus, the strength of a leader in these times is his ability to anticipate potential risks and mitigate their effects. The extended activity of an organization on a global scale thus forces the leader to create a risk management taking into account multiple aspects: socio-cultural, environmental, economic, technological etc. Also important to remember is that the risk is the one that can be insured, thus allowing the reduction of possible damages, while the uncertainty does not.

### 2. Risk management in organizations

Worldwide, The International Organization for Standardization ISO 31000: 2018 Risk Management Guidelines supports organizations in developing a risk management strategy in order to identify and reduce them effectively, thus increasing the likelihood of achieving their goals and developing the degree of asset protection. their. Its priority objective is to form and develop a culture of risk management in which the members of the organization and stakeholders are aware of the importance of monitoring and risk management at the level of the organizations to which they belong. The principles of ISO 31000: 2018 offer directions for optimizing risk management processes, which can be used by public entities and national and multinational companies, regardless of the size of the organization or sector of activity.

The ISO 31000: 2018 standard is designed to "increase the likelihood of achieving the objectives, improve the identification of opportunities and threats and effectively allocate and use resources for risk management" (International Organization for Standardization ISO 31000 website: [www.iso.org/standard/65694.html](http://www.iso.org/standard/65694.html)).

At the level of the organizational entity, risk management is a cyclical, proactive, continuous and systematic process of identifying, evaluating and managing the risks carried out at the level of the organizations, in order to provide reasonable assurances regarding the increase of the probability of achieving the objectives in an efficient and effective way effective (Figure 1).

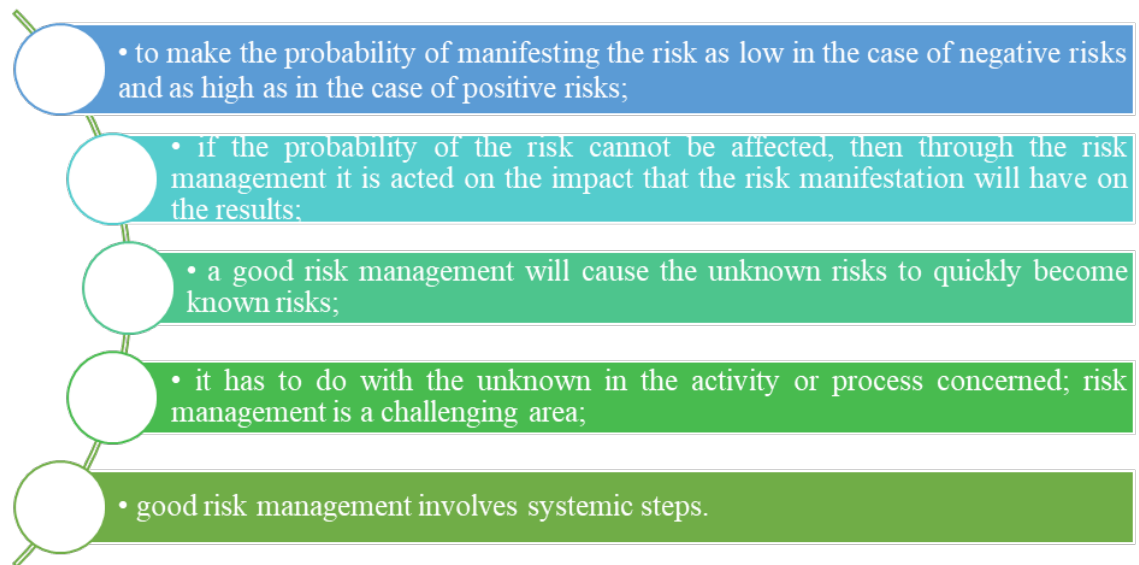


**Figure 1. The structure of the risk management process in the AIRMIC, IRM, ALARM approach**

*Source: Institute of Risk Management - The Risk Management Process*

Although the risks cannot be completely eliminated, most can be anticipated and managed efficiently and operationally. For the leaders of the organizations, the correct and timely identification of the risks associated with the specific objectives represents the result of a complex of factors related to the managerial experience, certified and practically proven competences and a special ability in successfully combining the specific methods, techniques and tools for risk identification, but also of the lessons learned.

The role of risk management in an organization can be multiple and brings a number of benefits to the organizational environment. Authors such as Acharyya and Brady (2014) argue that risk management encompasses a number of goals but also roles (Figure 2):



**Figure 2. The purpose of risk management in an organization**

Source: made by the author after Acharyya, M., & Chris, B. (2014). *Designing an Enterprise Risk Management Curriculum for Business Studies: Insights from a Pilot Program. Risk Management and Insurance Review*, 17(1), 113-136.

The complex and continuous process of risk management in educational organizational entities is also a component part of the internal management control system, with the help of which the leaders or the managers with attributions in this field manage the significant risks, identified within the organization, the final purpose of this process being to keep these risks at an acceptable level. From this perspective, the risk management system must be integrated into the management system of the educational organization and use techniques, methods and working tools, communication channels as well as specific procedures adapted and correlated with the other elements of the management system.

The efficiency of the management management process derives from the existence at the organization level of the following entities and documents:

- structure (compartment, office, department) with responsibilities in risk management;
- responsible for risk management at the level of each structure within the organizational entity;
- elaboration and implementation of the system procedure in the field of risk management;
- risk register.

The structure with responsibilities in risk management is the organizational entity designated to carry out activities, independent or integrated in other structures, to carry out all the stages provided in the process, as follows: establishing the specific and operational objectives of the organizational entity, identifying the risks associated with the planned objectives or activities, assessing the risks and risk management.

The person in charge of risk management is the person established at the level of each compartment (office, department, department, department) with rigorously established attributions, which covers all the processes regarding the identification, evaluation and assessment of risks, establishing a set of mitigation and / or anticipation measures. , periodic review and monitoring of progress.

The system procedure in the field of risk management represents the document elaborated, which establishes a general unitary framework, at the level of the organizational entity, for identification, evaluation and risk management.



The risk register, the document resulting from the risk identification process, is an essential working tool for the successful management of risks. After elaboration, the risk register becomes part of the documents specific to the risk management process and includes the previous records that will be used to carry out future risk identification activities.

### **3. The link between leadership and risk management**

Leadership is a field of great interest nowadays as it has an increasing impact on the world around us. Thus, starting from the concept of organizational leadership, we want to highlight how leaders balance with their skills (creativity, innovation and vision, etc.) risk management.

It is thus understood, that leaders everywhere are taking part in a series of constantly changing realities determined by profound economic, political, social but also technological progress. Organizational environments are at the center of changes that demand a new leadership model (Goleman, Boyatzis, & McKee, 2018). As a result, organizations are trying hard to adapt to the demands generated by the changes that have occurred, and their leaders face a myriad of risks that are sometimes difficult to anticipate because they happen to fail to define them from time to time. or raise awareness. Thus, risks have become a topical issue that leaders face almost daily. In this situation, leadership could be the main component of mitigating the effects of the risks, ensuring the vision, but also the dedication necessary to materialize the vision.

The vision outlines the leaders' conception of what the organization is today, how it should look over a certain period of time, and what is the path to follow between the existing and the desired situation. Practicing a vision is not always an easy task, it involves risks that can lead to consequences. The visionaries are those who progress through change and who are able to draw new boundaries. Visionary leaders are able to convey to people that they play an important role within the organization, and as we are well aware, progress always requires risks. Leaders must be willing to do things that others do not want to do and take risks (Maxwell, 2010).

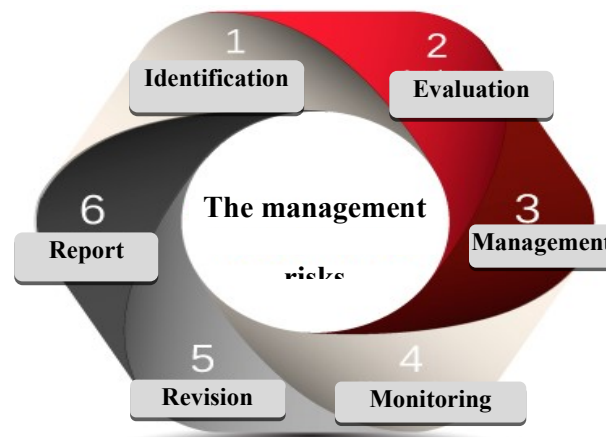
The power of anticipating risks and making decisions in difficult situations distinguish true leaders from the rest, they distinguish simple leaders from visionary leaders. When the organization goes through unpleasant times, a good leader will know how to give directives, encourage progress and change, put his vision into practice, coming up with unique solutions. In such situations, only the best leaders can effectively run an organization, making the hardest decisions.

While risk awareness should be both intuitive and conscious, decisions need to be proactive, not passive or negligent. Closely related to the mission and organizational culture are the leadership skills of the leaders, their own experience and the accumulated experience, all influenced by the ability to discover and judge the risks.

### **4. Risk management and anticipation by leaders**

The leaders of the organization are also very essential in the process of managing and preventing risks, because they "articulate their objectives, the organization, develop strategies ..., identify the risks to achieve these objectives and then diminish these risks in achieving the strategy" (DeLoach & Thompson, 2014, p. 2). According to the Committee of Sponsoring Organizations - COSO, leaders are those who provide guidance and directions as they establish and "agree on what represents risk" for the organization (COSO, 2009, p. 10) and adopts, develops appropriate strategies for managing risks. Curtis and Carey (2012, p. 18) I believe that the correct risk assessment will be done only when the leaders of the organization at all levels use the appropriate information to make the right decisions.

Risk identification represents the first and most important phase of the risk management process (Figure 3), which consists of identifying the potential dangers that exist within the entity.



**Figure 3. Structure of the risk management process at the level of public entities**

*Source: Metodologia de management al riscurilor, 2014-2020, p. 6*

Regarding the risk assessment stage, Cleary and I. Malleret (Cleary & Malleret, 2007) specifies that risk assessment depends on who you are and what you do. The leaders of the organization, the boards of directors, while responsible for monitoring, evaluating, avoiding or managing the risk, have different levels of responsibility for its supervision.

When we talk about risk-taking behavior among the leaders and agents of an organization, attitude to risk is an important component of organizational success. In almost every major industry, successful business executives can easily identify a risky decision that has served as a platform for achieving above-average organizational results (Gerstner, 2001). There are also authors who refer to risk intelligence, which represents a person or an organization that has the ability to measure risks effectively, involving the classification, storage, characterization, retrieval and action of relevant information, provided that communication and adaptation efficiency are in place. to new circumstances (Apgar, 2006).

Risk is something that every employee, but especially the leaders of an organization, have a duty to control as much as they can, even if there is little evidence of its existence. Apgar (2006) argues that organizational effectiveness is improved, now more than ever before, but at the same time leaders must look back, because risk is not just something to be managed and even so, this management becomes an increasingly risky action. Thus, one of the key behaviors of effective leaders is the willingness to take risks, because risk is an element of novelty that we face every day. By definition, leaders are professionals. If there is no risk, a low level of leadership is required.

If the effort is easy and sure to succeed, anyone can and probably will "lead" it. But if the effort involves a risk of failure, many people will shy away from the challenge. Managing risk taking is necessary for people to make the commitment and effort to succeed. Strong leaders are not afraid to challenge the current situation. You don't have to "run with the crowd".

Risk management means achieving objectives with the help of employees, within all public entities. Although we can define risk management by this simple statement, the activities carried out by a leader are much more complex and dynamic, involving, in most cases, creativity, adaptability or innovation capacity, without the list of qualities of the modern manager to stop here. British Leadership Expert, J. Adair (2014), assigns the

following qualities of a risk-taking leader: firmness, ability to mobilize energy, integration, imagination, willingness to work, ability to be analytical, ability to understand others, ability to grasp opportunities, ability to overcome unpleasant situations, to adapt to any change. Although it is quite difficult to find a generally valid definition for these qualities, it is certain that a leader needs intelligence, a positive attitude and a combination of courage, insight and a sense of reality.

## 5. Conclusions

Risk is an important dimension of human existence, being present at every step and in every field of activity. Willingness, fear of failure, anxiety or emotionality can negatively influence attitude toward risk, but each person has their own psychological mechanisms through which they can react effectively in potentially dangerous cases.

Risk management and especially the leader's attitude towards risk is very important to be able to manage, anticipate and mitigate risks because each activity of the company will inevitably face a variety of risks that can affect the achievement of corporate objectives. For each organization it is important to have a strong risk culture that implies that employees understand the strategic orientation of the organization and a willingness to take risk. The leader's strong desire to lead, commitment and involvement for the organization can change the way an organization behaves and makes decisions. Risk management should be successfully incorporated into an organization when the beliefs and behaviors of the employees in that organization reflect the understanding of the risks, the awareness of the risks and the implementation of the risk management framework. In conclusion, the leader is not afraid to take risks and encourages followers to take risks. Risks once materialized create a precedent, so it can be used as a learning method within entities that have such a culture of risk management.

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## E-COMMERCE IN THE CONTEXT OF THE COVID-19 PANDEMIC

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**Abstract:** *In a competitive society, such as today's, in which information and communication technology, which is constantly evolving, plays a particularly important role in all aspects of modern society, large and small firms have noticed the potential that e-commerce has it in increasing profits and reducing costs. The Covid-19 pandemic, the restrictions imposed, the social distance, have changed the habits and preferences of shoppers, who are more oriented than ever towards online shopping. This paper aims to present a number of aspects of the business-to-consumer sector, in which transactions take place between companies and private consumers.*

**Key words:** *e-commerce, Internet, B2C, smartphone.*

**JEL Classification:** *L81, L86.*

### 1. Introduction

The COVID-19 pandemic has accelerated the digital transformation and significantly increased e-commerce.

According to the Organization for Economic Co-operation and Development (OECD), e-commerce is the sale or purchase of goods or services, carried out via the Internet, by methods specially designed for the purpose of receiving or placing orders (OECD, 2022).

In a broader sense, e-commerce includes all business activities that use Internet technologies (Schneider, 2011).

Depending on the types of entities involved in transactions (or business processes), the following general categories of e-commerce are distinguished:

- business-to-consumer (B2C);
- business-to-business (B2B);
- business processes that support buying and selling activities;
- consumer-to-consumer (C2C);
- business-to-government (B2G).

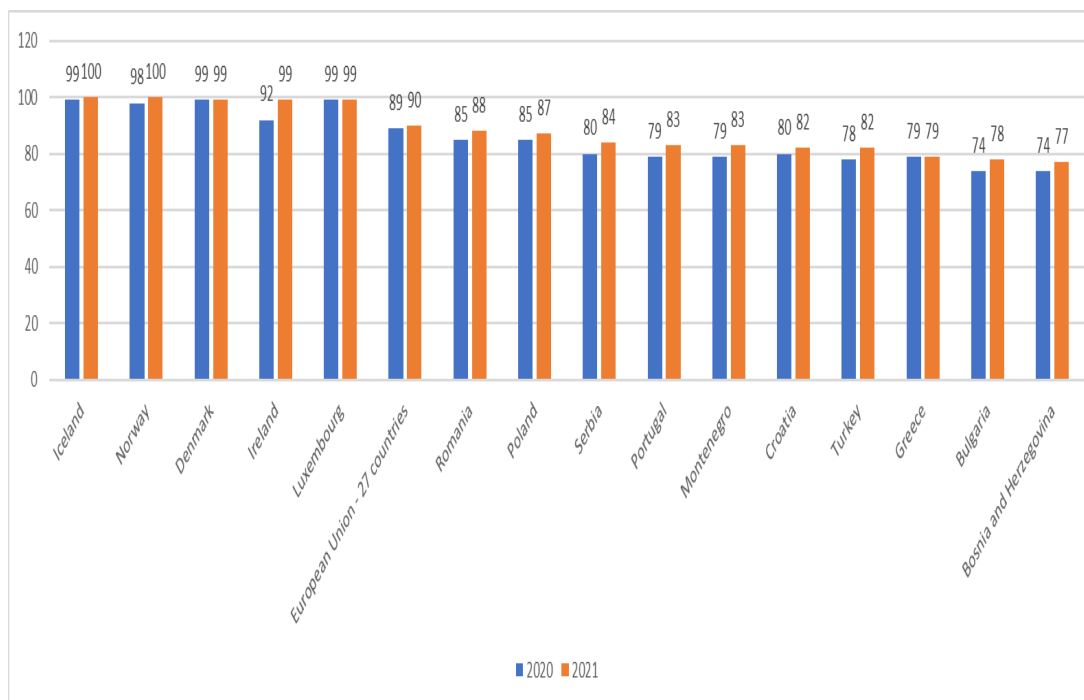
This paper analyzes the business-to-consumer sector, in which transactions take place between companies and private consumers.

### 2. E-commerce in today's society

The number of Internet users is constantly growing, due to both the evolution of Web technology (from Web 1.0, in which Internet users could only read the information presented to them, to Web 4.0 which, based on wireless communications, connects people and objects in the physical or virtual world in real time (Benito-Osorio et al., 2013) and further to Web 5.0 in which technology and human interaction become inseparable) as well as mobile technology.

According to the “Digital Around the World” reports (DataReportal, 2020; DataReportal, 2021; DataReportal, 2022), in January 2022, 62.5% of the world's total population used the Internet compared to 59.5% of users in early 2021 and 59 % of users at the beginning of 2020.

The number of Internet users (as a percentage of individuals) at European level in the period 2020-2021 is presented in (Figure 1). The graph shows the situation of the countries in the 1-6th place in the ranking, the EU-27 European average and the situation of the countries in the last 10 places in the ranking, for which there were reported data.



**Figure 1. Number of Internet users (as a percentage of individuals) in the period 2020-2021**

Source: Made by the authors based on data available at Eurostat, 2022b. *Individuals – internet use*. [online] Available at: <[https://ec.europa.eu/eurostat/databrowser/view/isoc\\_ci\\_ifp\\_iu/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/isoc_ci_ifp_iu/default/table?lang=en)> [Accessed 28 February 2022].

At European level, there is an increase in the number of users by 1% during the period presented, in Romania the increase being by 3%. Compared to 2019, in 2021 the number of users increased by 3% in the EU-27, in Romania the increase was 8% (Eurostat, 2022a).

If until a few years ago the Internet was accessed mainly from the desktop or laptop, by increasing the sales of smartphones, the transition to the Internet was made on mobile devices.

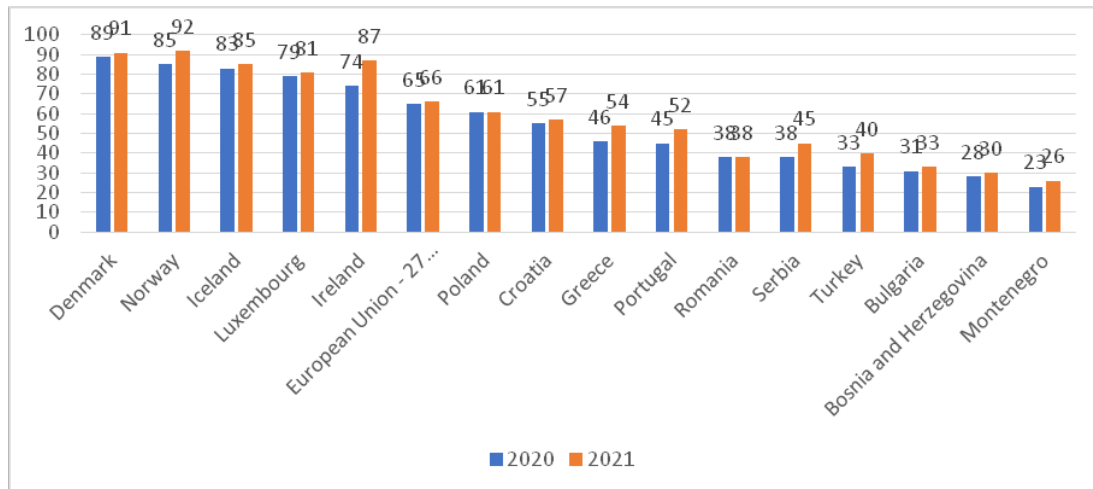
Of the world's Internet users at the beginning of 2022, 92.1% used mobile devices to connect to the Internet for at least part of the time, 0.1% more than in 2020 (DataReportal, 2020; DataReportal, 2022).

In Romania, in 2021, 14.36 million people used the Internet from a mobile device, 1.3 million more compared to 2020 and 2 million more compared to 2019, this number will reach 2026, according to forecasts, to 16.19 million people (Statista, 2022a).

The Covid-19 pandemic, the restrictions imposed, the social distance, have changed the habits and preferences of consumers, who are more oriented than ever to online shopping.

In this context, companies have had to readjust their strategies, invest more in technology and digital, continue to migrate to online, reinvent the way they reach customers, model their services and goods according to consumer needs. Thus, it becomes a necessity for companies to have an e-commerce platform that offers easy and safe navigation to customers, that adapts to mobile devices and that is easy to maintain and monitor.

The number of Internet users belonging to the countries shown in (Figure 1) who made online purchases in the period 2020-2021 is shown in (Figure 2).



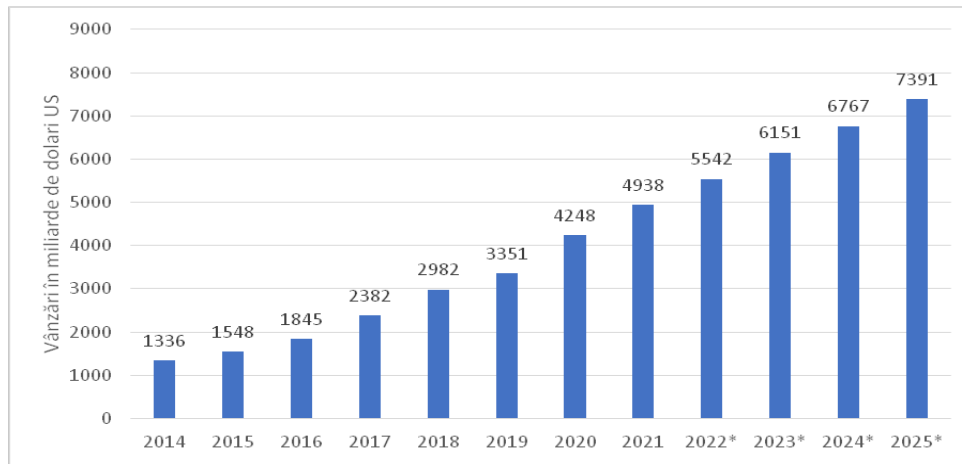
**Figure 2. Internet purchases made by individuals (as a percentage of individuals) in the period 2020-2021**

Source: Made by the authors based on data available at Eurostat, 2022c. *Internet purchases by individuals (2020 onwards)* [online] Available at: <[https://ec.europa.eu/eurostat/databrowser/view/isoc\\_ec\\_ib20/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/isoc_ec_ib20/default/table?lang=en)> [Accessed 28 February 2022].

At EU-27 level, the increase in the number of Internet users who made online purchases during the period under review was 1%. Ireland recorded the highest increase in the period under review, of 13%, while in Romania and Poland the values remained unchanged.

Compared to 2019, the increase in 2021 at EU-27 level was 17%, in Romania the increase was 23% (Eurostat, 2022a).

In (Figure 3) is presented the evolution of sales made through e-commerce worldwide in the period 2014-2021 and a forecast of sales made through e-commerce for the period 2022-2025.



**Figure 3. Worldwide e-commerce retail sales (2014-2025) (in billions of US dollars)**

Source: Statista, 2022b. *Retail e-commerce sales worldwide from 2014 to 2025*. [online] Available at: <<https://www.statista.com/statistics/379046/worldwide-retail-e-commerce-sales/#statisticContainer>> [Accessed 22 February 2022].

The graph shows a 47% increase in e-commerce retail sales in 2021 compared to 2019. It is estimated that by 2025 the increase will be 121% compared to 2019.

In addition, the development of AR technologies (augmented reality, in which the simulated world is integrated into the real world by placing virtual objects in real world environments) and VR (virtual reality - in which the real world is replaced by the virtual world) is increasingly the online shopping process offers a number of advantages to both customers and merchants:

- ✓ personalization of the shopping experience for customers, these being much more interactive, more captivating
- ✓ reducing the number of returned products, customers being much more sure that the product according to their needs is the ordered product
- ✓ stores are brought to customers, in the sense that through the screen of a tablet or smartphone customers can "try" a product before buying it, which leads to an increase in sales.

Regarding the categories of goods purchased, according to the data provided by Eurostat, the category: "clothing (including sportswear), footwear and accessories" ranks first, followed by the category: "deliveries from restaurants, fast food chains, catering services" and the category "furniture, home accessories or gardening products".

On the first place in the top of the e-commerce stores preferred by Romanians is emag.ro with an increase of 19.3% in 2021 compared to 2020, followed by fashiondays.ro with an increase of 26.4%, altex.ro with a increase of 20.6% and dedeman.ro with an increase of 10.5% (EcommerceDB, 2022).

According to the report "European E-Commerce Report 2021" (E-commerce, 2021), in Romania, the percentage of the Gross Domestic Product generated by e-commerce in 2020 was 3.51%, compared to 2.78% in 2019 and 4.19% in 2022 (estimated at the time of the report).

Like any other business, e-commerce has a number of advantages and disadvantages for both the consumer and the seller.

Consumer benefits include:



- ✓ access to a much wider range of products and services, eliminating the geographical barrier
- ✓ the convenience of buying goods or services without going to the physical store
- ✓ the possibility to shop at any time
- ✓ the possibility to compare products, brands, having quick access to detailed information about them as well as to the reviews provided by real customers.
- ✓ Consumer fears about e-commerce are related to:
- ✓ security issues, through which the personal information provided can be collected and used without the consent of their owner
- ✓ data confidentiality (eg transactions made, sites visited, etc.)
- ✓ the fact that the products cannot be tested, tried on, the lack of sensory analysis specific to different types of goods
- ✓ low probability of returning certain types of items.

In (Figure 4) are presented the main reasons given by consumers not to shop online. The data, provided by Eurostat, represent the responses of people aged 16-74 in 2021.

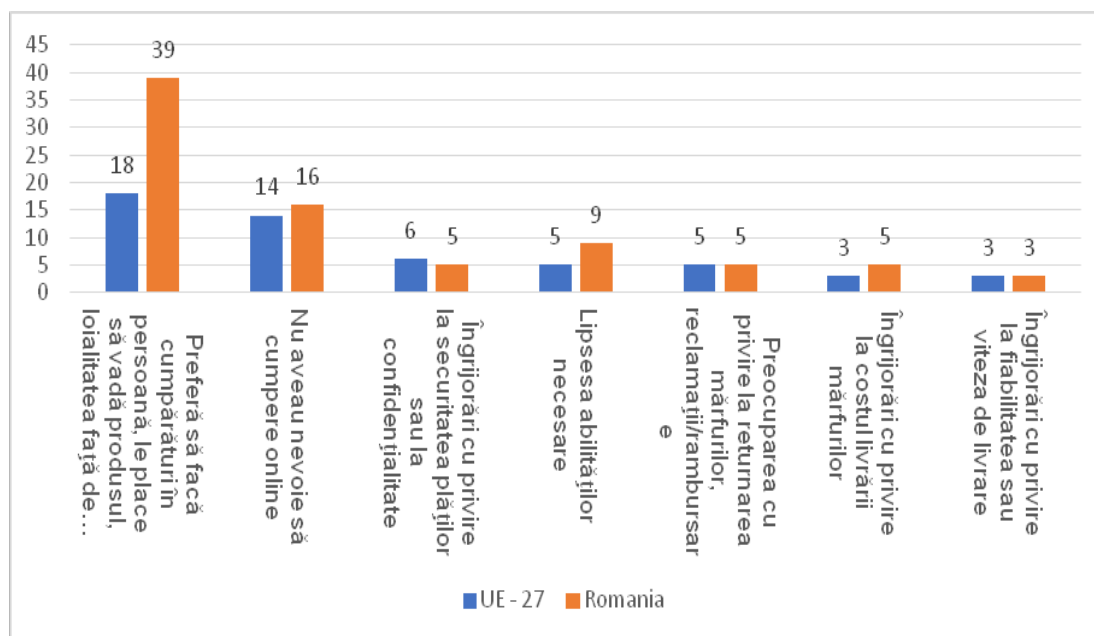


Figure 4. E-commerce - perceived barriers, 2021 (as a percentage of individuals)

Source: Made by the authors based on data available at

Eurostat, 2022d. *Internet purchases – perceived barriers (2021 onwards)* [online] Available at: <[https://ec.europa.eu/eurostat/databrowser/view/isoc\\_ec\\_inb21/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/isoc_ec_inb21/default/table?lang=en)> [Accessed 28 February 2022].

At European level, it is observed that 18% of respondents prefer to shop in physical stores, in Romania the percentage is 21% higher. 9% of Romanian respondents considered the lack of necessary skills an impediment to online shopping, 4% more than the European average.

For companies, e-commerce brings a number of undeniable advantages, including:

- ✓ eliminating the costs associated with physical stores;
- ✓ elimination of geographical limitations;
- ✓ 24/7 operability which leads to an increase in sales volume;
- ✓ modeling goods and services according to the needs of buyers.

Although online sales are on the rise, there are a number of disadvantages for companies as well, such as:

- ✓ difficulty integrating existing databases and transaction processing software designed for traditional commerce into e-commerce software (Sneidei, 2011);
- ✓ lack of customer interaction, especially in certain industries where the sales assistant-customer interaction is very important;
- ✓ issues related to the security of the e-commerce site, which could have financial and legal implications.

### 3. Conclusions

E-commerce has been on the rise in recent years, accelerated by the Covid-19 pandemic, which has forced companies to re-evaluate their traditional business models to retain existing customers and attract new customers by digitizing services, adopting AR and VR technologies, in the conditions of changing the behavior of the consumers, of the diversification of the distribution channels.

The e-commerce market will continue to grow in the coming years, representing a flexible solution for both buyers and merchants, the latter having to adopt an omnichannel strategy to improve the customer experience and thus achieve more big sales.

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## DIMENSIONS OF THE ROMANIA'S BUDGET DEFICIT IN 2020. FINANCING AND PERSPECTIVES

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**Abstract:** *The evolution of the Romanian economy in 2020 was marked by the emergence of the COVID-19 pandemic and the adoption of measures to restrict mobility, needed to prevent the disease spread. The health crisis management obviously required significant financial resources, in addition to the significant pre-crisis debt stock. On the other hand, measures adopted to support the economy, along with the gradual easing of restrictions over certain periods, have had the effect of improving investors and consumers perception. However, in order to maintain easy and cheaper access to the external financing market, it is crucial for Romania to engage in fiscal reforms that will improve the predictability of the fiscal framework, revenues collection capacity and will adjust budget expenditures according to the revenues evolution. Improving the governance of public investments, focusing mainly on strategic areas, as well as using European funds to a greater extent are the elements that can lead our country's economy to a new growth model, while reducing the pressure on budgetary resources.*

**Keywords:** *deficit, budget, public administration, economic crisis, financing, investments.*

**JEL Classification:** *H62.*

### 1. Introduction

The level of systemic risks to financial stability in Romania in 2020 remained significant, analogous to international dynamics, given that the outlook for future economic activity continued to be marked by uncertainty, mainly fueled by the multitude of effects associated with the COVID-19 pandemic period.

This crisis has shown, more than ever, the need for a change in the structure of economies, with a focus on environmental protection, implementation and support of technological innovations in the digital field, activities of increasing inclusion and of reducing inequality. Moreover, the crisis has involved significant efforts to ensure the sustainability of accumulated debt, especially in the public and private sectors.

Nowadays, the idea that the budgetary deficit becomes a means of relaunching economic activity (given that it is not already inflationary) is being issued more and more often (Cioponea, 2007). It is possible to act on the demand for public goods and services by using conjunctural action funds, thus achieving a flexible budgetary policy, within which public expenditures can be resized in relation to the size of these funds. If no changes are made to the regulation of taxes, tax revenues may be a tool for short-term adjustment.

In this regard, a process of crucial importance is to make public spending efficient. The desired goals can be achieved more efficiently, sometimes faster and at lower cost, without reducing the quantity or quality of the provided services (Kolodko, 2015). Moreover, the Government is considered to be the only economic actor that can maintain the level of demand in the economy, spending more than it earns, i.e. registering a budgetary deficit (Chang, 2014).

## **2. Romania's budget deficit in 2020**

### **2.1. Economic situation and synthetic budgetary indicators**

For the year 2020, an economic growth of 4.1% was forecast in Romania, and this growth took into account the contribution of the following factors:

- domestic demand seen as an engine of economic growth (+ 4.7%);
- the growth rate of gross fixed capital formation forecast at 6.8%;
- the final consumption expenditures of the population forecast as having a real annual dynamics of 4.9% (MPF, Budgetary Execution Report 2020).

The evolution of the economy has been affected by the onset of the health crisis since the second half of March 2020, statistics show a decrease in gross domestic product by 3.9% in 2020 compared to 2019 based on the activity shrinking in most sectors, consequence of the administrative measures adopted by the Government to limit the effects of the SARS-COV2 pandemic.

Compared to the estimated economic growth in the construction of the budget for the financial year 2020, there was a decrease in gross value added in industry, services and agriculture and a positive development in construction. However, the contraction of the Romanian economy in 2020 was below both the EU 27 average (-6.1%) and that of the Eurozone (6%), as a result of a mix of government policies which stimulate public investment and reduce the negative impact on private consumption.

The nominal value of the gross domestic product achieved in 2020 was 1055.5 billion lei compared to 1129.2 billion lei as initially estimated when drafting the state budgetary law, a difference 73.7 billion lei less.

In terms of usage items, domestic demand fell by 2.1% in 2020. Positive developments in government investment and consumption have supported the slowdown in the economic downturn. Investments in infrastructure and those in the residential sector which were made under the conditions of construction works' expansion (+ 15.9%), led to an increase of 6.8% in gross fixed capital formation (with a contribution of 1.5 percentage points). At the same time, the application of the necessary measures in order to limit the spread of the virus has led to an increase in government consumption by 2.0%.

Regarding private consumption, the restrictions imposed on the population in the context of the pandemic crisis had the effect of reducing it by 5.2% compared to 2019, contributing by 3.2 percentage points to the decrease of the real rate of gross domestic product. Net exports (-1.6 percentage points) also had a negative contribution to the decrease in GDP in 2020, as a consequence of the 9.7% reduction in exports of goods and services, higher than the contraction of imports of goods and services (-5.1%) (MPF, Budget Execution Report, 2020).

In 2020, inflation has been on a downward trajectory since the beginning of the year, reaching a low of 2.06% in December, 1.5 percentage points lower than in January, when it reached the maximum of 3.60%. The reduction in the inflation rate was due to a contraction in domestic demand, the effects of which were partially offset by a depreciation of the national currency against the euro, averaging 1.9%.

The slowdown in the annual inflation rate in the latter part of 2020 was due to the lowering of vegetable and fruit prices amid rising supply, but also due to a base effect on some food items. The evolution was partially reduced by the increases recorded in December for fuel and cigarettes.

On average, inflation recorded a moderate level of 2.63% in 2020, with above-average increases in food prices (4.80%) and service tariffs (3.10%), while prices for non-food goods increased by only 1.01%.

Compared to 2019, the deficit which is calculated according to the ESA 2010 methodology in 2020 increased by 4.8 percentage points, from 4.4% of GDP in 2019 to 9.2% of GDP in 2020.

Romania's structural deficit stood at -7.5% of potential GDP in 2020. The cyclical component of the consolidated general budgetary deficit was -1.7% of potential GDP, significantly mitigating the deepening of the structural deficit, given the deterioration of the ESA deficit as a result of the COVID-19 pandemic (MPF, Raport privind execuția bugetară, 2020).

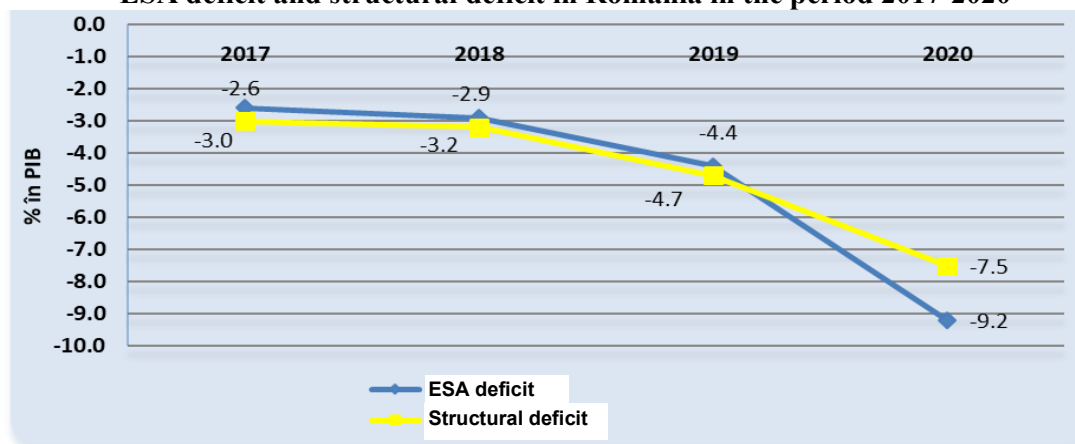
Figure no. 1

**Structural deficit in Romania**

	2017	2018	2019	2020
Structural deficit	-3,0	-3,2	-4,7	-7,5

Source: Ministry of Public Finances, *Raport privind execuția bugetară finală pe anul 2020*,  
www.mfinante.gov.ro

Figure no. 2

**ESA deficit and structural deficit in Romania in the period 2017-2020**

Source: Ministry of Public Finances, *Raport privind execuția bugetară finală pe anul 2020*,  
www.mfinante.gov.ro

The National Bank has identified only one severe systemic risk in 2020, namely tensions in domestic macroeconomic equilibria, also as a result of the COVID-19 pandemic. The following two risks to financial stability were assessed at a high level: (i) the persistence of uncertainty about the return to global economic activity in the context of the COVID-19 pandemic; and (ii) the risk of non-repayment of non-government loans. The last risk factor, in the moderate category, is the access to finance of the real economy.

The main challenge for the next period was the risk of tensions in the internal macroeconomic equilibrium, as a result of the COVID-19 pandemic, which was assessed at a severe level (NBR, Raport stabilitate financiară, june 2021).

**2.2. Analysis of state budgetary revenues and expenditures in 2020**

According to the final data, the execution of the consolidated general budget, between January 1 and December 31, 2020, ended with a cash deficit of 101.8 billion lei, respectively 9.64% of GDP, above the set target, respectively a foreseen annual deficit of 96.0 billion lei.

Compared to the previous year, the general budget deficit consolidated in 2020, based on cash, increased by 5.06 percentage points from 4.59% of GDP in 2019 to 9.64% of GDP in 2020.

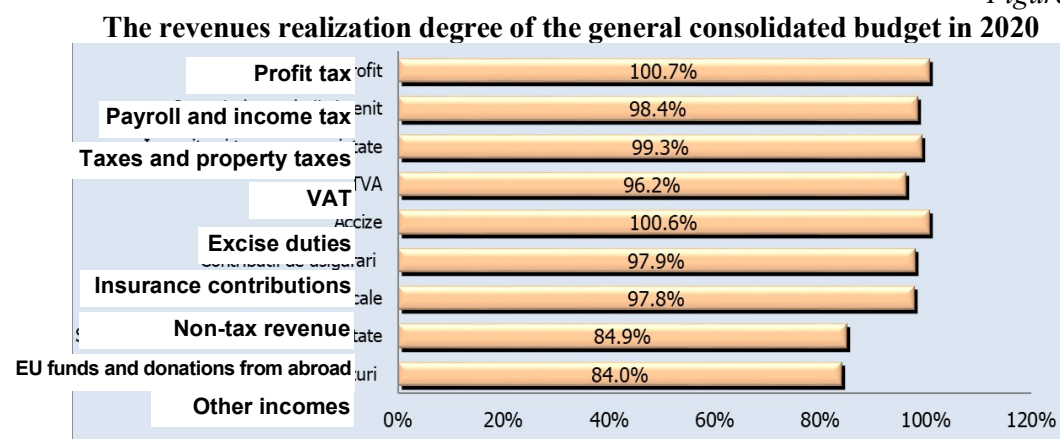
Figure no. 3

Romania's cash budgetary deficit				
		2019	2020	2020/2019 differences
Budget balance	mil. lei	-48,554.3	-101,798.7	-53,244.4
	% of PIB	-4.59	-9.64	-5.06

Source: Ministry of Public Finances, *Raport privind execuția bugetară finală pe anul 2020*,  
www.mfinante.gov.ro

The revenues of the general consolidated budget, in 2020, added up to 322.7 billion lei, representing 30.6% of GDP and a degree of achievement of 95.8% compared to the annual estimates (MPF, *Raport privind execuția bugetară*, 2020).

Figure no. 4



Source: Ministry of Public Finances, *Raport privind execuția bugetară finală pe anul 2020*,  
www.mfinante.gov.ro

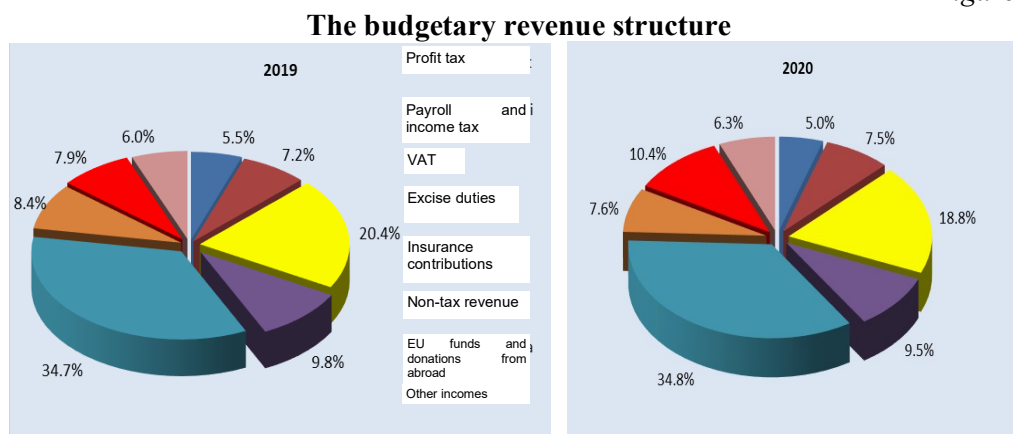
Revenues from tax revenues were below the value which was scheduled to be achieved in 2020, the degree of achievement being 96.4%. The revenues were influenced by the evolution under the established program of receipts from income tax and salaries (98.4%), taxes and property taxes (99.3%), value added tax (96.2%), other taxes and duties on goods and services (96.0%), taxes on the use of goods, authorization of the use of goods or the carrying out of activities (57.1%), tax on foreign trade and international transactions (99.4%) as well as other taxes and fees (98.0%). Favorable developments were registered in the case of income tax revenues (100.7%), excise duties (100.6%), as well as in the case of other taxes on income, profit and capital gains (100.9%).

Receipts from insurance contributions were lower than the collection schedule, the degree of achievement being 97.9%. The non-realization of the program was determined by the lower receipts of the annual program in the case of revenues from insurance contributions collected to the state budget (98.4%), to the state social insurance budget (97.6%), to the unemployment insurance budget (96.5%) as well as those from the unique national health insurance fund budget (98.3%).

Revenues from non-tax revenues were lower than the annual program, the degree of achievement being 97.8%.

Receipts from the amount received from the EU and other donors on account of made payments were below the annual program, with a recorded degree of achievement of 84.9%.

Figure no. 5



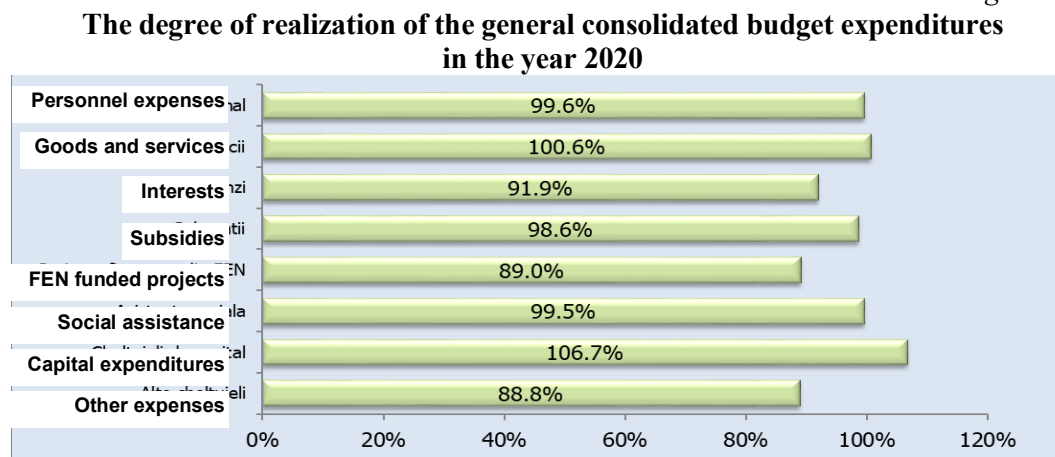
Source: Ministry of Public Finances, *Raport privind execuția bugetară finală pe anul 2020*, [www.mfinante.gov.ro](http://www.mfinante.gov.ro)

Compared to the previous year, **the revenues of the general consolidated budget in 2020** increased by 0.5% (+1.6 billion lei), and as a percentage in GDP by 0.3 percentage points from 30.3% in 2019 to 30.6% in 2020.

**The amounts received from the European Union** on account of made payments (including donations) in 2020 amounted to 33.6 billion lei, 32.4% above the level recorded in 2019.

**In 2020, the expenditures of the general consolidated budget added up to 424.5 billion lei**, which represents 40.2% of GDP and a degree of achievement compared to the projected level of 98.2% (MPF, *Raport privind execuția bugetară*, 2020).

Figure no. 6

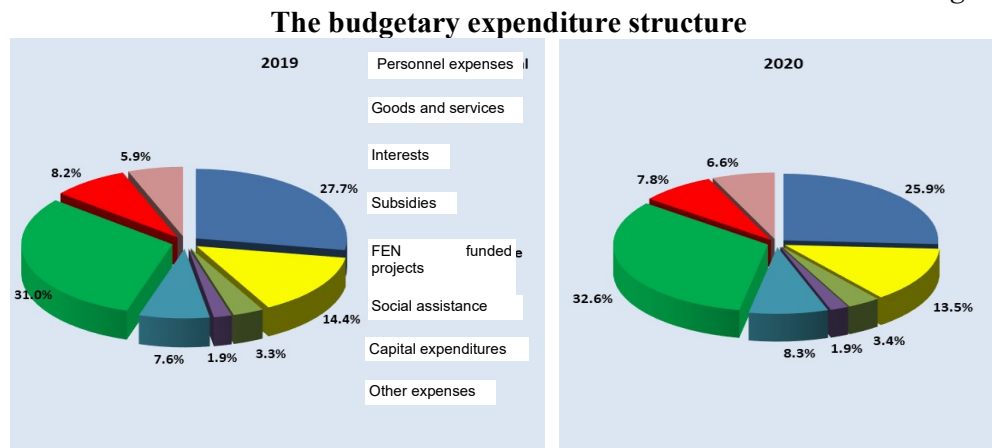


Source: Ministry of Public Finances, *Raport privind execuția bugetară finală pe anul 2020*, [www.mfinante.gov.ro](http://www.mfinante.gov.ro)

From the point of view of the annual program degree of realization, the main categories of budgetary expenditures registered the following evolutions: personnel expenditures 99.6%, expenditures on goods and services 100.5%, interest expenditures 91.9%, expenditures on subsidies 98.6%, expenditure on projects financed from non-reimbursable external funds 89%, expenditure on social assistance 99.5%, capital expenditure 106.7%.



Figure no. 7



Source: Ministry of Public Finances, *Raport privind execuția bugetară finală pe anul 2020*, [www.mfinante.gov.ro](http://www.mfinante.gov.ro)

Compared to the previous year, the general consolidated budget expenditures increased by 14.8%, and as a percentage in GDP by 5.3 percentage points from 34.9%, as they were in 2019, to 40.2% in year 2020.

### 2.3. Sources of financing the budgetary deficit in 2020

At the end of 2020, the government debt according to the EU methodology accounted for 47.3% of GDP compared to the level of 35.3% of GDP, as recorded at the end of 2019, exceeding the ceiling of 47.0% of GDP set by the Emergency Government Ordinance no. 201/2020 on the rectification of the state budget for 2020, as a result of the public debt contraction with the purpose of covering the financing needs of the budgetary deficit (9.7% of GDP), with the role of consolidating the financial reserve in foreign currency at the disposal of the State Treasury, and of insuring partial refinancing of the financing needs in 2021. On the 31st of December 2020, domestic debt accounted for 23.2% of GDP and external debt for 24.1% of GDP (MPF, Budget Execution Report, 2020).

In 2020, due to the significant challenges imposed by the COVID-19 pandemic context and the urgency of implementing measures that required budgetary efforts to combat the social and economic effects caused by the COVID-19 crisis, government funding needs increased (they were determined by the level of the general consolidated budgetary deficit and the volume of public debt refinancing), mainly due to the increase of the budgetary deficit as a result of the three budget corrections, from 3.6% of GDP the initial target approved by the State Budget Law no. 5/2020, at 9.7% of GDP, level recorded in execution.

The financing of the budgetary deficit for 2020 was done in a balanced way from internal and external sources. The sources necessary for the refinancing of the government public debt were ensured from the markets on which these debts were issued and from the financial reserve in foreign currency at the disposal of the Ministry of Finance.

In the context of the gross financing need increase up to 149.0 billion lei (14.1% of GDP) from 86.9 billion lei (7.7% of GDP), as a result of the budgetary deficit increase due to the COVID-19 pandemic, but also for the consolidation of the foreign exchange reserve at the disposal of the State Treasury, the financing of the budgetary deficit and the refinancing of the government public debt was ensured from the following sources:

- on the internal market: state titles for the population under the two programs Tezaur and Fidelis; titles issued on the interbank market (discounted treasury certificates and benchmark bond issues);
- from the external market, through issues of Eurobonds.

The external financing process in 2020 was aimed to ensuring Romania's constant presence on foreign capital markets at advantageous cost conditions, diversifying the investor base as well as consolidating the financial reserve in foreign currency at the disposal of the State Treasury.

### **3. State budget deficit forecasts in 2021**

The year 2020 was marked by the crisis generated by the COVID-19 pandemic, the largest unprecedented lockdown in modern history, with severe and very specific implications on almost all economic and social levels.

During the crisis, fiscal rules were suspended, but it must be borne in mind that economic laws react to imbalances, economic vulnerabilities and unsustainable issues that they sanction and require their correction.

Romania had the largest current account deficit in the region before the outbreak of the pandemic and the largest budgetary deficit, which, along with other unfavorable developments, leads to additional pressures on economic balances. Romania's budgetary deficit has a structural nature (induced by reductions in taxes and an increase in permanent expenditures), less generated by the pandemic. High deficits become difficult to manage in times of crisis due to the increased risk aversion of external investors on which their financing depends.

The low level of tax revenue compared to other European countries, as well as the rigid structure of the national budget marked by the high share of expenditure on salaries and pensions, combined with the effect of the epidemiological crisis create short-term financing needs and reduce the maneuvering space for the fiscal policy decisions.

For 2021, the Government has set a number of major objectives for fiscal and budgetary policies (MPF, *Strategia fiscal-bugetară pentru 2021-2023*):

- to mobilize the financial resources that the state needs for financing and to direct them in a targeted and efficient way according to priorities;
- to support a favorable and predictable business environment, for economic recovery and sustainable economic growth;
- to contribute to the recovery of the economic contraction from 2020 and to ensure the stability of the Romanian economy, by mitigating the unfavorable impact that may occur in the evolution of economic cycles.

Given the Government's obligation to prudently conduct the fiscal-budgetary policy to which will ensure the sustainability of the fiscal position in the medium and long term, the need to maintain budgetary balances by adopting measures which limit the increase in permanent budgetary expenditure and the need to comply with the European Commission's as part of the excessive deficit procedure launched for Romania, the following measures were mainly taken into account when estimating the expenditures:

- financing social protection measures in the context of the pandemic caused by the SARS-CoV-2 coronavirus;
- new measures:
  - maintaining in 2021 the gross amount of salaries at the level granted for December 2020;
  - in 2021 maintaining the amount of the increments at the level of the amount granted for December 2020 maximum;
  - maintaining in 2021 the amount of the food allowance at the level set for 2020;
  - non-giving of prizes and holiday allowance provided by the Framework Law no. 153/2017;
  - compensation of overtime for budgetary staff only with appropriate free time;

- extending the use of holiday vouchers issued in 2019 and 2020 until the end of 2021 and suspending the issuance of holiday vouchers for 2021 by public authorities and institutions.

Under these conditions, the projected budgetary revenues for 2021 represent 32.67% of GDP, 31.40% of GDP in 2022, and in 2023 will represent 30.96% of GDP, an evolution determined by the evolution of macroeconomic indicators on the reference horizon as well as the adopted measures / provisions, and the projected budgetary expenditures for 2021 represent 39.84% of GDP, reaching 35.33% in 2023, decreasing on the reference horizon as a share in GDP.

#### 4. Conclusions

The main effects of public spending can be assimilated to the effect of crowding out, which in this case refers to the phenomenon of diversion of market resources from those sectors that the market shows as profitable to those areas considered of interest by the state. Also, a hidden cost of the budgetary deficit and public debt is represented by their influence on the country rating, an approximative indicator for investors looking for business opportunities.

Given the current conditions, when Romania is trying to define its role and place in the world, when it is desired to identify and encourage those branches and sub-branches of the national economy that can be developed in the world economy, it is necessary to use fiscal levers in accordance with the requirements of the European Union, taking into account other macroeconomic policies that may be adopted to overcome the current economic situation. Thus, the theory is established that, in times of crisis, it is preferable to ensure an increase in budgetary expenditures, with the goal of contributing to the recovery of economic activity, the effects being reflected in increasing employment and reducing unemployment.

The model of economic growth must be re-analyzed, taking into account the experience of the past years in which the economic growth in our country was based on consumption, a situation that did not allow sustainable economic development. For this reason, a different approach based on investment in high value-added sectors is needed.

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## ECONOMIC GROWTH. FROM STATISTICAL INDICATORS TO POPULATION WALLETS

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**Abstract:** Forecasts, but also official statistics indicate for Romania large and very large increases in gross domestic product. Thus, values of 7% for 2021 are mentioned, and if the increases from the third quarter of 2021 to the previous quarter of the previous year are reported, the values exceed 13%. The question therefore arises as to whether or not these increases are reflected in the income and consumption of the population. Also, if GDP growth is not found in the incomes of the population where they appear and who are the beneficiaries of these increases. Consequently, this Communication seeks to answer the question of how much of this growth is reflected in the living standards of the population. The Communication also aims to answer the question of why these increases are bypassing the general public and whether this view is merely an illusion.

**Keywords:** gross domestic product, remuneration of employees, gross operating surplus, taxes on production and imports, actual final consumption of households.

**JEL classification:** O11.

### 1. Introduction

Sometime in August 2021, the IMF released the new economic forecasts for Romania after publishing the conclusions of its annual analysis of each country according to Article IV of the institution's statute and said that *"We forecast 7% economic growth in 2021 to be supported by rising private consumption and accompanied by a transient rise in inflation. Public investment will be supported by the increase in European funds, especially the new program. The current account deficit is projected to decline moderately in the medium term once fiscal consolidation (reducing the budget deficit) takes effect, and the slowdown in economic growth will move the economy toward the optimum potential"* Nanu, 2021).

Earlier, in July 2021, the European Commission estimated that the European economy would recover faster than previously estimated, and Romania's economy would grow by 7.4% in 2021 and 4.9% in 2022 (European Commission, 2021).

The two previous predictions were based on the positive figures calculated by Romanian statisticians, which aroused great enthusiasm among politicians. Here is an example.

*"I promised you great news from the economy: 13% economic growth. Sounds good, doesn't it? Especially since we went through the unfortunate context of last year, when the global economy suffered the biggest blow in the last hundred years. Romania's economy has been shut down. At that time, we did not have the solution we have today, we did not have the vaccine", said Cițu. "I was the only optimist. I promised that the Romanian economy will have a quick recovery, a return in V. I worked hard and I succeeded. Thank you for that, dear Romanians. I wouldn't have made it without you. You are the real heroes. The figures show that Romania's economy has overcome the economic crisis in just one year. 13.6% is a figure that we must keep in mind. Regardless of the comments in the public space, this figure shows that we did a very good job. The Romanian government is not affected by the internal PNL campaign. For me, the interest of Romanians is the most important", said Cițu. "First we invest, we have economic growth and then the results are distributed to all Romanians, through the mechanisms of the market economy and not based on political criteria. Our goal is for Romania to become a destination for high value-added investments. This is possible with a well-educated, but well-paid workforce," he added."* (Bonea, 2021).

Indeed, on August 17, 2021, the National Institute of Statistics issued a press release on the evolution of GDP in the second quarter of 2021 (INS, 2021), which, from the very beginning, said in its first sentence *"compared to the first quarter of 2021, gross domestic*

*product in the second quarter of 2021 was, in real terms, higher by 1.8%”, and in the second sentence “that compared to the same quarter of 2020, gross domestic product registered, in the second quarter of 2021, an increase by 13.0% in gross data and by 13.6% in seasonally adjusted data”.*

Which amounts not to 13% or 13.6%, but only 1.8%; this was the increase in GDP in the second quarter of 2021, given that we compare it with the last available value in the first quarter of 2021. Obviously if we compare GDP in the second quarter of 2021 with a past value, for example, from 2020, the value will be higher, because past values are lower. For example, if we compare GDP of the second quarter, 2021, with that of the fourth quarter, 2006, before entering the European Union, it will result that it increased by 221% (290.49 billion lei, compared to 90.5 billion lei). In addition, the comparison of GDP in the second quarter of 2021 with GDP in the second quarter of 2020, against the background of the health crisis and lockdown, economic growth was negative, GDP falling sharply (decreased by 27 billion lei compared to the first quarter of 2020), will lead to high, abnormal values.

A second observation should be made with the mention in the INS communiqué, namely that it is about some signal data, estimates at 45 days after the end of the semester, in case of little information and with high probability of being revised (clarifications that can be found even in the INS communiqué), the correct GDP resulting from about 2 years from the end of that period (between the end of the quarter and the final two years, the authorities publishing more provisional data) So these data should be viewed with caution, especially since the statistical authority in Romania is often reviewing data and sometimes the corrections are quite significant.

In the meantime, between 17 August 2021 and the present, the NIS issued two communiqués, with provisional data, on GDP growth in the second half of 2021. In the first, on 17 August, the values remain at the level of the signal data, but see an increase in the one on 11 October. Thus, the GDP in the second quarter of 2021, increased by 1.9% compared to the previous quarter and by 13.9% in gross data and by 14.4% in seasonally adjusted data, compared to the same quarter in 2020 (INS, 2021).

In this context, more and more voices have emerged, from politicians to the general public, who (1) are distrustful of these figures (i.e. challenge them) and (2) argue that they are not felt in their pockets (or as someone said a few years ago, because it is already in the pockets of others (Cristian Păun, 2018), although we were assured by the incumbent Prime Minister, Mr. Florin Cîțu, at the time of publication of the data signal that “*First we invest, we have economic growth and after that the results are distributed to all Romanians, through the mechanisms of the market economy and not based on political criteria*”.

## 2. Methodological aspects

In fact, the term economic growth refers to the dynamics of gross domestic product.

Gross domestic product measures the value added of the production and service activities of resident economic units over a period of time (quarter or year). Gross quarterly domestic product at market price is estimated through several methods (INS, 2021):

a) production method:  $GDP = GVA + TP - SP$ , where: GVA = gross value added at basic price; TP = taxes on the product; SP = subsidies per product;

b) expenditure method:  $GDP = FCH + FCS + GCF + E - I$ , where: FCH = actual final consumption of households; FCS = actual final consumption of the state; GCF = gross capital formation; E = export of goods and services; I = import of goods and services;

c) income method:  $GDP = ER + GOS + IMP - SUB$ , where: ER = employee remuneration; GOS = gross operating surplus; IMP = taxes on production and imports; SUB = subsidies on production and imports.

Main data sources used to estimate quarterly gross domestic product:

- statistical sources: annual surveys on industrial production, construction, services, trade; the production account of agriculture calculated on the basis of data provided by the Ministry of Agriculture; annual earnings and employee surveys; financial-accounting sources: accounting balance sheets of financial institutions;

- administrative sources: execution of the state budget and local budgets, as well as the state social insurance budget;

- balance of external payments.

In conclusion, in order to assess the impact of economic growth on the population, we should look at the evolution of the components: the remuneration of employees and the actual final consumption of households.

At the same time, in order to have more information, we chose the quarterly data on gross domestic product, its evolution and the two components under study (employee remuneration and actual final consumption of households) in the last 11 quarters, the first being the quarter IV 2018 (2018T4), and the last quarter II 2021 (2021T2), a period that included the impact of the pandemic crisis.

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### 3. GDP formation analysis

In the last 11 quarters, the value of Romania's quarterly GDP (calculated in current prices as a seasonally adjusted series and by number of days) had values of over 250 billion lei, with two exceptions being 2018Q4, the basic moment of the interval analysed and 2020Q2, the beginning of the pandemic crisis, when it dropped to values of approx. 240 billion lei. Maximum value was reached in 2021Q2, over 290 billion lei, so an increase of over 50 billion lei, compared to the minimum values.

The most important component of GDP, according to the income method, is the gross operating surplus, the component of added value that remains at the disposal of enterprises, which had its maximum value in 2021Q2, of about 145 billion lei, and its minimum value of 121 billion lei when the pandemic started. This component contributes at least 50% to the formation of our country's GDP, but has a slight downward trend from about 52% to 50% or even slightly below this value.

**Table no. 1. Romania's quarterly GDP (by income method)**

GDP components Billion lei	2018	2019				2020				2021	
	Q4	Q1	Q3	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Employee remuneration (ER)	93,9	98,9	102,4	103,2	105,6	107,6	105,4	109,2	112,1	113,1	116,9
Net export	0,0	0,0	0,1	0,0	0,1	0,1	0,1	0,1	0,1	0,1	0,1
Gross operating surplus (GOS)	127,6	130,7	137,1	137,3	138,3	141,7	121,0	129,2	139,7	142,1	144,8
Net taxes on production + imports (NT)	23,6	22,4	25,3	24,7	26,8	22,0	17,2	24,1	22,3	25,2	30,8
Gross domestic product	244,5	254,8	263,5	264,7	271,8	274,8	241,0	260,0	277,5	283,6	290,5

Source: insse.ro

The second component of GDP, according to the income method, is the remuneration of employees, which also had a maximum value in 2021Q2 of 117 billion lei, and a minimum value of 94 billion lei, in the first quarter of the analysed period, 2018Q4. In the first quarter of the pandemic crisis, the remuneration of employees decreased to 105 billion lei, an average value. The contribution of this component has increased from approx. 39% in all quarters

before the pandemic, to a maximum of about 44% in the first quarter of the pandemic, so that in the following quarters to evolve to the reference value of 39%, but continues to remain one % above it.

**Table no. 2. Romania's quarterly GDP structure (by income method)**

GDP components	2018	2019				2020				2021	
	Q4	Q1	Q3	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
GDP structure											
ER	38,6	38,8	38,9	39,0	38,9	39,2	43,7	42,0	40,4	39,9	40,3
GOS	52,2	51,3	52,0	51,9	50,9	51,6	50,2	49,7	50,3	50,1	49,9
NT	9,6	8,8	9,6	9,3	9,9	8,0	7,2	9,3	8,0	8,9	10,6
Statistical discrepancy	-0,5	1,1	-0,5	-0,2	0,4	1,2	-1,1	-0,9	1,2	1,2	-0,7
Gross domestic product	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

Source: insse.ro and author's calculations

The third component of GDP, according to the income method, is net taxes on production and trade, with a maximum of about 31 billion lei, and a minimum value of 17 billion lei in the first quarter of the health crisis. As a contribution to GDP, this component had a share of about 9-10% before the pandemic, to fall to about 7% in the first quarter of the health crisis, after which it seems to increase, returning to standard values or even surpassing them. In the last quarter of the analysed period 2021Q2, net taxes on production and trade continue to be 1% above the reference values.

So, as the highest values were recorded in 2021Q2 and the lowest (only two components (net taxes on production and trade and gross operating surplus) in 2020Q2, it is clear that the largest increases are between these two moments.

With regard to contributions to the formation of GDP, the 2% decrease in the contribution of the gross operating surplus is transmitted in almost equal proportions (of 1%) to the remuneration of employees, respectively, the net taxes on production and trade.

**Table no. 3. Romania's quarterly GDP changes (by income method)**

Indicator	2008	2019				2020				2021	
	Q4	Q1	Q3	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
<b>Variations compared to previous quarter</b>											
ER	1.562,4	4.451,5	3.488,8	755,6	2.460,4	1.972,7	-2.174,3	3.737,1	2.988,7	959,7	3.819,4
GOS	1.666,2	3.064,6	6.462,4	217,1	917,0	3.479,6	-20.759,9	8.230,5	10.466,6	2.389,9	2.779,3
NT	1.611,8	-1.149,5	2.891,5	-595,0	2.055,1	-4.743,9	-4.805,4	6.826,0	-1.779,6	2.891,9	5.585,9
Statistical discrepancy	-1.632,6	3.898,2	-4.170,8	897,6	1.598,4	2.324,9	-6.025,8	193,1	5.755,5	-57,3	-5.343,5
Gross domestic product	3.207,8	10.264,8	8.671,9	1.275,3	7.030,9	3.033,3	-33.765,4	18.986,7	17.431,2	6.184,2	6.841,1
<b>Annual variations compared to end of previous year</b>											
ER	-	4.451,5	7.940,3	8.695,9	11.156,3	1.972,7	-201,6	3.535,5	6.524,2	959,7	4.779,1
GOS	-	3.064,6	9.527,0	9.744,1	10.661,1	3.479,6	-17.280,3	-9.049,8	1.416,8	2.389,9	5.169,2
NT	-	-1.149,5	1.742,0	1.147,0	3.202,1	-4.743,9	-9.549,3	-2.723,3	-4.502,9	2.891,9	8.477,8
Statistical discrepancy	-	3.898,2	-272,6	625,0	2.223,4	2.324,9	-3.700,9	-3.507,8	2.247,7	-57,3	-5.400,8
Gross domestic product	-	10.264,8	18.936,7	20.212,0	27.242,9	3.033,3	-30.732,1	-11.745,4	5.685,8	6.184,2	13.025,3

Source: insse.ro and author's calculations

If we look at quarterly or annual increases, we see that they are constantly growing, both in terms of gross domestic product and its components, with the only deviations being noticeable in 2020Q2, when all indicators fall on account of the health crisis, and net taxes, which have an oscillating evolution.

**Table no. 4. Structure of changes in Romania's quarterly GDP (%) (by income method)**

Indicator	2018	2019				2020				2021	
	Q4	Q1	Q3	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Structure of GDP growth											
ER	48,7	43,4	40,2	59,2	35,0	65,0	6,4	19,7	17,1	15,5	55,8
GOS	51,9	29,9	74,5	17,0	13,0	114,7	61,5	43,3	60,0	38,6	40,6
NT	50,2	-11,2	33,3	-46,7	29,2	-156,4	14,2	36,0	-10,2	46,8	81,7
Statistical discrepancy	-50,9	38,0	-48,1	70,4	22,7	76,6	17,8	1,0	33,0	-0,9	-78,1

Gross domestic product	100	100	100	100	100	100	100	100	100	100	100
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Source: insse.ro and author's calculations

If we refer to the structure of the quarterly GDP increases, we notice that in six quarters out of a total of 11, most of the increase is stopped by value creators (enterprises, private entrepreneurs, etc.) in the form of gross operating surplus, and the value of increase is over 50% (with one exception in 2020Q3). The remuneration of employees in only three years was targeted as the first destination of the increase and this happened in 2019, while net taxes acted as a shock absorber, income from this source bearing the surpluses that exceeded the amount of salaries and gross operating surpluses.

**Table no. 5. Changes in the components of Romania's quarterly GDP (by income method)**

Indicator	2018	2019				2020				2021	
	Q4	Q1	Q3	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Increase in employee remuneration (%)	-	4,7	3,5	0,7	2,4	1,9	-2,0	3,5	2,7	0,9	3,4
Quarterly increase in consumer prices (%)	-	1,6	1,44	-0,14	0,8	1,1	0,73	-0,01	0,31	2,01	1,29
Net increase in wages (%) in relation to consumer prices	-	3,1	2,1	0,9	1,6	0,8	-2,8	3,6	2,4	-1,2	2,1
Consumer price index (2018Q4 = 100%)		101,6	103,1	102,9	103,7	104,9	105,6	105,6	106,0	108,1	109,5
Employee remuneration (billion lei 2018T4 prices)	94,5	97,4	99,4	100,2	101,8	102,6	99,8	103,3	105,8	104,6	106,8
Employee remuneration (billion lei current prices)	94,5	98,9	102,4	103,2	105,6	107,6	105,4	109,2	112,1	113,1	116,9
Differences - billion lei	0,0	-1,6	-3,0	-2,9	-3,8	-5,0	-5,6	-5,8	-6,3	-8,5	-10,1
GDP deflator (%)	-	6,3	7,1	6,4	7,3	3,7	1,4	4,1	4,7	3,3	5,5
Net wage growth (%) relative to GDP deflator	-	-1,6	-3,6	-5,7	-4,9	-1,8	-3,4	-0,6	-2,0	-2,4	-2,1
Increase in gross operating surplus (%)	-	2,4	4,9	0,2	0,7	2,5	-14,6	6,8	8,1	1,7	2,0
Net increase in gross surplus (%) relative to GDP deflator	-	-3,9	-2,2	-6,2	-6,6	-1,2	-16,0	2,7	3,4	-1,6	-3,5
Increase in net taxes on production and imports	-	-4,9	12,9	-2,3	8,3	-17,7	-21,8	39,6	-7,4	13,0	22,2
Employee remuneration/gross operating surplus ratio	0,74	0,76	0,75	0,75	0,76	0,76	0,87	0,84	0,80	0,80	0,81
Employee remuneration ratio/net taxes	4,00	4,41	4,04	4,17	3,94	4,88	6,11	4,54	5,03	4,49	3,80

Source: insse.ro and author's calculations

The percentage increase in the employee remuneration component (between 0.7% and 4.7%), amid low inflation (calculated at consumer prices), leads to positive values, i.e. a real increase in employee remuneration: Only two quarters are exceptions, both after the outbreak of the pandemic crisis: 2020Q2 and 2021Q1. If we compare the increase in the employee remuneration component with the GDP deflator, the values are permanently negative, which means a decrease in the purchasing power of this component.

The remuneration of employees does not change significantly even if we calculate its real value in 2018Q4 prices. It is true that there is a decrease, due to a slightly more consolidated price index, but over the whole period we have a real increase of over 12 billion lei (in current prices, the increase is over 22 billion lei). However, most of the growth is in 2019 (over 8 billion) and only 5 billion lei in the six semesters of 2020 and 2021. In addition, we note a real decrease of over one billion in 2021Q1, fully recovered by 2021Q2.

The other component, the gross surplus of exploitation, has much higher dynamics, between 0.7% and 8.1%, which makes the comparison of these increases with the GDP deflator to maintain positive values for two quarters.

If we compare the size of the employee remuneration component with the gross operating surplus, we notice that the first component is lower, representing between 75% and 87%, with the growth trend and reaching its maximum at the time of the pandemic crisis, after which the coefficient flattens, heading towards values of about 80%. Thus, companies keep more of the added value created than they give to employees.

If we compare the size of the employees' remuneration component with the net taxes, we notice that the first component is much higher than the second, the values being between 3.81 and 6.11, both limits being registered after the beginning of the health crisis. From



values around 4-4.5, before the pandemic crisis, it reaches a maximum of 6.11 in 2020Q2 (the time of the lock down), after which it starts to decrease to pre-crisis values. This development confirms the dampening role of net taxes, with this component allocating to employee remuneration or gross operating surplus, when they tend to decrease.

**Table no. 6. Structure of the component of employees' remuneration as part of Romania's quarterly GDP (according to the income method)**

Employee remuneration	100	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Agriculture, forestry and fishing	2,1	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	1,9
Industry	22,5	22,1	22,3	22,1	21,9	21,6	21,1	20,9	20,8	20,8	21,1
Construction	5,2	5,4	5,6	5,7	5,8	5,7	5,9	5,8	5,8	6,0	6,1
Commerce	22,1	22,0	21,8	21,9	22,0	21,9	21,3	21,5	21,5	21,8	21,4
Information and communications	5,9	6,1	5,9	6,0	6,2	6,5	6,6	6,5	6,8	7,0	6,9
Financial intermediation and insurance	2,3	2,2	2,3	2,2	2,3	2,3	2,3	2,3	2,3	2,4	2,5
Real estate transactions	0,5	0,6	0,6	0,6	0,6	0,5	0,5	0,5	0,5	0,5	0,5
Professional, scientific and technical activities; administrative services and support activities	8,2	8,3	8,3	8,4	8,3	8,1	8,1	8,1	8,1	8,2	8,2
Public administration and defence; social insurance from the public system; education; health and social assistance	28,1	28,2	28,1	28,0	27,5	27,8	28,7	28,8	28,6	27,8	27,5
Entertainment, cultural and recreational activities; repairs of household products and other services	3,1	3,1	3,2	3,2	3,3	3,5	3,5	3,7	3,6	3,7	3,8

Source: insse.ro and author's calculations

Most of the employees' remuneration component is realized in three sectors of activity, and without big variations, during the 11 quarters analysed. Thus, 27-28% of this component is achieved in public administration and defence, social insurance, education, health and social assistance and 21-22% in industry and trade. So about three quarters of the GDP remuneration of employees is achieved in three sectors of activity.

**Table no. 7. Romania's quarterly GDP (according to the expenditure method) and its structure**

Indicator	2018	2019				2020				2021	
	Q4	Q1	Q3	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Gross domestic product - billion lei	244,5	254,8	263,5	264,7	271,8	274,8	241,0	260,0	277,5	283,6	290,5
Effective individual consumption of households											
billion lei	176,3	179,4	183,5	186,6	196,8	186,4	169,6	182,9	189,7	193,4	189,1
increases compared to previous quarter											
billion lei	0,0	3,2	4,1	3,1	10,2	-10,4	-16,7	13,2	6,8	3,8	-4,4
% compared to 2018Q4	100,0	101,8	104,1	105,9	111,7	105,7	96,3	103,8	107,6	109,7	107,3
% compared to previous quarter	100,0	101,8	102,3	101,7	105,5	94,7	91,0	107,8	103,7	102,0	97,8
quarterly price indices	100,0	101,6	101,4	99,9	100,8	101,1	100,7	100,0	100,3	102,0	101,3
cumulative price indices (2018 = 100)	100,0	101,6	103,1	102,9	103,7	104,9	105,6	105,6	106,0	108,1	109,5
Real consumption of the population	176,3	176,6	178,1	181,3	189,7	177,7	160,6	173,1	179,0	178,9	172,7
billion lei											
Real increases in population consumption	0,0	0,4	1,4	3,2	8,4	-12,0	-17,1	12,6	5,8	-0,1	-6,3
consumption billion lei											
share in GDP	72,1	70,4	69,7	70,5	72,4	67,8	70,4	70,3	68,4	68,2	65,1

Source: insse.ro and author's calculations

We also analysed the formation of GDP according to the method of expenditures (the seasonally adjusted series variant according to the number of working days) and, in this case, we observed the evolution of the actual individual consumption of households. The data analysis shows that throughout 2019 the individual consumption of the population increased by about 20 billion lei, from 176 to 196 billion lei, followed by two quarters Q1 and Q2 of 2020, in which the consumption of the population lost 27 billion, almost 1.5 times compared to the increase in 2019. The consumption of the population recovers starting with 2020Q3, recovering in the last two quarters of 2020, approx. 20 billion lei and another about 4 billion lei in 2021Q1, but without reaching the value of the end of 2019 and the beginning of the pandemic crisis. Unfortunately, in 2021Q2, population consumption is declining and losing about 4.5 billion more, moving away from the value at the end of 2019. And these are data

measured in current prices. If we consider inflation, measured at consumer prices, the reduction in consumption is even greater. Thus, against the background of the outbreak of the pandemic crisis, in the first two quarters of 2020, the reduction of consumption is 29 billion lei, with two billion over the series measured in current prices, and after a return of 19 billion lei in the last two quarters of 2020, the consumption decreases again in the first two quarters of 2021, the value in 2021Q2 being 3.5 billion below the value of December 2018, by 17 billion lei below the value of December 2019, but also below the value of December 2020 (by 6 billion).

In fact, household consumption is adjusting in size and share in GDP, losing 7% in 2021Q2, compared to 2018Q4, mostly in 2020 and 2021, and the evolution of the figures seems to continue and it is possible that in the next quarters of 2021 the trend will continue, and if it is not offset by other components, it will even affect GDP growth.

#### **4. Why, however, economic growth is an illusion for the population**

So, indeed, much of the growth in 2020 and 2021 did not find its way in the pockets of the general public. Or rather, it is not found in everyone's but only in certain pockets.

Previous data show that much of the economic growth in 2020 and 2021 would make its way in the pockets of employees, because wages have risen, and not of those in rural areas who work in subsistence farming, of pensioners, of young people, of workers who work illegally, in general, the pockets of all those who do not have the status of employees (because we have seen a decline in consumption, but not in the remuneration of employees).

However, it is unlikely that absolutely all employees have felt the economic growth of the last 2 years. Here are some arguments:

a. Most employment contracts of employees are signed for an indefinite period and do not provide salary review clauses, i.e. they have fixed salaries. This means that, on the one hand, they have been depreciated by inflation, and on the other hand, they have not benefited even in part from the nominal GDP growth of the last two years. Probably the only salaries that increased during the analysed period were those of some state employees, as well as those that were at the level of the minimum wage in the economy (1 January, 2019 - 2080 lei, 1 January, 2020 - 2230 lei, 1 January, 2021 - 2300 lei), but, as can be seen, the increases were small and had a marginal impact. For example, DP, in the article "Single rate vs. progressive tax. How Romanians are divided according to the level of salaries and what are the arguments for and against progressive taxation" (HotNews.ro, 14 November, 2021), mentions that the number of employment contracts signed at average salary level is 1,369,646, which marks an annualized increase, for 2021, of 1.15 billion lei, i.e. 0.1% of the relatively certain GDP of 2020.

b. The structure of salaries in Romania is much dispersed, and inequality is so widespread in our country that even high economic growth cannot be felt quickly and, especially, in pockets. Here, in Table no. 8, based on the previous source, what the structure of salaries would be in Romania (from the private sector) and what share would it have in the amount of remuneration of employees in the first two quarters of 2021 (230 billion lei).

**Table no. 7. Wages in the private sector and the remuneration component of employees' GDP**

Value / Minimum wage range	Number of contracts total	Number of contracts % in total	Middle range	Estimated monthly value (million lei)	Estimated value for the first 6 months (million lei)	% in the remuneration component of Q1 + Q2 employees
2300	1.369.646	30,00	2300	3.150	18.901	8,22
2300-3000	819.242	17,94	2650	2.171	13.026	5,66
3000	309.431	6,78	3000	928	5.570	2,42
3000-4500	1.018.970	22,32	3750	3.821	22.927	9,97
4500-10000	861.648	18,87	7250	6.247	37.482	16,30
10000-30000	179.597	3,93	20000	3.592	21.552	9,37
peste 30000	6.950	0,15	45000	313	1.877	0,82
Total	4.565.484	100	-	20.222	121.333	52,75

Source: DP, 2021

So in the first six months of 2021, private sector salaries would represent approx. 53% of GDP component remuneration of employees (plus salaries in the budget system and public enterprises). However, salaries with values up to 3000 lei gross would represent only 16% of the value of GDP component, the remuneration of employees, although they would represent 55% of the total number of employment contracts in the Romanian private system. Even more edifying, salaries below 900 euros gross (4500 lei), i.e. about 80% of the number of employment contracts in the private system, represent 26% of the remuneration of employees (close to the perfection of the Pareto curve). It is obvious that any economic growth is handled by decision makers, redistributed by them - political factors, business managers, business owners - because they control the decision-making bodies, and in no case by those who produce the value. This probably did not happen even at the dawn of capitalism.

c. Consumer price index. For years, the population and unions have been particularly critical of the construction of the consumer price index or rather, the discrepancy between real market and store prices and the half-truths or maybe quarter-truths in price statistics. It is not a problem of statistical technique, the index being correctly calculated, it is another problem that leads to distrust of the population and state authorities/politicians. The population feels one way (in their pocket), the authorities say another on TV. Maybe the construction of another consumer price index, with the goods and services of strict necessity or the elimination of the complexity of the current index would reduce the discrepancy we were talking about (not all of us consume, and are not essential for everyday life: bakery specialties, margarine, citrus fruits and other southern fruits, trimmings and haberdashery or services such as making and repairing clothing and footwear). A more correctly calculated price index would draw attention to the fact that the general public is affected by inflation (as is currently the case, unfortunately this period is not included in the analysis), by economic crises, that the increases in GDP remain in the minority and do not spread to the general public. Most of the public are in good faith and resort to reprehensible and immoral acts, precisely because they see that although they work from morning till night and respect their social contract, they are deprived of benefits, to the detriment of some who have the same rights as them.

d. Strong polarization is a feature of Romanian society and economy characteristic of both the '90s and of the present. The consequence is that the calculated average values have no practical relevance. Specifically, the distribution of economic indicators is strongly asymmetric to the right, i.e. a minority in the economy/society have above average results, and most have below average results. For example, the investigation of firms with gross value added at a difference of  $\pm 10\%$  from the company sector average will cover only 1% of firms. Widening the range of variation to  $\pm 25\%$  compared to the average will increase the number of companies to 3%, and increasing the variation to  $\pm 50\%$  characterizes 8% of the population

of active companies in Romania (Florian Neagu, Florin Dragu, Adrian Costeiu, 2016). This has consequences such as:

- The translation of favourable or unfavourable effects signalled by macro figures to the individual situation of companies is not relevant.
- Aggregate trends were generated by a small number of firms while the vast majority of firms active in the economy had an insignificant evolution.
- The thinking behind policies or models based on the assumption of the existence of a representative agent in the economy must be changed because it only suits a minority (10%).
- Decision makers need to change the way they interpret macroeconomic values, because most (about 90%) look different.

## 5. Conclusions

Although official statistics, but also a series of forecasts by some international economic and financial institutions give Romania high figures, the same statistics still indicate that only a part of it reaches the public. Thus, of the economic growth, most belongs to enterprises, in the form of the gross surplus of exploitation, then another part, to the part of the population that qualifies as employees and finally the state, in the form of taxes. However, population consumption in recent quarters has experienced a sharp decline, which tells us that there are many who do not benefit from economic growth: those in rural areas, those who work in subsistence agriculture, pensioners, young people, workers working illegally, in general, is not reflected in the pockets of those who do not have the status of employee.

But it is also debatable that this economic growth would be reflected in the pockets of all employees. This is demonstrated by the large number of employment contracts signed at the level of average salary per economy, by salary structure, by values registered by the consumer price index, by the strong polarization that is a feature of Romanian society and economy.

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## ENHANCING THE MANAGEMENT EFFICIENCY IN AGRICULTURE BY CREATING DIGITAL ECOSYSTEMS

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**Abstract:** *The sustainable development of the agricultural sector is identified as one of the primary strategic priorities of the Republic of Moldova and is crucial for ensuring economic growth. The agricultural sector, as a share of gross domestic product (GDP), ranks second by service sector and comes first in terms of contribution to economic growth. However, the productivity of sector remains at a deficient level, driven by a lack of investment and available loans, with low-yield technologies. For a long time, the agricultural sector was of no interest to the "new generation" of farmers and investors, being characterized by climate risks, lack of automation and innovation, and the application of IT in agriculture was limited to the use of computers for financial management and commercial transactions monitoring. Today, modern technologies have evolved, being intensely introduced into the practice of the agricultural sector; they are offering high-performance and efficient solutions. In the research, the author examines the digitizing prospects of agriculture in the Republic of Moldova and its potential to implement Industry 4.0 products. In the author's vision, the creation of digital ecosystems in the agricultural sector will increase the efficiency of farms management and will propel the Moldovan economy to a new development stage.*

**Keywords:** *Agriculture, digital ecosystems, Industry 4.0, informational technologies, management efficiency.*

**JEL Classification:** *O10, O13, O32.*

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### 1. Introduction

The fourth industrial revolution is driving innovative digital technologies and innovations transforming countries' economies and many sectors of activity, and the food and agriculture sectors are not exempt from this process.

The agricultural sector faces many challenges posed by the impact of climate change, the increased frequency of natural disasters, biodiversity loss and soil erosion, rising food price volatility, inefficient supply chains and other challenges. Agriculture is also becoming more and more knowledge-intensive: farmers have to make increasingly complex decisions about land use, the selection of seeds they plant, the choice of markets and other critical decisions that have an impact on agri-food production, farmers' income and the well-being of entire society. Their information needs are growing, and the information allows them to innovate and therefore adapt to the challenges of survival and a higher standard of living.

The need for national strategies to digitize agriculture has been recognized by many countries around the world that have adopted government policies to promote and finance ICT in the agricultural sector. A valid national e-agriculture strategy streamlines resources (financial and human) and increases the efficiency of the agricultural sector through intra-industrial synergies and sectors of activity.

In the past, it was difficult to obtain information from farmers about their fundamental problems and needs, such as access to agricultural inputs, markets, prices, financing or their learning needs. According to the FAO report, the spread of mobile technologies (smartphones) and, more recently, remote services and distributed computing, open up new opportunities for the integration of small farmers into new digitally driven agri-food systems (Trendov, Varas and Zeng, 2019).

The spread of digital tools is happening very fast. Even among the most deficient 20 percent of developing countries, 70 percent have access to mobile phones (World Bank, 2016). More than 40 percent of the global population has access to the Internet, and there are significant initiatives to connect those who remain, especially in rural areas of developing countries. Over the next ten years, Industry 4.0 will generate dramatic changes in the food system, driven by advanced digital technologies and innovations (blockchain, Internet of Things (IoT), Artificial Intelligence (AI), Virtual Reality), changing consumer preferences and requirements, influence e-commerce on world trade in agri-food products, climate change and other factors.

In order to achieve the United Nations Sustainable Development Goals towards a “zero hunger world” by 2030, FAO emphasizes the need to develop more productive, efficient, sustainable, inclusive, transparent and resilient food systems (FAO, 2017).

## **2. Methods and methodology**

To support scientifically the presented ideas and recommendations, the author made a literature and legal framework review of the publications on the issues of innovation and sustainable development of the agro-industrial sector in the digital era. Also, the analysis of the results about the future development of the agriculture presented in the Evaluation Report of the National Strategy "MOLDOVA 2020", "Agricultural and Rural Development Strategy 2014-2020", the reports of the Food and Agriculture Organization of the United Nations, World Bank reports.

The research uses methods of comparative and systemic analysis, as well as a logical approach to the development trends of agricultural enterprises in the conditions of sustainable development of the Republic Moldova economy.

The authors analyze the path of agriculture sector to accept information technologies and digitization of the agricultural enterprises. The dynamics of agricultural sector development are addressed as an integral part of the country's economy. According to factors that have a situational impact in the current period of activity: trends in agricultural management development, introduction of innovations that positively affect socio-economic indicators development and the environment, increasing employment and income, financing mechanisms for the agricultural sector and the financial results obtained. The analysis of the digitalization level of agricultural enterprises was performed based on data provided by the National Bureau of Statistics of the Republic of Moldova.

## **3. Legal framework review**

In the Republic of Moldova, there is no direct strategy for the digitization of the agricultural sector. However, there are several initiatives within the National Strategy for the development of the information society "Digital Moldova 2020" on the development of digital services for agriculture as: Information system for data transmission over time real through web and mobile telephony solutions with the components: PACT (Early Warning and Communication Platform) and SIMA (Agricultural Marketing Information System) (National Strategy, 2013).

The importance of agriculture in the economy of Moldova and the favorable conditions developed by the information society create all the necessary premises for the development and implementation of a national strategy for digitization of agriculture.

In 2012, under the subordination of the Ministry of Agriculture and Food Industry, the Agricultural Information Center (AIC) was created, responsible for implementing the status policy in the agro-industrial field, coordinating activities to implement the "e-Agriculture" principle and consolidating and integrating agricultural information resources to the state digital information. This center became the Single National Operator of all information

systems in the agri-food sector in Moldova with the general goal of developing and implementing the e-Agriculture Strategic Program. One of the digital products operated by the center, according to Law no. 231, art. 3 (Law no 231, 2006) is the Automated Information System "State Register of Animals" (SITA, 2007), to ensure animal traceability, which is implemented in the Republic of Moldova since 2007. The Animal Identification and Traceability System (SITA), is a primary digital ecosystem, integrated in the traceability process of products of animal origin. SITA is presented by a complex of elements and procedures, for the identification and registration of animals and agricultural holdings ensuring compliance with the principle of traceability that is managed by a single operator (Law no 231, 2006). This electronic system aims to ensure the food security of the country, as well as to provide the consumer with healthy agricultural products of animal origin.

E-agriculture program started in 2012 in Moldova, as an initiative of the EU-Moldova Action Plan (Plan no 402, 2005) with promising objectives such as:

- modernization of public services by digitizing operational processes;
- optimization of the activities of entities in the agro-commercial sector through modern technologies;
- streamlining the expansion of digital ecosystems in agriculture;
- developing and monitoring IT policies in agro-business sector.

The expected results from the implementation of the program relate, in particular, to facilitating the process of managing and implementing agri-food development policies and providing the business environment with objective and coherent information that will improve business development in the agricultural sector, and will stimulate ecosystems expansion. The program also contributes to the digitization of public services and operational processes in agriculture, providing an increase of business in agriculture and the professional development of farmers in the IT sector.

#### **4. Prospects of digital ecosystems in Moldovan agriculture**

A digital ecosystem is defined as a socio-technical system composed of a set of computer programs with distributed interaction and mutual use by agents in the context of evolutionary self-development (Aletdinova, 2016). Environmental component in the description of these systems (eco-) is associated with attempts to draw analogies of the processes of living nature and the techno sphere, the application of the laws of ecology to the information world (Chang, 2006). W. Brian Arthur notes the properties of the digital economy, which are also suitable for digital ecosystems: they are silent, invisible, vast, autonomous (that is, they do not require constant management by people), self-organizing and self-healing (Brian, 2011).

Although information technologies (access to mobile telephony and Internet) have progressed significantly, the poor technological infrastructure, a low level of electronic skills and digital skills, as well as expensive access to services in urban areas create a significant digital divide between localities. The rural areas have fewer opportunities to benefit from the digital revolution in agriculture.

In the FAO's view, the underlying conditions for the digital transformation in agriculture are Internet access and IT infrastructure in rural areas; the level of education, digital literacy and employment in rural areas and sustainable policies and programs in the field of digitalization of agriculture (Trandov et al., 2019).

According to National Strategy for the Development of the Information Society "Digital Moldova 2020", the Republic of Moldova is ranked among the top 20 countries in the world in terms of Internet access speed. At the same time, broadband connectivity is not at the necessary speeds throughout the country to meet the current and potential needs of users. The substantial discrepancy between access to urban and rural localities (almost 30%

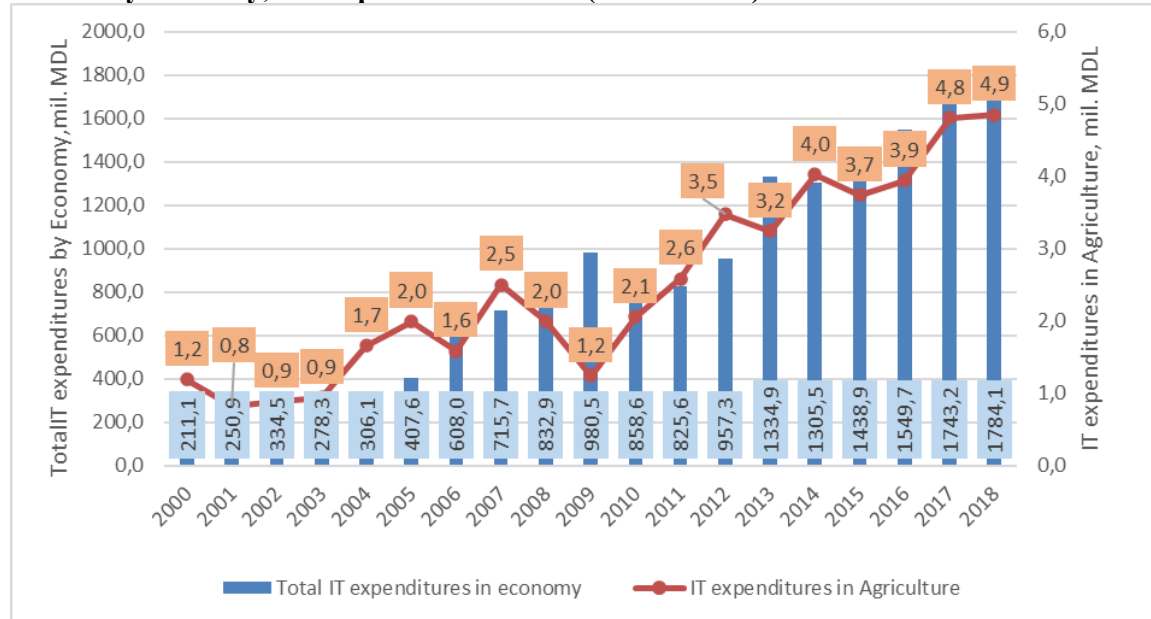


of rural localities do not yet have broadband access (National Strategy, 2013) distorts ICT infrastructure.

Although there is a coverage of 98-99% of rural localities with mobile telephony and the Internet, we can attest a poorly developed level of IT infrastructure. The agricultural holdings investments in IT products are non-essential to trends and figures from other areas of activity.

In 2018, the share of these total expenditures on the economy was only 0.27%, which directly determines the quality of IT infrastructure in rural areas.

**Figure 1. Expenditure dynamics for information technologies in agriculture and in total by economy, in the period 2000-2018 (thous. MDL)**

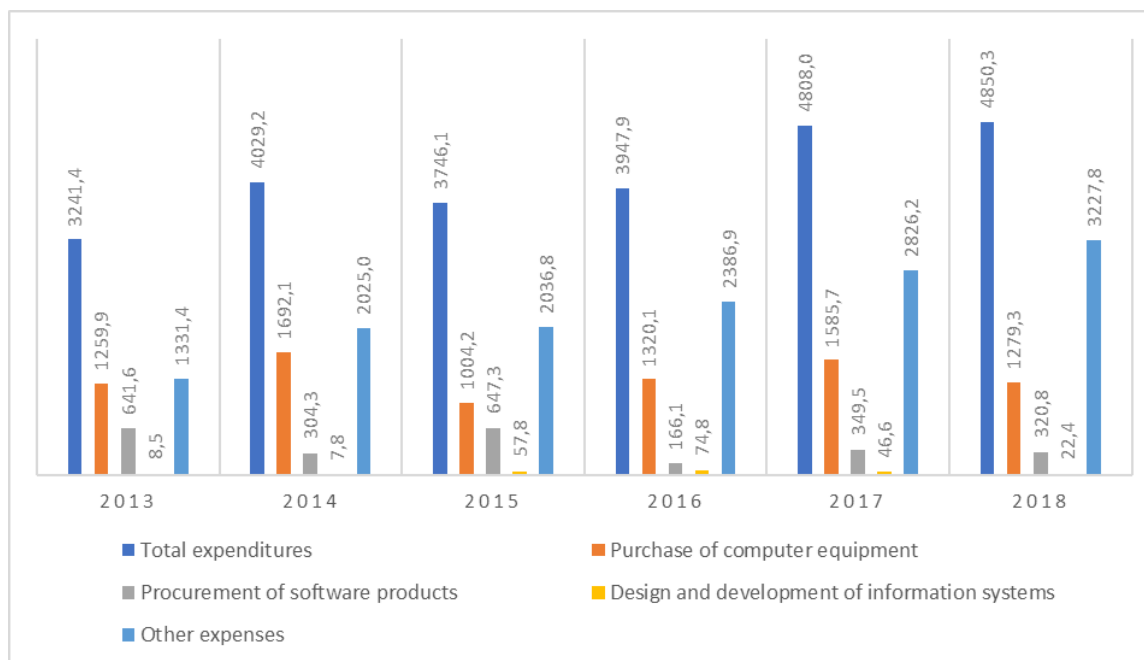


Source: developed by the author based on National Bureau of Statistics (NBS) data

The detailed analysis of IT expenditures shows a considerable increase in the last decade: from 980,5 mil. MDL lei in 2009 to 1784,1 mil. MDL in 2018 (by 54.96 percentage points). At the same time, the dynamics of IT expenditures share in agriculture grew from 0.13% in 2009 to 0.27% in 2018.

According to National Bureau of Statistics data, in the period 2013-2018, the expenditures of agricultural holdings for software products, designs and information systems creation are non-essential from 0,6 mil. MDL and 0,01mil. MDL in 2013 to 1,3 mil. MDL and 0,02 mil. MDL respective in the year 2018 (see figure 2).

**Figure 2. Expenditures of agricultural holdings for information technologies by categories of expenditure, in period 2013-2018 (in thousands MDL)**

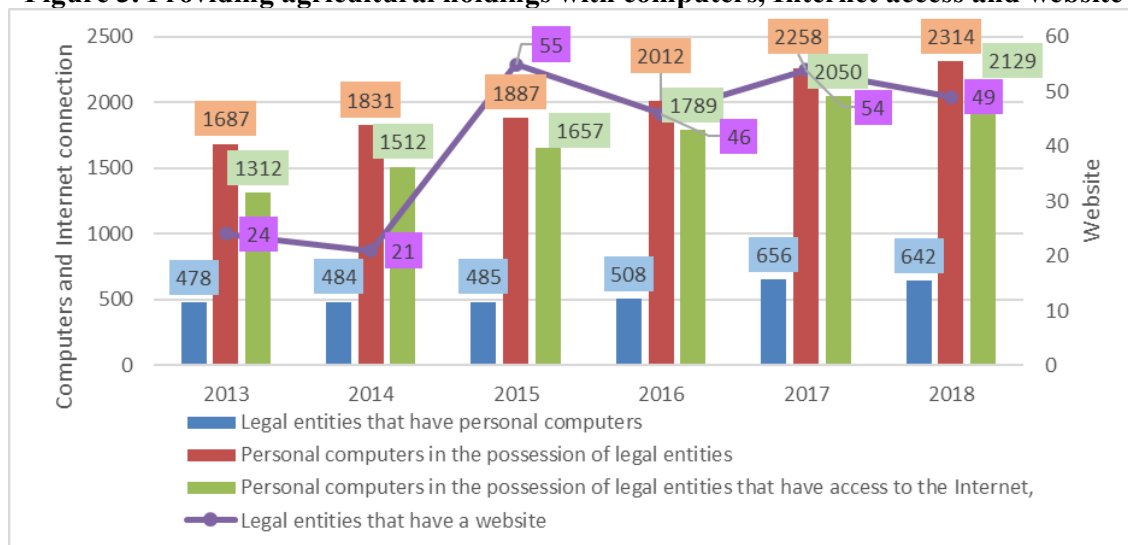


Source: developed by the author based on NBS data

The highest expenses were directed for mobile telephony and Internet services, included in the category of other expenses, 1,3 mil. MDL in 2013 and 3,2 mil MDL in 2018.

The degree of endowment of agricultural holdings with computers, Internet access and website is shown in Figure 3.

**Figure 3. Providing agricultural holdings with computers, Internet access and website**



Source: developed by the author based on NBS data

According to statistical data, the number of agricultural holdings that have computers and Internet access is increasing in 2018 in comparison with past ages. The number of holdings with computers increased in 2018 by 34% compared to 2013, personal computers number grew up by 37% and those connected to the Internet by 62%, and the number of

agricultural holdings that have a website has doubled. At the same time, the level of endowment of the sector with IT products is very modest the total number of agricultural holdings (only 1.16% of agricultural holdings have a website to promote the activity and market products).

Another aspect examined as a factor in determining the digitalization potential of agriculture is digital literacy and skills that affect the use of digital innovations. The level of education and income are determinants of how the Internet is used. Studies show that people with a higher level of education tend to use more advanced services, such as e-commerce and online financial and government services. Users with lower education tend to use the Internet, mainly for communication and entertainment.

According to FAO findings, in rural areas, where education and literacy rates are generally lower, and mobile phones tend to be used mainly for communication and socialization. The level of IT literacy is a challenge for the introduction of digital farming applications that require more advanced digital skills (Trendov et al., 2019).

In the last decade, the Republic of Moldova, like many EU countries, is facing a growing shortage of IT skills. The low level of digital literacy is felt, especially in rural areas of the country. The benefits of the information society are not sufficiently exploited, and most agricultural producers are excluded from society and the ICT-based economy. They do not have the opportunity to capitalize on opportunities to participate in the global digital economy.

The education system ensures digital literacy of the population by adjusting the curriculum to the needs of the knowledge-based economy, teachers trained in the application of ICT, digital educational content, including “lifelong learning” in the field of ICT.

According to the findings presented in the National Strategy “Digital Moldova 2020”, graduates of educational institutions of all levels do not possess sufficient practical skills to work in an information society. At the same time, uncompetitive salaries determine the lack of competent teachers in teaching ICT, lack of a system of motivation and professional growth, the exodus of specialists in the field to international companies (National Strategy, 2013).

The low overall ownership of smartphones in rural areas, combined with the high cost of the internet, also presents challenges in using mobile farming applications and limits the scope of social networks such as Facebook to facilitate agriculture and information flows between farmers. The availability of information could help farmers make better decisions in agriculture, which could help increase yields, reduce environmental impact and improve livelihoods.

The diversity of available technologies and the lack of standardization and compatibility between them, the adaptability of technologies is limited, and it is often not possible to integrate equipment of different brands. Hence, farmers have to decide in which brand to invest. There are no independent advisory services to support farmers in making these decisions.

The need to digitize agriculture creates demand for digital skills and people competent in the use of digital devices, understanding the results and developing programs and applications. It requires not only basic IT literacy, but also data management and communication skills.

In addition to technology investments, there is, therefore, a growing need for investment in the development of multidisciplinary digital skills and knowledge -this is true in both developed and developing countries. Another critical aspect for the digitalization of agriculture is the automation of operational processes. Automation in the field of industry has revolutionized the manufacture of semi-finished and finished products. Although better

known in industrial environments, automation solutions are also gaining popularity in other sectors, such as agriculture.

For example, "M2M" solutions offered by mobile and Internet companies allow remote monitoring of production machinery and equipment by alerting the contractor in the event of their malfunction. The automated transfer of data for the collection of useful information and critical information is a digital product designed to streamline operational management, which allow real-time adaptation to market demands.

Existing ICT solutions in the agricultural sector allow farmers to monitor production processes remotely; monitoring products in production for more efficient planning; remote diagnostics, which allows real-time technical support to production equipment; protection of personnel in the technological process; raw material supply alert system; optimization of the delivery and distribution process; development of additional services based on manufactured products. Implementing "M2M" type solutions in the field of agriculture, the manufacturer can benefit from applications for various processes in agriculture such as: collect data on the condition of agricultural equipment; monitor and locate equipment, animals, transport units; benefit from weather forecast alert tools; develop tools for crop protection based on warning signals.

## **5. Conclusion and recommendations**

In the agricultural sector, the digital transformation will change the structure of the labor market and the nature of labor. It will redefine the role of farmers and agricultural entrepreneurs and change the skills needed in this sector. It can also change the way and where people work and can affect female and male workers differently, due to differences in digital skills and the use of technology. Rural areas, in particular, lag in the process of acquiring digital skills. There is a need to develop a digital skills training model geared towards farmers so that they can learn to assess and implement best practices and technologies for their agricultural business.

The agricultural sector is currently facing significant challenges. The digital ecosystem requires not only the introduction of information and communication technologies (ICT) in all areas of activity, the electronic management of documents and mutual settlements, the digital interaction of all subsystems and production processes, but also:

- development of digital information and communication structures;
- elaboration of new forms of electronic interaction;
- information resources;
- knowledgebase;
- expanding the number of platforms for business, government and social integration;
- digital environment;
- staff able to work in cyberspace.

As a consequence, each participant in the network interaction will be able to act simultaneously as a client and as a server, thus forming the architecture of the digital ecosystem. The ecosystem architecture will ensure the digitization of all physical assets, debts and transactions and their integration into digital ecosystems. The primary function of the ecosystem is to provide and use digital services; electronic processing of all types of information; supporting informational interaction; the use of business intelligence based on the use of artificial intelligence; support for various needs; control of technological processes; strengthening cross-sectoral interaction and involvement.

Digital agrarian ecosystems can be created within complex agro-industrial groups, both state and interstate.

In conclusion, in order to strengthen the digitalization potential of the agricultural sector in the Republic of Moldova, it is necessary:

1. Improving connectivity and network access in rural areas (Infrastructure and access).
2. Promoting digital content and services in rural areas (among farmers).
3. Strengthen digital skills and literacy to stimulate the use of IT technologies in agriculture and create the necessary innovation climate.
4. Attracting investment and subsidizing the development of digital services in the agricultural sector.

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## EUROPEAN UNION SUPPORT PROGRAMS IN THE PROCESS OF RECOVERY, RESILIENCE AND SUSTAINABILITY OF THE ECONOMIES OF THE MEMBER STATES

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**Abstract:** On 11 February 2021, the Council of the European Union adopted the Regulation establishing the Recovery and Resilience Mechanism. The funds will support Member States in coping with the economic and social impact of the COVID-19 pandemic, while ensuring that their economies make the green and digital transition, becoming more sustainable and resilient. As a general rule, EU countries have until 30 April 2021 to submit their national recovery and resilience plans in which they set out their reform and investment agenda by 2026. In our paper, we aim to present two of the support programs in the post-pandemic recovery and resilience process and with a direct impact on the economies of the Member States. Moreover, given that current financial commitments have a direct impact on future generations, we also highlight the green bond process, a financing instrument with an impact until 2058.

**Keywords:** financing, financial instruments, sustainability, European Union.

**JEL Classification:** F65, G23, Q01, N24.

### 1. Introduction

In order to receive support from the Recovery and Resilience Mechanism, EU countries were asked to set out in their plans a coherent package of projects, reforms and investments in six policy areas. The European Commission's largest program is the NextGeneration EU recovery tool of up to around € 800 billion in current prices, representing 5% of EU GDP. The more complex the financing program, the more complex it is, especially due to the fact that it provides multiple innovative financial instruments both in the form of a grant and especially in the form of credit. Moreover, it is for the first time that financial instruments are also supported through the capital market, i.e. in order to be able to finance such a program, the Commission supports the policy of issuing securities on international capital markets using its diversified financing strategy. About 30% of the funds for this program are and will be raised by issuing green bonds NextGeneration EU.

The Commission also runs other programs under which it issues bonds to finance loans to the EU and third countries. These include the SURE program of up to € 100 billion to support jobs and keep people in work, funded exclusively by post-COVID social bonds.

NextGenerationEU is a temporary recovery tool that can raise up to € 750 billion in 2018 prices or around € 800 billion in current prices by issuing bonds. This program is like a direct response of the European Union (EU) to the coronavirus crisis and has the ambition to support economic recovery and build a greener, more digital and more resilient future.

To fund NextGenerationEU, the European Commission, on behalf of the EU, will borrow from the capital markets. Thanks to the EU's high credit rating, the Commission will be able to borrow on favorable terms. The Commission will then transfer the benefit directly to EU Member States when lending to them or to the Union budget in the form of low interest payments on loans to finance recovery costs. *The NextGeneration loan is concentrated between mid-2021 and 2026.* All loans will be repaid by 2058, which is particularly important for both the present and the future.

### 2. Research methodology

To support research methodology, classical observation and examination tools, research methods based on the basic principles of scientific research, namely: "competence, objectivity, truth, methodology, demonstration, correlation, evaluation of results, usefulness

and psychomotor" [1]. In the paper we used procedures based on intensive documentation at the level of European regulations and directives from 2020-2021, using existing databases and scientific material. The methodology of the paper has as direct tools the collection of data and information from literature and existing practice in public and private institutions, but especially scientific articles published on specialized research networks (Researchgate, Academia.edu, etc.), published articles, various journals relevant scientific books, relevant books in the field of reference, legislation, analysis and studies, official documents of the various tax authorities, tax documents and the interactive database of the European Commission. The paper is also based on annual reports, publications, consolidated statistics provided by the European Commission, OECD, published annually, data that have been processed to provide an overview and analysis of the most important changes taking place in Europe as a whole but especially with the specialized literature on European programs from the programming period 2021-2027, as well as the post-pandemic ones, so specific for understanding the studied phenomena, and especially in Romania.

During the paper we also formulated some working hypotheses, namely:

- (1) The first hypothesis relates to the fact that European strategies have actively contributed in the last two years to supporting Member States' economies;
- (2) The second working hypothesis is the predictability of financial instruments on the European economy;
- (3) The third hypothesis relates to the direct interdependence between regulation and the sustainability of Member States' economies.

In our paper, we try to answer these working hypotheses through empirical research, but we appreciate that as a result of the third hypothesis the topic of our research remains open for future research we want to develop on the impact of financial instruments and the effect sustainability generated by financial instruments, models and specificities.

### **3. Research results / discussion**

The EU budget as a structure is financed from own resources and contributions from all EU Member States, which will also support the loan. The size of NextGeneration EU would translate into loan volumes of around € 150 billion a year between mid-2021 and 2026, making the EU one of the largest issuers of the euro. Given the volumes, frequency and complexity of future lending operations, the Commission will follow the best practices used by sovereign issuers and implement a diversified financing strategy. By using a variety of financing instruments and financing techniques, the Commission will expand the investor base for EU securities, facilitate the smooth repayment of loans and provide all funds on the most favorable terms for EU citizens. Of the total NextGenerationEU budget, over 50% of its value will support modernization, including through complementarity with other European Commission programs, such as:

- ☐ research and innovation, through Horizon Europe;
- ☐ Equity Climate Investment and Digital Transitions, through the Fair Transition Fund and the Digital Europe Program;
- ☐ Vaccine preparation, recovery and resistance, through the Recovery and Resilience Facility, rescEU and a new health program, EU4Health.

In addition, the financial package pays particular attention to modernizing traditional policies such as cohesion and the common agricultural policy, in order to maximize their contribution to the Union's priorities, the fight against climate change, with 30% of EU funds, the largest share of the European budget now, as well as financial allocations for women's support, biodiversity protection and gender equality.

**Table 1. The multiannual financial framework 2021-2027 and the total allocations of NextGenerationEU***(billions EUR)*

		<b>Multiannual Financial Framework (MFF)</b>	<b>NextGenerationEU</b>
1	Single market, innovation and digital	149.5	11.5
2	Cohesion, resilience and values	426.7	776.5
3	Natural resources and the environment	401	18.9
4	Migration and border management	25.7	-
5	Security and defense	14.9	-
6	Neighborhoods and the world	110.6	-
7	European Public Administration	82.5	-
	<b>Total MFF</b>	<b>1 210.9</b>	<b>806.9</b>

Source: own processing, European Commission, 2020

NextGenerationEU is a EUR 800 billion temporary recovery tool to help repair the immediate economic and social damage caused by the coronavirus pandemic. Post-COVID-19 Europe will be greener, more digital, more resilient and better suited to current and future challenges.

Facility for recovery and resilience: the core component of NextGenerationEU, with EUR 723.8 billion in loans and grants available to support EU countries' reforms and investments. The aim is to mitigate the economic and social impact of the coronavirus pandemic and to make European economies and societies more sustainable, resilient and better prepared for the challenges and opportunities of green and digital transitions. Member States are working on their recovery and resilience plans to access funds under the Recovery and Resilience Facility.

□ *Recovery assistance for Cohesion and European Territories (REACT-EU):* NextGenerationEU also includes EUR 50.6 billion for REACT-EU. It is a new initiative that continues and expands the response to the crisis and the crisis remedies provided by the Coronavirus Response Investment Initiative and the Coronavirus Response Investment Initiative Plus. It will contribute to an ecological, digital and resilient recovery of the economy. The funds will be made available;

□ *European Regional Development Fund (ERDF);*

□ *European Social Fund (ESF);*

□ *European Aid Fund for the Most Deprived (FEAD);*

*These additional funds will be provided in 2021-2022.*

NextGenerationEU will also bring in extra money for other European programs or funds, such as Horizon2020, InvestEU, Rural Development or the Fair Transition Fund (JTF).

**Table 2. Distribution of NextGenerationEU across each funding direction***(billions EUR)*

<b>No.crt.</b>	<b>EU financial program</b>	<b>Value</b>
1	<b>Recovery and Resilience Facility (RRF)</b>	723,8
	of which loans	385.8
	of which grants	338.0
2	<b>ReactEU</b>	50.6
3	<b>Horizon Europe</b>	5.4
4	<b>InvestEU</b>	6.1
5	<b>Rural development</b>	<b>8.1</b>
6	<b>Fair Transition Funds (JTF)</b>	10.9
7	<b>RescEU</b>	2
	<b>Total</b>	<b>806.9</b>

Source: European Commission, 2020



**NextGenerationEU figures for each EU country**

The current maximum financial allocation is indicative on the basis of the Commission's economic forecasts for autumn 2020 for real GDP growth in 2020 and the real GDP situation in 2021. The 30% allocations will be reviewed by June 2022, based on results Eurostat.

The amount available for grants is EUR 312.5 billion at 2018 prices, which corresponds to EUR 337.96 billion at current prices. The difference is due to the standard 2018 conversion at current prices, calculated by applying a fixed deflator index of 2% to the annual value of the commitments.

The Recovery and Resilience Facility will provide EUR 360 billion in loans, in addition to the EUR 312.5 billion in grants. Member States can apply for a loan of up to 6.8% of gross national income in 2019 as part of the submission of the recovery and resilience plan.

**Summary of the European Recovery and Resilience Mechanism:**

*Usage:* Investments and reforms, including for the green transition and the digital transition.

*Mechanism:* Grants and loans through the implementation of Member States' national recovery and resilience plans, defined in line with the objectives of the European Semester, including the green transition and the digital transition and the resilience of national economies.

*Budget (2018 prices):* EUR 560 billion, of which EUR 310 billion for grants and EUR 250 billion for loans. The breakdown in current prices can be seen in the table below.

*Allocation key:* available to all Member States, with a focus on the most affected countries. Additional funding for 2020-2022 for current cohesion programs as well as for the European Aid Fund for the Most Deprived.

**Table 3. Ease of recovery and resilience: Maximum grant allocations \***  
(current prices)

(billions EUR)			
EU Member State	Value for 70% of the amount available	Value for 30% of the amount available	Total
Belgium	3,6	2,3	5,9
Bulgaria	4,6	1,6	6,2
Czech Republic	3,5	3,5	7,0
Denmark	1,4	0,2	1,6
Germany	16,3	9,3	25,6
Estonia	0,8	0,2	1,0
Ireland	0,9	0,1	1,0
Greece	13,5	4,3	17,8
Spain	46,6	22,9	69,5
France	24,3	15,0	39,4
Croatia	4,6	1,7	6,3
Italy	47,9	21,0	68,9
Cyprus	0,8	0,2	1,0
Latvia	1,6	0,3	2,0
Lithuania	2,1	0,1	2,2
Luxemburg	0,1	0,0	0,1
Hungary	4,6	2,5	7,2
Malta	0,2	0,1	0,3
Netherlands	3,9	2,0	6,0
Austria	2,2	1,3	3,5
Poland	20,3	3,6	23,9
Portugal	9,8	4,1	13,9
Romania	10,2	4,0	14,2

Slovenia	1,3	0,5	1,8
Slovakia	4,6	1,7	6,3
Finland	1,7	0,4	2,1
Sweden	2,9	0,4	3,3
EU27	234,5	103,5	338,0

Source: personal processing of European Commission data, 2021

Another very important program of the European Commission, especially in response to the pandemic situation, is the REACT-EU program, and below are the allocations allocated by each Member State. Synthesis of assistance for recovery for cohesion and the territories of Europe (REACT-EU):

*Use:* employment subsidies, partial unemployment schemes and youth employment measures; liquidity and solvency for SMEs.

*Mechanism:* flexible grants under cohesion policy for municipalities, hospitals, businesses, through the managing authorities of the Member States. No national co-financing is required.

*Budget:* see REACT-EU allocations in the table below for each Member State.

*Distribution key:* The most affected countries and regions are targeted, taking into account the severity of the economic and social impacts of the crisis, including the level of youth unemployment and the relative prosperity of the Member States.

**Table 4. REACT-EU allocations for 2021 per Member State**

(Billions EUR)

EU Member State	The value allocated in prices 2018	Assigned value in current prices
Belgium	245	260
Bulgaria	413	438
Czech Republic	790	838
Denmark	168	178
Germany	1785	1894
Estonia	168	178
Ireland	84	89
Greece	1616	1715
Spain	10269	10898
France	2926	3105
Croatia	541	574
Italy	10693	11348
Cyprus	105	112
Latvia	199	211
Lithuania	259	275
Luxemburg	132	140
Hungary	834	885
Malta	105	112
Netherlands	417	443
Austria	207	219
Poland	1556	1651
Portugal	1508	1600
Romania	1252	1329
Slovenia	248	263
Slovakia	583	618
Finland	127	135
Sweden	272	288
EU27	37500	39795

Source: personal processing of European Commission data, 2021

Following the increase in current prices, we can see the impact of the increase by 1.0612 more in 2021 compared to the reference prices in 2018.

**Table 5. Fair Transition Fund - allocations per Member State**

(million EUR, prices 2018)

EU Member State	Financial allocation under NextGenerationEU	Financial allocation under MEF2021-2027	Total	(%)
Belgium	95	71	166	0,9
Bulgaria	675	505	1178	6,7
Czech Republic	853	640	1493	8,5
Denmark	46	35	81	0,5
Germany	1288	966	2254	12,9
Estonia	184	138	322	1,8
Ireland	44	33	77	0,4
Greece	431	324	755	4,3
Spain	452	339	790	4,5
France	535	402	937	5,4
Croatia	97	72	169	1,0
Italy	535	401	937	5,4
Cyprus	53	39	92	0,5
Latvia	100	75	174	1,0
Lithuania	142	107	249	1,4
Luxembourg	5	4	8	0,0
Hungary	136	102	237	1,4
Malta	12	9	21	0,1
Netherlands	324	243	567	3,2
Austria	71	53	124	0,7
Poland	2000	1500	3500	20,0
Portugal	116	87	204	1,2
Romania	1112	834	1947	11,1
Slovenia	134	101	235	1,3
Slovakia	239	179	418	2,4
Finland	242	182	424	2,4
Sweden	81	61	142	0,8
EU27	10000	7500	17500	100,0

Source: personal processing of European Commission data, 2021

Another innovative tool at European level is the Solvency Support Instrument. This tool is intended to support the equity of viable businesses that are suffering from the coronavirus crisis.

*Use:* equity support for viable companies in all economic sectors to address solvency problems caused by the coronavirus pandemic and to help them achieve the green transition and the digital transition.

*Mechanism:* the provision of an EU budget guarantee to the European Investment Bank Group for the mobilization of private capital (through financial intermediaries, for example, independently managed funds or special purpose vehicles).

*Budget:* EUR 31 billion.

*Allocation key:* based on requests and available to all Member States, focusing on those severely affected by the coronavirus crisis, who are less able to intervene through national state aid in the most affected sectors.

***Consolidated InvestEU program (including Strategic Investment Mechanism):***

*Use:* investing in sustainable infrastructure, R&D and digitalization, SMEs and mid-caps, social investment and skills development across the EU. In addition, the aim of the new Strategic Investment Facility will be to develop strong, independent and resilient value

chains, such as critical infrastructure, green and digital technologies and healthcare, and to strengthen the autonomy of the Union's single market.

*Mechanism:* provision of an EU budget guarantee to finance investment projects through the EIB Group and national promotion banks.

*Budget:* EUR 15.3 billion for InvestEU. In addition, a new strategic investment mechanism will be endowed with provisions of EUR 15 billion from the Next Generation EU instrument.

*Allocation key:* on request and available to all Member States.

**European Health Program:** a new program that respects the division of competences between the Union and the Member States in this field, designed to help prepare Europe for future health threats.

*Use:* Investments in EU health systems, with a focus on:

- ☐ health security and crisis response capacity;
- ☐ long-term prevention and surveillance of diseases, access to health, diagnosis and treatment, cross-border collaboration in the field of health.

*Mechanism:* grants awarded directly to beneficiaries by the European Commission, public procurement managed centrally by the European Commission.

*Budget:* EUR 9.4 billion.

*Allocation key:* Centrally managed program, which will benefit all Member States.

**EU rescEU / Civil Protection Mechanism program** - strengthening the Union's capacity to support civil protection in responding to large-scale emergencies.

*Use:* health emergency response infrastructure: storage capacity, transport systems for medicines, doctors and patients inside the EU or bringing them from outside the EU.

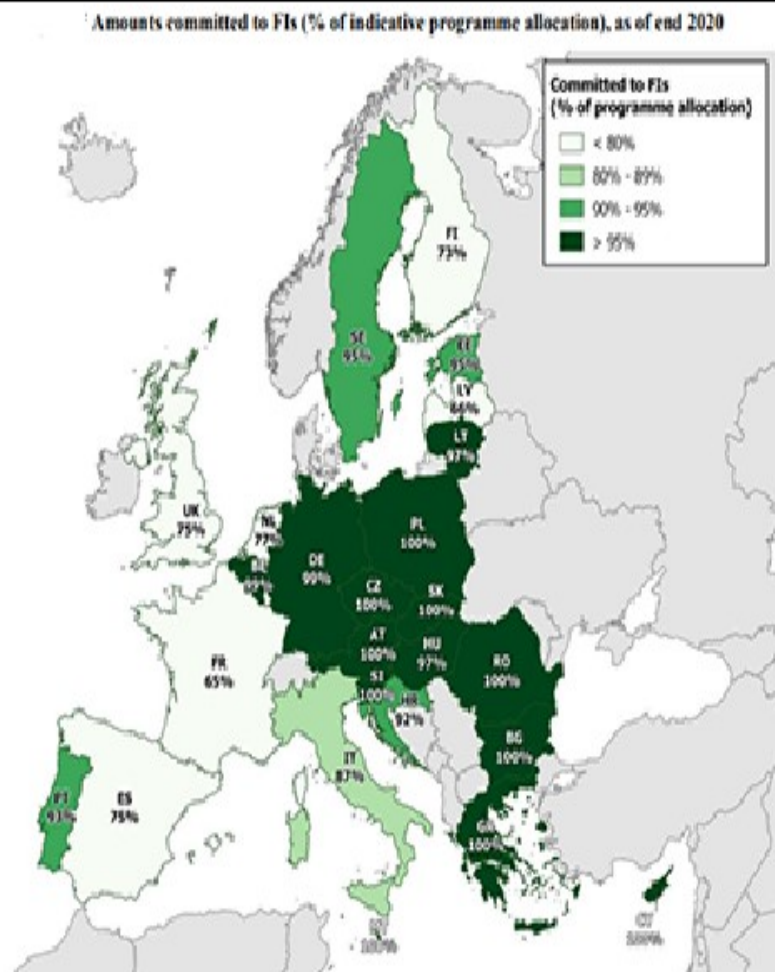
*Mechanism:* grants and procurement managed by the European Commission

*Budget:* EUR 3.1 billion

*Allocation key:* centrally managed program, which will benefit all Member States.


















The Commission also proposes strengthening other programs that will enable them to play their full role in making the Union more resilient and responsive to the problems posed by the pandemic and its consequences:

**Figure 1. Post-Covid European Union financial instruments in the period 2021-2027**



Source: European Commission Data Processing, 2020

**Table 6. Recovery and Resilience Facility:  
Maximum grant allocations\* (current prices)**  
(In billion EUR, current prices)

	For 70% of the amount available	For 30% of the amount available	Total
 Belgium	3.6	2.3	5.9
 Bulgaria	4.6	1.6	6.3
 Czechia	3.5	3.5	7.1
 Denmark	1.3	0.2	1.6
 Germany	16.3	9.3	25.6
 Estonia	0.8	0.2	1.0
 Ireland	0.9	0.1	1.0
 Greece	13.5	4.3	17.8
 Spain	46.6	22.9	69.5
 France	24.3	15.0	39.4
 Croatia	4.6	1.7	6.3
 Italy	47.9	21.0	68.9
 Cyprus	0.8	0.2	1.0
 Latvia	1.6	0.3	2.0
 Lithuania	2.1	0.1	2.2
 Luxembourg	0.1	0.0	0.1
 Hungary	4.6	2.5	7.2
 Malta	0.2	0.1	0.3
 Netherlands	3.9	2.0	6.0
 Austria	2.2	1.2	3.5
 Poland	20.3	3.6	23.9
 Portugal	9.8	4.1	13.9
 Romania	10.2	4.0	14.2
 Slovenia	1.3	0.5	1.8
 Slovakia	4.6	1.7	6.3
 Finland	1.7	0.4	2.1
 Sweden	2.9	0.4	3.3
 EU 27	234.5	103.5	338.0

\*The current maximum financial allocation is indicative based on the Commission's Autumn 2020 Economic Forecast for real GDP growth in 2020 and 2021. The 30% allocations will be revised by June 2022, based on actual outturn data from Eurostat.

The amount available for grants is €312.5 billion in 2018 prices, which corresponds to €337.96 billion in current prices. The difference is due to the standard conversion from 2018 to current prices, calculated by applying a fixed 2% deflator to the annual amount of commitments.

The Recovery and Resilience Facility will make €360 billion available in loans, on top of the €312.5 billion it makes available in grants. Member States can request a loan worth up to 6.8% of their 2019 Gross National Income as part of the submission of their recovery and resilience plan.

Source: European Commission, 2020

### ***EU and NextGenerationEU long-term budget funding***

The EU's long-term budget will continue to be funded through well-known sources in the EU budget:

- ☐ customs duties;
- ☐ contributions from Member States based on value added tax (VAT);
- ☐ contributions based on gross national income (GNI).

In addition, from 1 January 2021, a new national contribution based on non-recycled plastic packaging waste will be introduced as a source of revenue for the EU budget.

### ***Loan to finance recovery***

To fund NextGenerationEU, the European Commission - on behalf of the European Union - will lend to markets at more favorable rates than many Member States and redistribute the amounts.

The European Commission is already issuing bonds to finance loans to the EU and third countries under four programs, including up to € 100 billion for the SURE program to support jobs and keep people in work. To raise up to around € 800 billion in current prices by 2026 for NextGenerationEU in the best financial conditions - 5% of EU GDP - the Commission will use a diversified funding strategy.

- ☐ loan to finance recovery;
- ☐ NextGenerationEU diversified financing strategy.

The European Commission is empowered by the EU Treaty to borrow from international capital markets on behalf of the European Union. It is a well-established name in the debt markets, with a solid track record of successful bond issues over the past 40 years. These bond transactions are denominated exclusively in euro.

### ***Loan repayment***

The repayment of the loan will start in 2028 and will take place over a long period of time - until 2058. The loans will be repaid by the borrowed Member States. Grants will be reimbursed from the EU budget.

To help repay the loan, the Commission will propose new EU own resources (or sources of revenue) in addition to existing ones. They could also be used for early repayment before 2028.

### ***Correction mechanism***

An overview of the budget correction mechanisms introduced over the years to compensate certain Member States for their financial contributions to the EU budget 2021-2027.

EU Member States' contributions to the EU budget are calculated on the basis of their relative economic power, as measured by their gross national income (GNI). At the 1984 Fontainebleau European Council in France, it was decided by the then 10 Member States (Germany, Belgium, Denmark, France, Greece, Ireland, Italy, Luxembourg, the Netherlands and the United Kingdom) to grant the United Kingdom a reduction to reduce its contribution to the EU budget. Since then, other Member States have considered that they also pay too much to the EU budget, even if it is based on objective economic criteria. Arrangements have been made for the correction (compensation) and financial contributions for Denmark, Germany, the Netherlands, Austria and Sweden. Similar corrections continue for these countries for the period 2021-2027.

In 2014, a High Level Group on Own Resources was set up to examine how the EU budget financing system could become fairer, simpler, more transparent and more democratically accountable. In line with the final report and the recommendations of the High Level Group on "Future EU Funding", the Commission has proposed phasing out all revenue corrections as part of a fair and balanced budget.

However, at the Special European Council in July 2020, Member States agreed to maintain these reductions. For the period 2021-2027, flat-rate corrections will reduce the annual GNI-based contribution of Denmark, the Netherlands, Austria, Sweden and Germany. Gross reductions will be financed by all other Member States, depending on their GNI, and correspond (in 2020 prices):

**Table 7. Annual discounts for EU Member States**

(million EUR)

No.crt.	Country	The value of the annual discounts
1	Denmark	377
2	Germany	3671
3	Netherland	1921
4	Austria	565
5	Sweden	1069

Source: own processing, European Commission, 2020

### **European Union loan guarantee**

The EU will use the EU budget and its free space to support the loan, to maintain its high credit rating and to raise funds on favorable market terms. To ensure sufficient space, the EU increases its own resources ceiling of its budget by 0.6 percentage points of EU gross national income (GNI).

The own resources ceiling determines the maximum amount of own resources that the Commission can call on from the Member States in a given year to finance expenditure. This gives Member States certainty and predictability for their budgetary and financial planning. A sufficiently high ceiling allows the Union to cover all its financial obligations and contingent liabilities due in a given year.

The permanent ceiling of the budget's own resources is currently increased to 1.4% of the EU's gross national income. The additional 0.6 percentage point ceiling will come first. It will be limited in time until 2058, and will only be used in the context of the recovery from the coronavirus pandemic. This increase in the own resources ceiling will expire when all funds have been repaid and all obligations have ceased to exist.

The margin will serve as a guarantee that the EU will be able to make reimbursements under any circumstances. This will allow the EU to continue to benefit from its high credit rating and to lend funds on favorable market terms.

**Table 8. Presentation of the syndication of bonds for the financing of NextGenerationEU**

(million EUR)

EU000A3KSXE1	22-06-21	10 y	04-07-31	20 000	0.09%	0.00%	142 000
EU000A285VM2	06-07-21	30 y	06-07-51	6 000	0.73%	0.70%	83 000
EU000A3KTGV8	06-07-21	5 y	06-06-26	9 000	-0.34%	0.00%	88 000
EU000A283859	20-07-21	20 y	04-07-41	10 000	0.47%	0.45%	96 000
EU000A3KWCF4	21-09-21	7 y	04-10-28	9 000	-0.28%	0.00%	103 000
<b>EU000A3K4C42</b>	<b>19-10-21</b>	<b>15 y</b>	<b>04-02-37</b>	<b>12 000</b>	<b>0.45%</b>	<b>0.40%</b>	<b>135 000</b>

Source: own processing, European Commission, 2021



**Table 9. Submission of bond auctions financing the NextGenerationEU**  
(million EUR)

ISIN	type	Settlement date	maturity	*	*	*	%
EU000A3KTGV8	Tap	29-09-21	15 y 06-07-26	2 495 9 000 11 495 102.35	102.20	22.11%	-0.487% 2.33
EU000A3KWCF4	Tap	27-10-21	7 y 04-10-28	2 497 9 000 11 497 100.81	100.67	59.70%	-0.117% 1.58

Source: own processing, European Commission, 2021

**Table 10. Submission of invoice tenders for the implementation of NextGenerationEU**  
(million EUR)

ISIN	type	Settlement date	tranche	maturity	Allocated volume	Remaining old amount *	New amount outstanding *	Weighted average price	Lowest price accepted	% granted at the lowest accepted price	Weighted average yield
EU000A3K4C00	New	17-09-21	3 months	03-12-21	2 999	0	2 999	-0.726%	-0.700%	51.22%	3.39
EU000A3K4C18	New	17-09-21	6 months	04-03-22	1 997	0	1 997	-0.733%	-0.715%	76.30%	5.76
EU000A3K4C00	Tap	24-09-21	3 months	03-12-21	1 997	2 999	4 996	-0.736%	-0.710%	92.61%	2.62
EU000A3K4C18	Tap	24-09-21	6 months	04-03-22	1 996	1 997	3 993	-0.742%	-0.715%	43.63%	2.72
EU000A3K4C26	New	08-10-21	3 months	07-01-22	2 996	0	2 996	-0.794%	-0.745%	44.71%	1.66
EU000A3K4C34	New	08-10-21	6 months	08-04-22	1 996	0	1 996	-0.752%	-0.720%	82.44%	1.83
EU000A3K4C26	Tap	22-10-21	3 months	07-01-22	1 499	2 996	4 495	-0.782%	-0.750%	1.99%	2.13
EU000A3K4C34	Tap	22-10-21	6 months	08-04-22	1 499	1 996	3 495	-0.742%	-0.720%	61.88%	2.09
EU000A3K4C59	New	05-11-21	3 months	04-02-22	1 497	0	1 497	-0.771%	-0.745%	23.81%	2.17
EU000A3K4C67	New	05-11-21	6 months	06-05-22	1 496	0	1 496	-0.735%	-0.710%	40.56%	2.00
EU000A3K4C59	Tap	19-11-21	3 months	04-02-22	998	1 497	2 495	-0.902%	-0.875%	30.00%	3.04
EU000A3K4C67	Tap	19-11-21	6 months	06-05-22	994	1 496	2 490	-0.851%	-0.825%	55.00%	2.70

Source: own processing, European Commission, 2021

The SURE program is the EU's program to fund short-term employment schemes across the EU and keep people in jobs during the coronavirus pandemic. In order to finance SURE, the Commission issues social bonds of up to EUR 100 billion. This has made the Commission - on behalf of the EU - the largest issuer of social bonds in the world.

The funds raised are provided to EU Member States in the form of consecutive funding. EU countries have used the funds to fund various part-time work schemes and other similar measures to maintain employment and support incomes.

To finance the SURE program, the Commission started issuing social bonds in October 2020, following the adoption of an independently assessed social bonds framework. The framework is in line with the Principles of Social Obligations of the International Capital Market Association (ICMA). The first SURE transaction broke a record - attracting the largest order book for any transaction in the history of global bond markets, worth 233 billion euros. Between October 2020 and May 2021, the Commission issued a total of EUR 89.64 billion in social bonds in seven issues. SURE has thus become the largest social security scheme in the world. The Commission intends to issue a further EUR 4.6 billion in 2022 to meet the demands of up-to-date Member States. EU countries can continue to apply for financial support under SURE up to a total limit of EUR 100 billion. EU SURE payments to date, the European Commission has paid almost € 90 billion under SURE to all 19 EU Member States. A detailed presentation is available [here](#):

*Disbursements with various maturities of obligations* (all numbers have been rounded to two decimal places). 19 EU Member States will receive a total of EUR 94.3 billion in financial support under SURE, following approval by the Council of the European Union on the basis of a Commission proposal. Countries can still apply for financial support under SURE, which has a total capacity of up to EUR 100 billion.

**Table 11. Presentation of social bond issues under the EU-SURE Program for the period 2020-2021**  
(billions euro, current price)

EU Member State	The first bond issues EU SURE Issue: 20.10.2020 Payment: 27.10.2020			The II bond issues EU SURE issue: 10.11.2020 Payment: 17.11.2020			The III bond issues EU SURE issue: 24.11.2020 Payment: 01.12.2020		The IV bond issues EU SURE Issue: 26.01.2020 Payment: 02.02.2020			The V bond issues EU SURE Issue: 09.03.2020 Payment: 16.03.2020		The VI bond issues EU SURE Issue: 23.03.2020 Payment: 30.03.2020			The VII bond issues EU SURE Issue: 23.03.2020 Payment: 30.03.2020			Total
	10 y	20 y	Total	5 y	30 y	total	15 y	total	7 y	30	total	15 y	total	5 y	25 y	total	8 y	25 y	total	
Belgium	-	-	-	-	-	-	2,00	2,00	1,30	0,70	2,00	-	-	1,30	0,90	2,20	1,10	0,90	2,0	8,20
Bulgaria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,31	0,20	0,51	0,51
Czech Republic	-	-	-	-	-	-	-	-	-	-	-	1,00	1,00	1,00	-	1,00	-	-	-	2,0
Estonia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,14	0,09	0,23	0,23
Ireland	-	-	-	-	-	-	-	-	-	-	-	-	-	1,27	1,20	2,47	-	-	-	2,47
Greece	-	-	-	1,00	1,00	2,00	-	-	0,73	-	0,73	-	-	-	-	-	1,64	0,90	2,54	5,27
Spain	3,50	2,50	6,00	2,85	1,15	4,00	-	-	-	1,03	103	2,87	287	2,63	1,70	4,06	193	1,44	3,37	21,32
Croatia	-	-	-	0,34	0,17	0,51	-	-	-	-	-	0,51	0,51	-	-	-	-	0,75	0,75	1,02
Italy	5,50	4,50	10,00	3,10	3,40	6,50	-	-	4,45	-	4,45	3,87	3,87	0,67	1,20	1,87	0,08	0,05	0,12	27,44
Cyprus	-	-	-	0,15	0,10	0,25	-	-	0,16	0,07	0,23	-	-	-	-	-	0,07	0,04	0,11	0,60
Latvia	-	-	-	0,08	0,04	0,12	-	-	0,04	0,03	0,07	-	-	-	-	-	0,21	0,15	0,36	0,31
Lithuania	-	-	-	0,20	0,10	0,30	-	-	-	-	-	0,30	0,30	-	-	-	-	-	-	0,96
Hungary	-	-	-	-	-	-	0,20	0,20	0,20	0,10	0,30	-	-	-	-	-	0,11	0,07	0,18	0,50
Malta	-	-	-	0,08	0,04	0,12	-	-	-	-	-	0,12	0,12	-	-	-	1,06	0,50	1,56	0,42
Poland	1,00	-	1,00	-	-	-	-	-	2,60	1,68	4,28	-	-	1,40	-	1,40	1,50	0,91	2,41	8,24
Portugal	-	-	-	-	-	-	3,00	3,00	-	-	-	-	-	-	-	-	-	-	-	5,41
Romania	-	-	-	-	-	-	3,00	3,00	-	-	-	-	-	-	-	-	-	-	-	3,00
Slovenia	-	-	-	0,20	-	0,20	-	-	0,52	0,39	0,91	-	-	-	-	-	-	-	-	1,11
Slovakia	-	-	-	-	-	-	0,30	0,30	-	-	-	0,33	0,33	-	-	-	-	-	-	0,63
Total	10,00	7,00	17,00	8,00	6,00	14,00	8,50	8,50	10,00	4,00	14,00	9,00	9,00	8,00	5,00	13,00	8,14	6,00	14,14	89,64

Source: personal processing of European Commission, 2021

The results of the SURE program are reported by the European Commission twice a year. The first report was published on March 22, 2021. It confirmed that the instrument supported between 25 and 30 million people in 2020. SURE helped between 1.5 and 2.5 million companies affected by the COVID-19 pandemic. Thanks to SURE, Member States have saved around € 5.8 billion in interest payments.

#### EU SURE social security framework

The Commission began issuing social bonds in October 2020, following the adoption of an independently assessed social bonds framework. The framework is in line with the Principles of Social Obligations of the International Capital Market Association (ICMA). The first SURE transaction broke a record - attracting the largest order book for any transaction in the history of global bond markets, worth 233 billion euros. As mentioned above, EU member states can still apply for financial support under SURE up to a total limit of EUR 100 billion.

#### 4. Conclusion

In conclusion, European funding is an opportunity for both Member States and institutions and SMEs to have a starting point and, implicitly, to grow. The major challenge for national and European authorities is to cope with the overlap of 2021-2023 funding packages with complementary funding areas, namely the 2021-2027 Multiannual Financial Framework, the 2021-2023 Resilience and Recovery Mechanism and the European Green Agreement. 2021-2050, packages that also overlap with the post-programming period 2014-2020.

European funding is managed according to strict rules, to ensure transparency, accountability and strict control over how funds are used, at any level, respectively through the regulations related to the European Union's funding programs in the process of relaunching. Post-Covid and their potential to strengthen the single market and Member States' economies.

Changing the register of findings, in the current European context caused by the pandemic, the idea is that in order to protect lives and livelihoods, to repair and maintain the single market, and to build a recovery, the European Commission must capitalize on the full potential of the European Union budget. In the medium and long term, a successful European recovery involves collective and decisive action.

Restoring trade flows and supply routes is paramount in this case. The European Union must also provide assistance and support to countries in need. Moreover, the Union must give its citizens a sense of confidence and stability. However, after all the negotiations of the states at European level, there is optimism and the desire to build a sustainable recovery of Europe.

With regard to the Green Pact, the European Union has proposed a strategy for generous packages in response to the crisis, and these funds provide a real opportunity to launch the Pact, as combating climate change and environmental conservation are high on the European agenda. Climate change poses an existential threat to the whole world, so it will not be surprising that the EU finds solutions and new opportunities in the current context. At the same time, the development of bond markets is not only an additional source of green financing for bank loans, but also provides an important signaling mechanism for companies and investors in an emerging capital market, such as ours. Green bonds use capital markets as a financial instrument to raise funds, especially for investment projects such as renewable energy, energy efficiency and clean water. In the literature we find the concept of "sustainable, social and green obligations" which are also important investment tools for achieving the goals of sustainable development.

Therefore, the importance of European programs and decisions in supporting the post-COVID business environment is one of the key priorities in the coming period, especially as new sustainable models for strengthening the business environment are developed through financial instruments and which models correspond to European priorities and global programs set out in the European Commission's Programs, the 2030 UN Agenda, the 2050 European Green Agreement and the 2050 Global Green Agreement.

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## RESILIENCE FOR THE FUTURE: BETWEEN ECONOMIC VALUE AND ESG STRUGGLE TO DELIVER VALUE

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**Abstract:** Investments, insurance, re-insurance and pension funds are essential parts of a working economy and also of functioning communities. This article presents a connection between these financial instruments and ESG, as a matter of functionality, eligibility and budgetary burdens. The argument will start with available data and the ESG requirements. Arguments will be narrowed down to green bonds as an example in regards to the need to stress test for economic growth and better financial reporting standards. In this sense, financial information and non-financial information can impact economic behaviour, business value and communities. This paper presents the interconnections between the ESG and capacity of economy to revalue itself advantages and disadvantages for ESGR.

**Key words:** ESG, ESGR, non-financial reporting, green bonds.

**JEL Classification:** F36, G01, G23.

### 1. Introduction

After the financial crises, global and European architecture weaknesses were exposed especially in regards to malfunctioning of economics and governance. Asymmetric shocks raised questions on accounting standards and different industry sectors appetite for risk. Apart from the asymmetric shocks among different countries and industry sectors, there was an appetitive for aversion to risk. Yet, general economics articles look at other culprits and solutions, rather than going at foundational economy, revisit accounting profession and consider more social implications, in comparison to shifting the blame from public to private sector (Haslam, et al. 2017; Trasca, et al., 2019; Caraiani et. al. 2020).

Rather than presenting the problems, this paper shall concentrate on solutions, lesson learned, newest Brussels regulation. Resilience is a key word that is multifaceted especially in the context of structural problems that need a holistic approach. Environment Social Governance (ESG) is usually one of the customary trends nowadays considered the path to sustainability, high quality growth and a resilient future. In this respect, this paper shall present connections in between economic value and ESG (Environment Social Governance). Further on this paper is structured as following: a short literature review will map out the state of affairs. This section of the paper will present a combination of economics and environment research. Secondly how value is captured by ESG will be presented with hand on business examples. Last part, will also consider disadvantages for a global understanding, how resilience, however, also for future vulnerability.

### 2. Literature Review

Anderson et. al. (2016) presents a bold theory and a rather novel idea on stress testing for accounting standards. They argue that stress tests should expand beyond banking sector where is usually used to the more abstract domain of accounting. In this manner preparers and more importantly managers could apply stewardship resources better in order to avoid moral hazards for communities in which businesses operate. Public good will be achieved via financial stability as impairments should get a different treatment for tangible and intangible assets especially for FTSEurofirst300 companies that have certain business models in this respect, especially as they use mark to market and mark to model valuations.

This article mentions the EU influential Maystadt report, which argues: The Maystadt report observes that: “policy choices in the field of accounting involve public



interest stakes and accounting standards are more than a mere language convention. By influencing the behaviour of actors in financial markets, they can have an impact on the stability of those markets” (Maystadt Report, 2013, p. 5). More specifically, Maystadt discusses the difference in between private and public interests of companies and investors and the fact that accounting standards, especially IFRS should take into consideration more (primarily) users.

Accounting for shareholders reached its limits once with the financial crises and a new type of accounting based on stakeholders, or at least considering them more should be put in place. Relevant stakeholders are the government, employees, suppliers and arguably society at large for better informing interested parts and also present advanced forms of stewardships and governance.

In this way, public interest can frame value in a resilient manner. While investors put their money at risk and want a certain type of information on dividends and other earnings, suppliers for instance want to know if they are going to be paid next month, in a similar fashion to employees’ general interests on salary and future pension schemes. Their approach goes hand in hand with government as another relevant stakeholder interested mainly in taxed and to some extent social justice. Lastly, customers and society at large may present some interest, as corporate strategies involve them, and they answer back with input to value.

In an article titled Accounting for the future: How will corporate business models deliver sustainability? Haslam et. al (2019) presents an analysis for risks for S&P 500 listed companies by linking carbon to finance establishing correlations in between carbon emissions and capital and also between carbon-financial intensity of corporate activities. These scholars analysis proves to be interesting as in addition in considers also regulation on carbon coupled with business models. One example in this sense is that „according to a carbon footprint briefing note issued by ShareAction and TruCost: ‘global emissions would have to fall by about 60% by 2050 to limit the increase in average temperature to less than 2°C (3.6°F) above pre-industrial levels. Over the last 40 years, CO<sub>2</sub> emissions have continually risen and only stalling following major economic crises.’. Although carbon emissions intensity has fallen from 0.48 tons of carbon per \$1000 of global GDP in 1990 to 0.32 tons in 2016, it is that case that GDP has grown at a faster rate thereby increasing overall global emissions from 22 billion to 36 billion tons of carbon equivalent emissions annually.’ (ShareAction and Trucost, 2015 referenced in Haslam, 2019).

It looks that carbon represents a market value and it exists in companies’ portfolios capturing value as well as making damage. From an ESG point CO<sub>2</sub> knows only one treatment, yet at a closer look, financial analysis box many carbon intensive assets as „stranded assets” realising the downstream of such businesses in terms of their operation and market value especially for investment and pensions funds. This shows the existence of a value chain between shareholders and stakeholders and whether their interaction drives the companies towards a new paradigm or just compromise in value terms.

European Commission (2018) casts into light an interesting legal perspective on financing a sustainable economy. This view complements the literature explored as far as now. EU has an elaborated climate mitigation plan, where investment is directed where money are needed the most within the ESG framework to foster transparency, and disclose risk for existing instruments, yet creating new ones like green bonds together with an entire green infrastructure, as EU tries to be a global leader. EU’s long view considers ESG as cornerstone value for future resilience and sustainable investment.

Buda et al. (2019) considers that natural capital is very complex should be regulated and economically treated different: from biotic assets (including human capital) to abiotic assets (wind, solar). Apart from the classical by now distinction between HCA (Historical

Cost Accounting) and FVA (Faïre Value Accounting), he considers materiality as a cornerstone that should count for more. Hoinaru et. al. (2018, 2019, 2021) provides interesting perspectives into EU's political economy and ESGs. He argues that together with business models, non-financial reporting should be the solution to a future resilient proof on green economics incentives. First of all, he argues about the financial reporting and community value as a XIX century drive project. Financial reporting numbers have to be backed up by narratives, especially as shareholders do not always have the capacity to read and understand numbers and certain explanations beyond preparers' skills. There are two options on this sense: 1. Either IFRS include more space for managerial comments accordingly to IAS 1 and expand it to other standards, or 2. as it happened in the US a certain deal in between FASB (Financial Advisory Standards Board) and SASB (Sustainable Accounting Standards Board) was done to build bridges for both expanding information, yet making it more understandable, considering environmental and social aspects of ESG, EEEs (Ecology, Evolution, Environment) and SEEs (Social Economic Environment).

Next, this paper will depart from the literature review and will present in more practical terms resilience in ESG verifying theories looking at the interactions between shareholders' rights and obligation and stakeholders' approach to value. After this pros and cons will be considered, before arriving to a conclusion.

### **3. Resilience and ESG**

The „E”: In terms of environment, situations are unidirectional, that companies cannot make profit at the expense of environment, and more should be done in terms of sustainability than the classical and old-fashioned by now „polluter pay principle”. Environment should also be understood in more hands on business terms of water accessibility, waste management, rather than its cliché general approach of climate change and carbon footprint.

The „S”: It can be seen from both the academic and professional literature review that ESG is part of value creation. Human capital is one of the most modern important capital a company can have, yet, at times it is hard to express it in proper monetary terms. Sürdü et al. (2020) has an extensive analysis of human resource accounting, analysing 54 annual reports of corporations establishing interesting correlations between return on assets and return on equity via human resources reports analysis, considering the productivity of people, salaries, company profit and employee satisfaction. Beyond this the subject should be treated in public health issues and costs for employees that experience burn out, which is an increasing trend leading to a new branch of Human Resource Accounting (HRA) and costs of about 255 billion British pounds, similar to an epidemic. Some companies, use this HRA in their advantages, like Allianz who has internal metrics like Work Well Index and Inclusive Metridocracy Index and their internalise this self-reporting growing in rankings of best companies (Hoinaru, 2021).

The „G”: Governance encompasses ethics, board diversity and stakeholders rights, ultimately closing the circle in the sense that as well as procedures can connect with shareholder and stakeholder value. Accordingly, to S&P Global: „The “G” in ESG refers to the governance factors of decision-making, from sovereigns' policymaking to the distribution of rights and responsibilities among different participants in corporations, including the board of directors, managers, shareholders, and stakeholders.” (S&P, 2022).

Governance is in a way the link between financial reporting and non-financial reporting, providing understanding on materiality also being considered by auditors. Governance raises concerns on profit distribution between management bonus and shareholders' dividend distribution, as well Corporate Social Responsibility (CSR), making

it the most important key factor in ESG, answering the dilemma of profit or purpose and how should this be addressed.

Even so, what seems to be missing here is the specific reference between resilience and ESG beyond the inbuilt characteristics of the system. ESG is both subject to pros and cons due to an ambiguous nature and a particular type of value creation. These intangible assests, or positive externalities, are employed in far too indirect manners in value creation, forcing the skills of accounting preparers and financial analysts, informing investors in a disruptive manner, accordingly to some. Other scholars view ESG in the context of double materiality, considering non financial aspects separate from financial aspects of companies, despite that non-financial have a deep monetary impact on value of balance sheet aspects and also on profit and loss account.

The „R” in ESG is a more and more going concern: „in a world of increasing upheaval, ESG investors must also be able to assess resilience.” In this sense, the City resilience Index has 52 metrics that present the resilience of cities and extrapolating the analysis can move on as this also shows public health issues, well being, but also new type of developments in societies, as city are places of inovation. Some numbers dislosed are of great intrests are they also connect high growth economic environments with dept, showing certain risks and capacity to recover (World Economic forum, 2021).

One important aspect of resilience is adaptability. One Deloitte report concentrates on the private sector, looking at companies, presenting the pictures from a bottom up perspective. Apart from adaptability, they consider other 4 dimension of resilience:prepared, collaborative, trustworthy, responsible. These key concepts were identified as a result of a survey to CXO (Chief Experience Officers). This study considered the „new normal” and the expected „better normal” as companies are currently cultivating a culture of resilience. Deloitte concluded that: *„Most resilient organizations focus on all of these traits to some degree, not just one or two of them. In part, this is because these characteristics often overlap and support one another. For instance, companies that practice stakeholder capitalism are likely focused on trustworthiness and ethical behavior.”* (Deloitte, 2021).

In parallel, Mckinsey produced thier own study arguing that corporate resilience has to be defined after the pandemy and identified specific risks, including geo-politican one, which can be introduced as ESG at large. In this sense, political risks increased up to 15 % on thier scale. Disruptive business models also got further attention, as well as organisation purpose. Interesting enough an very surprinsingly corporate resilience actually dropped. On average it can be said that companies operate the same business as usual, making profits, yet there is a huge internal dynamism that actually challanged the old ways in a huge manner and the major reason for this is happening is due to resilience. Rather than absorbing the risk of crises, companies stay on their own track and reinvent and adapt to internal and external conditions in such a way that they are actually profit the entire situation (Mckinsey, 2021).This shows that ultimately, resilience triggers a value chain backwards and upwards to such an extent it creates a renewal of the comapany, backed up by a complicated strategy for future economic value.

A hands on business example on how ESG is producing not only money, yet also market value for the company is represented by green bonds. In an article concentrating the effort of scholars from the UK, Germany and Romania, having also a Club of Rome sustenability perspective the green bonds financial situation is presented. Currently, there is an increased appetite word wide for green bonds as they got listed world wide from Luxembourg to Asia to the US and are backed up by clear principles. There are of course differences in between sovereignty and corporate green bonds, with different values in terms on who is drivig the project. For instance green bonds issued by companies like

Apple or Pepsi Co. are regarded as of high value. Also, bonds issued by local authorities are also trusted by buyers as they can have a check and control over their investment.

These ESG investments are sometimes preferred to regular bonds as a great market growth is envisioned, there are some tax cuts incentives, as well as beyond financial gains motives, there is a public good aspect also. Hoinaru et al. (2020) puts forward a rather interesting idea on creditor protection. Title is a bit misleading, as in this particular context, creditor protection relate to their informing capacity. Therefore, clear principles should exist for green bonds to create market trust rather than individual drivers. The International Capital Market Association (ICMA) states that: „*The Green Bond Principles are voluntary process guidelines that neither constitute an offer to purchase or sell securities nor constitute specific advice of whatever form (tax, legal, environmental, accounting or regulatory) in respect of Green Bonds or any other securities. The Green Bond Principles do not create any rights in, or liability to, any person, public or private*” (ICMA, 2018).

#### ***Following the same logic, Securities Industry and Financial Markets Association***

(SIFMA) discovered that green securities are a growing part of the market, however, they are still very small compared to other parts of the market, having a share of around \$100 trillion over the last years. (SIFMA, 2017). This should not be misread as green economics could and should be necessary for poor economies though this can actually be a win win situation, that would actually put resilience in another framework, when applied to countries in Africa, Latin America and other parts of Asia. Other economists like Barbier (2015) consider this a trade off rather than a win win scenarios for for a better understanding presents the following:

Resilience can be addressed in risky way by exploiting short term fluctuations and global imbalances. Another perspective carrying a Schumpeterian point of view is that green industry can be a solution for resilience, yet new instruments and R&D should constitute the basis for a start. Next level of this is the Georgian perspective which views the long term is that substitutes for scarcity have to be found to avoid constraints.

#### **4. Pros and cons**

The resilience aspects of ESG are complicated as value is created in both material and immaterial ways. Also, ESG value is sometimes unpredictable as greening a business come with some costs while more can be gained in tax incentives or in customers more willingly to pay for premium quality, yet it can affect further vulnerable customers. There are pros and cons that came attached with ESGR as resilience is a rather new economic trend, which would not make any economic sense to firms in the 70s for instance.

The pros of the resilience as framed by ESG is the new space for growth, new business models, new market segmentation. This looks like a development trend for the XXI century especially as green economic transition may slow down the economic development for companies before they set them on a long-term growth by providing sustainable energy, community support, high governance standards aimed at better customers and less punitive financial measure from authorities. Also, ESGR normally make investors to avoid certain industries like tobacco, weapons, etc. that are normally subject to huge regulatory burdens.

The most major con is identified in a Morgan Stanley report (2013) as investors, in fact 84% of them are not looking for ESG: „Globally, more than \$22.8 trillion are invested sustainably, representing more than \$1 in every \$4 under professional management.” On top of this, there is the issue that there is not one size fit all as there are various standards

and self-assessment procedures that may in the end hinder understanding of any resilience and any ESG improvements.

## 5. Conclusion

To sum up, this paper had a balanced approach considering all the stakeholders voicing or expressing concerns, regulators like European Commission, private companies like McKinsey & Company, Deloitte, etc. and many academics like Biondi, Haslam, Sürdü covering a large geographical area. My research discovered that ESG is important, yet it has to be revisited in terms of its limitations, especially as this type of metrics are only just at the beginning and there is no uniform understanding of standards, numbers have to be backed up by heavy narratives. Communities, environment and governance in a broad sense, with its ethical standards, puts forward accounting public good and in a more direct and indirect manner resilience. As argued by WeForum, next level of ESGR (Environment Social Governance Resilience) should be envisioned for better connections between financial and non-financial reporting. Resilience has to be framed by ESG, despite the pros and cons presented. Materiality is an important aspect of ESG and what resilience means, yet in terms of human capital and environment is sometimes hard to capitalise on and appropriately be measured. In effect, there is a struggle for ESG to deliver a proper understandable value, as there is a risk all the economic incentives to have a counter-intuitive effect, behave in an opposite manner than the one they were designed and envisioned for. As Haslam argued, there should be stress test frameworks for checks and balances for resilience, yet, also investors must have a certain appetite for innovative business models, new skills for understanding ESG, like value of human capital and carbon pricing, as well as ethical standards. Hoinaru (2021) asked for some better informing and creditor protection via high quality standards. Currently, as WeForum presented, there is an R missing out in the ESG, and this happens for a reasons, which will be corrected in the future, as this is an increasing trend, however, we are not at the breaking point yet.

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## INTERNAL AUDIT — STRATEGIC FUNCTION AND COMPLIANCE WITH INFLUENCES IN THE ACTIVITY OF THE ECONOMIC ENTITY

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**Abstract:** *Internal audit is of major importance within an entity at operational level in terms of testing compliance with its corporate governance policies and rules, risk management processes and control systems. Internal audit, corporate governance and risk management contribute to increasing the performance of an entity by contributing to achieving the objectives pursued, creating added value and limiting risks. The efficiency of internal audit work leads to a higher probability in identifying and reporting financial distortions and correcting them, helping to improve the risk management of identifying and reporting distortions in the entity, which leads us to the idea that it can contribute to better performance. The role of the internal audit function has expanded and continues to extend beyond the traditional responsibilities of the compliance area, moving its centre of gravity towards a strategic direction within the entity, being increasingly considered a strategic function of the entity.*

**Keywords:** *internal audit, entity strategy, risk management, compliance, performance.*

**JEL Classification:** *M41, M42.*

### 1. Introduction

The economic environment is characterised by a continuous process of searching and analysing tools and mechanisms that can lead to better risk management and thus an increase in overall performance. The risk represents a constant in economic and financial life, being a general component of all activities, it is found in the management of companies, in the decision-making process. In view of the impossibility of accurately predicting the future, financial decisions generally have elements of uncertainty. From the point of view of its general conception and understanding, the internal audit shall be treated as an indication of correctness control and analysis of financial performance based on what reflects the annual accounts and supporting documents in accordance with the existing legislation and normative acts in the field. Internal audit and risk management share the same purpose of risk control. The main limitation of internal audit compared to risk management is risk-taking. In terms of risk management, it has as its primary manifestation the consideration of the risks faced by the entity and the transition to the necessary actions to quantify them. The internal audit may provide risk management advice on the financial risks of the undertaking or even identify more clearly all the financial risks to which the entity is exposed. Corporate governance involves a set of relationships between the company's management, the board of directors, shareholders and securities holders, by establishing good practice rules to ensure the efficient management of resources at the corporate level. In the current economic context, characterised by a continuous process of identifying and determining mechanisms and tools to increase the performance of companies, as well as to streamline corporate activity in accordance with the legislation and normative acts in the field, it is necessary to identify the *contribution to corporate performance of internal audit* and corporate risk management in the context of good governance practices.

Internal audit is a strategic and compliance function at the level of the economic entity. According to International Standards on Auditing (IAS), internal audit is an independent objective assurance and advisory activity aimed at adding value and improving the activities of an entity. Internal audit helps the entity achieve its objectives through a systematic and methodical approach that assesses and improves the effectiveness of risk management, control and governance processes. According to Internal Audit Standard



2110 'Governance', internal audit work must assess and formulate appropriate recommendations to improve governance processes in:

- adopt strategic and operational decisions;
- supervision of risk management and controls;
- ensure effective performance management within the organisation and accountability;
- promoting adequate ethical conduct and corresponding values within the organisation;
- communication of risk and control information to the appropriate areas of the organisation;
- coordinating activities and communicating information between the board, internal auditors, external auditors, other insurance providers and management.

Corporate governance, audit and risk management are closely linked in that internal and external auditors, executive managers, shareholders, directors represent some of the key governance actors with different dimensions of risk management under their responsibility.

*We are of the opinion that the collaboration relationship between internal audit, risk management and corporate governance leads to increased performance within an entity, as well as to ensuring trust in the business environment, which also leads to an increase in the system of which that entity belongs, ultimately leading to the growth of the economy as a whole.* History places internal audit in a close link with risk management and corporate governance, through its role in ensuring transparency of information and advice on risk management. Both internal audit and corporate governance and risk management have a clear, specific and well-structured methodology aimed at the effectiveness and efficiency of an organisation. Internal audit, corporate governance and risk management contribute to increasing an entity's performance by contributing to the achievement of its objectives, the efficiency and effectiveness of the entity's activities, strengthening the entity's credibility, creating added value, and limiting existing risks and helping to identify new risks.

## 2. Literature review

After overcoming the economic crisis of 1929, the internal audit acquires new dimensions as a result of the fact that it was found useful and more than both the employees involved had acquired knowledge and skills, as well as a number of methods, techniques and instruments specific to the accounting field.

In Europe, the new function of the audit took place for the first time in France in 1960, but with a severe mark from the origins of accounting control.

The internal audit design is carried out only since 1980, at which point both the originality and the peculiarities of the internal audit function are manifested.

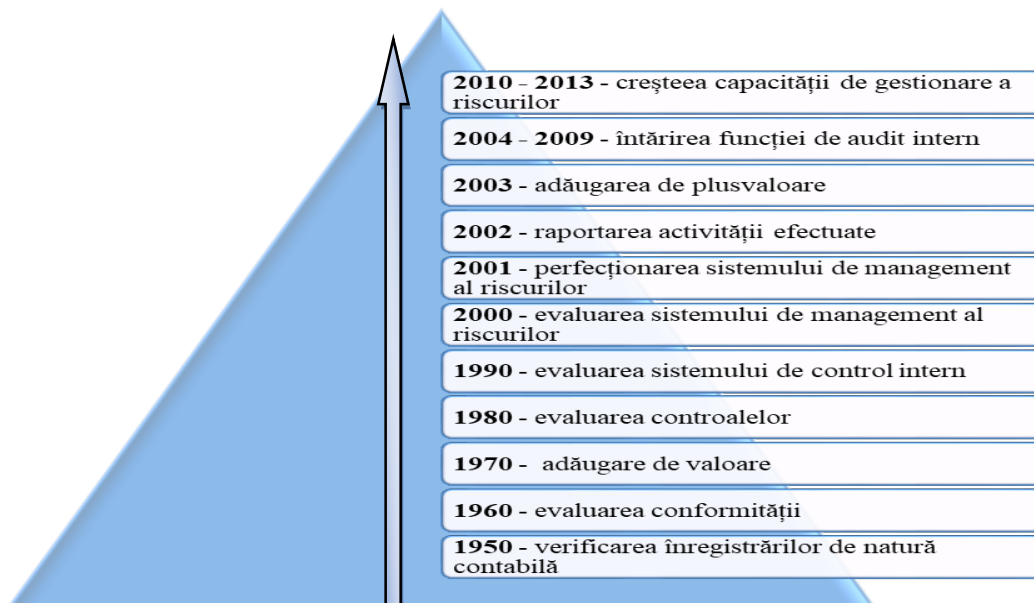
The diversity of the internal audit function was assessed by the Institute of Internal Audit, which, through successive studies carried out in 1987, 1991, 1995 and 1999 reveals a heterogeneity in the function of internal audit, its character and profile. Thus, in terms of the profile of the internal audit function during the above-mentioned period, there was a progression, not yet completed, characterised by an increased diversity that implicitly influences the internal auditor's profile. Regarding the profile of the Internal Auditor, the International Federation of Accountants (I.F.A.C.) notes that he is directly connected to the diversity of activities on the one hand, but also to *"the diversity of origins, professional training is confirmed: it explains the variety of function and competence of people and signifies that evolution is in progress."*<sup>1</sup>

<sup>1</sup> Renard Jacques, Theory and Practice of Internal Audit, Ministry of Public Finance, 4th Edition, 2002, pg. 20;

The evolution of the internal audit over time was investigated by Pickett K and found a continuous transformation of the approach, as can be seen in Figure 1:

Figure 1

Evolution over time of internal audit



Source: pickup after Pickett K.H.S.<sup>1</sup>

From the above representation it is noted that at its beginning the internal audit focused on checks on the registration of transactions in the accounting records for which the qualitative indicator was defined as the number of erroneous records found.

The compliance assessment was the task of internal auditors to measure compliance with the procedures of the entity's employees exclusively for the financial and accounting area. At this stage, audits were unannounced and thus widened them as forms of verification.

Increasing the functionality of the management and control system has led the internal audit to migrate to another stage, which is to bring it closer to the management by providing it with solutions in this direction.

During the 1980s the internal audit is tailored to the needs of the management by performing interdependence checks thus identifying control levers useful in achieving the entity's objectives. The evolution of management science has significantly influenced the improvement of internal audit techniques and tools so that they contribute to the provision of independent and objective opinions on the functioning of the management internal control through the recommendations made to increase the adequacy of internal control to the needs of the entity.

The management of the economic entity has evolved at a fast pace since 1990, translating to risk management, so the internal audit was required to carry out assessments of the risk management system by identifying those risks and treating them through measures. At this stage, the internal auditor assumes specific responsibilities for the management advice, in which context the internal audit is rejoined by the absorption of the

<sup>1</sup> Pickett K.H.S., The internal auditor at work — A Practical guide to everyday challenges, Jhon Wiley&Sons, Inc., Hoboken, New Jersey, 2004, page no. 10;

advisory component.

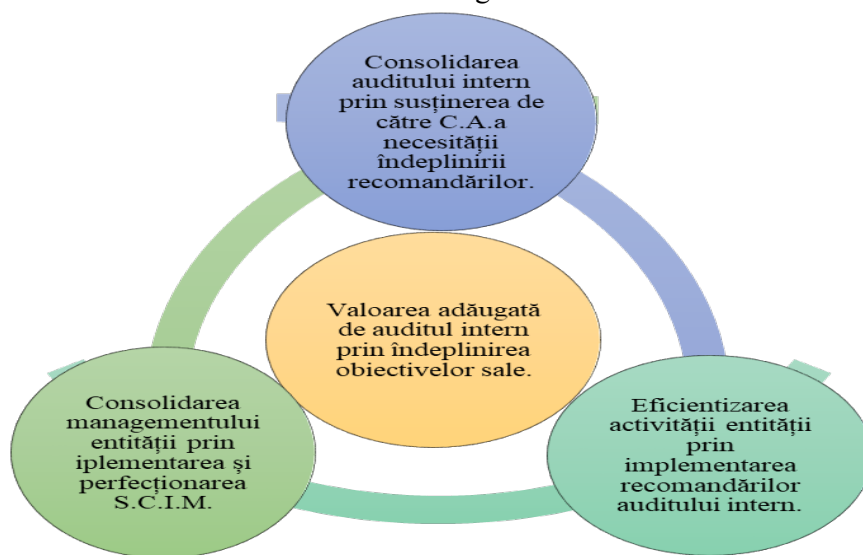
After 2000 the internal audit crosses its most dynamic period in evolution, manifesting the need for reporting at the top management level, which is reflected in the annual reports.

Although the added value of internal audit cannot always be quantified, however, the management of entities recognises the benefits of its organisation and operation. These advantages created for the entity are supported by the fact that internal auditors are able to understand in depth the operations, acts and facts carried out within the entity, which is conducive to making recommendations for improvement and useful to management.

In order to obtain added value at the level of an economic entity in the public interest it is necessary that it fulfils certain objectives as can be seen in Figure 2:

Figure No.2.

Objectives achieved by the entity to obtain added value  
as a result of the functioning of the internal audit



Source: own processing

At present, despite the vicissitudes of time, the rapid evolution with disruptions to the real understanding of the role and objectives of internal audit by managers, but also by the employees involved in this activity, however, today the internal audit represents: *“an important and organised, highly diversified function, the constant evolution of which makes it possible to outline the prospects.”*<sup>1</sup>

The extent of the internal audit is supported and monitored by the International Institute of Internal Audit, which records that it has over 70,000 members distributed in 120 countries.

In the paper *“Internal Audit Theory and Practice”* J. Renard presents the following as perspectives of the internal audit:

- expanding internal audit work and its penetration of several areas of activity such as environment, quality, joint ventures;
- the annexation of internal audit to the top level of the economic entity;

<sup>1</sup> Renard Jacques, Theory and Practice of Internal Audit, Ministry of Public Finance, 4th Edition, 2002, pg. 17;

- the extension of internal audit as a discipline at the level of university education and its accreditation, strengthening its position in both the educational and practical environment;
- acquire the general character of the organisation and functioning of the internal audit;
- voluntary implementation of internal audit recommendations directing management interest towards internal audit in the direction of advice;
- a double change with a major impact on the Internal Audit Capability is expected by stating that *“the development of the auditor’s advisory role and, in parallel, the aspiration for greater autonomy”*<sup>1</sup>;
- the trend of the internal audit, which will mark the business environment in fact, is the strong manifestation of its autonomy generated by a revolutionary concept of independence and migration to autonomy, giving the internal auditor independence from the audited subjects, the voluntary practice of objectivity, independence and objectivity in relation to management, this new trend once materialised allows the internal auditor to self-refer and decide on the need to conduct investigations.

In Romania, the initial role of the internal audit was to assess internal controls, but after the advent of Law no.672/2002 on internal public audit, it constitutes an independent, objective, assurance activity, designed to add value or improve the activities of the public entity, to help the public entity to achieve its objectives through a sustained and methodical approach, to assess and improve risk management, control and governance processes efficiently and effectively.

In Romania, the internal audit has been implemented in the public sector since 1999, at the recommendation of the European Commission, as an element of harmonisation with the Community acquis, with a view to joining the European Union.

Initially, Romania entered into this process with the elaboration and adoption of Government Order No 119/1999 on internal audit and preventive financial control,<sup>2</sup> which, although it did not fully meet the requirements of the new internal audit concept, was nevertheless an important step.

Under Law No 672/2002 on internal public audit,<sup>3</sup> updated, public entities were obliged to organise their internal audit work. Thus, all these aspects have been regulated in Romania and an appropriate regulatory framework has been implemented, accepted by the European Commission and harmonised with similar systems in the candidate countries.

### 3. Research methodology

*The methodological objective* of this scientific research is to capture the current level of knowledge in the field of internal audit, especially with regard to its strategic and compliance functions, with influences on the economic entity 's activity, in order to identify limitations and propose models and solutions, leading to the improvement of risk management through the internal audit perspective. The research integrates an analysis in time and space, of an internal audit mission by reviewing the literature and detailing an empirical study carried out at an economic entity, by applying specific procedures. With reference to the relationship *“internal audit quality — creating added value — limiting risks — increasing performance”* we tried to find answers to the question: *“What is the way internal audit commits risk management and determines better performance?”* This question is followed by the initial support questions, namely: How can internal audit

<sup>1</sup> Renard Jacques, Theory and Practice of Internal Audit, Ministry of Public Finance, 4th Edition, 2002, pg. 21;

<sup>2</sup> Government Order No 119 of 31 August 1999 (republished) on internal control and preventive financial control, OG No 799 of 12 November 2003.

<sup>3</sup> Law No 672/2002 on internal public audit, updated, Official Gazette, Part I, no. 465/2002.

influence performance? What relations exist between internal audit, corporate governance and risk management? What in the internal audit increases performance?.

In order to achieve the objectives of the research, as well as the scientific research method, there is a combination of quantitative and qualitative research, the main objective being to make available to those concerned relevant models for the practical application of internal audit procedures. As a result of this research, it can be concluded that there is a direct association between the quality and depth of internal audit procedures, risk assessment and an increase in the performance of the entity.

#### **4. Applicative approach to internal audit (A.P.I.)**

Highlighting the relevance of the internal public audit activity in the practice of the economic entity analysed (public interest entity in the field of transport, with branches in the territory) is presented specifically in an A.P.I. Report, just as professional experience in connection with theoretical and methodological knowledge has guided us, without mentioning the identification data of the mission due to the fact that from a formal perspective there is enough information both in legislation, in the literature, on the websites of the authorities involved and not least in the online environment.

##### *↳ Objectives of the A.P.I. mission.*

- The assessment of how the income resulting from the management of the assets of the economic entity is constituted.
- The assessment of how the expenses related to the activity carried out within the economic entity are incurred.
- Assessment of the fulfilment of the objectives and performance criteria set out in the Mandate Contract, of the economic entity manager.

##### *↳ How the A.P.I. mission is carried out.*

- the main public internal audit techniques used: verification by: comparison, examination, follow-up; analysis; physical observation;
- main public internal audit tools used: questionnaires, interviews, tests, problem identification sheets, irregularity finding and reporting form;

##### *↳ Materials prepared during the public internal audit mission:*

- The standing file shall include:
  - Section A — Public Internal Audit Report and its annexes;
  - Section B — Administrative;
  - Section C — Documentation of the A.P.I. mission;
- The working documents file shall contain a copy of the supporting documents referred to in the Annex to the Audit Report.

In relation to the specific objectives of the audit mission and the analyses carried out during the audit mission, the audit team noted a number of aspects that contributed to the opinion of the auditors.

##### *↳ Objective 1: Assessing how the income resulting from the activity of exploiting the assets of the economic entity is constituted.*

From the situation of service contracts (revenue generators), requested by the internal auditors and provided by the audited facility, it appears that 4 contracts were concluded at central level of the economic entity, from which contract No 1/\_\_\_ together with the related addenda (May-December) was selected for verification, concluded between \_\_\_, the most representative for the following reasons:

- the value of the contract (51,940.000 lei excluding VAT);
- contract period (01.05. \_\_ – 30.04. \_\_);
- the value of the monthly addenda (RON 7.121,000 excluding VAT) and their

number (12 addenda);

- coverage area (Regional Branches);
- subject matter of the contract (operation, maintenance, upgrading, repairs and interventions in case of \_\_\_\_).

Also, an essential criterion was that, at the time of the audit mission, there is a pending dispute brought by the economic entity studied to \_\_\_, claiming the amount of RON 45,198,870.24, representing uninvoiced differences in the works situations for the year \_\_\_\_.

Under the contract subject to audit, the economic entity constituted revenue from the provision of services on the basis of invoices recognised and accepted for payment by \_\_\_ as well as for invoices not recognised and accepted for payment by \_\_\_\_\_. The revenues generated on the basis of invoices not accepted by \_\_\_\_\_ are:

- for the year 2xxx amounting to RON 37 995 518.87 and VAT of RON 7.203.351.91;
- for the year 2xxy amounting to RON 50 917.662.98 and VAT of RON 9,674.355.96.

### **Findings:**

From the checks carried out on the documents relating to contract No 1/\_\_\_\_, concluded between \_\_\_\_ and the economic entity, it was found that:

- the economic entity did not invoice the value of the works recognised by \_\_\_, but invoiced only the amount accepted for payment under the contract;
- subsequent invoicing of services not accepted for payment (February 2xxx), are differences between works situations recognised by both the provider and the beneficiary, and the amount accepted on payment of \_\_\_\_ up to the value of the contract (the benefits belong to the period 01.05.\_\_\_\_ — 31.12.\_\_\_\_).

In AGA Decision No \_\_\_\_ and the minutes relating thereto, the *members of the AGA request that steps be taken with \_\_\_\_ and the other beneficiaries to recover debts and debts. The Board of Directors shall be responsible for regular review and take measures for the conduct of commercial contracts.* By decision of the Board of Directors no. \_\_\_\_, the *invoicing of all amounts for the works, services and services provided by the economic entity for \_\_\_\_ in 2xxx was approved, according to the estimates of works drawn up.* In the case of invoices issued to \_\_\_, unconfirmed no. \_\_\_\_, signed by the Economic Director of the economic entity, the value of RON 45,198,870.24 is mentioned, representing differences between the situations of works recognised by both the provider and the beneficiary, and the amount accepted for payment of \_\_\_\_ within the limit of the contract value for the year 2xxx.

### **Recommendations:**

- the invoicing of the services will be carried out according to the contractual provisions in compliance with the provisions of Law 227/2015 on the Fiscal Code;
- the value of the works carried out and included in the works estimates will be kept within the value of the contract.

*Issue Identification and Analysis Sheet No. \_\_\_\_*

### **Finding:**

In the year \_\_\_, the accounts of the economic entity recorded uncertain income, not incorporated at the time of the supply of the services to the beneficiary in the amount of RON 45,198,870.24 (RON 37 995 518.87 and VAT amounting to RON 703 351.91) for the year 2xxx, in account 704 *Revenue from works performed and services rendered.*

The amount of RON 45,198,870.24 represents differences between the situations of works recognised by both the provider and the beneficiary and the amount accepted for payment of \_\_\_ within the limit of the contract value. Invoices are uninvoiced differences for the period May to December 2xxx and were issued in February 20xxy. These differences are not reflected in \_\_\_'s accounting records as they were refused and exceed the value of the contract, but were recorded in the December 2xxy — variant II balance sheet of the 8 (eight) branches of the economic entity in the accounting account 418 *Clients-invoices to be drawn up*.

The intermediate report for the financial year ended 31.12.2xxx, issued by SC \_\_\_ SA, dated \_\_\_, states: *the scores showed a number of differences between the amounts not accepted by the territorial branches of \_\_\_ and the amounts recorded in account 418 Customers invoiced by the economic entity. We were unable to apply alternative audit procedures leading to satisfactory results on the balance of this account [...];*

In view of the above, it is underlined that the principles of prudence and income recognition have not been respected. Similarly, the provision of Law No 227/2015 on the Fiscal Code, as amended, *Article 155, according to which '(1) The taxable person carrying out a supply of goods or services other than a supply without a right to deduct tax, in accordance with Article 141(1) and (2), shall issue an invoice to each recipient, at the latest by the 15th day of the month following that in which the chargeable event for the tax arises, unless the invoice has already been issued.'*

**Recommendation:**

Entry in the accounts shall be made in accordance with Law No 82/1991\* republished, Article 2. *"Accounting, as an activity specialised in measuring, evaluating, knowing, managing and controlling assets, liabilities and equity, as well as the results obtained from the activity of legal and natural persons referred to in Article 1, shall ensure the chronological and systematic recording, processing, publication and retention of information on financial position, financial performance and cash flows, both for their internal requirements and in relations with present and potential investors, financial and commercial creditors, clients, public institutions and other users."* and Law 227/2015 on the Fiscal Code as amended.

*Issue Identification and Analysis Sheet No. \_\_.*

**Finding:**

The following considerations were based on the following considerations on the basis of the following considerations, based on the following considerations, justifying and taking the decision to recover by court from \_\_\_ the amount subsequently invoiced in the amount of RON 45,198, 870.24 for the period 01.05.2xxx to 31.12.2xxy:

- in the Decision of the General Meeting of Shareholders (A.G.A.) no. \_\_\_, the members of A.G.A. request that steps be taken at \_\_\_ and the other beneficiaries to recover debts and debts;
- on the basis of the decision of the Board of Directors of the economic entity no. \_\_\_ the economic entity invoiced the difference between the total value of the estimates of works recognised by \_\_\_ and the amount accepted for payment by it. The amount accepted for payment by \_\_\_ is limited to the value set out in contract No 1/\_\_\_ and its addenda;
- by Act No 239/\_\_\_, the economic entity notified \_\_\_ of the need to achieve an amicable conciliation in relation to the settlement of financial problems related to the non-execution of payment of the difference invoices amounting to RON 45 198 870.24;
- \_\_\_ replied to the notification by document No 59/\_\_\_, from which it appears that the difference invoices were not accepted for payment, thus not justifying the presence at

conciliation, the claim being disputed, on which the parties cannot find an amicable solution;

- the economic entity shall recover the amount of RON 45,198,870.24 by bringing legal proceedings against \_\_\_\_\_. For this purpose, the economic entity paid the stamp duty in the amount of RON 455.125.22;

- judgment No 297/\_\_\_\_\_ of the Bucharest court rejects the economic entity's application for an order for payment by \_\_\_\_\_ of the amounts claimed, considering the action to be unfounded;

- on the date \_\_\_\_\_ the economic entity appeals to the Bucharest court, which entails expenses of the judicial stamp duty in the amount of RON 227,587.61.

The costs (approximately RON 682 712.83) will be borne by the losing party.

On the basis of the decision to recover the amount of RON 45,198,870.24 by legal action, the economic entity did not quantify the risks to which the company is subject in the event of the loss of claims.

If the action brought by the economic entity is dismissed as unfounded:

- there will be significant changes in the economic and financial statements of the economic entity (customer accounts, revenues and VAT);

- legal costs of approximately RON 682 712.83 will be borne from the budget of the economic entity.

**Recommendation:**

All aspects that can significantly influence the company's assets, financial statements, performance indicators and the company's objectives included in its policy and strategy will be taken into account when basing management decisions.

↳ *Objective 2: Assessment of the performance of the expenses related to the activity carried out within the economic entity*

From the documents requested by the internal auditors and provided by the audited entity, the sample of the invoices subject to verification was selected, reflecting expenditure incurred by the economic entity in the year 2xxy. The selection of the sample was carried out in the following steps:

- based on the monthly centralised VAT purchase logs, all registrations were sorted by supplier (sorting was done electronically in EXCEL);

- from the centralised overview of the monthly VAT purchase logs, the expenditure per branch for the year 2xxx was summed up and resulted in the following ranking, according to the table:

No. crt.	Economic entity	Total branches A-H (RON)	Ranking
1.	Branch A	2.241.749,76	4
2.	Branch B	<b>2.786.354,61</b>	<b>1</b>
3.	Branch C	2.564.963,78	2
4.	Branch D	1.067.865,76	8
5.	Branch E	2.278.345,91	3
6.	Branch F	2.022.706,19	5
7.	Branch G	1.454.268.20	7



8.	Branch H	1.853.055,39	6
	<b>Total</b>	<b>31.078.543,75</b>	

- branch B recorded the highest value in the expenditure chapter, namely RON 2.786.354.61;
- the most relevant values for each supplier have been analysed. From this analysis, suppliers were noted: SC G&G SRL, SC M&M SRL, SC M&L SRL and SC SVG SRL;
- in the case of expenditure-generating contracts, it was verified whether the 4 (four) suppliers had a supply contract with the economic entity and it resulted that the purchase of products was made by direct purchase (without a contract for the supply of products).
- it appears from the electronic information sources (Internet) that the activity of the companies resulting from the sorting is:
  - SC G&G SRL has as its object of activity the marketing of: masonry materials, constructions, finishes, etc.;
  - SC M&M SRL has as its object of activity the marketing of: construction materials, installations, finishes and CAEN code 93 (Sports, recreation and fun activities);
  - SC M&L SRL is active in the sale of electrical and household appliances, lighting fixtures, electrical panels;
  - SC SVG SRL has as its object of activity the marketing (CAEN 5211), food products, beverages and tobacco — registered office in Constanta.
- on the basis of the provisions of the Director-General no. \_\_ and no. \_\_ stating that the A-H Branches do not make purchases of more than EUR 1200/year/CPV code, the expenditure of more than EUR 1200 for the year 2xxy (approximately 4,000 lei) was taken for analysis.

### **Findings:**

From the invoices selected for verification at the audited economic entity — Branch B, the following were found:

- purchased through direct purchase, raw materials and materials from suppliers: SC G&G ROMANIA SRL (with registered office in Constanta and subsidiaries in Bucharest, Brasov, Cluj, Craiova, Pitesti, Iasi, Timisoara, Suceava, Piatra Neamt, Buzău), M&M FriMar SRL (registered office in Craiova), SC SVG TRADING SRL (social office in Craiova) and SC M&L SRL (registered office in \_\_).
- there have been direct purchases of raw materials and materials the aggregate value of which exceeds the equivalent in lei of EUR 1200/year/CPV code (example: CPV code 24911200-5 Adhesives), thus not complying with the \_\_ provision;
- the cumulative value for a product exceeds EUR 10,000/year/CPV code, the limit up to which direct purchases are admitted (example: CPV Code 24911200-5 Adhesives), failing to comply with the provisions of the legislation on public procurement in force;
- there are no supporting documents for direct purchases of raw materials and materials;
- procurement of raw materials and building materials is not covered by the 2xxx *Public Procurement Programme*.

The irregularities identified gave rise to unjustified expenditure incurred from the

economic entity's own sources.

**Recommendation:**

Elaboration of the operational procedure relating to the procurement activity, applicable uniformly to all branches belonging to the economic entity, in accordance with the specific legislation and the relevant legislation on public procurement.

*Issue Identification and Analysis Sheet No. \_\_.*

**Finding:**

Non-compliance with Accounting Law No 82/1991 (republished) at Branch B by Accounting Officer I in respect of the recording in the management accounting of stocks of raw materials and materials, purchased on the basis of invoices selected for verification, results in the following:

- raw materials and materials have not been identified in the material shed, have not been recorded in storage sheets, notes of reception and finding differences, consumer vouchers, transfer vouchers;
- invoices for raw materials and verified materials are recorded in the accounts, although there are no supporting documents (report of necessity, notice accompanying the goods, etc.);
- the identified issues give rise to the distortion of the economic situation of the economic entity.

**Recommendations:**

- the development of an operational procedure specific to the accounting activity, in accordance with the specific legislation and incidents in force;
- performance of the monthly score between the material accountant and the store manager. Formalisation of the score by signing and dating the stock records by the material accountant.

*Issue Identification and Analysis Sheet No. \_\_.*

**Finding:**

From the verification of the selected invoices of the suppliers SC G&G SRL, SC M&M SRL, SC SVG SRL and SC M&L SRL, it was found that:

- invoices for raw materials and verified materials, amounting to RON 579 544.22 are recorded in the accounts without a *visa Certific for PFC* and *PFC visa*;
- there are no payment orders attached to the *bank* account note for the supplier SC G&G SRL Romania, the payments being identified only in the bank statement;
- from the situation of the *Supplier Sheet* dated 31.12.\_\_, for SC G&G SRL and SC M&M SRL, it was apparent that all invoices had been paid;
- the payments made for these invoices do not meet the legal conditions, as payment was made without a PFC visa being granted without verification of the legality, regularity and correctness of payments, thus creating the possibility of making uncontrolled and undue payments;
- please note that in the cases of VAT logs for purchases the supplier is registered under the name SC M&L SRL, on the purchase invoices is printed \_\_ but on the website [www.mfinante.ro](http://www.mfinante.ro) this supplier is registered under the name \_\_.

**Recommendation:**

Strengthening the internal control by developing a written operational procedure for granting a preventive financial control visa in accordance with the specific and incident legislation in force and formalised training of the responsible employees.

*Issue Identification and Analysis Sheet No. \_\_\_\_*

In view of the issues identified by the audit team, during the evaluation of the expenditure incurred at the economic entity, Form for Finding and Reporting of Irregularities No \_\_\_\_ was drawn up in accordance with the legal provisions in force.

**Recommendation:**

The extension of the research to the other branches of the economic entity, on the issues reported by the internal auditors, will be carried out by the bodies designated by decision by its management. *Appendices:*

- statement of invoices issued by suppliers SC G&G SRL, SC M&M SRL, SC SVG SRL and SC M&L SRL, for 2xxx and copies of bank statements.
- information note no. \_\_\_\_.

The Irregularities Finding and Reporting Form (F.C.R.I.) was drawn up on the basis of *the Problem Identification and Analysis Sheets (F.I.A.P.)* related to the verified objective, presented in Table 1.:

*Table 1.*

**Irregularity Finding and Reporting Form**

<b>Economic entity — identification data</b>	
<b>Directorate for Internal Public Audit</b>	
<b>Name of mission:</b>	
Assessment of management from the perspective of:	
<input type="checkbox"/> Realised revenue <input type="checkbox"/> Expenditure incurred <input type="checkbox"/> Management of external loans <input type="checkbox"/> Fulfilment of the indicators set out in <i>the Mandate Contract</i>	
<b>Audited entity: —</b>	
<b>Audited period:</b> 2xxy	
<b>Drawn up:</b> ____	
<b>Supervised:</b> Head of Service — Ec. ____	
<b>Date:</b> ____	
<b>Irregularity CONSTATATION AND REPORT Form no.</b> ____	
<b>To: Director of Internal Public Audit Directorate</b>	
<b>Findings</b>	From the documents requested by the internal auditors and provided by the audited facility, the VAT Procurement Journal, centralised at the level of the audited economic entity, selected direct purchase invoices for four suppliers of raw materials and materials as follows: SC G&G SRL, SC M&M SRL, SC SVG SRL and SC M&L

	<p>SRL The selection criteria for invoices were:</p> <ul style="list-style-type: none"> <li>the value of invoices (between RON 4,000 and RON 6,000; more than EUR 1000);</li> <li>number of invoices per supplier;</li> <li>type of purchase (direct);</li> <li>the subject matter of the procurement (raw materials and materials).</li> </ul> <p>The invoices selected for verification can be found in the accounts of the audited economic entity — Branch B.</p> <p>From the checks carried out, the following were found:</p> <ul style="list-style-type: none"> <li>direct purchases of raw materials and materials were made, the aggregate value of which exceeds the equivalent in lei of EUR 1200/year/CPV code, according to the provisions of the management of the audited economic entity;</li> <li>raw materials and materials have not been recorded in the monthly analytical stock balance;</li> <li>raw materials and materials have not been identified in the material shed;</li> <li>invoices for direct purchases of raw materials and verified materials are recorded in the accounts, although there is no “passed for payment” visa, PFC visa and supporting documents (Note of receipt and finding differences, transfer receipt, consumer receipt, necessity report, etc.);</li> <li>from the situation of the <i>Supplier Sheet</i> dated 31.12.2021, for the suppliers SC M&amp;M SRL, SC SVG SRL, it was apparent that all invoices had been paid;</li> <li>for the payment of the provider G&amp;G Romania, no payment orders were identified to the Bank’s accounting note. The payment of invoices has been identified in the bank statement;</li> <li>Raw materials and materials purchased from suppliers SC G&amp;G SRL, SC M&amp;M SRL, SC SVG SRL and SC M&amp;L SRL and identified by the audit team are approximately RON 583 768.85.</li> </ul>
<b>Violated normative acts</b>	<i>Accounting Law No 82/1991</i> <sup>1</sup> (republished) Article 6(1), paragraph 2, <i>Order No 119 of 31 August 1999</i> <sup>2</sup> , <i>Order No 923 of 11 July 2014</i> <sup>3</sup> , <i>Order No 600 of 20 April 2018</i> <sup>4</sup> .
<b>Recommendation</b>	An information note was sent to the Director-General of the audited economic entity, containing the issues set out in paragraph <i>Findings</i> , as specified in the General Rules for Internal Public Audit, concerning the <i>reporting of public internal audit activity</i> , which points out that, in case of detection of irregularities or possible damage, reporting immediately to the head of the public entity and to the authorised internal control structure.
<b>Appendices</b>	Situation of invoices issued by suppliers SC G&G SRL, SC M&M SRL, SC SVG SRL and SC M&L SRL for 2021.

Source: author processing

➤ *Objective 3: Assessment of the fulfilment of the objectives and performance criteria set out in the Mandate Contract, of the Director-General of the audited Economic Entity.*

The Mandate Contract No 1/\_\_\_ was concluded in accordance with the framework mandate contract received from the Ministry of \_\_\_ with Act No \_\_\_ and Law No 31 of 16 November 1990 on companies <sup>5</sup> from 1 September 2012 for a period of 4 years with

<sup>1</sup> Accounting Law No 82 of 24 December 1991 (\*\*republished\*\*), issuing the Romanian Parliament, O.M. No. 454 of 18 June 2008;

<sup>2</sup> Ordinance No 119 of 31 August 1999 (republished) on internal control and preventive financial control, issuing the Government of Romania, published in the Official Gazette No 799 of 12 November 2003;

<sup>3</sup> Order No 923 of 11 July 2014 (\*republished\*) approving the General Methodological Norms on the exercise of preventive financial control and of the Specific Code of Professional Rules for persons carrying out their preventive financial control activity, issued by the Ministry of Public Finance, published in MO No 28 of 15 January 2016;

<sup>4</sup> Order No 600 of 20 April 2018 approving the Code of Internal Management Control of Public Entities, [OM no. 387 of 7 May 2018](#);

<sup>5</sup> Law No 31 of 16 November 1990 on companies, published in Official Gazette No 1066 of 17 November 2004;

addendum No \_\_\_\_\_. The objectives and performance criteria are set out in the annexes to the mandate contract.

The mandate contract, its annexes and the addendum were signed by the members of the Board of Directors and the trustee, i.e. the Director-General. The mandate contract terminated at the written request of the trustee on \_\_\_\_\_.

In the meetings of the Board of Directors (C.A.) recorded in the register of minutes of meetings, the members of the C.A., the president of the C.A., the censors, the representatives of the trade union took note of the economic and financial situation of the company as well as the calculation of the established indicators that quantify the fulfilment of the performance criteria.

C.A. Decision No \_\_\_\_\_ item 3 mentions the approval of \_\_\_\_\_ and \_\_\_\_\_ notes on the fulfilment of the performance indicators related to the Director-General's mandate for September and October 2xxy.

C.A. Decision No 1/\_\_\_\_\_ item 3 mentions the approval of note E1/1/\_\_\_\_\_ on the fulfilment of the performance indicators related to the Director-General's mandate for November 2xxy.

No formalised approval (by signature) by C.A. Members \_\_\_\_\_, \_\_\_\_\_ and Annex no. \_\_\_\_\_ to the mandate contract for September to December 2xxy. Method of calculation to reduce the monthly remuneration of the Director-General in case of failure to meet the performance objectives and criteria.

The analysis of the preliminary balance sheet of the financial position at \_\_\_\_\_ and the notes to the balance sheet shows that the audited economic entity is in a difficult situation given the values of the resulting risk, liquidity and profitability indicators.

The company's difficult financial situation has been recorded in the Decision no. \_\_\_\_\_ of the C.A. as well as in the Decision of the General Meeting of Shareholders \_\_\_\_\_ item 1 stating that the members of the A.G.A. take note of the Report No \_\_\_\_\_ on the economic and financial situation of the economic entity on \_\_\_\_\_ and recommends that the executive management step up efforts to recover the losses incurred.

### **Findings:**

The compilation of the performance indicators underlying the calculation of the reduction in the monthly gross remuneration of the Director-General in accordance with Annex 2 to the mandate contract was carried out on the basis of estimated amounts.

*Between September and December 2xxy the performance targets and criteria (set by performance indicators) laid down in the mandate contract were not achieved, according to the statements drawn up by the Budgets, Analyses, Indicators and endorsed by the Board of Directors — act no. \_\_\_\_\_.*

As a result of the non-achievements, the Director-General's gross monthly remuneration was reduced. The decrease was calculated on the basis of the data from the preliminary monthly verification balances, according to the performance indicators in Annex 2 to the mandate contract, the amounts obtained being estimated.

- the month of September Act No 213/\_\_\_\_\_ the calculated decrease was retained on \_\_\_\_\_;
- October Act No 248/\_\_\_\_\_ the calculated decrease was retained on \_\_\_\_\_;
- the month of November Act No E1/\_\_\_\_\_ the calculated decrease was retained on \_\_\_\_\_;
- the month of December Act No E1/\_\_\_\_\_ the calculated decrease was retained on \_\_\_\_\_.

In the year 2xxy were invoiced to \_\_\_\_\_ services outside the contract, which were

not accepted for payment (it is brought in court proceedings that are in progress) whose value is RON 37 995 518.87 and VAT amounting to RON 7.203.351.91.

In the year 2xxy were invoiced to \_\_\_ services outside the contract, not accepted for payment, the value of which is RON 50,917,662.98 and VAT amounting to RON 9,674.355.96.

*The amounts of the income, expenditure, arrears, receivables accounts may be materially altered by the outcome of the process open to \_\_\_.*

*By default, the performance indicators that are calculated on the basis of these data can be significantly modified.*

The performance indicators calculated for the year 2xxy consist of:

- income — amounts consisting of the benefits to \_\_\_ outside the contractual value and which are not accepted in the amount of RON 50 917.662.98 — uncertain.
- expenditure — increases and penalties for failure to pay within time the VAT collected from the issue of invoices for supplies not accepted by \_\_\_ for the year 2xxx — uncertain.

During the implementation of the internal public audit mission, the monthly decrease in the remuneration of the Director-General was recalculated on the basis of the data from the corrected monthly verification balances (but which comprise these expenditures and uncertain revenues).

### **Recommendations:**

- Definition and formalisation of the working procedure for the calculation of the performance indicators set out in Annex 2 to the mandate contract in accordance with the provisions of *Order No 600 of 20 April 2018*<sup>1</sup>.
- To calculate the performance indicators set out in Annex 2 to the mandate contract so that the indicators on the basis of which the gross remuneration of the Director-General is reduced is drawn up according to the amounts included in the final balances of the months.
- Clarify the amounts in dispute with \_\_\_ and restore the calculation of the reduction in the monthly gross remuneration of the Director-General as appropriate.

*Issue Identification and Analysis Sheet No. \_\_\_.*

⇒ *Opinion of the audit team:*

⇒ *Objective 1: The assessment of how the revenue resulting from the management of the assets of the audited economic entity is constituted.*

No assurance can be given on the audited contract No 1/\_\_\_, concluded between \_\_\_ and the audited economic entity, given that part of the revenue generated on the basis of invoices not accepted by \_\_\_ is the subject of a pending commercial dispute.

⇒ *Objective 2: The assessment of the performance of the expenditure related to the activity carried out within the audited economic entity.*

As the internal auditors detected signs of fraud, the objective was suspended. The Finding and Reporting of Irregularities Form No 2/\_\_\_ was drawn up, in accordance with the legislation specific to the internal audit, the operational procedure *Finding and Reporting irregularities and submitted to the head of the internal audit structure within the audited economic entity, which sent the General Manager, Information Note No 116/\_\_\_, which entrusted the C.F.G. structure with the verification of the issues raised.*

<sup>1</sup> Order No 600 of 20 April 2018 approving the Code of Internal Management Control of Public Entities, [OM no. 387 of 7 May 2018](#);

↳ *Objective 3: Assessment of the fulfilment of the objectives and performance criteria set out in the General Manager's Mandate Contract with the audited economic entity.*

No reasonable assurance can be given as the objectives and performance criteria set out in the mandate contract of the general manager of the audited economic entity for the period September to December 2xxx have not been met.

## 5. Conclusions

The fundamental objective of the research paper was the analysis of the internal audit implications on risk management under the conditions of good corporate governance practices with effects on performance, in short the analysis of the internal audit-governance-risk relationship and its impact on performance. In order to achieve this objective, we have carried out an analysis of the literature in the field, with a view to avoiding false leads and the risk of missing essential elements relating to research and an empirical analysis at an economic entity in the field of transport. Internal audit, corporate governance and risk management are closely linked, in that internal auditors, executive managers, shareholders, directors, are key actors in an entity that have at their responsibility different dimensions of risk management Internal audit is of major importance within an entity at operational level in terms of testing compliance with the entity's policies and rules on corporate governance, risk management processes and control systems. Also, internal audit, corporate governance and risk management contribute to increasing the performance of an organisation by contributing to achieving the objectives pursued by the entity, creating added value and limiting risks The efficiency of internal audit work leads to a higher probability in identifying and reporting financial distortions and correcting them, helping to improve risk management in identifying and reporting distortions in the entity, which leads us to the idea that it can contribute to better performance. The collaboration between internal audit and risk management leads to an increase in performance, an efficient allocation of the company's resources and an improvement in communication at the management level, providing a clearer picture of the risks that the company faces in its activity.

## References:

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3. Law No 672/2002 on internal public audit, updated, Official Gazette, Part I, no. 465/2002.
4. Ordinance No 119 of 31 August 1999 (republished) on internal control and preventive financial control, issuing the Government of Romania, published in MO No 799 of 12 November 2003.
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## THE IMPACT OF YOUTH ON THE SUSTAINABLE DEVELOPMENT OF THE MOLDOVAN ECONOMY

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**Abstract:** *This study assesses the conditions affecting the formation of attitudes and system of values in young people under the influence of culture and traditions of the nation, standard of living, business climate, economic structure, etc. The formed image is characterized by the presence of the following characteristics of young people: a high level of education, possession of modern means of communication and an active social position. Despite the moderate level of youth employment (every fifth young person is working), this category of persons plays an important role in the long-term development of the Moldovan economy. On the basis of the performed correlation analysis it was demonstrated that the change of the national production volume by 99.4% is conditioned by the educational level of the employed youth. Accordingly, the obtained results are important for the development of the state.*

**Keywords:** *the level of education of young people, social activity.*

**Jel Classification:** *E24, J21, O15.*

### 1. Introduction

The increase in the standard of living of the population is a consequence of the economic development of the state. Due to the introduction of innovations in all areas of labor activity positive qualitative changes in the economy of any state are achieved.

This process is a complex mechanism involving various aspects of the functioning of society, such as economic, political, legal, technological and others. An important place among them is occupied by the socio-cultural aspects of the development of society.

The degree to which a nation's current system of values (culture, morality, education) contributes to the development of economic processes in the country will ultimately determine the competitiveness and technological order of the economy.

Obviously, the low quality of the individual human capital of the country's younger generation will have a negative impact on its evolution in the future.

Thus, this article attempts to study the influence of the level of education and social activity of young people on the development of the state economy. The purpose of the study is to assess the current potential and qualitative characteristics of youth in terms of a positive impact on the development potential of the state.

### 2. Literature review

Many studies analyze the role of youth in the development of the country (Turulja, Agic and Veselinovic, 2020; Savastina and Osipova, 2015; Trotsuk and Sokhadze, 2014).

Young people are part of society, who annually replenish the economically active population of the country.

In international practice, there is no universally recognized age group for this category of persons. However, according to the UN definition (Organizatsiya Obedinennykh Natsii, 2022), "youth" includes persons between the ages of 15 and 24.

Exactly this category of persons is characterized by the greatest susceptibility to changes, absence of fear to make mistakes in the process of creative search (Rossiiskii investitsionnyi forum: SIRIUS 22, 2022). The thirst for self-expression, readiness to learn

new experiences is a great potential that needs competent management and transformation for the benefit of society.

Thus, there is a need for state intervention in the process of raising young people through the implementation of systematic work in relation to them: education, access to labor markets, the creation of prerequisites for self-realization (Savastina and Osipova, 2015; Organizatsiya Obedinennykh Natsii, 2022; Institut razvitiya: ROSKONGRESS Prostranstvo doveriya, 2022).

It should be noted that this process has the following important aspects.

On the one hand, the level of economic development of the state has a direct impact on the living conditions and level of education of young people (CIS STAT, 2021).

On the other hand, young people, who have the opportunity to receive a modern education and have the ability to take an unconventional approach to solving various issues, act as a powerful innovative force (Savastina and Osipova, 2015) for the development of the country's economy and improving living standards.

Thus, in accordance with the topic under discussion, the following hypothesis is proposed:

Hypothesis 1. "Quality" young people contribute to the development of the economy.

### **3. Research methods**

Practical implementation of a versatile description of social phenomena was carried out using the fundamental techniques of economic and statistical method of cognition, in particular (Moskaleva and Kuzmenkova, 2016): economic grouping, economic comparison, analysis of the relationship between processes and phenomena through correlation analysis, etc.

The method of economic grouping (simple and combined) was used to break down the population by age groups in order to study the patterns of youth development in Moldova.

In the process of grouping a large volume of data, we used absolute, average and relative values. To study the dynamics of GDP over time, we used momentary dynamic series.

To study the relationships between the qualitative characteristics of young people in Moldova and a number of other countries, the method of economic comparison was used, which involves reducing the data to a comparable form.

The identification of a linear correlation between the volume of production of the national economy and the share of young people with higher and vocational education in the total population of Moldova of the corresponding age was carried out on the basis of the correlation analysis technique.

Thus, this study selected the most appropriate research methods to organize effective work.

### **4. Results and discussion**

Data for the period 2015-2020 were analyzed to assess aspects of education and social activity of young people.

The study examined a wide range of indicators, including those characterizing various aspects of social development of society, including youth: the number of young people, average and total life expectancy, the average age of mothers, the level of education, employment and unemployment of young people, sources of income of young people, crime rate, etc.

The dynamics of GDP was considered as the most generalized indicator characterizing the level of economic development of the country.

During the period 2015-2020 there is a decrease in the population of Moldova, which in percentage terms is 7.6% (Biroul Național de Statistică, 2020).

Despite the increase of the average age of Moldova's population by almost 2 years during the period under consideration, the level of the indicator in 2020 was 39.3 years, which is 10.1% lower than the average age of the population in the European Union countries. The total life expectancy of Moldova's population remained practically unchanged and amounted to 69.8 years (Biroul Național de Statistică, 2020).

The share of the population in the 16-25 age group in the entire population decreased from 14.3% in 2015 to 10.6% in 2020. The number of young people was 278077 (Biroul Național de Statistică, 2020; Vsemirnyi Bank, 2021).

Negative population growth in the corresponding age category, the availability of alternative education abroad, and the rising cost of education are among the few factors contributing to the decline in the number of students and graduates of higher and vocational technical institutions.

The share of graduates of higher and vocational technical institutions decreased from 45.8% to 38.7% of the total number of students in 2020 compared to 2015 (Biroul Național de Statistică, 2021b).

The most representative is the information about graduates per 10 thousand inhabitants. In particular, for the period 2015-2020 in the context of higher education there is a systematic reduction of the indicator from 84 to 54 graduates or by 33.3%. At the vocational level of education there is a more moderate rate of reduction of graduates, respectively, from 55 to 46 or 16.4% (Biroul Național de Statistică, 2021b).

One of the measures taken by the state to ensure the educational level of young people is the financing of education by providing students with budgetary places. The share of budget-funded places in higher education institutions for the period under consideration increased by 5.6 percentage points and amounted to 43.5% of the total number of training places in higher education institutions in 2020 (Biroul Național de Statistică, 2021b). In the system of vocational education there is a predominance of budgetary places.

The share of young people (in the age group 20-24 years) with higher and vocational education was 82.4% of the total population of the corresponding age in 2020 (Biroul Național de Statistică, 2021c).

Thus, there is a high educational level of young people in Moldova.

The labor activity of young people is characterized by a set of factors. The level of youth employment, which in 2020 amounted to 16.3% of the total employed population (Biroul Național de Statistică, 2021a), is influenced by gender aspects, the dynamics of the number of young people who do not work and do not study (CIS STAT, 2021).

Women's position in the labor market depends on the birth of children, which causes them to stop working and focus on unpaid family care work.

Over the analyzed period, the average maternal age practically did not change (an increase of 2.2%) and was 27.9 years in 2020 (Biroul Național de Statistică, 2020), which is outside the age category under study.

There is a positive dynamics of reducing the share of the unemployed aged 16-24 years from 18.2% to 9.2% (Biroul Național de Statistică, 2021a) in the total number of unemployed registered with employment agencies during the period under review.

It should be noted that young people with higher and vocational education (60.1% in 2020) account for a significant proportion of the unemployed young people in the International Labor Office. This situation negatively affects the efficiency of money spent by the state or parents on education due to the obsolescence of the obtained knowledge (CIS STAT, 2021).

The share of the population aged 15-29 years, who do not study or work, was 26.0% of the population of the corresponding age in Moldova in 2020, which is noticeably higher than the similar indicator in the European Union countries - 13.7% for the same period (Biroul Național de Statistică, 2021c). At the same time, the share of women in this category of the population exceeds that of men (CIS STAT, 2021).

The share of employed youth in 2020 was 16.3% (Biroul Național de Statistică, 2021a) of the population in the age group 15-24 years. The main part of the employed youth is employed (78.9% in 2020) (Biroul Național de Statistică, 2020), respectively, the main source of income is a salary. Approximately one-third of employed young people prefer to work in trade, accommodation and catering - 29.6 % in 2020. Next comes industry - 18.4%, agriculture, forestry and fishing - 17.5% (Biroul Național de Statistică, 2020).

Business demographics can also characterize the socio-economic processes taking place in society. The creation of new and viability of existing enterprises is a prerequisite for the sustainable development of the economy and the creation of new jobs of better quality (Mezhdunarodnaya organizatsiya truda, 2022). Young people involved in small business make a special contribution to improving the demography of businesses.

The level of creation of new enterprises in 2020 was 13.8% (Biroul Național de Statistică, 2020), which represents the number of newly created enterprises compared to the number of operating enterprises during the same period. At the same time, the level of liquidation of enterprises was 28.7% (Biroul Național de Statistică, 2020), which represents the number of liquidated enterprises in relation to the number of operating enterprises in 2020.

It is obvious that in Moldova there are certain difficulties related to keeping newly created enterprises afloat. The bottlenecks of young entrepreneurship are the lack of financial resources for business development, as well as the insufficient level of financial literacy (Kozlov and Tkachev, 2020).

In 2019-2020, the share of innovative Moldovan enterprises was 12.6% (Biroul Național de Statistică, 2020) of the total number of enterprises, while in the European Union countries the same indicator reached over 50% already in 2015 (Biroul Național de Statistică, 2021c).

One of the directions of increasing the socialization of young people is Internet communication. Through the Internet, along with the development of skills to use modern information technology, there is an expansion of social experience, the formation of norms and rules of society, a new worldview (Tarkhanova, 2017).

During the period under review, Moldova saw improvements in the geographic coverage of Internet services (Digital report, 2017) against the backdrop of a continuous decrease in their cost.

Internet penetration via fixed-line channels at the household level was 64.6% in 2020 (Biroul Național de Statistică, 2020).

According to a study (Digital report, 2017), the Internet penetration rate for the age group 20-25 years was almost 100%. This situation can be explained by the availability of 4G technology throughout the country, depending on the choice of mobile operator.

Unlike other Eastern European countries, Internet users in Moldova pay the least for comfortable use of the Internet (100 Mbps): Moldova - 8.74 € per month (2019) (Locals, 2019).

A comparative analysis of the CIS countries for the year 2020 regarding the number of personal computers with Internet access used for educational purposes in higher and vocational educational institutions per 1000 students (CIS STAT, 2021), also allowed us to conclude that there are no serious barriers to accessing the network in Moldova.

The social activity of young people can also be assessed on the basis of data on participation in the political life of the country.

Almost half of young people under 25 participated in the 2020 presidential election in the first round. Young people in the diaspora, who are abroad, send money and support the national economy, were among the most active (Point, 2020).

Moldova is among the top remittance-receiving countries in Europe and Central Asia (Vsemirnyi Bank, 2021). Remittances from abroad remain an important source of household income, including those with a head of household under 25 years old. On average, remittances accounted for 12.9% of total household income in 2020, compared to 18.6% in 2015 (Biroul Național de Statistică, 2020).

Another important aspect that determines the social activity of young people is satisfaction with the material situation, when the conditions of existence meet the needs of the individual. As a rule, the degree of expression of social activity is observed among young people belonging to the wealthy strata of the population (Zubok and Berezutskiy, 2020).

In their bulk - 69.4% of persons under 30 years of age estimated their financial situation at the beginning of 2020 as satisfactory, at that, 80.4% of young people do not observe any changes in comparison with previous years. Young people assessing the level of their financial situation as very good or good amounted to 28.0% for the same period, at that, 14.3% noted improvement of their financial situation in comparison with the previous years (CIS STAT, 2021).

The dynamics of the Gini coefficient, which determines the degree of income stratification of society, can provide additional information about the population's income distribution. In particular, the income concentration coefficient remained practically unchanged (0.322 in 2020) for the period under consideration for 2015-2020, which does not contradict the data on young people's assessment of their financial situation (Biroul Național de Statistică, 2021a; SVSPB.NET, 2022).

The risk of dissatisfaction, more often in combination with other causes, is associated with a predisposition to commit delinquency.

Despite the reduction in the proportion of young people aged 18-24 years who committed crimes in 2020 of the total number of persons of all ages who committed crimes (20.5%) compared to 2015 (23.1%) (Biroul Național de Statistică, 2020), the comparative analysis of the number of persons who committed crimes by age group 18-24 years in Moldova is the highest among the CIS countries (CIS STAT, 2021).

Obviously, the characteristics of youth discussed above (employment, level and sources of income of young people, crime rate, adequate use of the Internet for self-development, etc.) are a consequence of the level of education of young people.

To determine the degree of relationship (interdependence) between the share of employed youth with higher and vocational education in the total population of Moldova of the corresponding age (factor) and the volume of production of the national economy (resultant indicator) can be determined by means of correlation analysis.

Initial data for the correlation analysis is presented in Table 1.

**Table no. 1. Input data for correlation analysis**

<b>Number of observations</b>	<b>Production volume, billion lei (Y)</b>	<b>Share of employed youth with higher and vocational education in the total population of the</b>	<b>Time, years (X2)</b>

		relevant age (15 -24 years), % (X1)	
1	166,7	48,4	1 (2011)
2	174,2	43,9	2 (2012)
3	195,0	48,3	3 (2013)
4	219,7	48,0	4 (2014)
5	238,2	45,9	5 (2015)
6	261,3	49,0	6 (2016)
7	286,2	54,8	7 (2017)
8	307,0	46,2	8 (2018)
9	336,4	51,8	9 (2019)

Source: Biroul Național de Statistica al RM, 2020.

As a result of the analysis it was determined that the relationship between the performance indicator and the selected factors is linear-correlated.

The multiple correlation equation is as follows:

$$Y_x = 97.5953 + 0.8051 x_1 + 21.2237 t.$$

The economic significance of the regression coefficients can be interpreted as follows:

-  $b_1 = 0.8051$ , the regression coefficient with factor  $x_1$  means that, a 1% increase in the proportion of employed youth with higher and vocational education will increase national output by 0.8051 billion lei;

-  $t = 21.2237$ , the regression coefficient at factor  $t$  means that national production increases annually on average by 21.2 billion lei.

The test of regression coefficients according to Student's test showed that their value is considered significant, because all the calculated  $t_{calc}$  is greater than the tabulated SEB (Table 2).

**Table no. 2. Regression coefficients according to Student's test**

Parameter	Coefficient	SEB	$t_{calc}$
Intercept	97,5953	31,7583	3,0731
b 1	0,8051	0,6908	1,1655
b 2	21,2237	0,8190	25,9150

Source: Calculated by the author.

The multiple correlation coefficient  $R = 0.9967$  indicates the presence of a close correlation relationship between the volume of national production and the studied factors.

The value of multiple correlation can be estimated by Fisher's criterion:  $F^* = 459,116$ . Using Fisher's table depending on the number of degrees of freedom  $f_1 = 9$ ,  $f_2 = 9 - 2 - 1 = 6$  and significance level  $q = 0.05$ ,  $F_{tabel} = 4.1$  is determined (Novyi semestr, 2019).

Based on the fact that  $F^* > F_{\text{tabel}}$ , the value of the multiple correlation coefficient is considered significant.

The coefficient of determination  $R^2 = 0.9935$  means that the change in the volume of national production by 99.4% is due to the influence of selected factors.

### 5. Concluding remarks

Against the background of the lack of increase in life expectancy, there is a tendency of decline in the share of young people in the entire population of Moldova. So, in particular, in 2020 only every tenth person represents young people aged 16-24 years old. Such situation against the background of the increase in the share of elderly people can have a negative impact on the socio-economic aspects for the country.

Young people in Moldova are characterized by a high level of education. As a rule, young people receive a higher or vocational education, as well as a stable job before marriage registration.

Conditions for receiving quality education in the country are favorable: national legislation guarantees equal rights for men and women to access to education, the state stimulates the opportunity to study through the financing of expenses (budgetary places), provides appropriate material base of educational institutions, etc.

The involvement of young people in labor activity is about 20% of the total number of young people. For women, to a greater extent, employment and withdrawal from the labor market are determined by birth and the need to care for a child. At the same time, the state allows to combine maternity with participation in paid employment, as well as the availability of nursery groups and after-school groups in schools allow to partially solve this problem.

A positive development is the reduction in youth unemployment over the period under review, which was 9.2% in 2020, as well as a decrease in the proportion of unemployed and out-of-school youth in the total number of young people.

In addition to wages as the main source of income for young families, remittances from family members who are working abroad have a tangible impact on household income. The creation of favorable conditions for sending remittances plays a special role in supporting the national economy by alleviating the strained financial situation of households.

In order to reduce the crime rate among young people, it is necessary to teach children from an early age to comply with family values and norms accepted by society. In particular, the inclusion of young people in the sphere of civil relations is influenced by the means of Internet communications, which are accessible to the population of Moldova.

Thus, the level of education of young people and social activity is one of the factors that determine not only the employment and social protection of this category of the population, but also the development of the national economy, for which, as the study showed, there are all the prerequisites.

In future studies, it seems interesting to conduct a correlation analysis to determine the degree of correlation between the output of the national economy and other factors characterizing young people in terms of the quality of human capital.

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## AN INTEGRATED APPROACH TO CONFLICTS AND CRISES IN THE OVERALL STRATEGY FOR THE EUROPEAN UNION'S FOREIGN AND SECURITY POLICY

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**Abstract:** *The Comprehensive Strategy for the European Union's Foreign and Security Policy, adopted in 2016, states that the European Union will engage in a principled and practical way in peace-building and promote human security through an integrated approach. It is essential that all policies at the disposal of the European Union are used coherently to implement the 'comprehensive approach to conflicts and crises', but the meaning and scope of the 'comprehensive approach' will be further expanded. The European Union will act at all stages of the conflict cycle, acting promptly in the prevention phase, reacting responsibly and decisively to crises, investing in stabilisation and avoiding premature disengagement when a new crisis erupts. Sustainable peace can only be achieved through comprehensive agreements anchored in broad, deep and lasting regional and international partnerships, which the European Union will promote and support.*

**Keywords:** *global strategy, foreign and security policy, European Union, conflict, global approach.*

**JEL Classification:** *F51, F55.*

### 1. Introduction

The European Union has brought stability and security to the European continent through its creation and enlargement. Predictably, however, over a fairly long period - almost 80 years since the end of the Second World War - the geostrategic, political and institutional context has changed substantially, both regionally and globally, accompanied by diverse (sometimes unpredictable, unforeseen) developments in the motivations, interests and actions of various regional or global actors. There have been fundamental changes in the power paradigm itself: state and non-state actors now evolve in an (often) asymmetric logic and in a fluid context; the nature of war/conflict has changed fundamentally: modern conflict has gone beyond the conventional and takes on hybrid forms of manifestation. Against the background of these developments, we will try to highlight some aspects of the European Union's position as a security provider in the regional and global context.

### 2. Comprehensive Strategy for the Foreign and Security Policy of the European Union

At the end of 2013, on the border of the European Union, one of the most serious politico-military crises since the end of the wars that led to the break-up of Yugoslavia began to escalate. The idealistic and constructivist rhetoric of the European Union's vision of security was confronted by actions that were underpinned by the Russian Federation's profoundly realist logic. The Ukrainian crisis carries with it the risk of destabilising not only the Wider Black Sea Area (WNBA) or Eastern Europe or the whole of the European continent, but even a major risk with global manifestations. Overall, the EU's approach to these situations (frozen conflicts in the BSEC, Serbia-Kosovo, Cyprus) has varied. Thus, while the European Union has been able to make use of the conditions imposed by its enlargement policy in the case of relations between Serbia and Kosovo or the issue of Cypriot separatism, the context is different in the case of the former communist states, both

in terms of the characteristics and factors relating to these conflicts and in terms of the interests of the Union and the strategies and policies it can adopt in this regard. When the current frozen conflicts in the NMSA were at their most intense, the European community was completely absent. This is because, on the one hand, the European community lacked the political framework for involvement in such situations (the CFSP came into being with the Maastricht Treaty in 1992 and the European Security and Defence Policy only began to be seriously grounded in the late 1990s). On the other hand, the crises that led to the break-up of Yugoslavia posed a greater security challenge in the immediate vicinity and focused the attention of European leaders more sharply. Successive waves of enlargement have seen the European Union share direct borders with the Russian Federation, the Republic of Moldova and maritime borders with Georgia (in the Black Sea), putting the Eastern European and South Caucasus area high on Brussels' foreign policy agenda. The stability and security of the Black Sea region is relevant to the EU for the following reasons: a) geographical proximity; b) energy relevance, in particular as an alternative route for transporting hydrocarbons from Central Asia to Europe; c) cross-border security issues - illegal immigration and organised crime; d) structural instability issues that favour the maintenance of frozen conflicts.

In the European Security Strategy (2003) "building security in our neighbourhood" was mentioned as a strategic objective of the European Union. The European Neighbourhood Policy is considered to have strengthened individual bilateral relations with the European Union, contributing to the evolution of the regional integration process. The Eastern Partnership provides for a real change in relations with the European Union's neighbours to the east, including significant progress in political, economic and trade relations. The objective is to strengthen the prosperity and stability of these countries and thus the security of the European Union, covering a wide range of bilateral and multilateral cooperation areas, including energy security and mobility of people. The stability of the states on the EU's borders is in the interests of the Union for at least two major reasons. A first reason for the European Union's major interest in stability and security in its neighbourhood, particularly in the eastern part, lies in the geo-economic value of this area, especially from an energy security perspective. The Black Sea Basin includes countries with energy relevance, but also for the transit of hydrocarbons from Central Asia to Europe. Security developments in the Black Sea Basin have therefore often been influenced by energy geopolitics, the European Union's attempts to reduce its dependence on Russian hydrocarbons, and Moscow's counter-attacks in this regard. Decisions to develop pipeline projects such as Nabucco, South Stream, Nord Stream are demonstrative of this. A second reason is the existence of economically underdeveloped, poorly governed, unstable actors close to the EU's borders, subject to ethnic secessionist conflicts, which makes the EU more vulnerable to transnational risks and threats such as various forms of organised crime, international terrorism, etc. The map of the European Union shows that such environments exist both in the east (the Black Sea basin) and in the south (the Euro-Mediterranean area, including the Western Balkans). The value of the Black Sea area from an energy perspective is not so much in the resources it contains, given that it is not in itself a region rich in energy resources, but in the fact that it provides a measure of the exploitation near the Caspian Sea, constituting an alternative route for transporting hydrocarbons from Central Asia to Europe, and thus having value in the strategy for identifying alternatives to importing Russian hydrocarbons. Overall, the European Union sees the Black Sea region as an area of considerable challenges and opportunities. The Communication from the European Commission to the Council proposing the creation of the Black Sea Synergy contains a significant summary of both the strategic value and the interests of the Union in this regard: "The Black Sea region is a distinct geographical area,

rich in natural resources and strategically located at the junction of Europe, Central Asia and the Middle East. With a large population, the region faces a number of opportunities and challenges for its citizens. The region is an expanding market with considerable growth potential and a major focus for energy and transport flows. It is, however, a region with unresolved conflicts, many environmental problems and insufficient border controls, which encourage illegal migration and organised crime."

As regards the role of the European Union as a supporter of regional stability and an active provider of stability, a number of issues can be highlighted:

- the geostrategic context;
- the European Union's approach, i.e. its stance towards different types of conflicts inside or outside the European Union;
- analysis of the Union's actions to manage conflicts (including those in the Eastern Neighbourhood), and examination of the effectiveness of these actions;
- the complexity and difficulty of the process of resolving these conflicts, which involves harmonising the often antagonistic interests of major regional powers.

As a general characteristic, a significant part of the European Union's actions are of a soft nature, acting more as a normative power, generating primarily long-term results.

Many of today's challenges to peace, security and prosperity originate from instability in the immediate neighbourhood of the European Union and evolving forms of threats. In the 2014 political guidelines, European Commission President Jean-Claude Juncker stressed that we must "strive to make Europe stronger in security and defence" and that European and national instruments must be linked more effectively than in the past. To the extent that countering hybrid threats falls within the scope of national security and defence and law and order policies, the main responsibility lies with the Member States, as most national vulnerabilities are country-specific. However, many EU Member States face common threats, which may also target cross-border networks or infrastructure. Such threats can be addressed more effectively through coordinated action at EU level, using EU policies and instruments, building on European solidarity, mutual assistance and the full potential of the Lisbon Treaty. The Global Approach enables the European Union, in coordination with Member States, to counter hybrid threats in a targeted way by creating synergies between all relevant instruments and by encouraging close cooperation between all relevant actors. Actions build on existing sectoral strategies and policies that contribute to achieving a higher degree of security. The European Security Agenda, the European Union's Global Strategy on Foreign and Security Policy, the European Defence Action Plan, the European Union's Cyber Security Strategy, the Energy Security Strategy, the European Union's Maritime Security Strategy are instruments that can contribute to countering hybrid threats. Given that NATO is also working to counter hybrid threats, and the Foreign Affairs Council has proposed increased cooperation and coordination in this area, some of the proposals aim to strengthen EU-NATO cooperation on countering hybrid threats. The proposed response focuses on the following elements: raising awareness, building resilience, prevention, crisis response and recovery.

With regard to the security of the European Union, the Global Strategy for the Foreign and Security Policy of the European Union states that: The European Union's overall strategy starts from within the Union. The Union has enabled citizens to enjoy unprecedented security, democracy and prosperity. Today, however, terrorism, hybrid threats, economic volatility, climate change and energy insecurity put citizens and territory at risk. An appropriate level of ambition and strategic autonomy is important for Europe's ability to promote peace and security within and beyond its borders. Efforts on defence, cyber security, counter-terrorism, energy and strategic communications will therefore be strengthened. Member States must put into practice their commitments to mutual

assistance and solidarity enshrined in the Treaties. The European Union will step up its contribution to Europe's collective security, in close cooperation with its partners, starting with NATO. ([https://eeas.europa.eu/topics/common-foreignsecuritypolicy/cfsp\\_en?page=3](https://eeas.europa.eu/topics/common-foreignsecuritypolicy/cfsp_en?page=3))

The overarching strategy for the European Union's foreign and security policy (EUSG) emphasises security, its ambition of strategic autonomy and its principled but pragmatic approach to the European environment. The European Union's overall strategy indicates an important change in philosophy compared to the 2003 European Security Strategy. Thus, the European Union's Comprehensive Strategy identifies five priorities for the European Union's foreign policy:

- EU security;
- resilience of states and societies in the Eastern and Southern neighbourhood;
- an integrated approach to conflicts;
- regional cooperation actions;
- global governance for the 21st century.

To make the EUSG's vision on defence and security issues operational, in November 2016, VP/HR Mogherini presented to the Foreign Affairs Council a plan for the implementation of the Common Security and Defence Policy (CSDP), which identified three sets of priorities: responding to external conflicts and crises, strengthening partners' capabilities and protecting the Union and its citizens. The plan put forward 13 proposals for security and defence to operationalise the vision set out in the EUSG. Since then, a wide range of instruments have been designed to develop and harmonise defence cooperation between EU Member States. VP/HR Borrell has also put the strengthening of CSDP at the heart of the EU's work and continues to follow up on initiatives launched by former VP/HR Mogherini.

To give a new impetus to its security and defence agenda, the European Union is currently working on a Strategic Compass, which aims to provide improved political and strategic direction for the security and defence of the European Union. The first phase, which was completed in November 2020, was a comprehensive analysis of threats and challenges. The second phase consisted of informal discussions between Member States on threat analysis and its main implications, capability gap analysis and Member States' priorities. This phase of dialogue enabled Member States to improve their common understanding of the security threats they collectively face and to strengthen the European security and defence culture. The process was designed to respond to the growing need for the European Union to be able to act as a provider of security. On 21 March 2022, the Council of the European Union approved the document setting out the Strategic Security and Defence Roadmap - for a European Union that protects its citizens, values and interests and contributes to international peace and security.

Crisis management missions and operations are the most visible and tangible expression of CSDP. According to VP/HR Josep Borrell, increased engagement through CSDP missions and operations with stronger but flexible mandates is essential. The strategic compass aims to fill the gaps in the EUSG's crisis management instruments and institutions and provide coherent guidance for other relevant initiatives and processes (including PESCO, FEA and CARD), setting clear goals and objectives.

### **3. The European Union's integrated approach to conflicts and crises**

Crisis and conflict management is conducted under the aegis of the Common Foreign and Security Policy (CFSP)/Common Security and Defence Policy (CSDP), the framework for both external affairs and security and defence-related actions.

According to the EUSG, an integrated approach to conflicts and crises means that the European Union will engage in a practical and principled way in the peace-building

process, concentrating its efforts in the surrounding regions to the east and south, with consideration of involvement in more distant areas on a case-by-case basis. The European Union will protect human security through an integrated approach.

All these conflicts have multiple dimensions, from security issues to gender issues, from governance to economics. It is essential to implement a multidimensional approach, using all available policies and instruments aimed at conflict prevention, management and resolution. But the scope of the "comprehensive approach" will be further extended. There are no quick solutions to any of these conflicts. Experiences in Somalia, Mali, Afghanistan and elsewhere highlight their long-lasting nature. The European Union will therefore pursue a multi-phased approach, acting at all stages of the conflict cycle. The European Union will invest in prevention, resolution and stabilisation and avoid premature disengagement when a new crisis erupts elsewhere. The European Union will therefore remain engaged in the resolution of protracted conflicts in the Eastern Partnership countries. None of these conflicts is a single level of governance. Conflicts such as those in Syria and Libya often start at the local level, but take on national, regional and global dimensions, which makes them so complex. The European Union will therefore pursue a multi-level approach to conflicts, acting at local, national, regional and global levels. Ultimately, none of these conflicts can be resolved by the European Union alone. The European Union will pursue a multilateral approach, involving all actors present in a conflict and necessary for its resolution. Partnerships will be systematically established on the ground with regional and international organisations, bilateral donors and civil societies. Greater regional and international cooperation will also be pursued. Sustainable peace can only be achieved through comprehensive agreements anchored in broad, deep and lasting regional and international partnerships.

#### **Preventive measures for peace**

It has long been known that conflict prevention is more efficient and effective than attempts to resolve crises that have already started. Usually, once a conflict breaks out, it becomes increasingly difficult to resolve over time. The European Union has always had a good track record in carrying out preventive diplomatic and peace-building action. It will therefore redouble its prevention efforts, monitoring root causes such as human rights violations, inequalities, pressures on resources and climate change, which are a multiplying threat, catalysing water and food shortages, pandemics and forced population displacement.

The European Union's Early Warning System is of no use unless it is followed by rapid action. This involves regular reporting and proposals to the Council, preventive diplomatic and mediation action through the mobilisation of EU delegations and special representatives, and strengthened partnerships with civil society. The European Union needs to develop a political culture of acting more rapidly in response to the risk of violent conflict.

#### **Security and stabilisation**

The European Union will engage more systematically on the security dimension of these conflicts. With full respect for international law, European security and defence must become better equipped to consolidate peace, guarantee security and protect human lives, especially civilians. The European Union must be able to respond rapidly, responsibly and decisively to crises, in particular to help combat terrorism. The European Union must be able to provide security when peace agreements are concluded and transitional governments are established or in the process of being formed. Otherwise, the European Union should be ready to support local ceasefire agreements and help to consolidate them, paving the way for capacity building. At the same time, through a coherent use of internal

and external policies, the European Union must combat the spill-over effects of insecurity that could result from such conflicts, from trafficking and smuggling to terrorism. [3]

Where prospects for stabilisation emerge, the European Union must facilitate the rapid provision by legitimate institutions of basic services and security for local populations, reducing the risk of recurrence of violence and allowing displaced persons to return. The aim will therefore be to bridge the existing gaps in the EU response between the cessation of violence and long-term recovery, and to develop a two-pronged approach - security and development - to EU engagement.

#### **Conflict resolution**

Every country in conflict will have to rebuild its own social contract between the state and its citizens. The Union will support these efforts, promoting inclusive governance at all levels. Where the 'centre' is in trouble, a top-down approach has limited impact. A comprehensive policy solution requires action at all levels. Through CSDP, development and dedicated financial instruments, bottom-up and top-down efforts will be combined to support the building blocks of sustainable statehood, based on action at the local level. Work at local level - for example with local authorities and municipalities - can help deliver basic services to citizens and enable deeper engagement with the strengthened civil society. Actions in this direction will also contribute to improving our local knowledge, helping us to distinguish between groups with whom we will engage without supporting them and those we will actively support as champions of human security and reconciliation.

The European Union will also promote inclusive governance at all levels through mediation and facilitation. At the same time, we will develop more creative approaches to diplomacy. This also means promoting the role of women in peace efforts - from implementing the UNSC resolution on women, peace and security to improving gender balance within the European Union. This means making more systematic use of cultural, interfaith, scientific and economic diplomacy in conflict resolution.

#### **The political economy of peace**

The European Union will promote the space in which the licit economy takes root and strengthens. During violent conflict, this means ensuring access for humanitarian aid to enable the provision of basic goods and services, as well as action to halt the political economy of war and create opportunities for licit livelihoods. This means stronger synergies between humanitarian and development assistance, targeting support to health, education, protection, provision of basic goods and licit employment. When prospects for stabilisation emerge, trade and development, in synergy, can underpin long-term peace-building.

Restrictive measures, accompanied by diplomacy, are essential tools to bring about peaceful change. They can play a key role in deterring, preventing and resolving conflict. Smart sanctions, in line with international and EU law, will be carefully tailored and monitored to support the licit economy and avoid possible damage to local societies. To combat the war criminal economy, the European Union must also modernise its policy on export control of dual-use goods and fight illicit trafficking in cultural goods and natural resources.

#### **4. EU-NATO Partnership for Peacekeeping**

In May 2021, at the meeting of the EU Military Committee (in Chiefs of Defence configuration), VP/HR Borrell discussed the Strategic Busola, in particular issues related to the EU's operational engagement, and also stressed that cooperation with partners, in particular the UN and NATO, should be strengthened. VP/HR Borrell stressed that EU-NATO cooperation remains a key element of the European Union's security and defence

agenda and is particularly relevant as both organisations move forward in their respective reflection processes - the Strategic Busola and NATO 2030.

The NATO-EU partnership has become a central component of the overall security governance architecture for several reasons. These relate to the nature of the institutions and the threats they face, as well as to some form of implicit division of labour in relation to (i) geography; (ii) the link between defence and security; and (iii) the link between internal and external security. To begin with, the two sides are often presented as sharing the same set of values. To a large extent, they face similar security threats, from the Russian resurgence to terrorism, cyber threats and general instability on their southern periphery. As a result, both organisations have an objective interest in working together to leverage their comparative advantages, create synergies and maximise impact. On this basis, there is some complementarity. Theoretically, and referring to its original mandate of collective defence of its member states against external aggression, NATO can only operate in the North Atlantic area, north of the Tropic of Cancer, yet the post-1990s debates and operations in Afghanistan and Iraq have de facto called this geographical restriction into question. As far as the European Union is concerned, the focus on the periphery or 'neighbours of neighbours' needs to be balanced by the aspiration to be what the 2016 EU Global Strategy calls a 'global security provider'. These potentially global ambitions and overlapping areas of responsibility have, however, led to a certain division of labour between the two institutions, which is partly geographically oriented. The most obvious examples are NATO's presence in the three Baltic states and in Poland in response to Russia's activities in Ukraine. This contrasts with the absence of the European Union as a defence actor on the territory of its own member states, at least through the Common Security and Defence Policy (and to the extent that the European Union does not 'do' collective defence). Instead, there are various EU-led missions and operations deployed in sub-Saharan Africa, while apart from the NATO training mission in Iraq, the Alliance is absent from the Middle East and North Africa. The European Union is also conducting civilian missions in the Palestinian territories and Georgia, while a NATO mission there would prove more challenging because of political sensitivities.

Against the backdrop of NATO's revised strategic concept, the Alliance could beneficially renew its European pillar through a deepened and complementary approach with the European Union. At a time when recent and new factors - both internal and external - are challenging the Alliance (e.g. Brexit, the question of Europe's strategic ambitions, Presidents Trump and Macron's critical views of the Alliance, the repositioning of the UK in its environment), these changes require a revised analysis of the transatlantic link and the role of its European pillar. In this context, the issues of how Allies share the defence burden and the various European initiatives to develop more robust and autonomous European defence capabilities have become highly sensitive, calling into question the possible degree of cooperation between NATO and the European Union. The European pillar can be analysed through a twofold approach: first, as part of the European Union and NATO; and second, as a result of the possible interactions between these two global actors. In light of these considerations, there is a need to identify the goals, ways and means that would benefit both organisations through a renewed robust European Pillar, while supporting the future NATO strategic concept.

## 5. Conclusions

The European Union's Global Strategy is the guiding framework for the Union's external action in the medium and long term. The Strategy starts from the premise that the European Union is currently facing a number of major crises, both within and beyond the Union. Threats to the Union have different origins, some originating in the neighbourhood,



but others of a global nature. The structure of the Global Strategy focuses on five main priorities: the security of the Union, the resilience of states and societies to the east and south of the Union, an integrated approach to conflict, a cooperative regional order and global governance for the 21st century.

Since September 2016, under the coordination of the High Representative/Vice-President of the European Commission, the EEAS, COM and EU Member States have been working closely together to implement the Global Strategy in all its areas of application. Most progress has been made in the implementation processes of the Strategy in the area of Neighbourhood Policy and Security and Defence Policy.

The EU Global Strategy has become a true collective compass guiding coherent and coordinated EU external action. Notable achievements in the implementation of the Comprehensive Strategy concern: the security and defence package in all its dimensions, state and societal resilience in the Neighbourhood, integrated approach to external crises and conflicts, cooperative regional order, governance and rules-based multilateralism. Going forward, the stakes are to ensure coherence in the implementation process and resource allocation decisions, in order to provide the means for the European Union's ambition as a global security actor.

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## DIAGNOSIS OF TOXIC WASTE IN THE REPUBLIC OF MOLDOVA - SWITCHING CIRCULAR MODELS

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**Abstract:** Hazardous waste management is a complex subject consisting of several components. There is no perfect model that can be applied in any situation, but the EU has firm principles on which to base its approach to waste management that can be applied in the Republic of Moldova. The most important challenge facing the authorities is to minimize the impact of hazardous waste on the population and the environment. Thus, risk minimization is possible only through an efficient and correct management of waste of any kind. In the study, the author aimed to analyse and evaluate the management of hazardous waste, to identify the most important problems and risks to the health of the population. This study was developed within the State Program 20.80009.0807.22 Development of the mechanism for the formation of the circular economy in the Republic of Moldova.

**Keywords:** circular economy, toxic, hazardous waste, recycling, waste hierarchy.

**JEL Classification:** Q54, Q57, Q58.

***This study was developed within the State Program 20.80009.0807.22 Development of the mechanism for the formation of the circular economy in the Republic of Moldova.***

### 1. Introduction

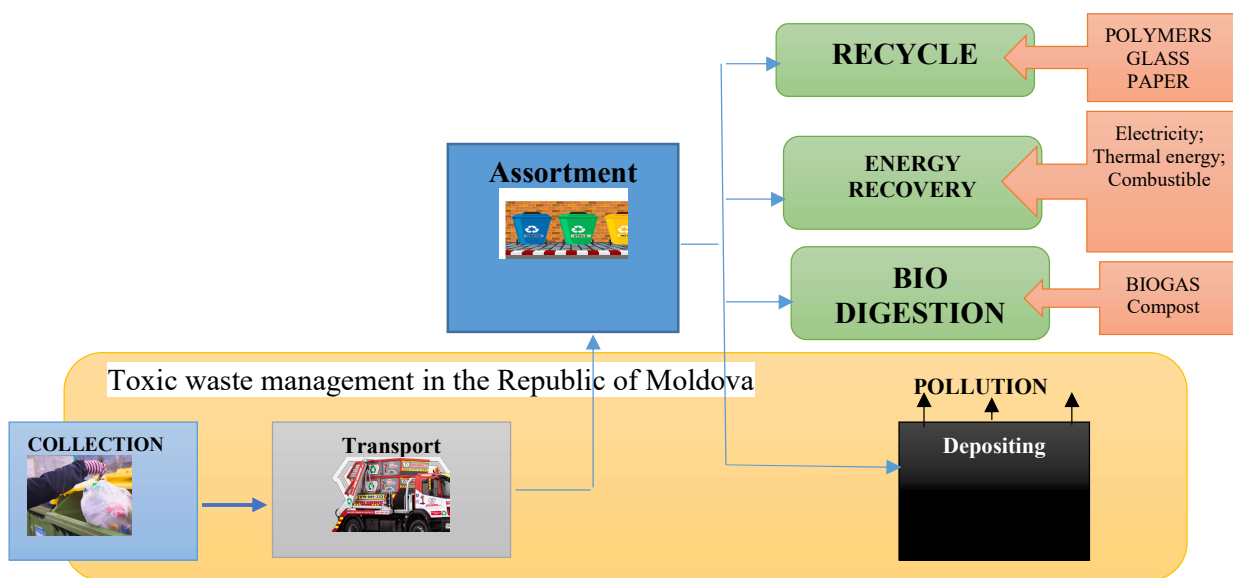
In the Republic of Moldova, the problem of toxic waste management is very acute, given the socio-economic aspects related to the transition to a market economy. During the last two decades, important transformations have taken place in the national economy in the Republic of Moldova: privatization and / or bankruptcy of large industrial enterprises, changing the spectrum of economic units, with the prevalence of small and medium enterprises, implementation of high and cost effective technologies, application of new chemicals. and so on. Thus, waste is one of the main sources of environmental pollution, as well as contributing to the phenomenon of climate change, which affects the health and quality of life of the population. Insufficient development of a functional waste management system is also an impediment to the economic development of localities.

Therefore, in our view, several social issues are addressed in the discussion on toxic waste. In countries with pollution regulations, it is imperative that polluters do not have incentives to limit the elimination of toxins in the air, water or landfills, so the costs are imposed to pay the population. Such a cost approach raises fundamental equity issues. In countries with stricter pollution regulations, toxic waste can be dumped illegally, and some polluters may try to cover up this activity. Another approach taken to treat toxic waste is to direct it elsewhere; Many e-waste products in the US are shipped to developing countries, risking leaks and the health of local people, who often lack the expertise and technology to deal with toxic waste safely.

In the context of these realities, a major risk problem for the health of the environment and that of the population of the Republic of Moldova is generated by toxic waste, which is mixed with household waste and then dumped in landfills. Unfortunately, in the Republic of Moldova waste management is based on the linear model (collection-transportation-storage) but not the circular one. In the linear model - landfills are:

- Long-term sources of water and soil pollution;
- Contributes to climate change;
- Missed opportunities to reuse resources and create jobs;
- Irrational land use.

In this study we come up with a comprehensive analysis of the reality of toxic waste management in the Republic of Moldova and propose the transition from a linear model to a circular model, as provided by the EU (Japan International Cooperation Agency, 2022b).



**Figure 1. Linear model of waste management in the Republic of Moldova**

*Source: prepared by the authors.*

**2. Characteristics of hazardous waste.** Properties. Hazardous waste is harmful to human health and the environment. Industrial activities use artificially processed chemicals as well as various heavy metals extracted from the ground that did not exist or did not have an appreciable amount in the natural biosphere, where living organisms were conceived or evolved. Thus, waste with a chemical content and /or an excessive content of heavy metals can be hazardous to life. The industrial activity that has made our lives more comfortable and better produces hazardous waste that poses a degree of risk to both our lives and the environment (ODIMM, 2022b).

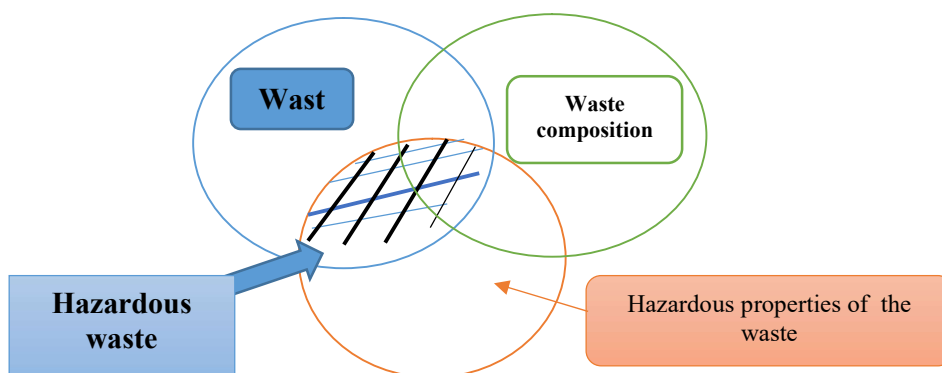
**Examples of hazardous waste:** hospital waste, pharmaceutical, medicinal and veterinary components, biocides, solvents, halogenated organic substances used as solvents, cyanides, hydrocarbon/water emulsions, substances containing PCBs or PCTs, polychlorinated dibenzofurans, dibenzofurans polychlorinated para-dioxins, tars, paints, resins, plasticizers, adhesives, unidentified chemicals and whose effects on humans or the

environment are not known (eg laboratory residues), explosives, etc. All of these are listed in specific lists. The handling and treatment of this type of waste is done only by economic agents that meet the necessary conditions and keep strict records, based on an authorization.

From a technical point of view, **hazardous waste can be defined in three ways:**

1. The type of waste that has one of the hazardous properties in certain processes OR the waste that contains one of the listed constituents that has hazardous properties;
2. Components of different types of waste that make it possible for waste to be hazardous when it has a certain degree of hazard;
3. Properties that can make waste hazardous (Japan International Cooperation Agency, 2022b).

In the Figure below we present the basic concept for hazardous waste from the European Waste Catalog (EWC) which includes the three points of view.



**Figure 2. The concept of hazardous (toxic) waste**

Source: Japan International Cooperation Agency, 2022b. *Study on the General Plan for Hazardous Waste Management in Romania*. Final Report. Volume 1. Main Report: Strategy and Action Plan, Chapter 3, Waste Prevention and Recycling. [pdf] Available at: <[https://openjicareport.jica.go.jp/pdf/11737715\\_05.pdf](https://openjicareport.jica.go.jp/pdf/11737715_05.pdf)> [Accessed 13 January 2022].

The risk of hazardous waste to human health and the environment cannot be assessed solely on the basis of the hazardous nature of the waste. The risk can be characterized and assessed by the following three components:

1. Degree of hazardousness of the waste (including: volume, concentration, extent, etc.);
2. The route of exposure by which the dangerous substance passes from source to receiver (including geographical and hydrogeological location, etc.);
3. Receiver status. Thus, it is important to know this data and information to assess the risk posed by the production, storage and storage of hazardous waste.

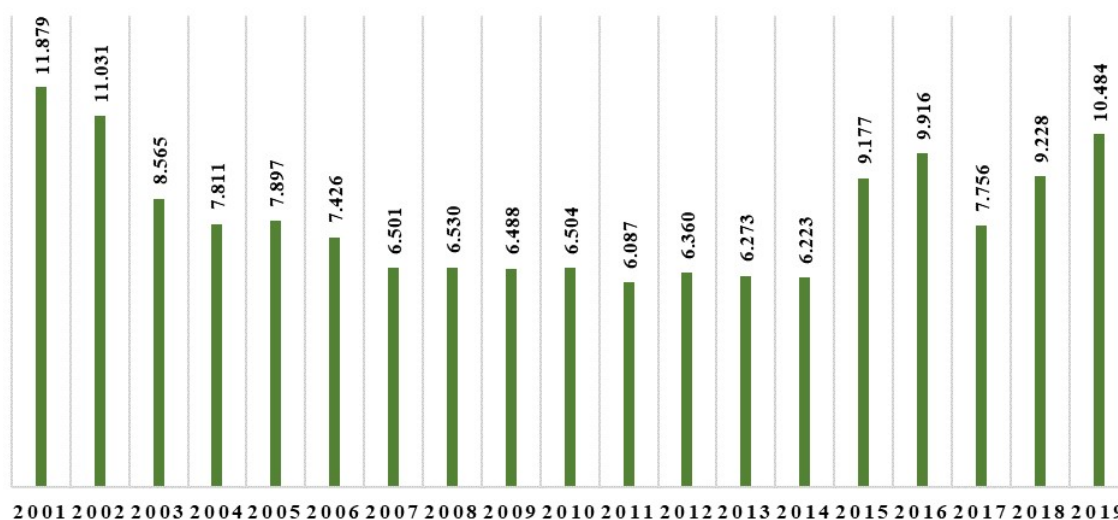
According to Law no. 209 of 29.07.2016 on waste, hazardous waste are any waste that has one or more of the hazardous properties specified in Annex no. 3 of the law. Therefore, *According to art.7 of Law no. 209 of 29.07.2016 on waste, the list of waste, including hazardous waste, is prepared and updated periodically by the Ministry of Agriculture, Regional Development and Environment and is approved by the Government. Thus, in the*

case of a type of waste which, according to the List of Waste, falls under two different codes, depending on the possible presence of hazardous characteristics (codes marked with an asterisk), the classification as non-hazardous waste is carried out by producers and owners. of waste only on the basis of an analysis of origin, tests, analysis reports and other relevant documents (Law No. 209 of 29-07-2016 on waste).

If the Ministry of Agriculture, Regional Development and Environment finds, based on laboratory analyzes or feasibility studies, that a waste that is classified as a hazardous waste does not have any of the properties specified in Annex no. 3 of the waste law, it is considered to be non-hazardous. At the same time, it is prohibited to reclassify hazardous waste as non-hazardous waste by diluting or mixing it in order to reduce the initial concentrations of hazardous substances to a level lower than the level required for a waste to be defined as hazardous (Ministry of Agriculture, Regional Development and Environment, Environment Agency, 2022).

### 3. The amount of hazardous / toxic waste in the Republic of Moldova

Hazardous / toxic waste management is one of the difficult issues that need to be solved in the Republic of Moldova. According to the latest statistical data provided by the NBS, in 2019, the total amount of hazardous / toxic waste generated was 10484 tons, up 1.7 times compared to 2014 (6223 tons), and compared to 2001 this trend is in decrease by 12% (11879 tons). However, the tendency to aggravate the problem of waste in the Republic of Moldova, especially hazardous waste, is generated by the faulty way in which various stages of waste processing are currently solved.



**Figure 3. Toxic / hazardous waste at the end of the year in the Republic of Moldova, in the period 2001-2019, tons**

Source: National Bureau of Statistics, 2010. *Formulare statistice*. [pdf] Available at: <[https://statistica.gov.md/public/files/Formulare\\_statistice\\_2010/Mediul\\_inconjurator/Instructiuni\\_1\\_deseuri\\_toxice.pdf](https://statistica.gov.md/public/files/Formulare_statistice_2010/Mediul_inconjurator/Instructiuni_1_deseuri_toxice.pdf)> [Accessed 13 January 2022].

Hazardous waste stock is the amount of hazardous waste to be treated or disposed of. Hazardous waste is normally stored before treatment or disposal. Some hazardous waste cannot be treated, disposed of or exported during the year in which it is generated. At the end of the year, this amount of hazardous waste that will contribute to the stock of hazardous waste to be treated or exported for disposal in the coming years. In principle, the sum of the quantities of hazardous waste to be: (Recycling + Incineration + Landfill + Other Disposal) should be equal to the amount of "Hazardous waste treated or disposed of during the year". However, as there may be double counting due to secondary quantities of waste (for example, incineration residues that are deposited in the landfill), the amount may be higher than the quantities to be managed.

**Table 1. Toxic / hazardous waste management in the Republic of Moldova, tons**

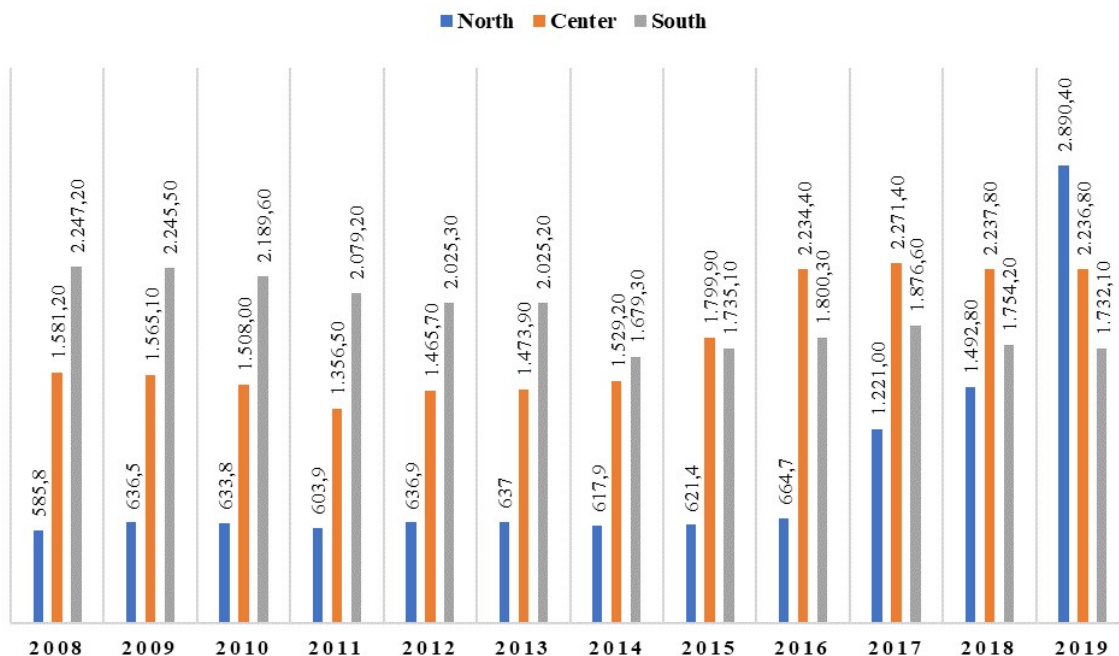
	2011	2012	2013	2014	2015	2016	2017	2018
<i>Formed</i>	528	418	727	682	3722	2114	1511	4254
Class I		2	10	267	309	452	-	4
Class II		249	298	258	447	1092	497	3679
Class III		82	265	99	160	308	188	47
Class IV		84	155	58	2806	263	826	524
<i>Recycle</i>	874	571	834	854	935	2277	6168	4582
Class I		-	0	-	-	-	2	2
Class II		119	177	119	50	1023	737	1199
Class III		8	9	20	79	43	158	63
Class IV		445	649	715	806	1211	5271	3318
<i>Neutralize</i>	112	51	133	96	13	15	10	37
Class I		1	5	55	3	-	-	-
Class II		42	124	38	5	4	3	1
Class III		2	2	1	2	0	0	2
Class IV		6	3	2	3	11	7	34
<i>Shipped to surface deposits</i>	3	91	3	19	8	9	58	95
Class I		8	-	-	-	-	-	-
Class II		80	3	13	-	7	3	1
Class III		-	-	4	7	0	5	60
Class IV		3	-	2	1	2	51	34
<i>Shipped to landfills for household waste</i>	17	21	27	19	17	98	621	33
Class I		-	-	-	-	-	-	-
Class II		-	2	1	-	-	-	-
Class III		-	6			98	39	33
Class IV		21	18	18	17	-	582	0
<i>Waste stock at the end of the year</i>	6087,0	6360	6273	6223	9177	9916	7756	9228
Class I		3793	3806	4066	4356	4808	4804	4808
Class II		1109	1115	1067	1351	1378	1072	2326
Class III		575	519	337	344	366	384	296
Class IV		883	833	753	3126	3365	1496	1799

Source: Ministry of Agriculture, Regional Development and Environment, Environment Agency, 2022. *Hazardous Waste Management*. [online] Available at: <<http://www.mediu.gov.md/ro/content/i2-gestionarea-de%C8%99eurilor-periculoase>> [Accessed 13 January 2022].

According to the data presented by the NBS, it is observed that until 2009, most of the toxic waste was transported to the landfills or was liquidated. Since 2010 the situation is improving, most of the toxic waste has been recycled 90%. Thus, in 2019, 4570 tons of waste were recycled, and 8 tons of toxic waste were disposed of.

Most of the toxic waste existing on the territory of the Republic of Moldova was attributed in 2008 to 2014, to the southern region of the republic, after which from 2015-2018 it belongs to the central region. At the regional level, in 2019 the stock of toxic waste

will return to the northern region of the Republic of Moldova, with 2890.40 tons, followed by the Center with 2236.80 tons and the southern region with 1732.10 tons.



**Figure 4. Existence of hazardous waste by regions at sf. year, in the period 2008-2019, tons**

Source: National Bureau of Statistics, 2010. *Formulare statistice*. [pdf] Available at: <[https://statistica.gov.md/public/files/Formulare\\_statistice\\_2010/Mediul\\_inconjurator/Instructiuni\\_1\\_deseuri\\_toxice.pdf](https://statistica.gov.md/public/files/Formulare_statistice_2010/Mediul_inconjurator/Instructiuni_1_deseuri_toxice.pdf)> [Accessed 13 January 2022].

Analyzing the series of statistical data on sanitation of localities, there is a slow increase, on average about 3.6% of waste volumes in the period 2017-2019, in the case of rural localities the generation trends are increasing on average by 30%, and in the case of urban growth is more modest than 1.3%. In total, in 2020, 187 specialized services in waste collection and disposal are organized and operate (53 services in the urban sector and 134 services in the rural sector), respectively 296 rural localities benefit from municipal waste collection services. Most of the toxic waste accumulated at the district level is reflected in the table below.

**Table 2. Top 15 Districts with the most toxic waste in the Republic of Moldova, tons**

To p	District	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1	Ialoveni	651.2	655.6	573.5	459.6	454.1	462.1	768.4	1 040.00	1 473.60	1 473.60	1 473.40	1 472.00
2	Căușeni	1 195.80	1 196.20	1 196.40	1 196.20	1 093.40	1 093.40	1 053.20	1 053.20	1 053.20	1 053.20	1 053.20	1 053.20
3	Orhei	383.4	360.3	384.6	363.4	363.5	363.6	362.5	362.9	363.2	363.6	363.9	364.2
4	Cahul	218.2	217.8	217.8	217.8	217.8	217.8	219.1	219.5	226.5	229.1	234.9	243
5	Taraclia	475	475	434.5	362	351.2	351.2	166.4	163.1	190	187.1	170.5	172
6	Leova	234.7	235.2	235	235	247.1	247	173.6	199.4	199.4	199.5	199.5	161.7
7	Hâncești	105.2	105.3	107.9	108.2	108.9	108.9	107.5	105.2	105.9	139.8	106.8	103.7
8	Telenești	101.2	101.2	101.2	101.2	101.2	101.2	101.2	101.2	101.2	101.2	101.2	101.2
9	Călărași	199.3	199.3	199.3	199.3	199.3	199.3	67	67	67	67	67	67
10	Cimișlia	97.4	98.3	98.7	60.4	60.7	60.7	61.1	62	61.8	61.9	61.4	63.9
11	Nisporeni	50	51.2	51.2	61	176	176	61.1	61.1	61.1	61.1	61.1	61.2
12	Anenii Noi	80.7	80.7	80.7	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8
13	Basarabesca	26.1	23	7.2	7.8	55.1	55.1	5.9	37.9	69.4	145.8	34.7	38.3
14	Dondușeni	15.7	14.2	17.8	4.1	9.9	9.9	10	9.5	16	9.6	10	9.9
15	Strașeni	8.7	9.3	8.6	9	7.6	7.6	7.7	7.9	7.9	7.9	7.9	7.6

Source: National Bureau of Statistics, 2010. *Formulare statistice*. [pdf] Available at: <[https://statistica.gov.md/public/files/Formulare\\_statistice\\_2010/Mediul\\_inconjurator/Instructiuni\\_1\\_deseuri\\_toxice.pdf](https://statistica.gov.md/public/files/Formulare_statistice_2010/Mediul_inconjurator/Instructiuni_1_deseuri_toxice.pdf)> [Accessed 13 January 2022].

The issue of hazardous waste management is a priority in state policy, as this area has a particularly high impact on the environment and public health. In order to reduce the impact on this sector, it is necessary to take concrete waste management measures at national level and to develop solutions for some categories of hazardous waste to be treated / disposed of abroad in environmentally friendly technologies.

According to the Concept of creating the Hazardous Waste Management Center, it is foreseen that this object will generate revenues from the provision of the following services:

- from pick-up / packing services, transportation, temporary storage at the Center of hazardous waste from the population through mobile points - the services being paid by the DMS collection operators;
- from services for taking over / packing, transporting, temporary storage at the Center of hazardous waste from economic agents on a contract basis;
- from the sale of recyclable hazardous waste fractions;
- from the provision of services for the elaboration of technical solutions for decontamination of contaminated lands and laboratory analyzes;
- from technical assistance activities regarding the waste management of generators and / or economic agents.

The results of the analysis of the current situation of the hazardous waste sector in the Republic of Moldova show the following: Annual total revenues are planned starting with 17,000,000 lei in the first years of activity, so the investment is recovered after 12 activities of the Center. According to the economic-financial calculations, the investment is feasible to be made only with non-reimbursable financing in proportion of at least 90% of the total



value of the investment, according to which  $RIR F(c) = 9\%$ ,  $NPV = € 1,494,178.12$  the discount rate being  $6\%$  (Ministry of Agriculture, Regional Development and Environment, Environment Agency, 2022; Popa and Popa, 2021).

The creation of a Public Hazardous Waste Management Joint Stock Company is crucial in solving the problem of hazardous waste. The Joint Stock Company must have the necessary means to function properly in order to carry out its activity on the basis of the state property transferred to the management, and the allocation of land for the location of this object is a first step in developing the national hazardous waste management system. with European requirements.

The purpose of the Joint Stock Company "Hazardous Waste Management Center" will be to improve the management of hazardous waste in the Republic of Moldova and reduce its negative impact on the environment and human health. The Joint Stock Company "Hazardous Waste Management Center" will carry out the following activities:

- identification of solutions for recycling / disposal of historically accumulated hazardous waste directly from the place of storage;
- the collection and temporary storage of current hazardous waste streams to be transported to operators authorized for recycling / treatment of hazardous waste, including the solidification of certain categories of waste for landfill disposal;
- recycling of fluorescent lamps and other mercury-containing wastes (Hg-containing measuring devices) in safe environmental conditions;
- the provision, at the request of the beneficiary, of services for the disposal of hazardous waste in the applicant's territory (asbestos waste, contaminated land etc.).

#### **4. Conclusions and recommendations**

Large volumes of hazardous substances, which are not identified as hazardous substances, are discharged along with wastewater and blast furnace gases (hazardous waste omitted). Thus, it is necessary for the legal framework to be well strengthened, which will ensure the endowment with pollution control equipment and the omitted waste mentioned above will be collected and identified as hazardous waste. At present in the Republic of Moldova, there are no standards for the collection, transport, recycling, treatment and disposal of hazardous waste. The lack of facilities is also evident, and in these conditions, the awareness of the proper management of hazardous waste is not well perceived by the hazardous waste plants / factories. It is also important for the consumer:

- To limit the use of dangerous products through rational and responsible consumption;
- Try environmentally friendly alternatives to regular detergents;
- Products in good condition, but which they no longer use, must be reused (sale, donation);
- Defective products can be repaired and then reused;
- Waste is thrown in specially arranged places;
- We sort the waste and send it for recycling;
- Replace regular batteries with rechargeable batteries;
- To return expired or no longer needed medicines to the pharmacy;
- Use water-based paint, not solvents,

- Waste management services are paid in the same way as any other service (Popa and Popa, 2021).

All these activities lead to a change in consumer behavior and a more efficient management of hazardous waste. Therefore, local public authorities must also participate in the decision-making process by:

- Working groups;
- Public consultation meetings;
- Endorsement of draft decisions,
  - ✓ To provide expertise and consultancy, through:
- Elaboration of project proposals;
- Participating in the process of conceptualizing the model of hazardous waste management as well as municipal waste;
- Organizing study visits and exchanging experiences.
  - ✓ And to provide communication and information services with citizens.

Thus, for the efficient management of toxic / hazardous waste, we come up with the following recommendations:

- Harmonization of the normative and legislative framework related to the Waste Law according to the European legislation;
- Population: rational consumption, collected and separated waste, paid services;
- LPA: integration in the regional waste management system, sorting / incineration stations, regional landfills;
- CSOs: pro-activism in decision-making and policy monitoring (Japan International Cooperation Agency, 2022a).

Hazardous waste management is a complex multi-part subject. There is no perfect model that can be applied in any situation, but the EU has strong principles on which to base its approach to waste management that can be applied in the Republic of Moldova.

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## NON-TRUST IN PUBLIC AUTHORITIES DUE TO NON- INFORMATION BY HEALTH SPECIALISTS REGARDING PANDEMIC

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**Abstract:** Since the beginning of the pandemic, Romania, compared to other states, has tried to organize and protect the country's population as well as possible, this COVID-19 virus having a major impact on society. The central authority set up the National Committee for Emergency Situations, which monitored the situation of coronavirus-infected patients and the impact on the population. At the same time, it provided measures for the organization and coordination of the health system throughout the country. Especially in the international pandemic situation, the current situation was analyzed at the national level and the citizens were informed about the restrictions imposed in this situation, as well as the respect of the fundamental human freedoms. However, compared to these priorities of the central authorities to control the pandemic situation and not to spread as in other countries, namely China and Italy, in our country there was also false information or misinformation of the population that created panic and distrust in authority. In the current conditions, the challenges of the pandemic situation in some cases have been approached differently, especially in the field of media which through the information addressed to the citizens led to misinformation of the population regarding the respect of democratic rights and freedoms of Romanian citizens. the health of the population at the level of the whole society.

**Key-words:** public health, misinformation, health system, challenge, pandemic, coronavirus.

**JEL Classification:** M12, I13, I18.

### 1. Introduction

At the beginning of the pandemic, our country received this challenge with skepticism, people were distrustful due to lack of information by health professionals. The state of emergency established in our country has created panic, the population has started to stock up and to be overly attentive to the rules of hygiene and restrictions on the health of the citizen.

Also, the authorities from all over the world have focused and focused their attention on the measures to fight and attenuate the coronavirus that have had effects on the economy of both Romania and other countries. In the current conditions, the media and social channels are dominated by the pandemic situation, which transmits information related to daily reality and tries to substantially change the daily routine and social infrastructure to encourage and promote prevention in the event of such events.

Under these conditions, the resilience of the health system is mainly focused on the impact of the COVID-19 pandemic and the consequences for the population and society. In this case, the pandemic had a major impact on population health and mortality in Romania, a figure found in most EU countries, the number of deaths caused by COVID-19 being about 34,500 by the end of August 2021. Due to this situation, the measures taken by the central authority to keep the pandemic under control had a significant impact on the economy, in the sense that Romania's GDP fell to 3.9% compared to the EU GDP of 6.2%.

In order to be a country open to the current situation, Romania has joined the actions regarding the vaccination campaign, but the research shows that we have a vaccination rate that places us among the last in the world and the penultimate in Europe, respectively about 27.5 % of people vaccinated at full dose. In these conditions, analyzing the situation of deaths, we are on the second place in Europe and on the sixth place in the world about 92% of Covid-associated deaths.

The pandemic situation was something new, but due to the incorrect information and the appearance of some fake news, or misinformation of the population, the citizens did not trust the authorities anymore, which reduced the vaccination rate. Researchers think that informing the population in a different way means informing the population in a different way so that they can gain confidence and become trusted specialists in order to mobilize the population and vaccinate on a very large scale.

## **2. Methods and research**

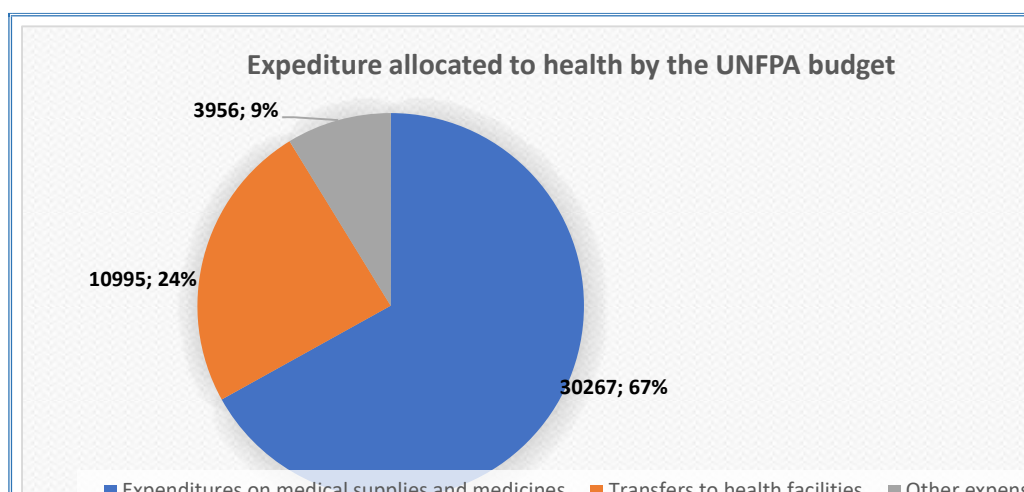
Public health care is coordinated by the Public Authority responsible for health insurance and is provided by all types of state or private health units. In this regard, we mention that the greatest responsibility for public health insurance lies with the Ministry of Health, the county and Bucharest public health directorates and other specialized structures, the National Health Insurance House, the specialized structures within the ministries and institutions with own health network, as well as local public administration authorities.

From the analysis carried out at the level of 2020, it is observed that the share of expenditures for health care in the total expenditures made from public funds represents about 7.4%, these being provided and financed from the state budget, local budgets and UNFASS.

In 2020, in our country, health expenditures were allocated by the Ministry of Health from the state budget in the amount of 19,890 million lei, and from the FNUASS budget through the National Health Insurance House the amount of 45,220 million lei, which is observed that from public funds were spent in the amount of 65,110 million lei for the health sector. During this pandemic period, out of the total expenses allocated to the Ministry of Health for the field of health, 63% were transferred to other public institutions in order to purchase Covid-19 specific materials, medicines and equipment.

Apart from the ones mentioned above, we specify that the public hospitals were organized especially for Covid, and in some hospitals special sections were organized for people with Covid. Medical services were provided to all patients, and separate circuits were created and measures were taken to restrict the infection of people with covid-19. Analyzing this aspect, we notice that at the level of CNAS, expenditures were made for the health field in the amount of 45,220 million lei.

We present below the schedule on the distribution of expenditures from the UNFASS budget, as follows:



Source: financial statements [www.cnas.ro](http://www.cnas.ro)

Compared to the expenditures allocated for the health field from the FNUASS budget, the hospitals also benefited from funds from the state budget and local budgets, the largest share being from the local budgets, respectively 32,557 million lei, about 62%. In 2020, the health sector was the area most affected by the COVID-19 pandemic. Also, with the increase in the number of cases of infection, the number of medical needs that could not be covered by the public health system has increased. This was observed by the fact that the health system in Romania was fragile and before the outbreak of the pandemic, with the spread of the virus, a multitude of problems faced by this field were highlighted.

As a result of the pandemic, the importance of strengthening primary health care, prevention services and public health in a health system currently heavily dependent on hospital services has been highlighted.

Given the fact that the Romanian health system is fragile and with many problems, as well as the fact that there was a lot of controversy at the international level, the virus was spreading rapidly and the measures taken by the authorities in some situations could not cope. It transmitted news that informed or misinformed the population, this created distrust in the authorities.

In this sense, in Romania the vaccination campaign against COVID-19 started relatively well, although it suffered delays due to supply problems. The vaccination campaign was also supported by a communication strategy, but reluctance to vaccinate continued to severely limit vaccination coverage, and the vaccination program slowed.

Compared to 2019, approximately 44% of Romanian health expenditures were allocated to hospital services (an increase of 3 percentage points compared to 2010).

This is the highest share of EU countries, averaging 29%. However, the total amount per capita remains low in absolute terms. In this respect, they are the lowest in the EU in terms of per capita spending on prevention, indicating that public health was under-resourced and under-performing before the pandemic.

At the level of our country, health expenditures amounted to 1,310 euros per year for health per capita, compared to 3,523 euros, the average of EU countries, placing us on the penultimate place in the EU. As a share of GDP, Romania allocated 5.7%, the second lowest percentage of EU countries, after Bulgaria. Due to the emigration of medical staff, it has contributed to the shortage of health workers in the country, and the number of doctors and nurses per capita is well below the EU average. This negatively affects access

to care and increases waiting times. The health workforce has also been a key concern in preparing for the pandemic.

According to Eurostat data, current health expenditures accounted for 5.7% of GDP in Romania in 2019, compared to the countries with the highest amounts spent on health, such as France and Germany, where the share was over 11, 0%. Also, as in the other Member States, in Romania the balance is tilted in a significant proportion to the public sector, with 80.5% of current expenditures in 2019, the main source of financing public spending on health being the financing schemes with compulsory contributions to the social security system.

Due to the health infrastructure that is below EU standards, due to inefficient operations and financial management, as well as the lack of investment, healthcare costs are very low and the level of medical needs is unmet. As a result, these costs are limited to hospitals and hospital services, with primary and community health care remaining underdeveloped.

In this situation, the consequence is that preventive health care is underfunded, and ensuring access to health care does not meet all categories of people. In Romania, a large number of people do not benefit from health insurance, for example the categories of people who are not registered and do not pay social health insurance contributions (people working in the underground economy, subsistence agriculture, people who do not have a identity etc.).

At the same time, the hospital units do not correspond to the safety norms and the hygienic-sanitary norms, which generates the distrust of the citizens and increased costs regarding the maintenance of the hospitals.

The authorities also have limited administrative capacity, which makes it difficult to carry out reforms, especially in the field of health. However, the pandemic has highlighted the social role and responsibility of the media, as well as the fact that it will address in depth the way in which journalism goes through this period of misinformation looking for a way back to truth and accuracy. By setting up the official news site, official information about the pandemic, number of cases and other elements specific to the pandemic were presented, where the citizen was informed from a reliable source.

A UNICEF survey found that young people believe that the lives of children have improved to a greater extent, but adults and older generations appreciate the health services, education and physical safety that today's children enjoy. higher level than in the previous generation.

At the same time, in the UNICEF survey, children are opposed to seeing the world through the eyes of adults, are optimistic about it and are inclined to keep life expectancy, considering a more global perspective and are determined to make the world a better place.

Also, all countries included in the survey believe that the vast majority of young people said that their countries would be less exposed to threats such as COVID-19 if governments coordinated with other states instead of acting on their own.

At the same time, for the younger generations it is essential to be directly consulted with social, everyday issues, for their well-being and with the changes in their lives.

A study by INSCOP concludes that the conspiratorial view of global control is stronger among the population with primary education and low rural incomes, but in the case of the COVID pandemic, the share of the population believes in this scenario and extends not only among those from urban with secondary education, but also among the population with higher education and high income.

In conclusion, the World Health Organization acknowledges that one of the most dangerous aspects of the COVID-19 pandemic is misinformation, which show public distrust of public health measures and lead people to make wrong decisions that contribute to the spread of the virus.

### **3. Conclusions and recommendations**

The public authority responsible for health insurance aimed to plan efforts with a focus on key values, in the sense of prioritizing and developing health services, treating patient dignity with respect, firm cross-sectoral and interdisciplinary involvement of health personnel and local communities, by ensuring the report between the expenditures made especially during the pandemic and the benefits obtained in improving the health of the population for going through these difficult periods.

First of all, the advertising campaign was made impossible to present unrelated materials, in the sense of presenting conclusive and real images. For example, the population had to check the sources of information in order to be correctly informed from reliable sources.

Through a source of correct information, not fed by panic, an aspect that can help the Romanian population to be vigilant in the way it accesses, assimilates the news presented in the media.

Due to the fragile problems of the health system, the pandemic situation also created a good aspect, in the sense that additional funds in the field of health were allocated, equipment and medical equipment were purchased to improve the health system and fight coronavirus.

Also, in this pandemic, few have made donations to the health care system, but some have been skeptical that the money donated could reach people in need of medical care. At the same time, studies and research have shown solidarity and empathy for doctors, for people returning from abroad in the midst of a pandemic, for the elderly or those in more difficult situations, but some of those surveyed made organized donations at the site. some donations on their own initiative to people who needed it, less donations in cash due to the suspicion of distrust that they will end up in the health system or those in need.

This distrust of the authorities, this pessimism of the population is due to the fact that nothing comes naturally, but only after receiving aid from abroad, then the protective equipment and medicines appear on the market for sale. In this situation, the information from questionable sources, thinks that the authorities had to deal with the purchase of medical supplies and medical equipment centrally before receiving aid and allowing their marketing.

At the same time, the crisis has brought to light beautiful things in our society, in the sense that it has reset many things in our thinking and social dynamics. By empathizing and volunteering to help those who have been infected and have not been able to afford food, we can draw conclusions about improving mechanisms in both health and social care.

In conclusion, the lack of transparency of funds dedicated to helping those in the front line is claimed by many citizens, but from good deeds and volunteerism by citizens, the authorities could learn from some non-governmental associations the formulas that have led to gaining people's trust. .



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## CONFISCATION, SANCTION ON THE TRANSFER OF STATE OWNERSHIP OF GOODS ON THE BASIS OF A JUDGMENT

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**Abstract:** Confiscation is a sanction that consists in the forced and gratuitous transfer of state property, property under a court decision or an administrative decision. According to art. 562 paragraph 4 of the Civil Code, only the goods destined or used for committing a crime or contraventions or those resulting from them may be confiscated. Confiscations ordered by the courts are carried out by the Ministry of Public Finance, the Ministry of Internal Affairs or, as the case may be, by other public authorities empowered by law, through the competent bodies, established by common order of the heads of the institutions concerned. acts by the competent bodies of the Ministry of Public Finance, or by other public authorities empowered by law, in compliance with the legal provisions in force. If the confiscations concern amounts expressed in foreign currency, the amounts are converted into lei at the exchange rate communicated by the National Bank of Romania, valid on the date on which the confiscation measure becomes final. The confiscated sums, as well as those realized from the capitalization of the confiscated goods, less the expenses imposed by the execution and capitalization, are made income to the state budget or the local budgets, as the case may be, according to the law.

**Keywords:** misdemeanor, crime, fine, confiscated property.

**JEL Classification:** K10.

### 1. Confiscation

Confiscation is a sanction that consists in the forced and gratuitous transfer of state property, property under a court decision or an administrative decision.

According to the provisions of art. 44 para. 9 of the Romanian Constitution, the goods destined, used or resulting from crimes or contraventions can be confiscated only under the conditions of the law.

According to art. 562 paragraph 4 of the Civil Code, only the goods destined or used for committing a crime or contraventions or those resulting from them may be confiscated.

According to art.108 letters d) and e) of the Criminal Code, the security measures are “special confiscation” and “extended confiscation” (Law no. 286/2009 on the Criminal Code; Law no. 187/2012 for the implementation of Law no. 286/2009 on the Criminal Code)<sup>1</sup>.

#### Special confiscations

According to art.112 of the Criminal Code, the following are subject to special confiscation:

- a) the goods produced by committing the deed provided by the criminal law;
- b) goods that have been used, in any way, or intended to be used for the commission of an act provided by the criminal law, if they belong to the perpetrator or if, belonging to another person, he knew the purpose of their use;
- c) the goods used, immediately after committing the deed, to ensure the escape of the perpetrator or the preservation of the use or the product obtained, if they belong to the perpetrator or if, belonging to another person, he knew the purpose of their use;
- d) the goods that were given to determine the commission of an act provided by the criminal law or to reward the perpetrator;
- e) the goods acquired by committing the deed provided by the criminal law, if they are not returned to;
- f) the goods whose possession is prohibited by the criminal law.

<sup>1</sup> The criminal code entered into force on February 1, 2014.

In the case provided in letter b) and letter c), if the value of the goods subject to confiscation is clearly disproportionate to the nature and gravity of the deed, the confiscation is ordered in part, by monetary equivalent, taking into account the consequence produced or which could have occurred and the contribution of the good to it. If the goods have been produced, modified or adapted for the purpose of committing the act provided by the criminal law, their confiscation in full is ordered.

In the cases provided in letter b) and letter c), if the goods cannot be confiscated, as they do not belong to the offender, and the person to whom they belong did not know the purpose of their use, their cash equivalent will be confiscated.

The provisions of letter b) does not apply in the case of acts committed by the press. If the goods subject to confiscation according to letter b) - e) are not found, in their place money and goods are confiscated until the competition of their value.

Also confiscated are the goods and money obtained from the exploitation of the goods subject to confiscation, as well as the goods produced by them, except for the goods provided in let. b) and letter c).Extended confiscation

According to art. 1121 of the Criminal Code, other goods than those provided in art. 112, when a person is ordered to be convicted of an act likely to provide a material benefit and for which the penalty provided by law is imprisonment of 4 years or more, the court is convinced that the property comes from criminal activities. The court's conviction may also be based on the disproportion between the lawful income and the person's wealth

The extended confiscation is ordered on the goods acquired by the convicted person in a period of 5 years before and, if necessary, after the moment of committing the crime, until the date of issuing the act of notification of the court.the injured person and insofar as they do not serve to compensate him (Decision no.6 / 2016 HCCJ)<sup>1</sup>.

Extended confiscation may also be ordered on goods transferred to third parties, if they knew or should have known that the purpose of the transfer was to avoid confiscation.

For the application of these provisions, the value of the goods transferred by the convicted person or by a third party to a family member or a legal person over which the convicted person has control shall also be taken into account.

Goods, according to this article, also mean sums of money.

When establishing the difference between the lawful income and the value of the acquired goods, the value of the goods at the date of their acquisition and the expenses made by the convicted person, his family members, will be taken into account. If the goods subject to confiscation are not found, money and goods are confiscated in their place up to their value.

Confiscated goods and money obtained from the exploitation or use of confiscated goods, as well as goods produced by them, shall also be confiscated.

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<sup>1</sup> Decision no.6 / 2016 HCCJ published in the Official Gazette no.287 / 15 April 2016

2. In the application of art. 112 para. (1) lit. e) of the Criminal Code, the security measure of special confiscation may be ordered in relation to the following situations:

- a) to third parties, natural or legal persons who are not parties to the criminal proceedings, with the consequence of applying the precautionary measures provided by art. 249 of the Code of Criminal Procedure;
- b) to the civilly responsible person in relation to whom the civil action exercised in the criminal process was rejected;
- c) on the sums of money or goods in the material sense;
- d) on the damage caused to the injured person, if he became a civil party and did not die or, as the case may be, was not dissolved and liquidated.

3. In the application of art. 112 para. (1) lit. e) of the Criminal Code, the security measure of special confiscation may be ordered in conditions of solidarity or must be individualized. "

Delivered in open court today, March 2, 2016.

The confiscation may not exceed the value of the goods acquired during the period provided above, which exceed the level of lawful income of the convicted person.

For the application of these provisions, the value of the goods transferred by the convicted person or by a third party to a family member or a legal person over which the convicted person has control shall also be taken into account.

Goods also mean sums of money.

When establishing the difference between the lawful income and the value of the acquired goods, the value of the goods at the date of their acquisition and the expenses made by the convicted person, his family members, will be taken into account.

If the goods subject to confiscation are not found, money and goods are confiscated in their place up to their value.

Confiscated goods and money obtained from the exploitation or use of confiscated goods, as well as goods produced by them, shall also be confiscated.

The confiscation may not exceed the value of the goods acquired during the period of 5 years before and, if applicable, after the moment of committing the crime, until the date of issuing the act of notification of the court, clearly exceeds the income obtained by it lawfully, which exceeds the level of income convictions of the convicted person.

According to art. 289 paragraph 3 of the Criminal Code, regarding the crime of bribery, money, valuables or any other goods received are subject to confiscation, and when they are no longer found, the confiscation by equivalent is ordered.

According to the provisions of art.290 paragraph 5 of the Criminal Code, regarding the crime of bribery, money, valuables or any other offered or given goods are subject to confiscation, and when they are no longer found, the confiscation by equivalent is ordered.

According to art.291 paragraph 2 of the Criminal Code regarding trafficking in influence, money, valuables or any other received goods are subject to confiscation, and when they are no longer found, the confiscation by equivalent is ordered.

According to the provisions of art. 292 paragraph 4 of the Criminal Code regarding the purchase of influence, money, values or any other goods given or offered are subject to confiscation, and if they are no longer found, the confiscation by equivalent is ordered.

#### Contraventions

The contraventional confiscations are provided by GO no. 2/2001 regarding the legal regime of the contraventions<sup>1</sup> which in art.5 paragraph 3 provides that the complementary contravention sanctions are: a) confiscation of goods intended, used or resulting from contraventions. And in art.24 it is ordered that the person empowered to apply the sanction also orders the confiscation of the goods destined, used or resulting from contraventions.

In all cases, the ascertaining agent shall describe in the minutes the goods subject to confiscation and shall take in respect of them the conservation or capitalization measures provided by law, making the appropriate entries in the minutes.

If the goods are not found, the offender is obliged to pay their equivalent value in lei.

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<sup>1</sup> Government Ordinance no. 2/2001 regarding the regime of contraventions, published in the Official Gazette no. 410/2001, Law no. 180/2002 published in the Official Gazette no. M.Of.nr.747 / 26.10.2003, Law no.526 / 2004 published in M.Of.nr.1149 / 06.12.2004, Law no.182 / 2006 published in M.Of.nr.443 / 23.05. 2006, Law no. 352/2006 published in the Official Gazette no. 640 / 25.07.2006, Government Ordinance no. 8/2006 published in the Official Gazette no. 78 / 27.01.2006, Law no. 353/2006 published in M.Of.nr.640 / 25.07.2006, Law no.293 / 2009 published in M.Of.nr.645 / 01.10.2009, Law no.202 / 2010 published in M.Of.nr.714 / 26.10. 2010, amended by Law no. 76/2012 published in Official Gazette no. 365 / 30.05.2012, Government Ordinance no. 17/2014 published in Official Gazette no. 629 / 27.08.2014.

The ascertaining agent has the obligation to establish who is the owner of the confiscated goods and, if they belong to a person other than the offender, the minutes will mention, if possible, the identification data of the owner or will specify the reasons why the identification was not possible.

According to art.18 of Law no.115 / 1996, if it is found that the acquisition of certain determined goods or a share of a good is not justified, the court of appeal will decide either the confiscation of the goods or the unjustified share, or the payment of a sum of money, equal to the value of the property, established by the court on the basis of expertise. In case of obligation to pay the value of the good, the court will also establish the payment term (Law no. 115/1996 for the declaration and control of the property of dignitaries, magistrates, persons with management and control functions and civil servants).

If in connection with the goods whose origin is unjustified it results in the commission of a crime, the court sends the file to the competent prosecutor's office, in order to analyze if it is necessary to initiate the criminal action.

According to the provisions of art. 26 of Law no. 115/1996, the confiscated goods will be capitalized by sale at auction, the amounts obtained being made available to the state budget. The starting price of the auction cannot be lower than the value of the good, established by the court on the basis of expertise.

The sale of goods and the collection of debts established under the conditions of this law are carried out by the fiscal bodies, in accordance with the legal provisions regarding the forced execution against natural persons for non-payment of money debts due to the state.

The expenses incurred for the storage, preservation and recovery of the confiscated goods shall be deducted from the amounts obtained from their sale.

And art.27 stipulates that, if the confiscated goods are objects of rare metals or precious stones, securities, foreign means of payment, art objects, valuables and museum objects, they are deposited with the National Bank of Romania or, as the case may be, at the Ministry of Culture, in order to capitalize by auction.

The procedure of researching and judging the origin of the goods, started on a person, continues also against his heirs.

The investigation may also be initiated directly against the heirs, but only within 3 years from the date of the opening of the succession. The heirs are liable only within the value of the estate.

The request for investigation of the property of a person who has held a dignity or a public office may be made within a maximum of 3 years from the date of termination of the term of office or dismissal from office.

Confiscation of property according to Law no. 39/2003 on preventing and combating organized crime (Law no. 39/2003 on preventing and combating organized crime).

Confiscation of property according to Law no. 129/2019 for preventing and combating money laundering and terrorist financing, as well as for amending and supplementing some normative acts (Law no. 129/2019 for preventing and combating money laundering and terrorist financing, as well as for amending and supplementing some normative acts).

According to art. 44 of Law no. 129/2019, for violations of the provisions of this law, in addition to the sanction of a fine, one or more of the following complementary sanctions may be applied to the offender:

- a) confiscation of goods intended, used or resulting from the contravention;

According to art.51 of Law no.129 / 2019, in the case of money laundering and terrorist financing offenses, the provisions regarding the confiscation of property from Law no.286 / 2009 apply.

If the goods subject to confiscation are not found, their cash equivalent or the goods acquired in their place shall be confiscated.

Revenues or other material benefits derived from the goods referred to above shall be forfeited.

If the goods subject to confiscation cannot be individualized compared to the legally acquired goods, the goods are confiscated up to the value of the goods subject to confiscation.

These provisions apply accordingly to income or other material benefits derived from confiscated property, which cannot be individualized from legally acquired property.

In order to guarantee the execution of the confiscation of the goods, it is mandatory to take the precautionary measures provided by the Code of Criminal Procedure<sup>1</sup>.

The misdemeanor confiscation of property is also regulated by other special laws, such as:

Confiscation of goods according to Government Ordinance no. 21/1992 on consumer protection (Government Ordinance no. 21/1992 on consumer protection)<sup>2</sup>.  
Confiscation of goods according to Law no. 86/2006 Customs Code (Law no. 86/2006)<sup>3</sup>.  
Confiscation of goods according to Law no. 46/2008 Forest Code (Law 46/2008 Forestry Code)<sup>4</sup>.

According to art.348 of Law no.207 / 2015 Fiscal Procedure Code, the confiscations ordered according to the law are carried out by the bodies that ordered the

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<sup>1</sup> Art.249 - 256 precautionary measures. Code of Criminal Procedure.

Law no. 135/2010 on the Code of Criminal Procedure, published in the Official Gazette no. 486 / 15.07.2010  
Law no. 255/2013 for the implementation of Law no. 135/2010 on the Code of Criminal Procedure, published in the Official Gazette no. 515 / 14.08.2013. The Code of Criminal Procedure entered into force on 01. February 2014.

<sup>2</sup> Dangerous, counterfeit or counterfeit products are confiscated by law enforcement bodies upon notification of the ascertaining agent, and are destroyed or capitalized, as the case may be, according to the legal provisions.

The incomes illegally collected by the economic operators, as a result of the violation of the provisions of art. 4, art. 7 lit. a) the 2nd, 3rd and 4th indents, art. 7 lit. b) the first and second indents and of art. 7 lit. c) the first and the second indents, are taken over from the state budget by the competent bodies of the Ministry of Public Finance.

<sup>3</sup> Art.280. The customs contraventions committed in the customs premises and in the places where operations are carried out under customs supervision shall be ascertained and sanctioned by the persons authorized by the customs authority.

If the customs contraventions are ascertained by the police or by other bodies with control attributions, in other places than those provided in par. (1), they have the obligation to immediately present the ascertaining documents to the nearest customs authority, together with the goods that are the object of the contravention. After verifying the classification of the deed in the customs regulations, the customs authority shall apply the fine and order, as the case may be, the seizure of the goods for confiscation.

Sanctions may also be applied to legal persons.

<sup>4</sup> Article 70. Wood materials found in circulation without specific transport documents, with specific transport documents whose validity has expired or which have not registered the legal origin are confiscated. Article 71. Wooden materials accompanied by specific transport documents which are not duly completed shall be detained and handed over in custody.

The custody of the wood materials is ensured by the nearest forest district or by natural or legal persons who have appropriate storage spaces, with their consent.

If, within the term established by the authorized personnel who ordered the detention or as a result of the court decision, the legal origin of the wood materials is not confirmed, they shall be confiscated according to the legal provisions.

If the legal provenance has been established, the retained wood materials are returned.

confiscation. Confiscations ordered by the courts are carried out by the Ministry of Public Finance, the Ministry of Internal Affairs or, as the case may be, by other public authorities empowered by law, through the competent bodies, established by common order of the heads of the institutions concerned. acts by the competent bodies of the Ministry of Public Finance, or by other public authorities empowered by law, in compliance with the legal provisions in force.

If the confiscations concern amounts expressed in foreign currency, the amounts are converted into lei at the exchange rate communicated by the National Bank of Romania, valid on the date on which the confiscation measure becomes final.

The confiscated sums, as well as those realized from the capitalization of the confiscated goods, less the expenses imposed by the execution and capitalization, are made income to the state budget or the local budgets, as the case may be, according to the law (Law no. 207/2015 Fiscal procedure code).

According to art.14 of Law no.334 / 2006, the use of financial, human and technical resources belonging to public institutions, autonomous utilities, national companies, commercial companies or credit institutions in which the majority shareholders are the state or administrative-territorial units is prohibited, for supporting the activity of political parties or their electoral campaign, other than under the conditions established by the electoral laws (Law no. 334/2006 on the financing of the activity of political parties and electoral campaigns).

Political parties may not accept donations or services provided free of charge from a public authority or institution, from an autonomous administration, from a national company, a commercial company or a banking company with full or majority state capital.

It is forbidden to accept donations from a trade union or a religious cult, regardless of their nature.

The sums received in violation of the above provisions are confiscated and made available to the state budget.

The above provisions apply accordingly to political alliances, electoral alliances, as well as independent candidates.

The above provisions apply accordingly to the organizations of citizens belonging to national minorities, for the financing of electoral campaigns.

#### 1. Fine

A fine is a civil, administrative or criminal sanction, which consists in obliging the person to pay a sum of money, determined by law, to the state budget.

##### Civil fine

According to art.163 of the Civil Code, in case of refusal to continue the task of guardianship, in other cases than those provided in art. 120 para. (2), the guardian may be sanctioned with a civil fine, for the benefit of the state, which may not exceed the value of a minimum wage per economy.

May refuse to continue guardianship:

- a) the one who has reached the age of 60;
- b) the pregnant woman or the mother of a child under 8 years of age;
- c) one who raises and educates 2 or more children;
- d) the one who, due to the illness, the disability, the type of activities carried out, the removal of the domicile from the place where the minor's property is located or for other well-founded reasons, could no longer fulfill this task.

The fine can be repeated no more than 3 times, at intervals of 7 days, after which another guardian will be appointed.

Also, if the guardian, through his fault, defects the task of guardianship, he will be obliged to pay a civil fine, for the benefit of the state, which cannot exceed 3 average salaries per economy.

The civil fine is applied by the guardianship court, by executory conclusion.

#### Judicial fine

According to art.187 of the Code of Civil Procedure, the court may sanction with a judicial fine certain deeds committed in connection with the civil process (Code of Civil Procedure - Law no. 134/2010 Code of Civil Procedure).

Unless otherwise provided by law, the court; according to the provisions of this article, it will be able to sanction the following acts committed in connection with the process, as follows:

1. with a judicial fine from 100 lei to 1,000 lei:

- a) the introduction, in bad faith, of some main, accessory, additional or incidental requests, as well as for the exercise of an appeal, obviously unfounded;
- b) formulating, in bad faith, a request for recusal or relocation;
- c) obtaining, in bad faith, the citation by publicity of any party;
- d) obtaining, in bad faith, by the plaintiff whose request for precautionary measures by which the defendant was harmed was rejected;
- e) the contestation, in bad faith, by its author of the writing or signature of a document or of the authenticity of an audio or video recording;
- f) the refusal of the party to appear at the information meeting regarding the advantages of mediation, in the situations in which it has accepted, according to the law;

2. with a judicial fine from 50 lei to 700 lei:

- a) failure to present the cited legal witness or his refusal to testify when he is present in court, unless he is a minor;
- b) failure to bring, within the term set by the court, the approved witness, by the party which, for imputable reasons, has not fulfilled this obligation;
- c) failure to present the lawyer, who did not ensure his replacement by another lawyer, of the representative or of the one who assists the party or the non-observance by them of the duties established by law or by the court, if in this way the adjournment of the trial was caused process;
- d) the refusal of the expert to receive the work or the non-submission of the work unjustifiably at the fixed term or the refusal to give the required clarifications;
- e) failure by the head of the unit within which an expertise is to be performed of the measures necessary for its performance or for the timely performance of the expertise, as well as the impediment by any person of performing the expertise in accordance with the law;
- f) failure to present a document or an asset by the holder, within the term set for this purpose by the court;
- g) the refusal or omission of an authority or of another person to communicate, for reasons imputable to it, at the request of the court and within the term fixed for this purpose, the data resulting from its acts and records;
- h) causing the postponement of the trial or the forced execution by the person in charge of fulfilling the procedural acts;
- i) impeding in any way the exercise, in connection with the trial, of the attributions incumbent on judges, experts appointed by the court under the conditions of the law, procedural agents, as well as other employees of the court.

The fine will not be applied to the persons referred to in par. (1) point 2, if good reasons prevented them from fulfilling their obligations.

According to the provisions of art. 188 other cases of sanction are regulated.



Failure by any of the parties or by other persons to comply with the measures taken by the court to ensure the order and solemnity of the court hearing shall be sanctioned with a judicial fine from 100 lei to 1,000 lei.

Failure by any person to comply with the provisions regarding the normal conduct of enforcement shall be sanctioned by the president of the enforcement court, at the request of the executor, with a judicial fine from 100 lei to 1,000 lei.

The possibility of applying judicial fines, in case of exercising in bad faith some procedural rights, which corresponds to the requirements of art. 57 of the Constitution, which establishes the fundamental duty of citizens to exercise constitutional rights and freedoms in good faith, without violating the rights and freedoms of others (Decision no. 1497/2001 of the Constitutional Court).

Sanctioning the appellant in bad faith, thus, according to art. 526 of the Code of Civil Procedure, when the appeal or complaint was made in bad faith, its author may be obliged to pay a judicial fine from 500 lei to 2,000 lei, as well as, at the request of the interested party, the payment of compensation for the damage caused by the introduction of the appeal or complaint.

The bad faith results from the manifestly unfounded nature of the appeal or complaint, as well as from any other circumstances which justify the finding that its exercise was made for a purpose other than that for which the law recognizes it.

#### Contravention fine

Government Ordinance no. 2/2001 is the common law in the field of contraventions, and according to art. 5, the main contravention sanctions are: a) warning; b) the contravention fine; c) performing an activity for the benefit of the community<sup>1</sup>.

#### Complementary sanctions are:

- a) confiscation of goods intended, used or resulting from contraventions;
- b) suspension or cancellation, as the case may be, of the approval, agreement or authorization to exercise an activity;
- c) closing the unit;
- d) blocking the bank account;
- e) suspension of the activity of the economic agent;
- f) withdrawal of the license or approval for certain operations or for foreign trade activities, temporarily or permanently;
- g) demolition of the works and bringing the land in its initial state.

Other main or complementary sanctions may be established by special laws.

According to the provisions of art. 8 of GO no. 2/2001, the contravention fine has an administrative character.

According to art. provided for in art. the offender legal person, in whose territorial area the offender resides will notify the court in whose territorial area the offense was committed, in order to replace the fine with the sanction of obliging the offender to perform an activity for the benefit of the community, taking into account the part of the fine was acquitted.

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<sup>1</sup> Government Ordinance no. 2/2001 regarding the regime of contraventions, published in the Official Gazette no. 410/2001, Law no. 180/2002 published in the Official Gazette no. M.Of.nr.747 / 26.10.2003, Law no.526 / 2004 published in M.Of.nr.1149 / 06.12.2004, Law no.182 / 2006 published in M.Of.nr.443 / 23.05. 2006, Law no. 352/2006 published in the Official Gazette no. 640 / 25.07.2006, Government Ordinance no. 8/2006 published in the Official Gazette no. 78 / 27.01.2006, Law no. 353/2006 published in M.Of.nr.640 / 25.07.2006, Law no.293 / 2009 published in M.Of.nr.645 / 01.10.2009, Law no.202 / 2010 published in M.Of.nr.714 / 26.10. 2010 amended by Law no. 76/2012 published in the Official Gazette no. 365 / 30.05.2012, Government Ordinance no. 17/2014 published in the Official Gazette no. 629 / 27.08.2014.

Contraventions are regulated by special law in many areas such as: Law no. 171/2010 on the establishment and sanctioning of forestry contraventions (Law no. 171/2010 on the establishment and sanctioning of forestry contraventions); GEO no. 195/2002 regarding the traffic on public roads (GEO no. 195/2002 regarding the traffic on public roads); Law no. 53/2003 Labor Code (Law no. 53/2003 Labor Code); Law no. 50/1991 on the authorization of the execution of construction works (Law no. 50/1991 regarding the authorization of the execution of construction works); Law no. 31/1990 on companies (Law no. 31/1990 on companies); Law no. 86/2006 Customs Code (Law no. 86/2006 Customs Code); Law no. 207/2015 on the Fiscal Procedure Code. and so on  
Criminal fine

According to Article 61 of the Criminal Code, the fine consists of the amount of money that the convict is obliged to pay to the state.

The amount of the fine shall be determined by the system of fine days. The amount corresponding to a fine day, between 10 lei and 500 lei, is multiplied by the number of fine days, which is between 30 days and 400 days.

The court determines the number of fine days according to the general criteria for individualizing the sentence. The amount of the amount corresponding to a fine day shall be determined taking into account the material situation of the convicted person and the legal obligations of the convicted person towards the persons in his maintenance.

The special limits of fine days are between:

- a) 60 and 180 days-fine, when the law provides for the crime committed only the penalty of a fine;
- b) 120 and 240 days-fine, when the law provides for the punishment of the fine alternatively with the punishment of imprisonment of maximum two years;
- c) 180 and 300 days-fine, when the law provides for the punishment of the fine alternatively with the punishment of imprisonment of more than 2 years.

If the crime was aimed at obtaining a patrimonial benefit, and the punishment provided by law is only a fine or the court opts for the application of this punishment, the special limits of the fine days may be increased by one third.

The fractions established by law for the causes of attenuation or aggravation of the punishment apply to the special limits of the fine days.

If the crime was aimed at obtaining a patrimonial benefit, in addition to the prison sentence, the fine can also be applied.

The special limits of the fine days provided in let. b) and letter c) is determined in relation to the duration of the prison sentence established by the court and may not be reduced or increased as a result of the causes of mitigation or aggravation of the sentence.

When establishing the amount of the amount corresponding to a fine day, the value of the patrimonial benefit obtained or pursued will be taken into account.

If the convicted person, in bad faith, does not serve the fine, in whole or in part, the number of unexecuted fine days shall be replaced by an appropriate number of days in prison.

If the unfulfilled fine was accompanied by imprisonment, the number of non-enforced fine days shall be replaced by an appropriate number of days of imprisonment, which shall be added to the imprisonment, resulting in a single sentence.

If the fine is replaced by imprisonment, one day's fine shall be one day's imprisonment.

If the convicted person evades in bad faith the execution of the fine, the court may replace this sentence with the prison sentence within the limits provided for the crime committed, taking into account the part of the fine that was paid (Decision no.1 / 2007 High Court of Cassation and Justice).

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